Base Load Power Hub (BLPH)

MATERIAL CERTIFICATES FOR PIPING COMPONENTS EXCLUDED FROM TRACEBILITY

Document Number: 123A90-PML-QC-DB-0013

Document Class: 3

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Rev.	Date	Description	Prepared	Reviewed	Approved

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Revision / Change Log

Rev.	Description
00	Issue for Information (IFI)

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1 INTRODUCTION AND INSTRUCTIONS FOR USE

This dossier collects the material certificates for piping items for which traceability recording is not required.

The dossier is organized by supplier of the relevant materials.

For each supplier, multiple Purchase Orders may have been issued and, within the same Purchase Order, materials may have been received in different batches. Each batch is supported by the corresponding certification dossier.

This dossier shall be read in conjunction with dossier 123A90-PML-QC-DB-00007 *MATERIAL TRACEABILITY AND CERTIFICATES – PIPING*.

IMPORTANT NOTE: This dossier does not include certificates for items for which the supplier has issued a complete MRB (already included in ACONEX, i.e. not limited to material certificates.

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001795	123A90A	Q012400836

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **01.10.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 01/10/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 108613 del giorno *issued on* 17/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108613 del 17/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108613 issued on 17/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO 1724001795

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001816	123A90A	Q012400837

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **01.10.2024**

Emiliani Sonia

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 01/10/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 108487 del giorno *issued on* 12/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108487 del 12/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108487 issued on 12/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724001816 123A90A

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001536	123A90A	Q012400771

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 18.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

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www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 17/09/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 108072 del giorno *issued on* 03/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108072 del 03/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108072 issued on 03/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001536 123A90

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001172	123A90A	Q012400773

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

18.09.2024

Emiliani Sonia

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[ ] WITNESS

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date*	17/09/24
cliente *customer*	ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #*	108071 del giorno *issued on* 03/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108071 del 03/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108071 issued on 03/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001172

RITIRA CLAUDIO BASSI

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001562	123A90A	Q012400770

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **18.09.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 17/09/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 107644 del giorno *issued on* 06/08/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.107644 del 06/08/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.107644 issued on 06/08/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724001562

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724000461	123A90A	Q012400772

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 18.09.2024

Emiliani Sonia

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 17/09/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 107025 del giorno *issued on* 17/07/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.107025 del 17/07/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.107025 issued on 17/07/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724000461 123A90A

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI & CAMPESE SRL	**1724000461**	**123A90A**	**Q012400207**

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

08.04.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 05/04/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 102805 del giorno *issued on* 22/03/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.102805 del 22/03/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.102805 issued on 22/03/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724000461 123A90A

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI & CAMPESE SRL	1724000461	123A90A	Q012400113

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **14.03.2024**

Emiliani Sonia

[X] REVIEW

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CUSTOMER

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BONDOLI& CAMPESE

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione	*issue date*	13/03/24
cliente	*customer*	ROSETTI MARINO S.P.A.
DDT/Fattura nr.	*bill/invoice #*	102356 del giorno *issued on* 12/03/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.102356 del 12/03/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.102356 issued on 12/03/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724000461 123A90A

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI & CAMPESE SRL	1724000277	123A90A	Q012400087

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

01.03.2024

Emiliani Sonia

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BONDOLI& CAMPESE

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www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 01/03/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 101596 del giorno *issued on* 20/02/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.101596 del 20/02/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.101596 issued on 20/02/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724000277 123A90A

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI & CAMPESE SRL	**1724000277**	**123A90A**	Q012400086

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: **01.03.2024**

Emiliani Sonia

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BONDOLI& CAMPESE

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www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 01/03/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 101581 del giorno *issued on* 20/02/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.101581 del 20/02/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.101581 issued on 20/02/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724000277 123A90A

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724002138	123A90A	Q012400980

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **19.11.2024**

Emiliani Sonia

[X] REVIEW

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BONDOLI& CAMPESE

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 18/11/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 110625 del giorno *issued on* 12/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.110625 del 12/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.110625 issued on 12/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724002138

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724002111	123A90A	Q012400985

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **19.11.2024**

Emiliani Sonia

[X] REVIEW

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 18/11/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 110293 del giorno *issued on* 04/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.110293 del 04/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.110293 issued on 04/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724002111

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BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

documento riassuntivo di analisi chimica e prove meccaniche tratto da certificato/i conforme/i alle norme EN 10204-3.1

chemical analisys and mechanical tests synthesis report from EN 10204-3.1 compliance certificate(s)

documento nr. *document #* 363/2024
del giorno *issued on* 18/11/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 110293 del giorno *issued on* 04/11/24

ns.codice our p/n	2090A2020	ROND.TIPO SCHNORR A2 M20							batch 202407016							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
92502200	0.040	1.100	0.600	18.19	8.140	*	0.020	0.035	*	*	*	*	*	*	145HV	*	***

ns.codice our p/n	2090A2024	ROND.TIPO SCHNORR A2 M24							batch 202407017							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
M6780	0.120	0.987	0.480	17.75	8.04	0.084	0.006	0.034	0.077	*	*	*	*	*	*****	*****	***

ns.codice our p/n	2090A2030	ROND.TIPO SCHNORR A2 M30							batch 202407018							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
92502300	0.057	1.142	0.680	18.17	8.01	0.085	0.002	0.048	*	*	*	*	*	*	224HV	*	***

Le analisi chimiche e le caratteristiche meccaniche qui riportate sono conformi ai certificati forniti dal/dai produttore/i.
All chemical and mechanical test results printed on this document are fully compliant with the manufacturer Base Material Certificate.

NOTA BENE:
Se non diversamente specificato le unità di misura sono: N/mmq per R ed Rs, HB per la durezza, gradi centigradi per la temperatura.
Se citata, la norma ASME applicata è la VIII DIV.1 ED 2017.

PLEASE NOTICE:
Unless otherwise specified, measure units are: N/sq.mm for R and Rs, HB for hardness, centigrade degrees for temperature.
If ASME is mentioned then it refers to chapter VIII DIV.1 ED 2017.

ABBREVIAZIONI - *SHORTCUTS*
TIR = TIRANTE - *STUDBOLT*
DE = DADO ESAGONALE - *HEX NUT*
ZC / A153 = ASTM A153 : ZINCATURA A CALDO - *HOT DIP GALVANIZING*

B7	= ASTM A-193 GR.B7	= ASME SA-193-GR.B7	
B7M	= ASTM A-193 GR.B7M	= ASME SA-193 GR.B7M	
B8	= ASTM A-193 GR.B8	= ASME SA-193 GR.B8	= ASTM A-320 GR.B8 = ASME SA-320 GR.B8
B8M	= ASTM A-193 GR.B8M	= ASME SA-193 GR.B8M	= ASTM A-320 GR.B8M = ASME SA-320 GR.B8M
B16	= ASTM A-193 GR.B16	= ASME SA-193 GR.B16	
L7	= ASTM A-320 GR.L7	= ASME SA-320 GR.L7	
2H	= ASTM A-194 GR.2H	= ASME SA-194 GR.2H	
2HM	= ASTM A-194 GR.2HM	= ASME SA-194 GR.2HM	
GR.4	= ASTM A-194 GR.4	= ASME SA-194 GR.4	
GR.8	= ASTM A-194 GR.8M	= ASTM A-320 GR.8	= ASME SA-194 GR.8
GR.8M	= ASTM A-194 GR.8M	= ASTM A-320 GR.8M	= ASME SA-320 GR.8M

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Suchi Fastenars Pvt. Ltd.

K-1, 16/17, GIDC , ESTATE,
Dabhoi-391110
Gujarat,India

MATERIAL TEST CERTIFICATE

SHOWING CHEMICAL ANALYSIS

To,
LEDERER GmbH - WE Puffer
Katzbchstr. 4
58256 Ennepetal
GERMANY
TEL 49(0)23338309220
FAX 49(0)23338309221

Certificate No. SFPL/083/2022-23/01
Date ; 07-06-2022

INVOICE NO.: GST-083
Date ; 07-06-2022

	PART NO.	DESCRIPTION OF GOODS	CROMIUM %	NICKEL %	MOLYBDENUM	CARBON %	Silicon %	Manganese %	Sulfur%	Phosphorous%	Nitrogen %	PHYSICAL PROPERTIES HARDNESS
			Req. Val. 304 17.50-19.50	Req. Val.304 8.00-10.50		Req. Val. 304 0.070 MAX	Req. Val. 304 0.75Max	Req. Val. 304 2.0Max	Req. Val. 304 0.030Max	Req. Val. 304 0.045Max	Req. Val. 304 0.10Max	
			Req. Val. 316 16.00-18.00	Req. Val.316 10.00-14.00	Req. Val. 316 2.00-3.00	Req. Val. 316 0.080 MAX	Req. Val. 316 0.75Max	Req. Val. 316 2.0Max	Req. Val. 0.030Max	Req. Val. 316 0.045Max	Req. Val. 316 0.10Max	
STAILNESS STEEL FASTENERS FOR VARIOUS ORDERS												
STAILNESS STEEL WASHER OF DIFFERENT GRADES (NON THREADED)												
KKB378661	67982084---01	304 A2 DIN 6798 A 8.4	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB359132	92502040	304 A2 "S" 4 safety washers type "S"	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB360975	67972250---01	304 A2 DIN 6797 A 25.0	18.190	8.140	N/A	0.040	0.600	1.100	0.020	0.035	0.006	(145 HV10)
LB361594	0988210000507	304 A2 DIN 988 5X10X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB361951	92502030	304 A2 "S" 3 safety washers type "S"	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB362299	67982022---09	304 A2 DIN 6798 J 2.2	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB362299	67984064---01	316 A4 DIN 6798 A 6.4	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)
LB362522	0988220001401	304 A2 DIN 988 14X20X0.1	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB362522	0988228002007	304 A2 DIN 988 20X28X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB364023	67982064---01	304 A2 DIN 6798 A 6.4	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB364281	73492032	304 A2 DIN 7349 3.2	18.175	8.155	N/A	0.040	0.500	1.150	0.020	0.035	0.006	(145 HV10)
LB365991	73494084	316 A4 DIN 7349 8.4	16.990	10.105	2.100	0.040	0.650	1.200	0.010	0.030	0.005	(155 HV10)
LB366113	67982130---01	304 A2 DIN 6798 A 13.0	18.175	8.155	N/A	0.040	0.500	1.150	0.020	0.035	0.006	(145 HV10)
LB366702	0988210000512	304 A2 DIN 988 5X10X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB366998	67982064---01	304 A2 DIN 6798 A 6.4	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB369502	0988214000807	304 A2 DIN 988 8X14X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB369506	67962030	304 A2 DIN 6796 M3	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB369506	67972053---09	304 A2 DIN 6797 J 5.3	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10

LB369506	67984084---01	316	A4 DIN 6798 A 8.4	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)
LB370706	67982105---01	304	A2 DIN 6798 A 10.5	18.175	8.155	N/A	0.040	0.500	1.150	0.020	0.035	0.006	(145 HV10)
LB370744	0988210000507	304	A2 DIN 988 5X10X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB370744	0988210000517	304	A2 DIN 988 5X10X2.0	18.190	8.120	N/A	0.035	0.550	1.150	0.020	0.030	0.006	(155 HV 10)
LB370744	0988214000805	304	A2 DIN 988 8X14X0.3	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB370744	0988219001305	304	A2 DIN 988 13X19X0.3	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB371554	90212027	304	A2 DIN 9021 2.7	18.175	8.155	N/A	0.040	0.500	1.150	0.020	0.035	0.006	(145 HV10)
LB372195	0988219001312	304	A2 DIN 988 13X19X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB372195	0988220001407	304	A2 DIN 988 14X20X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB372195	0988232002207	304	A2 DIN 988 22X32X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB372195	0988232002212	304	A2 DIN 988 22X32X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB373321	988206000312	304	A2 DIN 988 3X6X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB373321	988218001207	304	A2 DIN 988 12X18X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB373358	67984053---09	316	A4 DIN 6798 J 5.3	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)
LB375144	988208000401	304	A2 DIN 988 4X8X0.1	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB375465	79672100	304	A2 DIN 7967 M10	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB375465	79674120	316	A4 DIN 7967 M12	16.850	10.150	2.050	0.040	0.625	1.200	0.020	0.035	0.007	145 HV 10
LB375465	79674200	316	A4 DIN 7967 M20	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)
LB375854	92502200	304	A2 "S" 20 safety washers type "S"	18.190	8.140	N/A	0.040	0.600	1.100	0.020	0.035	0.006	(145 HV10)
LB376940	01374080---02	316	A4 DIN 137 B 8	16.950	10.130	2.100	0.040	0.500	1.100	0.020	0.035	0.007	(145 HV10)
LB376968	0988216001001	304	A2 DIN 988 10X16X0.1	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB376968	0988216001007	304	A2 DIN 988 10X16X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB376968	0988222001605	304	A2 DIN 988 16X22X0.3	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB376968	0988230002212	304	A2 DIN 988 22X30X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB378286	67964200	316	A4 DIN 6796 M20	16.975	10.205	2.050	0.035	0.450	1.200	0.025	0.035	0.007	(150 HV10)
LB378286	04324105	316	A4 DIN 432 10.5	16.970	10.130	2.100	0.050	0.600	1.100	0.020	0.030	0.006	(150 HV 10)
LB378286	04324170	316	A4 DIN 432 17.0	16.875	10.135	2.100	0.045	0.475	1.150	0.020	0.035	0.050	(145 HV 10)
LB378286	67972043---09	304	A2 DIN 6797 J 4.3	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378286	67982043---09	304	A2 DIN 6798 J 4.3	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378286	67982053---09	304	A2 DIN 6798 J 5.3	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB378286	67984027---01	316	A4 DIN 6798 A 2.7	16.850	10.150	2.050	0.040	0.625	1.200	0.020	0.035	0.007	145 HV 10
LB378286	67984043---09	316	A4 DIN 6798 J 4.3	16.950	10.130	2.100	0.040	0.500	1.100	0.020	0.035	0.007	(145 HV10)
LB378345	92502160	304	A2 "S" 16 safety washers type "S"	18.190	8.140	N/A	0.040	0.600	1.100	0.020	0.035	0.006	(145 HV10)
LB378387	0988206000307	304	A2 DIN 988 3X6X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378387	0988208000407	304	A2 DIN 988 4X8X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378387	0988212000603	304	A2 DIN 988 6X12X0.2	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB378387	0988218001201	304	A2 DIN 988 12X18X0.1	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB378387	0988218001207	304	A2 DIN 988 12X18X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378387	0988219001305	304	A2 DIN 988 13X19X0.3	18.195	8.155	N/A	0.045	0.550	1.150	0.020	0.025	0.006	145 HV 10
LB378387	0988222001607	304	A2 DIN 988 16X22X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB378387	0988228002012	304	A2 DIN 988 20X28X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)

LB378387	0988235002512	304	A2 DIN 988 25X35X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB378986	10522140	304	A2 DIN 1052 14X58X6	18.105	8.110	N/A	0.035	0.650	1.150	0.025	0.035	0.006	(150 HV 10)
LB378986	14404180	316	A4 DIN 1440 18	16.890	10.140	2.100	0.040	0.450	1.150	0.025	0.035	0.007	(150 HV10)
LB380672	0988208000401	304	A2 DIN 988 4X8X0.1	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB380672	0988214000807	304	A2 DIN 988 8X14X0.5	18.180	8.190	N/A	0.040	0.650	1.100	0.020	0.035	0.006	145 HV 10
LB380672	0988220001412	304	A2 DIN 988 14X20X1.0	18.150	8.110	N/A	0.045	0.550	1.100	0.020	0.035	0.006	(145 HV10)
LB380672	0988224001703	304	A2 DIN 988 17X24X0.2	18.150	8.145	N/A	0.045	0.550	1.150	0.020	0.035	0.005	150 HV 10
LB381062	00934084	316	A4 DIN 93 8.4	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)
LB381062	67972130—01	304	A2 DIN 6797 A 13.0	18.175	8.155	N/A	0.040	0.500	1.150	0.020	0.035	0.006	(145 HV10)
LB381174	55114060---13	316	A4 NFE25511 6X14X1,3 type medium	16.875	10.135	2.100	0.045	0.475	1.150	0.020	0.035	0.050	(145 HV 10)
LB382427	67964050	316	A4 DIN 6796 M5	16.970	10.130	2.100	0.050	0.600	1.100	0.020	0.030	0.006	(150 HV 10)
LB382427	67972210---01	304	A2 DIN 6797 A 21.0	18.190	8.140	N/A	0.040	0.600	1.100	0.020	0.035	0.006	(145 HV10)
LB382427	67982064---09	304	A2 DIN 6798 J 6.4	18.205	8.130	N/A	0.045	0.450	1.100	0.015	0.030	0.006	145 HV 10
LB382427	67984084---01	316	A4 DIN 6798 A 8.4	16.865	10.150	2.200	0.040	0.625	1.200	0.020	0.035	0.007	(145 HV10)

We hereby certify that above results shows actual chamical specification and that all particulars are true & correct.

For Suchi Fasteners Pvt. Ltd.

Authorized Signatory

DATE : 07-06-2022

FQC Fastener Quality Center

Inspection Certificate

Customer :

Lederer GmbH

Industriegebiet Oelkinghausen
Katzbachstr. 4 . D-58256 Ennepetal,
Germany

FQC (Shanghai) Mechanical Technology Consultancy Co., Ltd
Metallurgical Laboratory
West Part 1st Floor, Building 8
No.67, Lane 1768, LiYue Road
Pujiang Town, Minhang District
Shanghai 201114, P. R. China
Phone: 0086 21 5190 5281 / 5282

Date of receipt:	09.10.2023
Date of testing:	11.10.2023
FQC-Order-No.:	23/10-0104X
Certificate No.:	23/10-0104X
Cust.Order No.:	LBEIST0033535

Inspection certificate – EN 10204 (1995-08) – 3.1C

Object and dimension	Material	Transaction key	Lot. No.	Head Mark
L-9250 A2 M24	A2	92502240	LB216092	/

The customer provide above information, and take charge for authenticity

Standards / Edition	Metallic material-Vickers hardness test-Part 1:Test method ISO 6507-1:2018 As customer's requests		
Quantity	3 pcs	**Status**	Complete

Attribute	Requirement	Test results
Hardness	/	261 HV10

Analysis % (GB/T 11170:2008)

Lot No.	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu
Req.	≤0.1	≤1	≤2	≤0.05	≤0.03	17-20	8-19	/	/	≤4
Results	The samples are too small, can't test									

Test results:

The determined values provide the test result only!

Drafter: **Verifier:** **Authorizer:**

□ General Manager □ Quality Manager

Please note: The above mentioned test results refer only to the samples which have been provided by the customer.

---The end---

Werkstoffprüfung Kunze GmbH

Institut für
Werkstoffprüfung und Abnahme
STAHL • EISEN • NE-METALLE

Geschäftsführer:
Dipl. Ing. Rolf-Jürgen Kunze
Schweißfachingenieur

Gutachter
von Stahl-, Eisen- und Schweißverbindungen

Amtsgericht: HRB 3001
Gerichtsstand: Hagen

Werkstoffprüfung Kunze GmbH | Postfach 2124 | 58021 Hagen

Lederer GmbH
Katzbachstraße 4
58256 Ennepetal

Lange Eck 5, 58099 Hagen, den **17.10.2023**
☎ +49 (0)2331-71298 | 🖷 +49 (0)2331-76827
✉ info@wsp-kunze.de | 🖳 www.wsp-kunze.de

Prüf-Nr. / *Test no.*: **M 6780**

ABNAHMEPRÜFZEUGNIS - *Inspection certificate* - EN 10204 - (1995-08) - 3.1C*

Kundendaten / *Customer data*

Pos. *Item No.*	Anzahl *Quantity*	Gegenstand und Abmessung *Object and dimension*	Werkstoff *Material*	Norm/Ausgabe *Standard/Edition*	Kennzeichen *Sign*
1	10	Sicherungsscheibe – M24 – A2 – L-9250 *Lock washer – M24 – A2 – L-9250* Bestell-Nr. / *Order-no.*: LBEIST0033699 Artikel-Nr. / *Article-no.*: 92502240 Charge-Nr. / *Charge-no.*: LB216092	A2	EN ISO 3506-1 (2020-08)* [1])	Kein Kennzeichen *No sign*

[1]) Prüfumfang nach Kundenvorgabe. *Scope of inspection acc. to customer specification*

Ergebnisse der Prüfungen / *Results of tests*

		EN ISO 6892-1:2020			EN ISO 148-1:2017	EN ISO 6507-1:2018	EN ISO 10484:2004	EN ISO 3506-2:2020*
Pos. *Item No.*	Probe *Specimen*	Dehngrenze *Yield strength* R_{pf} MPa	Zugfestigkeit *Tensile strength* R_{mf} MPa	Bruchverlängerung *Elongation after fracture* A mm	Kerbschlagarbeit *Impact energy* KV_2 450 J	Härte *Hardness* HV 30	Aufweitversuch *Expandtest*	Prüfkraftversuch *Proof load test* F_{pf} N
Anforderungen *Requirements*								
1	Ring *Ring*	-	-	-	-	-	-	-

o.B. = ohne Beanstandung / n.b. = nicht bestanden
w.o. = without objection / n.c. = not confirmed

Analyse / *Analysis* [%]

Pos. *Item no.*	Schmelze *Charge no.*	ASTM E 415-21 / Probenentnahme nach EN ISO 14284:2003* / *Sampling acc. to ISO 14284:2003** C	Si	Mn	P	S	Cr	Mo	Ni	Al	Cu	Ti	V	Co	N
Anforderungen *Requirements*		≤ 0,10	≤ 1,00	≤ 2,00	≤ 0,05	≤ 0,03	15,0-20,0		8,0-19,0		≤ 4,0				
1 [2+3])	OES	0,120	0,480	0,987	0,034	0,006	17,75	0,084	8,04	0,014	0,212	0,004	0,077	0,140	0,061

[2]) %Cr: < 17 = %Ni: ≥ 12 ||| %C: < 0,03 = %N: ≤ 0,22
[3]) Einschmelzprobe *Remelt specimen*

OES = Stückanalyse / SMA = Schmelzenanalyse / RFA = Röntgenfluoreszenzanalyse
OES = Product analysis / SMA = Heat analysis / RFA = X-ray fluorescence spectroscopy

Sonstige Prüfungen / *Other tests*

Konformitätsaussage / *Certification of conformity* **Prüfdatum** / *Test date*: 17.10.2023 **WERKSTOFFPRÜFUNG KUNZE GMBH**

Die ermittelten Werte entsprechen den gestellten Anforderungen.
The values correspond to the requirements.

☒ Entscheidungsregel WSP Kunze (s. www.wsp-kunze.de) ☐ Entscheidungsregel Kunde ☐ Entscheidungsregel nach Norm ☐ Sonstige:

Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände und ohne schriftliche Genehmigung ist keine Vervielfältigung erlaubt.
Das Original ist gekennzeichnet durch eine erhabene Prägung des Firmenlogos in der unteren, linken Ecke und ist nur mit Originalunterschrift gültig.
*Nicht im Rahmen der Laborakkreditierung.

The examination results refer solely to the items sent for examination, and no duplication is permitted without written permission.
*The original is distinguishable by an embossed company logo in the lower left corner and is only valid with an original signature. *Not part of laboratory accreditation.*

--- Ende des Prüfzeugnisses / *End of the test certificate* ---

FQC Fastener Quality Center

Inspection Certificate

Customer :

Lederer GmbH

Industriegebiet Oelkinghausen
Katzbachstr. 4 . D-58256 Ennepetal,
Germany

FQC (Shanghai) Mechanical Technology Consultancy Co., Ltd
Metallurgical Laboratory
West Part 1st Floor, Building 8
No.67, Lane 1768, LiYue Road
Pujiang Town, Minhang District
Shanghai 201114, P. R. China
Phone: 0086 21 5190 5281 / 5282

Date of receipt:	09.10.2023
Date of testing:	11.10.2023
FQC-Order-No.:	23/10-0105X
Certificate No.:	23/10-0105X
Cust.Order No.:	LBEIST0033535

Inspection certificate – EN 10204 (1995-08) – 3.1C

Object and dimension	Material	Transaction key	Lot. No.	Head Mark
L-9250 A2 M30	A2	92502300	LB216092	/

The customer provide above information, and take charge for authenticity

Standards / Edition	Metallic material-Vickers hardness test-Part 1:Test method ISO 6507-1:2018 As customer's requests		
Quantity	3 pcs	**Status**	Complete

Attribute	Requirement	Test results
Hardness	/	224 HV10

Analysis % (GB/T 11170:2008)

Lot No.	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu
Req.	≤0.1	≤1	≤2	≤0.05	≤0.03	17-20	8-19	/	/	≤4
Results	0.057	0.680	1.142	0.048	0.0022	18.17	8.01	0.085	0.044	0.218

Test results:

The determined values of hardness provide the test result only!
Other determined values fulfill the set requirement!

Drafter: **Verifier:** **Authorizer:**

□ General Manager □ Quality Manager

FQC (SHANGHAI) MECHANICAL TECHNOLOGY CONSULTANCY CO., LTD. 上海菲孚思商机械技术咨询有限公司 检验检测专用章

Please note: The above mentioned test results refer only to the samples which have been provided by the customer.

---The end---

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001536	123A90A	Q012400995

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **26.11.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 26/11/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 110435 del giorno *issued on* 06/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.110435 del 06/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.110435 issued on 06/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001536 123A90

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001536	123A90A	Q012400996

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **26.11.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 17/09/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 108072 del giorno *issued on* 03/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108072 del 03/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108072 issued on 03/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001536 123A90

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001536	123A90A	Q012400997

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — **26.11.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

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www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 17/09/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 108072 del giorno *issued on* 03/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.108072 del 03/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.108072 issued on 03/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001536 123A90

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RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724002138	123A90A	Q012401069

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emilia **20.12.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 18/12/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 111040 del giorno *issued on* 22/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.111040 del 22/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.111040 issued on 22/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724002138

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 18/12/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 111738 del giorno *issued on* 12/12/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.111738 del 12/12/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.111738 issued on 12/12/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1724002138

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724000461	123A90A	Q012401072

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emilia **20.12.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 18/12/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 110955 del giorno *issued on* 20/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.110955 del 20/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.110955 issued on 20/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724000461

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001536	123A90A	Q012401073

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emilia **20.12.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date*	18/12/24
cliente *customer*	ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #*	111027 del giorno *issued on* 21/11/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.111027 del 21/11/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.111027 issued on 21/11/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001536 123A90

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RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
BONDOLI CAMPESE SRL	1725000138	123A90	Q012501017

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature

Data / Date

20.03.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

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ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 30/01/25
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 100842 del giorno *issued on* 30/01/25

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.100842 del 30/01/25 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.100842 issued on 30/01/25 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1725000138 123A90A

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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BONDOLI& CAMPESE

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documento riassuntivo di analisi chimica e prove meccaniche tratto da certificato/i conforme/i alle norme EN 10204-3.1

chemical analisys and mechanical tests synthesis report from EN 10204-3.1 compliance certificate(s)

documento nr. *document #* 29/2025
del giorno *issued on* 30/01/25
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 100842 del giorno *issued on* 30/01/25

1/2

ns.codice our p/n	018100013-R	DE ASTM A194 2H UNC 1/2-13 HDG							batch 202306612							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
J331103819	0.37	0.73	0.14	0.03	0.02	*	0.003	0.015	*	601	392	*	49	*	84HRB	*****	***

5/8

ns.codice our p/n	018100016-R	DE ASTM A194 2H UNC 5/8-11 HDG							batch 202407255							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
G311000110	0.43	0.63	0.22	*	*	*	0.006	0.014	*	*	*	*	*	*	28-33HRC	90-95HRB	OK

ns.codice our p/n	999040013130-R TIR.A193 B7 1/2X130 HDG								batch 202406343							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
BB3323	0.415	0.780	0.190	1.040	0.080	0.170	0.024	0.008	*	985	931	17.5	54	*	298HBW	*****	***

ns.codice our p/n	999040016140-R TIR.A193 B7 5/8X140 HDG								batch 202500323							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
285875	0.417	0.847	0.283	1.029	0.194	0.212	0.010	0.014	*	1028	832.2	18.7	50.6	*	311HB	*	***

Le analisi chimiche e le caratteristiche meccaniche qui riportate sono conformi ai certificati forniti dal/dai produttore/i.
All chemical and mechanical test results printed on this document are fully compliant with the manufacturer Base Material Certificate.

NOTA BENE:
Se non diversamente specificato le unità di misura sono: N/mmq per R ed Rs, HB per la durezza, gradi centigradi per la temperatura.
Se citata, la norma ASME applicata è la VIII DIV.1 ED 2017.

PLEASE NOTICE:
Unless otherwise specified, measure units are: N/sq.mm for R and Rs, HB for hardness, centigrade degrees for temperature.
If ASME is mentioned then it refers to chapter VIII DIV.1 ED 2017.

ABBREVIAZIONI - *SHORTCUTS*
TIR = TIRANTE - *STUDBOLT*
DE = DADO ESAGONALE - *HEX NUT*
ZC / A153 = ASTM A153 : ZINCATURA A CALDO - *HOT DIP GALVANIZING*

B7	= ASTM A-193 GR.B7	= ASME SA-193-GR.B7	
B7M	= ASTM A-193 GR.B7M	= ASME SA-193 GR.B7M	
B8	= ASTM A-193 GR.B8	= ASME SA-193 GR.B8	= ASTM A-320 GR.B8 = ASME SA-320 GR.B8
B8M	= ASTM A-193 GR.B8M	= ASME SA-193 GR.B8M	= ASTM A-320 GR.B8M = ASME SA-320 GR.B8M
B16	= ASTM A-193 GR.B16	= ASME SA-193 GR.B16	
L7	= ASTM A-320 GR.L7	= ASME SA-320 GR.L7	
2H	= ASTM A-194 GR.2H	= ASME SA-194 GR.2H	
2HM	= ASTM A-194 GR.2HM	= ASME SA-194 GR.2HM	
GR.4	= ASTM A-194 GR.4	= ASME SA-194 GR.4	
GR.8	= ASTM A-194 GR.8M	= ASTM A-320 GR.8	= ASME SA-194 GR.8
GR.8M	= ASTM A-194 GR.8M	= ASTM A-320 GR.8M	= ASME SA-320 GR.8M

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江苏沙钢集团有限公司
Jiangsu Shagang Group CO.,LTD.

高速线材质量证明书
High-speed Wire Rod Quality Certificate

沙 钢

SG03B-1914E

江苏省张家港市锦丰镇 邮编：215625
Jinfeng, Zhangjiagang, Jiangsu, P. R. CHINA
TEL: (0512) 58568866, 58568829
FAX: (0512) 58550366, 58550818

订货单位CUSTOMER	浙商中拓华盛纳（浙江）五金科技有限公司	用户代码CUSTOMER CODE		合同号CONTRACT NO.	X35A0063Q073 X35A0063Q018
牌号STEEL GRADE	SWRCH35K	提货单号DELIVERY	230529243001	发货日期DATE OF DELIVERY	20230531
交货标准 SPECIFICATION	Q/320582 SGY303-2018	质证书号CERTIFICATE NO.	2305292430 010225 6	签发日期DATE OF ISSUE	20230531
		用途USE		精炼方式REFINING MATHOD	炉外精炼

序号 NO	炉批号 HEAT NO.	直径 Dia. mm.	盘数 Coils	重量 kg	化学成分CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cr	Ni	Cu	Al	拉伸试验TENSILE TEST Rm MPa	ReL MPa	A %	A11.3 %	Z %	顶锻试验 H.T.	硬度试验 HRB	脱碳层 D. of. D	晶粒度 Micro-Grade	索氏体 Sorbite %	备注 REMARKS
					2	2	2	3	3	2	2	2	3											
					1=×10^{-1} 2=×10^{-2} 3=×10^{-3} 4=×10^{-4} 5=×10^{-5}																			
26	J390003573	12.0	21	47352	36	14	75	15	4	4	3	5	39	602	396			49.0	完好	84.00		9		
														617	418			53.0	1/3	85.00		9		
27	J390003574	12.0	3	4326	36	14	73	19	3	3	3	5	28	605	393			51.0	完好	83.00		8		
														609	407			54.0	1/3	84.00		8		
28	J390003574	12.0	3	5340	36	14	73	19	3	3	3	5	28	605	393			51.0	完好	83.00		8		
														609	407			54.0	1/3	84.00		8		
29	J390003574	12.0	1	2251	36	14	73	19	3	3	3	5	28	605	393			51.0	完好	83.00		8		
														609	407			54.0	1/3	84.00		8		
30	J390102784	12.0	4	8999	35	13	74	11	4	5	2	5	26	608	399			52.0	完好	84.00		8		
														610	401			53.0	1/3	85.00		8		
合计 Total			32	68268																				

说明 NOTES：本质量证明书适用于合金类线材；本产品不含有任何辐射元素。It is guaranteed that the products don't contain radiochemical imparities.

*1. H.T.—Head-colding Test; *2 D.of D.—Depth of Decarburization;

综合判定 FINAL RESULT	合格 PASS	注意事项 ATTENTIVE ITEMS	质检印章 SEAL	签证人 VISA

1. 质量证明书复印件不作有效证明文件，除非盖章；The copy of this Certificate is not valid except stamped.
2. 用户验货后使用如有异议应及时告知炉号、牌号，并保留实物及标志。Please inform us the steel grade and the heat number of under quanlified material(s) found in inspection on time, and keep the material(s) and the marking card
3. 离扎丝纽结处近端为轧制成品头部。The coil head is marked by the binding

VITAL
VITERIE & BULLONERIE
via Tina Anselmi 1/B - 20096 - Pioltello (MI) - ITALY
Tel: +39 02 269811 - Fax: +39 02 26921291
www.vitalonline.it - vital@vitalonline.it

CERTIFICATO DI CONTROLLO - EN 10204 3.1

INSPECTION CERTIFICATE - EN 10204 3.1

AZIENDA CERTIFICATA UNI EN ISO 9001

UNI EN ISO 9001 CERTIFIED COMPANY

Certif. n° / *Data Rep. n°* : 397335-8000GR - 23-01705F

Data / *Date* : 11/06/2024

Descrizione / *Description* : NUTS CLASS 2H 5/8"-11 PL

Lotto / *Lot* (P.O.) : 23/01705F

Codice / *Code* : 397335/8000GR

Marcatura / *Mark* : JL+2H

Norma di riferimento / *Standard reference* : ASTM A 194

CONTROLLI EFFETTUATI / *PERFORMED CONTROLS*

CONTROLLO VISIVO E DIMENSIONALE / *VISUAL AND DIMENSIONAL CONTROL*

N°	Caratteristica *Characteristic*	Valore prescritto *Prescribed Value*	Valore rilevato *Measured value*	Dimensione campione *Sample Size*	Osservazioni *Remarks*
1	Aspetto *Appearance*	OK	OK		
2	Larghezza chiave *Width across flats*	26,19 ÷ 26,97	26,32 ÷ 26,85		
3	Larghezza spigoli *Width across corner*	MIN.29.85	MIN.29.85		
4	Altezza *Height*	14,91 ÷ 16,02	15,10 ÷ 15,85		
5	Filettatura *Thread*	6g	6g		

ANALISI CHIMICA / *CHEMICAL ANALYSIS*

Colata n° *Heat n°* G311000110	C	Si	Mn	P	S			
Valore prescritto *Prescribed Value*	0.42-0.50	0.17-0.37	0.50-0.80	MAX. 0,035	MAX. 0,035			
Valore rilevato *Measured value*	0,43	0,22	0,63	0,014	0,006			

Material: C45K

CARATTERISTICHE MECCANICHE / *MECHANICAL CHARACTERISTICS*

N°	Caratteristica *Characteristic*	Valore prescritto *Prescribed Value*	Valore rilevato *Measured value*	Osservazioni *Remarks*
6	Prova di carico KN *Proof Load KN*	MIN 39.55	MIN 39.55	
7	Durezza HRC *Hardness HRC*	24 ÷ 35	28,0 ÷ 33,0	
8	Decarburazione *Decarburization*	SAE J121-99	OK	
9	Durezza dopo 24h a 540° HRB *Hardness after 24h at 540 °*	MIN. 89	90,0 ÷ 95,0	

Note / *Notes* :

Emesso da *Emitted by*	Approvato da *Approved by*	
C.Q.	A.Q.	

PISCETTA
Officina Meccanica

Officina Meccanica Piscetta S.r.l.

Sede Operativa: 28060 Cerignago (NO) - Via Principale, 40
Sede Legale: 20122 Milano (MI) - Via Cosimo del Fante, 16
Tel. +39 0322 50341 +39 0322 504106 Fax +39 0322 50343
www.piscettasrl.com - info@piscettasrl.com

Capitale Sociale € 500.000,00 inter. versato
Codice Fiscale e R.I. Milano n. 00112000039
Partita I.V.A. 03319410969 R.E.A. MI 1665227

CERTIFICATE	
Nr. 5923	02-10-24
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BONDOLI & CAMPESE S.R.L.
Via G. S. Bondi, 38
48123 RAVENNA RA
ITALIA

INSPECTION CERTIFICATE EN 10204 3.1

Your order: 101878 27-09-24 Delivery note: 2950 02-10-24

MATERIALE AND VALUES IN CONFORMITY WITH STANDARD

Item	Materials	Description	Sizes	Batch	Heat		Quantity
13	A 193 B7	BARRA FILETTATA A 193 B7 Mt.4 UNC	1/2"	534227	BB3323	N.	3
14	A 193-B7	TIRANTI A 193-B7 UNC	5/8" X 160	615373	297445	N.	100
15	A 193 B7	BARRA FILETTATA A 193 B7 Mt.4 UNC	5/8"	601152	285875	N.	3

CHEMICAL ANALYSIS

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Cu	%Ni
13	REQ. MIN.	0.37	0.65	0.15			0.75	0.15		
	REQ. MAX.	0.420	1.1	0.250		0.035	1.070			
	ACT.VAL.	0.415	0.780	0.190	0.0240	0.008	1.040	0.170	0.100	0.080

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%Ni
14	REQ. MIN.									
	REQ. MAX.									
	ACT.VAL.	0.406	0.846	0.284	0.0030	0.010	1.042	0.214	0.024	0.182

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%Ni
15	REQ. MIN.									
	REQ. MAX.									
	ACT.VAL.	0.417	0.847	0.283	0.0100	0.014	1.029	0.212	0.029	0.194

MECHANICAL PROPERTIES

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %	Q	T
13	REQ. MIN.	860	720	16		50	830 C	593 C
	REQ. MAX.							
	ACT. VAL.	985	931	17.5	298	54		

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
14	REQ. MIN.	860	720	16		50
	REQ. MAX.					
	ACT. VAL.	938,4	745	17.5	284	57.1

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
15	REQ. MIN.	860	720	16		50
	REQ. MAX.				321	
	ACT. VAL.	1028.5	832.2	18.7	311	50.6

PISCETTA
Officina Meccanica

Officina Meccanica Piscetta S.r.l.

Sede Operativa: 28060 Cerrignago (NO) - Via Principale, 40
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www.piscettasrl.com - info@piscettasrl.com

Capitale Sociale € 500.000,00 Inter. versato
Codice Fiscale e R.I. Milano n. 00112000039
Partita I.V.A. 03319410969 R.E.A. MI 1665227

CERTIFICATE	
Nr. 4647	18-01-23
Page 1/3	

BONDOLI & CAMPESE S.R.L.
Via G. S. Bondi, 38
48123 RAVENNA RA
ITALIA

INSPECTION CERTIFICATE EN 10204 3.1

Your order: 98567 17-01-23 Delivery note: 107 18-01-23

MATERIALE AND VALUES IN CONFORMITY WITH STANDARD

Item	Materials	Description	Sizes	Batch	Heat		Quantity
2	8.8	BARRA FILETTATA 8.8	24 X 3000	600283	M01209267	N.	15
3	A 193-B7	TIRANTI DIN 976 ANGOLO 60° A 193-B7 M	16 X 100	600450	285874	N.	100
4	A 193-B7	TIRANTI A 193-B7 UNC	5/8" X 110	600390	285875	N.	300

CHEMICAL ANALYSIS

		%C	%Mn	%Si	%S	%Cr	%Al	%V
2	REQ. MIN.							
	REQ. MAX.							
	ACT.VAL.	0.31	1.40	0.55	0.025	0.20	0.019	0.09

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%Ni	%Cu
3	REQ. MIN.										
	REQ. MAX.										
	ACT.VAL.	0.402	0.827	0.296	0.0100	0.013	1.026	0.214	0.024	0.182	0.250

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%Ni
4	REQ. MIN.									
	REQ. MAX.									
	ACT.VAL.	0.417	0.847	0.283	0.0100	0.014	1.029	0.212	0.029	0.194

MECHANICAL PROPERTIES

		HBW HB	Rm MPa	Rp-0.2 MPa	A 5 %	Z %	KV
2	REQ. MIN.	250	830	660	12	52	27
	REQ. MAX.	331					
	ACT. VAL.	288	927	852	17.2	59	71.33

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
3	REQ. MIN.	860	720	16		50
	REQ. MAX.					
	ACT. VAL.	1006	839	25	302	58.2

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
4	REQ. MIN.	860	720	16		50
	REQ. MAX.				321	
	ACT. VAL.	1028.5	832.2	18.7	311	50.6

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
BONDOLI CAMPESE SRL	1725000423	123A90	Q012501031

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.

TMUGF Firma — Data

MTSMD Signature — Date

24.03.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 21/03/25
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 101353 del giorno *issued on* 13/02/25

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.101353 del 13/02/25 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.101353 issued on 13/02/25 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1725000423

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BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

documento riassuntivo di analisi chimica e prove meccaniche tratto da certificato/i conforme/i alle norme EN 10204-3.1

chemical analisys and mechanical tests synthesis report from EN 10204-3.1 compliance certificate(s)

documento nr. *document #* 90/2025
del giorno *issued on* 21/03/25
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 101353 del giorno *issued on* 13/02/25

ns.codice our p/n	018A40113	DE ASTM A194 GR.8MA UNC 1/2-13							batch 202401139							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
YA12267	0.023	1.050	0.450	16.88	10.35	2.000	0.002	0.037	*	*	*	*	*	*	153-160HB	*****	OK

ns.codice our p/n	5559A40131908	DADO 1/2-13 UNC GR.8MA CH.19X8							batch 202401139							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
YA12267	0.023	1.050	0.450	16.88	10.35	2.000	0.002	0.037	*	*	*	*	*	*	153-160HB	*****	OK

ns.codice our p/n	5559A40131912	DADO 1/2-13 UNC GR.8MA CH.19X12							batch 202401139							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
YA12267	0.023	1.050	0.450	16.88	10.35	2.000	0.002	0.037	*	*	*	*	*	*	153-160HB	*****	OK

ns.codice our p/n	9990402130702	TIR.B8M CL.2 1/2X70							batch 202005731							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
489393	0.024	0.162	0.027	16.52	10.09	2.01	0.028	0.034	*	876	766	18	63	*	285HB	*****	***

ns.codice our p/n	9990402130702	TIR.B8M CL.2 1/2X70							batch 202307790							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
267794	0.020	1.460	0.460	16.86	10.05	2.010	0.026	0.027	*	999	919	22	58	-196°36-38-36	306HB	*	***

Le analisi chimiche e le caratteristiche meccaniche qui riportate sono conformi ai certificati forniti dal/dai produttore/i.
All chemical and mechanical test results printed on this document are fully compliant with the manufacturer Base Material Certificate.

NOTA BENE:
Se non diversamente specificato le unità di misura sono: N/mmq per R ed Rs, HB per la durezza, gradi centigradi per la temperatura.
Se citata, la norma ASME applicata è la VIII DIV.1 ED 2017.

PLEASE NOTICE:
Unless otherwise specified, measure units are: N/sq.mm for R and Rs, HB for hardness, centigrade degrees for temperature.
If ASME is mentioned then it refers to chapter VIII DIV.1 ED 2017.

ABBREVIAZIONI - *SHORTCUTS*
TIR = TIRANTE - *STUDBOLT*
DE = DADO ESAGONALE - *HEX NUT*
ZC / A153 = ASTM A153 : ZINCATURA A CALDO - *HOT DIP GALVANIZING*

B7	= ASTM A-193 GR.B7	= ASME SA-193-GR.B7		
B7M	= ASTM A-193 GR.B7M	= ASME SA-193 GR.B7M		
B8	= ASTM A-193 GR.B8	= ASME SA-193 GR.B8	= ASTM A-320 GR.B8	= ASME SA-320 GR.B8
B8M	= ASTM A-193 GR.B8M	= ASME SA-193 GR.B8M	= ASTM A-320 GR.B8M	= ASME SA-320 GR.B8M
B16	= ASTM A-193 GR.B16	= ASME SA-193 GR.B16		
L7	= ASTM A-320 GR.L7	= ASME SA-320 GR.L7		
2H	= ASTM A-194 GR.2H	= ASME SA-194 GR.2H		
2HM	= ASTM A-194 GR.2HM	= ASME SA-194 GR.2HM		
GR.4	= ASTM A-194 GR.4	= ASME SA-194 GR.4		
GR.8	= ASTM A-194 GR.8M	= ASTM A-320 GR.8	= ASME SA-194 GR.8	
GR.8M	= ASTM A-194 GR.8M	= ASTM A-320 GR.8M	= ASME SA-320 GR.8M	

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INOXDADI SRL Bulloneria & Fasteners

Sede Legale e Stabilimento: Via ANNA FRANK 5/7 - 26020 GALLIGNANO (CR)
Sede Amministrativa e Magazzino: Via L. DA VINCI 445 - 24040 BARBATA (BG)
Tel.0363.914424-914959-914956 Fax 0363.605497 E-MAIL:webmaster@inoxdadi.com

CERTIFICATO DI COLLAUDO

Inspection certificate - Anahmerrufzeugnis

EN 10204 3.1

DATA - Date - Datum	N°:
15/02/2024	141 / 2024

ORDINE N° - Purchase order N° - kundenbestellungnummer N°	CLIENTE - Custumer - Kunde
ORDINE MAIL 100628	BONDOLI & CAMPESE SRL
DDT N° - Delivery note N° - Lieferschein N°	VIA BONDI, 38
665/B DATED 15/02/2024	
FATTURA N° - Invoice N° - Rechnung	48123 RAVENNA (RA) (IT)

STATO DI FORNITURA - As delivered - Lieferzustand

N° PEZZI N° pieces Stuckzhal	MISURA E DESCRIZIONE Size and description Abmessung und beschreibung		LOTTO Lot N° Werks N°	MARCHIO Marking Stempelung	MATERIALE Material Rohstoff	TRAT. TERMICO Heat treatment Warmebehandlung
1.000	DADI ES. 1/2 UNC CH.22 H.12,5 ASTM A194 G.8MA		19 1050 65 1	8MA	AISI 316- G.8MA	SOLUB.

COMPOSIZIONE CHIMICA % - Chemical composition % - Chemische zusammenesetzung %

COLATA N° Heat N° Shmelze N°													
YA12267	C	Sl	Mn	Ni	Cr	S	P	Mo	Cu	Ti	Al	N	Fe
	0,0230	0,4500	1,0500	10.3500	16,8800	0,0020	0,0370	2,0000					
	W	V	Co	B	O	H	Mg	Zn	Nb		AL TOT		

PROPRIETA' MECCANICHE - mechanical properties - mechanischen eigenschaften

PROVA DI CARICO Proof Load Test Belastungstest					DUREZZA Hardened Hartegrad	Rm	RP0.2	ALLUNGAMENTO Elongation Bruchgenhnung	
pos.	VALORE RICHIESTO Requirements Standardwert	RISULTATO PROVA Inspection results Ergebnis der prüfungen	ESITO Results Ergebnis			N/mm2	N/mm2	mm	%
	80000 psi	80000 psi	OK		HB: 153 - 160				

CONTROLLO VISIVO Visual control Aussehen	CONTROLLO DIMENSIONALE Dimension inspection Masskontrolle	NOTE Remark Bemerkungen	RESPONSABILE CONTROLLO Responsible for control Der werkssachverstàndige
OK	OK		

BOLTANDNUT
SPECIALISED BOLTING SOLUTIONS

Test Certificate to BS EN 10204 3.1

BONDOLI & CAMPESE SRL
Our Order No: 37887 — **Certificate No: 37887.001**
Test Certificate to BS EN 10204 3.1 — **Certificate Date: 12-Aug-2020**

Customer Order: **93405** — **Item : 1 - 37874**
ASTM A193 B8M CLASS 2 ANSI B16.5
Qty: 100 **STUDBOLT, 1/2" UNC X 70MM**

Mechanical: **UTS:** 876 MPA — **Elongation:** 18 % — **Proof Load Satisfactory** ☐
Yield: 766 MPA — **R of A:** 63 %
Hardness: 285 HB — **Cast No:** 489393

Heat Analysis:

C:	0.024	Cr:	16.52	Mn:	1.62	Mo:	2.01
Ni:	10.09	P:	0.034	S:	0.028	Si:	0.27

Remarks: SOLUTION ANNEALED AND STRAIN HARDENED @ 1060°C
BNML B8MSH

Customer Order: **93405** — **Item : 2 - 38862**
ASTM A193 B8M CLASS 2 ANSI B16.5
Qty: 100 **STUDBOLT, 5/8" UNC X 90MM**

Mechanical: **UTS:** 832 MPA — **Elongation:** 24 % — **Proof Load Satisfactory** ☐
Yield: 701 MPA — **R of A:** 65 %
Hardness: 277 HB — **Cast No:** 489393

Heat Analysis:

C:	0.024	Cr:	16.52	Mn:	1.62	Mo:	2.01
Ni:	10.09	P:	0.034	S:	0.028	Si:	0.27

Remarks: CARBIDE SOLUTION TREAT & STRAIN HARDENED
BNML B8MSH(UNDERLINED)

Customer Order: **93405** — **Item : 3 - 38669**
ASTM A193 B8M ANSI B16.5
Qty: 20 **STUDBOLT, 5/8" UNC X 95MM**

Mechanical: **UTS:** 583.59 N/mm^2 — **Elongation:** 50.6 % — **Proof Load Satisfactory** ☐
Yield: 457.67 N/mm^2 — **R of A:** 76.81 %
Hardness: 170 HB — **Cast No:** 36LIF213A

Heat Analysis:

C:	0.024	Cr:	16.88	Mn:	1.22	Mo:	2.03
Ni:	10.05	P:	0.041	S:	0.011	Si:	0.31

Remarks: CARBIDE SOLUTION TREATED
Markings: BNML B8M

Signed: .....

Jamie Rose
Certification Clerk
jamie.rose@bnml.co.uk

Tel: +44 (0) 1902 355 110 sales@bnml.co.uk
Cannon Business Park, Gough Road, Coseley, West Midlands, United Kingdom WV14 8XR
Bolt and Nut Manufacturing Ltd, Registered in England 06496304, Vat No: GB 940 8967 83

OFFICINA MECCANICA
COLOMBO MAGNO S.R.L.
COLOMBO MAGNO SRL
VIA UMBRIA, 9 - 20025 LEGNANO (MI) - TEL. 0331.407.024 - 0331.407.025 - FAX 0331.404.666

Inspection Certificate
Conform EN 10204-3.1

Customer: BONDOLI & CAMPESE SRL
VIA G.S. BONDI N.38 48123 - RAVENNA RA IT

Your order nr. : 94754
Date : 16/03/2021

Certificate nr. : 1443
Date : 23/03/2021

Material: ASTM A320 A320 B8M CL2

		% C	% Mn	% Si	% Cr	% Mo	% S	% P	% Ni
Chemical composition:									
Required Value	**Min:**	0	0	0	16,00	2,00	0	0	10,00
	Max:	0,08	2,00	1,00	18,00	3,00	0,030	0,045	14,00

Quantity	Product Description	Heat Nr.	Finish	Pos.
202,00	STUD-BOLTS A.193/A.320 B8M CL.2 1/2X13X75 9990402130752	267794	.	27
68,00	STUD-BOLTS A.193/A.320 B8M CL.2 1/2X13X80 9990402130802	267794	.	28

Material: ASTM A320 A320 B8M CL2

Mechanical requirements:	Tensile Strength	Yield Strength	Elongation in 4D	Reduction of area	Hardness	Impact Test -196°C
	N/mm2 - MPa	N/mm2 - MPa	%	%	HB	J
	760 - 2000	655 - 2000	15 - 100	45 - 100	0 - 321	27 - 27 - 27

Quantity	Product Description	Heat Nr.						Finish	Pos.
202,00	STUD-BOLTS A.193/A.320 B8M CL.2 1/2X13X75	267794	999	919	22	58	306	36 - 38 - 36	. 27
68,00	STUD-BOLTS A.193/A.320 B8M CL.2 1/2X13X80	267794	999	919	22	58	306	36 - 38 - 36	. 28

Heat nr: **267794** Certificate nr : **MEST867249/2016** date: **15/06/2016**

Reference DDT number : **310** of : **23/03/2021**

Quality Control
GIUSEPPE COLOMBO

Inspection Agency

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
BONDOLI CAMPESE SRL	1725000135	123A90	Q012501034

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

24.03.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
48123 RAVENNA (RA) – Italia
TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione	*issue date*	21/03/25
cliente	*customer*	ROSETTI MARINO S.P.A.
DDT/Fattura nr.	*bill/invoice #*	100843 del giorno *issued on* 30/01/25

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.100843 del 30/01/25 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.100843 issued on 30/01/25 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO1725000135 123A90A

Questo documento è stato generato da procedimento informatizzato ed è valido in assenza di firma e timbro; qualsiasi alterazione lo renderà falso e contraffatto: ci riserviamo fin d'ora tutti i diritti di perseguire legalmente ogni persona e/o impresa collegata/e a tale atto di falsificazione.
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RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
BONDOLI & CAMPESE SRL	1725000746	123A90	Q012501074

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

10.04.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

Azienda con Sistema di Gestione per la Qualità Certificato ISO9001:2015. Settore Viteria

BONDOLI & CAMPESE s.r.l.

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TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 10/04/25
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 102845 del giorno *issued on* 25/03/25

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.102845 del 25/03/25 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.102845 issued on 25/03/25 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

1725000746 123A90A

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ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
BONDOLI CAMPESE SRL	1724001920	123A90A	Q012400834

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 01.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

BONDOLI& CAMPESE

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TEL.(+39) 0544 452966

www.bondoli-campese.com

ATTESTATO DI CONFORMITA'

a norma EN 10204-2.1

DECLARATION OF COMPLIANCE

according to EN 10204-2.1

data emissione *issue date* 01/10/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 109054 del giorno *issued on* 30/09/24

In questo documento dichiariamo che tutta la merce consegnata con ns.DdT/fatt.acc.109054 del 30/09/24 (articoli di viteria e complementi) corrisponde per aspetto e natura a quanto descritto.

We hereby declare that all the goods delivered with our delivery note/invoice nr.109054 issued on 30/09/24 (fasteners and related fittings) are true and consistent with the content of the above mentioned document.

Vs. riferimenti d'ordine - *Your order references* :

PO#1724001920

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BONDOLI& CAMPESE

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BONDOLI & CAMPESE s.r.l.

VIA G.S. BONDI, 38
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TEL.(+39) 0544 452966

www.bondoli-campese.com

documento riassuntivo di analisi chimica e prove meccaniche tratto da certificato/i conforme/i alle norme EN 10204-3.1

chemical analisys and mechanical tests synthesis report from EN 10204-3.1 compliance certificate(s)

documento nr. *document #* 299/2024
del giorno *issued on* 01/10/24
cliente *customer* ROSETTI MARINO S.P.A.
DDT/Fattura nr. *bill/invoice #* 109054 del giorno *issued on* 30/09/24

ns.codice our p/n	018100013-R	DE ASTM A194 2H UNC 1/2-13 HDG							batch 20078195							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
330706848	0.40	0.84	0.14	*	*	*	0.009	0.008	*	*	*	*	*	*	26-30 HRC	96-98 HRB	OK

ns.codice our p/n	018100013-R	DE ASTM A194 2H UNC 1/2-13 HDG							batch 202302998							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
246696135	0.47	0.74	0.12	*	*	*	0.007	0.013	*	*	*	*	*	*	28-33HRC	90-95HRB	OK

ns.codice our p/n	018100019-R	DE ASTM A194 2H UNC 3/4-10 HDG							batch 202306614							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
G331004652	0.06	0.33	0.05	0.02	0.01	*	0.004	0.013	*	332	*	*	74	*	*****	*****	***

ns.codice our p/n	999040013090-R TIR.A193 B7 1/2X90 HDG								batch 201804354							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
231551	0.410	0.760	0230	1.000	*	0.180	0.0250	0.019	*	1002	785	21.1	61	*	302	*****	***

ns.codice our p/n	999040013090-R TIR.A193 B7 1/2X90 HDG								batch 202206304							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
231551	0.410	0.760	0230	1.000	*	0.180	0.0250	0.019	*	1002	785	21.1	61	*	302	*****	***

ns.codice our p/n	999040019130-R TIR.A193 B7 3/4X130 HDG								batch 202401523							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
130568	0.410	0.840	0.210	1.040	*	0.200	0.002	0.011	*	1030	903.7	17.3	64.7	*	311HB	*****	***

ns.codice our p/n	999040019130-R TIR.A193 B7 3/4X130 HDG								batch 202403941							
colata *heat*	%C	%Mn	%Si	%Cr	%Ni	%Mo	%S	%P	%V	R	Rs	A%	Z%	KV	durezza	durezza dopo bonifica *hardness after quench*	proof load test
748607	0.395	0.790	0.230	1.030	0.150	0.180	0.023	0.013	*	970	818	18.9	57.7	*	293HBW	*	***

Le analisi chimiche e le caratteristiche meccaniche qui riportate sono conformi ai certificati forniti dal/dai produttore/i.
All chemical and mechanical test results printed on this document are fully compliant with the manufacturer Base Material Certificate.

NOTA BENE:
Se non diversamente specificato le unità di misura sono: N/mmq per R ed Rs, HB per la durezza, gradi centigradi per la temperatura.
Se citata, la norma ASME applicata è la VIII DIV.1 ED 2017.

PLEASE NOTICE:
Unless otherwise specified, measure units are: N/sq.mm for R and Rs, HB for hardness, centigrade degrees for temperature.
If ASME is mentioned then it refers to chapter VIII DIV.1 ED 2017.

ABBREVIAZIONI - *SHORTCUTS*
TIR = TIRANTE - *STUDBOLT*
DE = DADO ESAGONALE - *HEX NUT*
ZC / A153 = ASTM A153 : ZINCATURA A CALDO - *HOT DIP GALVANIZING*

B7	= ASTM A-193 GR.B7	= ASME SA-193-GR.B7	
B7M	= ASTM A-193 GR.B7M	= ASME SA-193 GR.B7M	
B8	= ASTM A-193 GR.B8	= ASME SA-193 GR.B8	= ASTM A-320 GR.B8 = ASME SA-320 GR.B8
B8M	= ASTM A-193 GR.B8M	= ASME SA-193 GR.B8M	= ASTM A-320 GR.B8M = ASME SA-320 GR.B8M
B16	= ASTM A-193 GR.B16	= ASME SA-193 GR.B16	
L7	= ASTM A-320 GR.L7	= ASME SA-320 GR.L7	
2H	= ASTM A-194 GR.2H	= ASME SA-194 GR.2H	
2HM	= ASTM A-194 GR.2HM	= ASME SA-194 GR.2HM	
GR.4	= ASTM A-194 GR.4	= ASME SA-194 GR.4	
GR.8	= ASTM A-194 GR.8M	= ASTM A-320 GR.8	= ASME SA-194 GR.8
GR.8M	= ASTM A-194 GR.8M	= ASTM A-320 GR.8M	= ASME SA-320 GR.8M

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2007

CERTIFIED MATERIAL TEST REPORT
FOR ASTM A194 AND ASME SA194 GRADE 2H HVY HEX NUTS

FACTORY: HAIYAN FUHONG FASTENERR CO., LTD.
ADDRESS: NO.8 JINCHENG ROAD QINSHAN TOWN,
HAIYAN, ZHEJIANG, CHINA.
CUSTOMER:
QNTY SHIPPED: 10.80 MPCS
SAMPLE SIZE : ACC. TO ASME B18 . 18 . 1 - 02
SIZE & DESCRIPTION: 1/2-13 HDG

DATE: 2007.12.20
MFR LOT NUMBER:
PO NUMBER: 30437/30438
PART NO:

STEEL PROPERTIES:
STEEL GRADE: CH40ACR STEEL SIZE: 20mm Materil heat NO# 330706848
CHEMISTRY COMPOSITION:

CHEMIST	C %	Mn %	P %	S %	Si %	Cr %	Ni %	Cu %	Mo %	OTHERS
SPE:	MIN	MAX	MAX	MAX	MAX					
	0.40	1.00	0.04	0.05	0.40					
TEST:	0.40	0.84	0.008	0.009	0.14					

DIMENSIONAL INSPECTIONS SPECIFICATION:ASME/ANSI B18 . 2 . 2 - 87(R1999)

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
APPEARANCE	ASTM F812-02		PASSED	100	0
ACROSS FLATS		0.850~0.875	0.855~0.870	32	0
THREAD	ASME B1.1-02 2B		PASSED	32	0
HEIGHT		0.464~0.504	0.470~0.500	8	0
MARK	2H+F1		PASSED	100	0

MECHANICAL PROPERTIES: To 11/2 in. SPECIFICATION: ASTM A194-04a AND ASME SA194-04

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
HARDNESS	ASTM E18-02	HRC 24-35	26~30	8	0
PROOF LOAD	ASTM F606-02	MIN 175000 Psi	175020	4	0
DECARBURIZATION	SAE J121		PASSED	1	0
HARDNESS AFTER 24H AT 540°C ASTM A194 MIN 89 HRB			96-98 HRB	4	0

ACID MACRO STRUCTURE				
SCATTERED POROSITY		CENTER UNSOUNDNESS		PATTERN
0.5	0.5	0.5	0.5	0.5

PARTS ARE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM A194-04a AND ASME SA194 -04
ALL TESTS IN ACCORDANCE WITH THE METHODS PRESCRIBED SPECIFICATION. WE CERTIFY
THAT THIS DAIA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL
SUPPLIER AND OUR TESTING LABORATORY.
MFG ISO9002 CERTIFICATE NO:
All parts meet the requirements of FQA and records of compliance are on file.
Maker's ISO# 0205Q15754ROM

海盐县富宏紧固件有限公司
HAIYAN FUHONG FASTENER CO.,LTD.

VITAL
VITERIE & BULLONERIE
via Tina Anselmi 1/B - 20096 - Pioltello (MI) - ITALY
Tel: +39 02 269811 - Fax: +39 02 26921291
www.vitalonline.it - vital@vitalonline.it

CERTIFICATO DI CONTROLLO - EN 10204 3.1

INSPECTION CERTIFICATE - EN 10204 3.1

AZIENDA CERTIFICATA UNI EN ISO 9001

UNI EN ISO 9001 CERTIFIED COMPANY

Certif. n° / *Data Rep. n°* : C0765-003-20 Data / *Date* : 29/07/2020

Cliente / *Customer* :	BONDOLI & CAMPESE SRL	Descrizione / *Description* :	NUTS 1/2"X13 2H PL
Lotto / *Lot* (P.O.) :	20/00765	Codice / *Code* :	397331/2000GR
Marcatura / *Mark* :	2H	Norma di riferimento / *Standard reference* :	ASTM A 194
N° doc. consegna / *Invoice n°* :	6089	Data doc. consegna / *Invoice* date :	09/07/2020

CONTROLLI EFFETTUATI / *PERFORMED CONTROLS*

CONTROLLO VISIVO E DIMENSIONALE / *VISUAL AND DIMENSIONAL CONTROL*

N°	Caratteristica *Characteristic*	Valore prescritto *Prescribed Value*	Valore rilevato *Measured value*	Dimensione campione *Sample Size*	Osservazioni *Remarks*
1	Aspetto *Appearance*	OK			
2	Larghezza chiave *Width across flats*	21,59 + 22,22	21,64 + 22,15		
3	Larghezza spigoli *Width across corner*	MIN 21,34	21,38 + 22,45		
4	Altezza *Height*	11,79 + 12,50	11,85 + 12,38		
5	Filettatura *Thread*	6H	6H		

ANALISI CHIMICA / *CHEMICAL ANALYSIS*

Colata n° *Heat n°* 246696135	C	Si	Mn	P	S	Cr	Ni	Cu
Valore prescritto *Prescribed Value*	MIN 0,40	MAX 0,40	MAX 1,00	MAX 0,040	MAX 0,050			
Valore rilevato *Measured value*	0,47	0,12	0,74	0,013	0,007			

CARATTERISTICHE MECCANICHE / *MECHANICAL CHARACTERISTICS*

N°	Caratteristica *Characteristic*	Valore prescritto *Prescribed Value*	Valore rilevato *Measured value*	Osservazioni *Remarks*
6	Prova di carico KN *Proof Load KN*	MIN 74,20	75,00 + 80,00	
7	Durezza HRC *Hardness HRC*	24 + 35	28 + 33	
8	Decarburazione *Decarburization*	SAE J121-99	OK	
9	Durezza dopo 24h a 540° HRB *Hardness after 24h at 540 °*	MIN 89	90 + 95	

CONTROLLO RIVESTIMENTO / *COATING CONTROL*

N°	Caratteristica *Characteristic*	Valore prescritto *Prescribed Value*	Valore rilevato *Measured value*	Osservazioni *Remarks*
10	Spessore µ *Thickness µ*			

Note / *Notes* :

Emesso da *Emitted by*	Approvato da *Approved by*	
C.Q.	A.Q.	

江苏沙钢集团有限公司
Jiangsu Shagang Group CO.,LTD.

高速线材质量证明书
High-speed Wire Rod Quality Certificate

沙 钢

SG03B-1914E

江苏省张家港市锦丰镇 邮编：215625
Jinfeng, Zhangjiagang, Jiangsu, P. R. CHINA
TEL: (0512) 58568866, 58568829
FAX: (0512) 58550366, 58550818

订货单位CUSTOMER	浙商中拓华盛纳（浙江）五金科技有限公司	用户代码CUSTOMER CODE		合同号CONTRACT NO.	X35A0063Q039 X35A0063Q066
牌号STEEL GRADE	ML08Al	提货单号DELIVERY	230602379001	发货日期DATE OF DELIVERY	20230604
交货标准 SPECIFICATION	Q/320582 SGY303-2018	质证书号CERTIFICATE NO.	2306023790 012475 1	签发日期DATE OF ISSUE	20230604
		用途USE		精炼方式REFINING MATHOD	炉外精炼

序号 NO	炉批号 HEAT NO.	直径 Dia. mm.	盘数 Coils	重量 kg	化学成分CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cr	Ni	Cu	Al	拉伸试验TENSILE TEST Rm MPa	ReL	A %	A11.3	Z	顶锻试验 H.T.	硬度试验 HRB	脱碳层 D. of. D	晶粒度 Micro-Grade	索氏体 Sorbite %	备注 REMARKS
					2	2	2	3	3	2	2	2	3											
					1=×10^{-1} 2=×10^{-2} 3=×10^{-3} 4=×10^{-4} 5=×10^{-5}																			
1	G331004652	20.0	16	36508	6	7	33	14	5	4	2	1	39	338				74.0	完好			7		
														341				75.0	1/2			7		
2	G331004948	20.0	17	39233	6	5	33	12	2	2	1	1	36	332				75.0	完好			7		
														339				76.0	1/2			7		
3	G331004948	20.0	23	52392	6	5	33	12	2	2	1	1	36	332				75.0	完好			7		
														339				76.0	1/2			7		
4	G331004948	20.0	19	44027	6	5	33	12	2	2	1	1	36	332				75.0	完好			7		
														339				76.0	1/2			7		
5	G331004955	20.0	6	13587	6	5	33	13	4	2	1	1	45	332				74.0	完好			7		
														341				75.0	1/2			7		
合计 Total			81	185747	说明 NOTES	本质量证明书适用于合金类线材;本产品不含有任何辐射元素。It is guaranteed that the products don't contain radiochemical imparities. *1. H.T.—Head-colding Test; *2 D.of D.—Depth of Decarburization;																			

综合判定 FINAL RESULT	合格 PASS	注意事项 ATTENTIVE ITEMS	质检印章 SEAL	签证人 VISA
		1. 质量证明书复印件不作有效证明文件，除非盖章；The copy of this Certificate is not valid except stamped. 2. 用户验货后使用如有异议应及时告知炉号、牌号，并保留实物及标志。Please inform us the steel grade and the heat number of under quanlified material(s) found in inspection on time, and keep the material(s) and the marking card 3. 离扎丝纽结处近端为轧制成品头部。The coil head is marked by the binding		

Rodacciai

23842 Bosisio Parini (LC) – Via Leopardi, 1 – Italia
Tel. +39031878111 – Fax +39031878312
Internet www.rodacciai.com – e-mail: info@rodacciai.com

Azienda con sistema di gestione certificato da IGQ
secondo UNI EN ISO 9001:2008

The Company's Quality Management System
is certified by IGQ according to UNI EN ISO 9001:2008

CERTIFICATO DI CONTROLLO Inspection Certif N. 062134 Data 4/09/2012

Secondo According to . . . . . EN 10204:2004 3.1

CLIENTE - Customer

OFF.MECC.PISCETTA SRL

VIA PRINCIPALE 40
28060 COMIGNAGO NO

ORDINE - Order
N. DOME Data 27/02/2012

D.d.T. - Delivery note
N. 08776/13 Data 4/09/2012

PESO KG 4.030,00 **Odp. Nr.** 2012/A/14630
TOLLERANZA EN10278 h10 + 0,000 - 0,070 mm **LUNG.BARRE** 4.000 - 4.050 mm

QUALITA' - Grade
NORMA ASTM A193/A193M 11 Grade B7 (AISI 4140)

Sigla RODACCIAI . . . . . RK1 / B7

COLATA - Heat 231551

PROFILO - Shape . . . . . TONDO
DIMENSIONE - Size . . . . . mm 11,30
TRATTAMENTO - Heat Treatment . . . . . BONIFICATO
ESECUZIONE - Form of delivery . . . . . TRAFILATO

ANALISI CHIMICA DI COLATA - Cast analysis % by mass

C	Mn	Si	S	P	Cr	Mo	Al
0,410	0,760	0,230	0,0250	0,019	1,000	0,180	0,022

CARATTERISTICHE MECCANICHE ALLO STATO DI FORNITURA
Mechanical properties of delivered material

		Rilev.
Carico di rottura	Rm (MPa)	1002,0
Limite Elastico	Rp (0,2) (MPa)	785,0
Allungamento a rottura	A 4 (%)	21,1
Durezza	HBW	302,0
Strizione a rottura	Z (%)	61,0

TEMPRABILITA' JOMINY - Jominy Hardenability Durezza HRC

Distanza mm	1,5	3	5	7	9	11	13	15
Durezza HRC	57,0	57,0	56,0	54,0	53,0	52,0	51,0	51,0

Distanza mm	20	25	30	35	40	45	50
Durezza HRC	48,0	45,0	43,0	41,0	39,0	37,0	36,0

Rodacciai

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The Company's Quality Management System
is certified by IGQ according to UNI EN ISO 9001:2008

Segue certificato di controllo N. 062134 Data 4/09/2012
Inspection Certificate's continuance

DIMENSIONE GRANO AUSTENITICO - Austenitic grain size

Valore	6
Con Metodo	MC QUAID-EHN
Secondo	ISO643:03 ASTM E112

TENORE INCLUSIONALE - Inclusion Content

Secondo DIN 50602 (Stahl Eisen Pruefbratt 1570 71)
Metodo K: indice totale complessivo . . . . . K 4 = 24

Rinvenimento eseguito a temperatura superiore a 593 C
Esame Macroetch secondo norma ASTM E381:S-1; R-1; C-1
Si attesta che il materiale della presente fornitura
e' conforme alla prescrizione d'ordine e ad ogni altra specifica
concordata contrattualmente con il cliente.
Certificato generato da un sistema informatico
secondo la norma EN 10204, valido senza firma.

RODACCIAI: Laboratorio prove certificati
Marco Demaldè

PISCETTA
Officina Meccanica

Officina Meccanica Piscetta S.r.l.

Sede Operativa: 28060 Comignago (NO) - Via Principale, 40
Sede Legale: 20122 Milano (MI) - Via Cesimo del Fante, 16
Tel. +39.0322.50341 +39.0322.504106 Fax +39.0322.50343
www.piscettasrl.com - info@piscettasrl.com

Capitale Sociale € 500.000,00 inter. versato
Codice Fiscale e R.I. Milano n. 00112000039
Partita I.V.A. 03319410969 R.E.A. MI 1665227

CERTIFICATE	
Nr. 4645	03-02-23
Page 5/12	

BONDOLI & CAMPESE S.R.L.
Via G. S. Bondi, 38
48123 RAVENNA RA
ITALIA

INSPECTION CERTIFICATE EN 10204 3.1

Your order: 98619 27-01-23 Delivery note: 301 03-02-23

MATERIALE AND VALUES IN CONFORMITY WITH STANDARD

Item	Materials	Description	Sizes	Batch	Heat		Quantity
3	A 193-B7	TIRANTI A 193-B7 UNC	5/8" X 120	602332	285875	N.	200
6	A 193-B7	TIRANTI A 193-B7 UNC	3/4" X 125	598866	130568	N.	200
15	A 193-B7	TIRANTI DIN 976 ANGOLO 60° A 193-B7 M	20 X 190	587988	121725	N.	50

CHEMICAL ANALYSIS

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%Ni
3	REQ. MIN.									
	REQ. MAX.									
	ACT.VAL.	0.417	0.847	0.283	0.0100	0.014	1.029	0.212	0.029	0.194

		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al
6	REQ. MIN.								
	REQ. MAX.								
	ACT.VAL.	0.410	0.840	0.210	0.0020	0.011	1.040	0.200	0.032

		%C	%Mn	%Si	%S	%P	%Cr	%Mo
15	REQ. MIN.							
	REQ. MAX.							
	ACT.VAL.	0.400	0.830	0.190	0.0090	0.012	1.040	0.210

MECHANICAL PROPERTIES

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
3	REQ. MIN.	860	720	16		50
	REQ. MAX.				321	
	ACT. VAL.	1028.5	832.2	18.7	311	50.6

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
6	REQ. MIN.	860	720	16		50
	REQ. MAX.					
	ACT. VAL.	1030,3	903.7	17.3	311	64.7

		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
15	REQ. MIN.	860	720	16		50
	REQ. MAX.					
	ACT. VAL.	988	825	21.9	296	63.7

PISCETTA
Officina Meccanica

Officina Meccanica Piscetta S.r.l.

Sede Operativa: 28060 Cormignago (NO) - Via Principale, 40
Sede Legale: 20122 Milano (MI) - Via Cosimo del Fante, 16
Tel +39.0322.50341 +39.0322.504106 Fax +39.0322.50343
www.piscettasrl.com - info@piscettasrl.com

Capitale Sociale € 500.000,00 inter. versato
Codice Fiscale e R.I. Milano n. 00112000039
Partita I.V.A. 03319410969 R.E.A. MI 1665227

CERTIFICATE

Nr. 5502	03-04-24
Page 1 / 5	

BONDOLI & CAMPESE S.R.L.
Via G. S. Bondi, 38
48123 RAVENNA RA
ITALIA

INSPECTION CERTIFICATE EN 10204 3.1

Your order: 100896 26-03-24 Delivery note: 1059 03-04-24

MATERIALE AND VALUES IN CONFORMITY WITH STANDARD

Item	Materials	Description	Sizes	Batch	Heat		Quantity
5	A 193-B7	TIRANTI A 193-B7 UNC	3/4" X 110	615286	748607	N.	400

CHEMICAL ANALYSIS

5		%C	%Mn	%Si	%S	%P	%Cr	%Mo	%Al	%B	%Cu	%Ni
	REQ. MIN.	0.37	0.65	0.15			0.75					
	REQ. MAX.	0.420	1.1	0.250	0.04	0.035	1.070	0.150				
	ACT.VAL.	0.395	0.790	0.230	0.0230	0.013	1.030	0.180	0.023	0.0001	0.170	0.150

MECHANICAL PROPERTIES

5		Rm MPa	Rp-0.2 MPa	A 4 %	HBW HB	Z %
	REQ. MIN.	860	720	16		50
	REQ. MAX.					
	ACT. VAL.	970	818	18.9	293	57.7

Rosetti Marino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
STYLFLANGE SRL	1725001617	123A30	Q012501452

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

22.10.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

DDT

2042

stylflange

STYLFLANGE SRL con unico socio
Sede oper.va: Via F.lli Lumiere n. 62 - 48124 Ravenna • Sede Legale: V.le Europa n. 596 – 47521 Cesena (FC)
Cod. Fisc./P.IVA 04704500406 - Pec: stylflange@pec.it

Ravenna, 20/10/2025

Spett. le
ROSETTI MARINO S.P.A.
VIA TRIESTE N. 230
RAVENNA 48122

RAPPORTO DI CONFORMITA' - REPORT OF CONFORMITY (RIF. EN 10204 2.1)

Ns. DDT. N.2042 DEL 15.07.2025, VS. ORD. N.1725001617

GUARN. SPIR. 316+GRAF. A/I +A/E 316 S.300 DN 1.1/4"

Si certifica che i prodotti forniti sono stati costruiti, controllati e collaudati in accordo alle specifiche, disegni e/o normative applicabili concordate in fase di ordine

We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

DISTINTI SALUTI

STYLFLANGE SRL

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
Stylflange Srl	1725000556	123A90	Q012501023

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

20.03.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

Stylflange S.r.l. con unico socio
Sede legale Viale Europa n. 596 - 47521 Cesena (FC) - Sede operativa Via F.lli Lumiere n. 62 -48124 Ravenna Telef. 0544/500521
Codice Fiscale/Part.Iva 04704500406 R.E.A. FO - 434124 - Capitale Sociale € 500.000 i.v.

AZIENDA CON
SISTEMA DI GESTIONE QUALITA'
CERTIFICATO DA DNV
ISO 9001

CERTICATO DI COLLAUDO
Works certificate

EN 10204 3.1

Cliente: ROSETTI MARINO S.P.A.
VIA TRIESTE N. 230
C 71 48122 RAVENNA RA

Documento n. 2025\DDT\000473 del 20/02/2025 Certificato n. 35.046 del 20/02/2025
Riferimenti 000000473 20/02/2025

Item	Quantità Quantity	Descrizione Description	Colata Heat	Materiale Material	Cert. Orig. Mill. Cert.	Acciaieria Steel Plant
3	0,00	VS. ORD. N.1725000556 123A90A				
4	1,00	FLANGIA BLIND RF ASA 150 DN 20" A 105	35252	A105		F 732

ANALISI CHIMICA/Chemical Analysis

Item	C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	V%	Cu%	Al%	Ce%	Sn%	Nb%	N%	C0%	Stato di Fornitura Supply Condition	Temp
3																			
4	0.150	0.653	0.231	0.009	0.005	0.010	0.010	0.010	0.001	0.000	0.011	0.000	0.000	0.000	0.001	0.000	0.000		0.000

ANALISI MECCANICA/Mechanical Analysis

Item	R Tensile N/mmq	S Yeld Point N/mmq	A Elongation %	C Reduction of area%	Bendig Test	Flattening Test	HB Hardness Test	Hydraulic Test	K Impact Test J	T°C
3										
4	503.0	265.0	33.0	36.0			163		32 35 35	-20°

Natura del materiale Kind of Material	Note/Remarks
Acciaio elaborato al forno elettrico Steel made by electric furnace	Other elements required less than 0,01% Material in according to ASTM Ed.2016 Material normalized at 920 °C for 1 hr/inch Surface and dimensional check according to material requirements

Responsabile qualità/Quality Manager

STYLFLANGE s.r.l.

LEGENDA/TRANSLATION: RIDUZ.CONC./CONCENTRIC REDUCER - RIDUZ.ECC./ECCENTRIC REDUCER - TEE/TEE - CURVA GOMITO/ELBOW - FONDELLO/CAP - CROCE/CROSS - TUBO/PIPE - BOCCHETTONE/UNION - MANICOTTO/COUPLING - TAPPO/PLUG - RIDUZ.ESAG./EX BUSHING - NIPPO/NIPPLES - FLANGIA/FLANGE

Note/Remarks

I RISULTATI DELLE ANALISI CHIMICHE SONO LA CORRETTA TRASCRIZIONE DEL CERTIFICATO DI COLATA EMESSO DALL'ACCIAIERIA O DAL LABORATORIO CHE LI HA RILEVATI
The results of chemical analisys are a true and correct copy of the will certicate issued by the steel will, or by laboratory which determined it
L'IMPIEGO DEI MATERIALI DEVE ESSERE EFFETTUATO ESCLUSIVAMENTE IN CONFORMITA' ALLE NORME DI PRODOTTO
GLI ORIGINALI DEI CERTIFICATI SONO CONSERVATI C/O STYLFLANGE SRL
The original certificates are filed by Stylflange SRL

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400637

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **02.09.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 06/08/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	SEE BELOW
Prot. N.	00007483
Packing list	PLPLIS202400007442
Ns. Rif.	00002010
Vs. Rif.	1724000839 - 22.04.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00007483

06/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz. Immagine** *Heat N° or PCS. Marking Image*
1640	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm	78606 CTCERT202400005403_1.0001.TIF
1780	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm	297755 CTCERT202400005404_1.0001.TIF CTCERT202400005404_1.0002.TIF

raccortubi

00007483

06/08/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			TIRANTI FILETTATI CON 2 DADI:	
1640	20	NR	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-'' L=110mm	78606
1780	20	NR	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-'' L=120mm	297755

raccortubi

00007483

06/08/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 06/08/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	**U.M.**	**Q.ta'** *Q.ty*	**Tubi** *Tubes*	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TIRANTI FILETTATI CON 2 DADI:	
1640	NR	20	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-'' L=110mm	78606
1780	NR	20	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-'' L=120mm	297755

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168026	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	18	Item	350
Job		Shipping ref.	3412358 of 01 August 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 7/8"-9 UNCX0120 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
78606	20	P1679762	0001230008

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.43	0.76	0.27	0.018	0.028	0.99	0.2	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	947	845	18.2	59

	Hardness "HB"	Impact Test +20 C "J"
Required	max 321	min med 27 J
Actual	292;292;292	59;53;61

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 00000168026 Rev. 000 of 02 August 2024 - Page 1/4

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1640 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:20,00

Protocol: CTCERC202400007483 * CERTIFIED TRUE COPY
* Issued 06-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168026	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	18	Item	360
Job		Shipping ref.	3412358 of 01 August 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 7/8"-9 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
22982	40	P1688083	0001230009

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.450	0.720	0.230	0.012	0.025	

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	312;286;318	49;43;48
Required	Hardness test after Termical Tr		
Actual	Min. 179 263;251;257		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003168026 Rev. 000 of 02 August 2024 - Page 2/4

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1640 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:20,00

Protocol: CTCERC202400007483 * CERTIFIED TRUE COPY
* Issued 06-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168026	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	4	Item	70
Job		Shipping ref.	3412358 of 01 August 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0110 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
297755	20	P1679760	0001230006

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.409	0.824	0.283	0.009	0.003	1.022	0.205	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	990	795	21.4	56.2

	Hardness "HB"	Impact Test +20 C "J"
Required	max 321	min med 27 J
Actual	295;295;295	69;64;57

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003168026 Rev. 000 of 02 August 2024 - Page 3/4

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1780 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168026	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	4	Item	80
Job		Shipping ref.	3412358 of 01 August 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	40	P1641375	0001230007

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42
Required	Hardness test after Termical Tr		
Actual	Min. 179 243;258;241		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1780 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm

raccortubi Heat num. or Pcs. marking: 297755 - Qty:20,00

Protocol: CTCERC202400007483 * CERTIFIED TRUE COPY
* Issued 06-08-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A30A	Q012400638

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani 02.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 02188010271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 02158610271 - info@cfservice.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 02158610271 • info@cfservice.ve.it

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400687

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

04.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 07/08/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00007597
Packing list	PLPLIS202400007555
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00007597

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
17	14	Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2''	COLATA CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF
18	16	Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4''	COLATA CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF

raccortubi

00007597

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
19	32	Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"	COLATA CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF
20	38	Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"	COLATA CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF

raccortubi

00007597

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
21	10	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"	L4WJ CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF
22	10	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"	L4WJ CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF

raccortubi

00007597

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. / Item	Q.ta' / Q.ty	Descrizione / Description	N° Colata o Marcatura / Heat N° or PCS. Marking	Pz. Immagine / Image
23	10	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2''	L4WJ	CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF
39	2	Insulation Kit Ends as per ASME B16.5 150LB RF 3/4''	COLATA	CTCERT202400005571_1.0001.TIF CTCERT202400005571_1.0002.TIF CTCERT202400005571_1.0003.TIF CTCERT202400005571_1.0004.TIF CTCERT202400005571_2.0001.TIF CTCERT202400005571_2.0002.TIF CTCERT202400005571_3.0001.TIF CTCERT202400005571_3.0002.TIF CTCERT202400005571_4.0001.TIF CTCERT202400005571_4.0002.TIF CTCERT202400005571_5.0001.TIF CTCERT202400005571_5.0002.TIF CTCERT202400005571_6.0001.TIF CTCERT202400005571_6.0002.TIF

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. (0039) 041.5952562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04186010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.eu

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

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Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136010271 • info@cfsrv.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005571.4.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. +39 041.5968562 Fax 041.5952900
P.IVA 04115061007271 - info@cfsrlonline.org

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
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The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

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Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136010271 • info@cfservice.eu

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF Service s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
C.F. e P.IVA 04156010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 17 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:14,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156010271 - info@cfsrl.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CTCERT202400005571.2.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
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The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
C.F. e P.IVA 04115461007 1 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005571.4.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA e C.F. 04106610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 18 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:16,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136610271 • info@cfservice.srl

CTCERT202400005571.1.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 - Fax 041.5952900
P.IVA 04158010271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568362 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.ve.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04139610271 • info@cfservice.srl

CTCERT202400005571.3.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
C.F./P.IVA 04115810271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CTCERT202400005571.4.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04138010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136610271 • info@cfservice.srl

CTCERT202400005571.6.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04155610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 19 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:32,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CTCERT202400005571.1.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5682562 Fax 041.5952500
P.IVA 04156610271 - info@cfservice.biz

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 • info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 • info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. +39 041.5915900 Fax 041.5915900
P.IVA 04610271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5685682 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005571.4.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

CTCERT202400005571.5.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
C.F. e P.IVA 04115860271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Flat Thk. 3 mm ASME B16.21 150LB RF GSK NEOPRENE 1.1/2"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:38,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
C.F. e P.IVA 04115960271 - info@cfservice.eu

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156010271 - info@cfservice.eu

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04561080271 - info@cfservice.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04150610271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156010271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04115960271 - info@cfservice.ve

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 21 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 3"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5685611 Fax 041.5952900
P.IVA 04136610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952000
P.IVA 04561060271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04113610271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE *c/w* INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04115460271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04158610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04961160271 - info@cfservice.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04159610271 • info@cfservice.vn

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 22 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04159010271 • info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04139010271 • info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 • info@cfservice.ws

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5468168 Fax 041.5952900
P.IVA e C.F. 04115961007271 - info@cfservice.srl

CTCERT202400005571.3.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04156010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5685682 Fax 041.5952500
P.IVA 04156010271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04615960271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04158610271 - info@cfservice.ve.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5950900
P.IVA 04136610271 - info@cfservice.biz

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 23 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 2"

raccortubi Heat num. or Pcs. marking: L4WJ - Qty:10,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-B
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5681562 Fax 041.5952900
P.IVA 04115601271 - info@cfservice.eu

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 3" 150 Code :	10,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	10,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158610271 • info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04158010271 • info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952500
P.IVA 04156610271 • info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005571.2.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 4" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.456856 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632236-A
Invoice/ddt No: 236
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **CLAIM 108/2024/DDT 2840/COMM 1885**

Gasket description:

GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.ve.it

CTCERT202400005571.3.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
GASKET CF3090 4" 300 TYPE F THK.3MM Code :	8,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-C
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INS. GASKET FSA-HT EVO CORE 316+MICA

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04156010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS. GASKET FSA-HT EVO CORE 316+MICA 3/4" 150 THK 6MM Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041 4568562 Fax 041.5952900
P.IVA 04158610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362-A
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
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The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04159610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005571.5.0002

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NEOPRENE 2" 150 SP3 Code :	14,000
G.NE NEOPRENE 3/4" 150 SP3 Code :	16,000
G.NE NEOPRENE 1" 150 SP3 Code :	32,000
G.NE NEOPRENE 1"1/2 150 SP3 Code :	38,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
C.F. e P.IVA 04115610271 - info@cfservice.ve.it

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323362
Invoice/ddt No: 3362
Invoice/ddt date: 06/08/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006098**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KIT FLANGE TYPE FSA-HT EVO 3/4" 150 TYPE F KIT MADE BY: -)No.1 G10 INSULATING SLEEVE PER EACH BOLT -)No.2 G10 INSULATING WASHERS PER EACH BOLT -)No.2 ZPS INSULATING WASHERS PER EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04136610271 - info@cfservice.eu

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 39 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Insulation Kit Ends as per ASME B16.5 150LB RF 3/4"

raccortubi Heat num. or Pcs. marking: COLATA - Qty:2,00

Protocol: CTCERC202400007597 * CERTIFIED TRUE COPY
* Issued 07-08-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400668

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 04.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 07/08/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00007518
Packing list	PLPLIS202400007477
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00007518

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002207

Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
19	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm	297755 CTCERT202400005383_1.0001.TIF CTCERT202400005383_1.0002.TIF
20	30	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm	103540 CTCERT202400005044_1.0001.TIF CTCERT202400005044_1.0002.TIF
21	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=125mm	105307 CTCERT202400005045_1.0001.TIF CTCERT202400005045_1.0002.TIF
22	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm	78606 CTCERT202400005384_1.0001.TIF CTCERT202400005384_1.0002.TIF

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168025	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	1	Item	10
Job		Shipping ref.	3412357 of 01 August 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0110 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
297755	20	P1679760	0001230002

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.409	0.824	0.283	0.009	0.003	1.022	0.205	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	990	795	21.4	56.2

	Hardness "HB"
Required	max 321
Actual	295;295;295

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 19 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm

raccortubi Heat num. or Pcs. marking: 297755 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168025	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	1	Item	20
Job		Shipping ref.	3412357 of 01 August 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	40	P1641375	0001230003

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	307;312;309	243;258;241

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 19 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=110mm

raccortubi Heat num. or Pcs. marking: 297755 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

Pressbolt s.r.l. con unico socio
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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167559	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	2	Item	30
Job		Shipping ref.	3411830 of 22 July 2024

Standard	
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7	
Item Description STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0090 HOT DIP GALVANIZED ASTM A153 / F2329	Heat Treatment QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	30	P1679759	0001225810

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1001	796	23.6	60.3

	Hardness "HB"
Required	max 321
Actual	301;300;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167559 Rev. 000 of 22 July 2024 - Page 1/4

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 20 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:30,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

PRESSBOLT

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Messrs. RACCORTUBI S.p.A.
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20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167559	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	2	Item	40
Job		Shipping ref.	3411830 of 22 July 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	60	P1653697	0001225811

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.440	0.638	0.205	0.013	0.024	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	300;317;295	258;258;258

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 20 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:30,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167559	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	3	Item	50
Job		Shipping ref.	3411830 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 7/8"-9 UNCX0125 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
105307	20	P1679763	0001225812

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.419	0.768	0.239	0.012	0.028	1.079	0.176	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	986.5	808.5	21.3	57.2

	Hardness "HB"
Required	max 321
Actual	295;294;293

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 21 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=125mm

raccortubi Heat num. or Pcs. marking: 105307 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167559	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	3	Item	60
Job		Shipping ref.	3411830 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 7/8"-9 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
22982	40	P1641376	0001225813

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.450	0.720	0.230	0.012	0.025

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	310;312;309	237;256;241

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 21 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=125mm

raccortubi Heat num. or Pcs. marking: 105307 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168025	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	4	Item	70
Job		Shipping ref.	3412357 of 01 August 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 7/8"-9 UNCX0120 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
78606	20	P1679762	0001230004

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.43	0.76	0.27	0.018	0.028	0.99	0.2	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	947	845	18.2	59

	Hardness "HB"
Required	max 321
Actual	292;292;292

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003168025 Rev. 000 of 02 August 2024 - Page 3/4

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 22 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3168025	0	02 August 2024

Client Reference Order		Reference Order	
Number	00005879 of 17 May 2024	Number	3403009
Reference			
Item	4	Item	80
Job		Shipping ref.	3412357 of 01 August 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 7/8"-9 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
22982	40	P1688083	0001230005

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.450	0.720	0.230	0.012	0.025	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	310;312;309	263;251;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 22 - Our ref.: OCVEIT202400002207

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=120mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:20,00

Protocol: CTCERC202400007518 * CERTIFIED TRUE COPY
* Issued 07-08-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400616

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani — **31/07/2024**

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 30/07/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	SEE BELOW
Prot. N.	00007270
Packing list	PLPLIS202400006940
Ns. Rif.	00002010
Vs. Rif.	1724000839 - 22.04.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00007270

23/09/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 23/09/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
870	NR	22	0,00	W.N. 1" S.150 RF SCH.40/S	407642
880	NR	6	0,00	W.N. 2" S.150 RF SCH.10/S	555304
890	NR	6	0,00	W.N. 3/4" S.150 RF SCH.40/S	407642
900	NR	29	0,00	W.N. 1.1/2" S.150 RF SCH.40/S	E170081
1080	NR	4	0,00	Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L	346569
				FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
1090	NR	3	0,00	W.N. 3/4" S.150 FF SCH.40/S	407642
1100	NR	6	0,00	W.N. 1" S.150 FF SCH.40/S	407642

raccortubi

00007270

23/09/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 23/09/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1110	NR	3	0,00	W.N. 1.1/2" S.150 FF SCH.40/S	E170081
1150	NR	4	0,00	Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53	407642

raccortubi

00007270

23/09/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
870	22	NR	W.N. 1" S.150 RF SCH.40/S	407642
880	6	NR	W.N. 2" S.150 RF SCH.10/S	555304
890	6	NR	W.N. 3/4" S.150 RF SCH.40/S	407642
900	29	NR	W.N. 1.1/2" S.150 RF SCH.40/S	E170081
1080	4	NR	Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L	346569
			FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
1090	3	NR	W.N. 3/4" S.150 FF SCH.40/S	407642
1100	6	NR	W.N. 1" S.150 FF SCH.40/S	407642
1110	3	NR	W.N. 1.1/2" S.150 FF SCH.40/S	E170081

raccortubi

00007270

23/09/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1150	4	NR	Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53	407642

GALPERTI™
FORGING FOR ENERGY

Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTANZONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 870 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:22,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	Resilienza - TEMP °C	Impact Test (J) TEST1	TEST2	TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
GALPERTI S.r.l. NOEMI COSTANZONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 870 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:22,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

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certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn
407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn
E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
E170081

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 870 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Description: W.N. 1" S.150 RF SCH.40/S

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Marchio Produttore/Manufacture's Mark

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Cert. No 10469041 and No 10469042

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Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 870 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:22,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240000509 6.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 1" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:22,00

Order: 1724000839 - 22.04.24 - Item n.: 870 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000201 0

Protocol: CTCERC20240000727 0 * CERTIFIED TRUE COPY * Issued 30-07-2024

GALPERTI™ FORGING FOR ENERGY

DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 880 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 555304 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	Resilienza - TEMP °C	Impact Test (J) TEST1	TEST2	TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 880 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 555304 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn
407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn
E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
E170081

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti s.r.l. NOEMI COSTARONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 880 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 555304 - Qty:6,00
Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

GALPERTI™
FORGING FOR ENERGY

Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	Certificato n°. **Certificate n°.**	Data **Date**	Commessa **Internal Ref.**	Lista Imballo. N° **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTA ONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 880 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 555304 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240005096.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 2" S.150 RF SCH.10/S

Order: 1724000839 - 22.04.24 - Item n.: 880 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

raccortubi Heat num. or Pcs. marking: 555304 - Qty:6,00

Protocol: CTCERC20240007270 * CERTIFIED TRUE COPY * Issued 30-07-2024

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DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTADONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 890 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	Resilienza - TEMP °C	Impact Test (J) TEST1	TEST2	TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTANZONI-QC		

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Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 890 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn

407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn

E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

E170081

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti s.r.l. NORMI COSTABONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 890 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	Certificato n°. **Certificate n°.**	Data **Date**	Commessa **Internal Ref.**	Lista Imballo. N° **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 890 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240000509 6.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 3/4" S.150 RF SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 890 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC20240000727 0 * CERTIFIED TRUE COPY * Issued 30-07-2024

GALPERTI™ FORGING FOR ENERGY

DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
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certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTABONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 900 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:29,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

GALPERTI™
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Marchio Produttore/Manufacture's Mark

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Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	Resilienza - TEMP °C	Impact Test (J) TEST1	TEST2	TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTANTONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 900 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:29,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	Certificato n°. **Certificate n°.**	Data **Date**	Commessa **Internal Ref.**	Lista Imballo. N° **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale **Material**	Cod T.T. **H.T. Code**		Tipo di Trattamento **Material treatment**	Condizioni di Trattamento **Condition Treatment**
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn

407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn

E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

E170081

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti s.r.l. NOEMI COSTADONI-QC		

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Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 900 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:29,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
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certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 900 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:29,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240000509 6.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:29,00

Order: 1724000839 - 22.04.24 - Item n.: 900 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000 2010

Protocol: CTCERC20240000 7270 * CERTIFIED TRUE COPY * Issued 30-07-2024

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DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

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Galperti S.r.l. NOEMI COSTABONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1080 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: 346569 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

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EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

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	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza -		Impact Test (J)			Media Average	Durezza Hardness HB		
						TIPO	TEMP °C	TEST1	TEST2	TEST3				
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
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Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1080 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: 346569 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

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Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
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- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
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- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
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galpertisrl.com

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1080 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: 346569 - Qty:4,00 Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

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Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

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- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1080 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: 346569 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

CTCERT20240005096.1.0005

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1080 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000210

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: 346569 - Qty:4,00

Protocol: CTCERC20240007270 * CERTIFIED TRUE COPY * Issued 23-09-2024

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DYE PENETRANT TEST CERTIFICATE

201-24	Matteo Maroni	Matteo Colombo	
Certificate N°	Operator	QC Manager	Inspector

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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approved by LLOYD'S REGISTER
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certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTANZONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1090 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza -		Impact Test (J)			Media Average	Durezza Hardness HB		
						TIPO	TEMP °C	TEST1	TEST2	TEST3				
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1090 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Certificato di Collaudo **Inspection certificate**	Certificato n°. **Certificate n°.**	Data **Date**	Commessa **Internal Ref.**	Lista Imballo. N° **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale **Material**	Cod T.T. **H.T. Code**		Tipo di Trattamento **Material treatment**	Condizioni di Trattamento **Condition Treatment**
A/SA 182 F316/F316L	**C**		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	**G**		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn

407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn

E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

E170081

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Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 1090 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1090 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240000509 6.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 3/4" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:3,00

Order: 1724000839 - 22.04.24 - Item n.: 1090 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

GALPERTI™ FORGING FOR ENERGY

DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

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Galperti S.r.l. NOEMI COSTABONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
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Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza -		Impact Test (J)			Media Average	Durezza Hardness HB		
						TIPO	TEMP °C	TEST1	TEST2	TEST3				
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

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GALPERTI S.R.L. NOEMI COSTANZONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn
407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn
E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected
E170081

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti s.r.l. NOEMI COSTADONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 1100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
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Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 1100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

CTCERT20240000596.1.0005

Customer: ROSETTI MARINO S.p.A.

Description: W.N. 1" S.150 FF SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 1100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000201O

raccortubi Heat num. or Pcs. marking: 407642 - Qty:6,00

Protocol: CTCERC20240000727O * CERTIFIED TRUE COPY * Issued 30-07-2024

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DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTANTONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 30-07-2024

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Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	 TEMP °C	Impact Test (J) TEST1	 TEST2	 TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

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Order: 1724000839 - 22.04.24 - Item n.: 1110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 FF SCH.40/S

raccortubi Heat num. or Pcs. marking: E170081 - Qty:3,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
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EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale Material	Cod T.T. H.T. Code		Tipo di Trattamento Material treatment	Condizioni di Trattamento Condition Treatment
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
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E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
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- estimated fraction of ferrite = 49,1%
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- estimated fraction of ferrite = 50%
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Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

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- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative Instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

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Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

Codice Colata Heat Code	Colata Fornitore Supplier Heat code	Lotto di Prod. Prod.Ref.Nr.	Cod T.T. H.T. Code	Materiale Material	Q.tà Q.ty
555304	555304	PR24003756	G	A/SA 182 F53	6
IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN					
407642	407642	PR24004421	G	A/SA 182 F53	22
IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004531	G	A/SA 182 F53	6
IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN					
407642	407642	PR24004434	G	A/SA 182 F53	3
IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN					
407642	407642	PR24004422	G	A/SA 182 F53	6
IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN					
346569	346569	PR24004415	C	A/SA 182 F316/F316L	4
IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN					
407642	407642	PR24004423	G	A/SA 182 F53	4
IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN					
E170081	E170081	PR24003023001	G	A/SA 182 F53	29
IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN					
E170081	E170081	PR24003022001	G	A/SA 182 F53	3
IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN					

Analisi Chimiche / Chemical Analysis

Codice Colata Heat Code															
346569	C%	0,0290	Mn%	1,5900	Si%	0,4400	P%	0,0320	S%	0,0250	Cr%	16,6500	Ni%	10,0000	Mo%	2,0300
	Ti%		N%	0,0290	Cu%		Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ											
407642	C%	0,0240	Mn%	0,7500	Si%	0,2600	P%	0,0200	S%	0,0008	Cr%	25,2000	Ni%	6,8500	Mo%	3,8400
	Ti%		N%	0,2625	Cu%	0,1300	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,07

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti S.r.l. NOEMI COSTADONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53

raccortubi Heat num. or Pcs. marking: 407642 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

GALPERTI™
FORGING FOR ENERGY

Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo Inspection certificate	Certificato n°. Certificate n°.	Data Date	Commessa Internal Ref.	Lista Imballo. N° Packing List N°
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente Customer reference	Cliente Client	Ordine Order
00636	RACCORTUBI S.P.A.	00005825 REV.1

555304	C%	0,0090	Mn%	0,7800	Si%	0,2600	P%	0,0220	S%	0,0008	Cr%	25,2000	Ni%	6,9100	Mo%	3,7900
	Ti%		N%	0,2900	Cu%	0,1200	Nb%		V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,35
E170081	C%	0,0120	Mn%	0,6800	Si%	0,3400	P%	0,0240	S%	0,0010	Cr%	25,1800	Ni%	6,6000	Mo%	3,7800
	Ti%	0,0050	N%	0,2860	Cu%	0,1000	Nb%	0,0170	V%		Al%		Sn%		O%	
	Fe%		H%		Ca%		B%		Co%		Pb%		W%		Sb%	
	As%		Zr%		CEQ										PREN	42,23

Prove meccaniche / Mechanical tests

Lotto Prod. Prod.Lot Nr.	Codice Colata Heat Code	Snervamento Rp0.2% (MPa)	Rottura Rm (MPa)	Allungamento A% Elong in 2"	Contrazione Z% Reduct	Resilienza - TIPO	Resilienza - TEMP °C	Impact Test (J) TEST1	TEST2	TEST3	Media Average	Durezza Hardness HB		
PR24003756	555304	578	813	40,3	74	KV	-46	299,10	230,60	200,10	243,30	270	276	273
PR24004421	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004531	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004434	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004422	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24004415	346569	400	645	48,5	72							163	160	169
PR24004423	407642	580	800	42,6	72	KV	-46	233,90	265,60	208,10	235,90	244	249	240
PR24003023001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270
PR24003022001	E170081	578	800	42	73	KV	-46	174,60	133,90	190,10	166,20	274	277	270

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
GALPERTI S.r.l. NOEMI COSTANZONI-QC		

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Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53

raccortubi Heat num. or Pcs. marking: 407642 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

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Marchio Produttore/Manufacture's Mark

ISO 9001:2015 QMS
approved by LLOYD'S REGISTER
Cert. No 10469041 and No 10469042

certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	Certificato n°. **Certificate n°.**	Data **Date**	Commessa **Internal Ref.**	Lista Imballo. N° **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	Cliente **Client**	Ordine **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

Materiale **Material**	Cod T.T. H.T. Code		Tipo di Trattamento **Material treatment**	Condizioni di Trattamento **Condition Treatment**
A/SA 182 F316/F316L	C		Solution Annealed + Wat. Quench	Min 1040° C
A/SA 182 F53	G		Solution Annealed + Wat. Quench	1080°C+-10°C WAT:QUENC.

Note Generali

Additional requirements:
- Satisfactory visual and dimensional check
- Steel making process:Electric Furnace, AOD
- Hardness on the pieces <301HB for material F53
- Holding time for Solution Annealing: 1 h/inch

IMPACT TEST AT 46°C T/2 trasv
Heat / values (J)
555304 / 186,9 - 205,8 - 190,3
407642 / 225,8 - 200,3 - 175,6
E170081 / 122,9 - 108,3 - 155,8

FERRIC CHLORIDE PITTING TEST
ASTM G48 (50°x24h) (full thk weld end)
555304
- corrosion rate: 0,1 g/m2
- No pits have been found at 20x magn

407642
- corrosion rate: 0,03 g/m2
- No pits have been found at 20x magn

E170081
- corrosion rate: 0,2 g/m2
- No pits have been found at 20x magn

DETERMINATION OF FERRITIC VOLUME FRACTION
ASTM E562 + A923 (full thk weld end)
555304
- estimated fraction of ferrite = 49,1%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

407642
- estimated fraction of ferrite = 50%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

E170081

REDATTO DA / PRINTED BY	APPROVATO DA / APPROVED BY	ENTE COLLAUDATORE / INSPECTING AGENCY
Galperti s.r.l. NORMI COSTABONI-QC		

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galpertisrl.com

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53

raccortubi Heat num. or Pcs. marking: 407642 - Qty:4,00

Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

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certificates@galpertisrl.com

Certificato di Collaudo **Inspection certificate**	*Certificato n°.* **Certificate n°.**	*Data* **Date**	*Commessa* **Internal Ref.**	*Lista Imballo. N°* **Packing List N°**
EN 10204 3.1	770	29/07/2024	VO24-0376	PL2408595

Codice Cliente **Customer reference**	*Cliente* **Client**	*Ordine* **Order**
00636	RACCORTUBI S.P.A.	00005825 REV.1

- estimated fraction of ferrite = 46,6%
- Ferritic-austenitic microstructure, free from grain boundaries carbides and intermetallic phases.
- Classification of etch structure: unaffected

Heat / Steel plant
555304 / Sandvik
407642 / Bgh Edelstahl
E170081 / Outokumpu

Norms applicable:
- ASTM A182 LAST EDITION
- ASME SA182 LAST EDITION
- PED 2014/68/UE
- Spec. NORSOK M630 ed.7 (2020)
  NORSOK MDS D54 Rev.7
  QTR 02/2017

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Galperti S.r.l. NOEMI COSTADONI-QC		

GALPERTI SRL
Via Provinciale 20/22 - 23813 - Cortenova - LC - Italy Tel. +39 0341 988011 | Email: info@galpertisrl.com
galpertisrl.com

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53

raccortubi Heat num. or Pcs. marking: 407642 - Qty:4,00 Protocol: CTCERC202400007270 * CERTIFIED TRUE COPY
* Issued 23-09-2024

Customer: ROSETTI MARINO S.p.A.

Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 150LB RF ASTM A182 Gr.F53

Order: 1724000839 - 22.04.24 - Item n.: 1150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000010

raccortubi Heat num. or Pcs. marking: 407642 - Qty:4,00

Protocol: CTCERC20240007270 * CERTIFIED TRUE COPY * Issued 23-09-2024

GALPERTI™ FORGING FOR ENERGY

DYE PENETRANT TEST CERTIFICATE

Certificate N°	Operator	QC Manager	Inspector
201-24	Matteo Maroni	Matteo Colombo	

Date	Customer reference N°	Job Order	Client Order
26/07/2024	00636	VO24-0376	00005825 REV.1

Method	Application	Cleaner	Operative instruction N°	Applicable Spec.	Acceptance Criteria		
Color contrast	Spray	DR62 or equivalent	OI NDE 03	E165	ASME VIII, div.1 app.8		
Penetrant	**Penetrant Remover**	**Developer**	**Surface Condition**	**Lighting equipment**	**Light intensity**	**Extension**	**Percentage**
DP51 or equivalent	Water	D100 or equivalent	Machined	white light	> 1076 lux	100%	100

Item Detail							Examination	
Heat Code	Heat Treatment	Material	Q.ty	Q.ty Examined	Item No.	Description	Result	Record of indication(s)
555304	Solution annealed	A/SA 182 F53	6	6		IT. 4 WN 150 2" RF SC10S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 5 WN 150 3/4" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	6	6		IT. 9 WN 150 1" FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	4	4		IT. 11 WN 150 1" RF SC40S F53 B16.5 WITH JS HOLE FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	3	3		IT. 10 WN 150 1"1/2 FF SC40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	22	22		IT. 3 WN 150 1" RF SCSTD/40S F53 B16.5 FIN	CONFORM	
407642	Solution annealed	A/SA 182 F53	3	3		IT. 8 WN 150 3/4" FF SC40S F53 B16.5 FIN	CONFORM	
346569	Solution annealed	A/SA 182 F316/F316L	4	4		IT. 7 WN 150 1" RF SC40S F316/L B16.5 WITH HOLE JS FIN	CONFORM	
E170081	Solution annealed	A/SA 182 F53	29	29		IT. 6 WN 150 1"1/2 RF SC40S F53 B16.5 FIN	CONFORM	

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400600

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani **26/07/2024**

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 26/07/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00006868
Packing list	PLPLIS202400006831
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00006868

26/07/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
6	4	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	1023SA024 CT327#2024SA0#1023_001.TIF CT327#2024SA0#1023_2.0001.TIF CT327#2024SA0#1023_3.0001.TIF CT327#2024SA0#1023_4.0001.TIF CT327#2024SA0#1023_5.0001.TIF CT327#2024SA0#1023_6.0001.TIF CT327#2024SA0#1023_6.0002.TIF CT327#2024SA0#1023_7.0001.TIF CT327#2024SA0#1023_8.0001.TIF CT327#2024SA0#1023_9.0001.TIF
7	10	CURVE 90° LR 2" SCH.10/S SEAMLESS	M230234-1 CTCERT202400002971_1.0001.TIF
8	12	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	M230941 CTCERT202400004434_1.0001.TIF
9	1	Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3"	23/70747 CTCERT202400004887_1.0001.TIF CTCERT202400004887_2.0001.TIF
10	4	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3" thk 5,49	23/70167 CTCERT202400004888_1.0001.TIF CTCERT202400004888_2.0001.TIF
11	2	W.N. 2" S.150 RF SCH.10/S	A506/23 CTCERT202400004571_1.0001.TIF CTCERT202400004571_1.0002.TIF
12	15	W.N. 2" S.300 RF SCH.10/S	DL010 CTCERT202400002386_1.0001.TIF
13	8	W.N. 1.1/2" S.300 RF SCH.40/S	CH-18895 CTCERT202300004259_1.0001.TIF
14	1	Flange WN For Jackscrews diam.3" Thk.5.49mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70167 CTCERT202400004889_1.0003.TIF CTCERT202400004889_2.0001.TIF
32	10	RID. CONC. 1"x3/4" SCH.40/S SEAMLESS	MR230609 CTCERT202400001912_1.0001.TIF
33	8	RID. CONC. 3"x2" SCH.10/S SEAMLESS	JO030-1 CTCERT202300004935_1.0001.TIF

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00006868

26/07/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002823

Ordine N. P.O. number: 1724001267 - 24.06.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz. Immagine** *Heat N° or PCS. Marking Image*
34	4	RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	LN007-1 CTCERT202400003910_1.0001.TIF
35	1	RID. CONC. 4"x2" SCH.10/S SEAMLESS	J0043-1 CTCERT202200004155_1.TIF
38	1	RID. ECC. 2"x1.1/2" SCH.10S/40S SEAMLESS	MN086-1 CTCERT202400004042_1.0001.TIF
40	6	TEE RID. 4"x2" SCH.10/S SEAMLESS	MN094-1 CTCERT202400002681_1.0001.TIF
42	6	TEE RID. 6"x3" SCH.40S/10S SEAMLESS	M0070-1 CTCERT202400004669_1.0001.TIF

raccortubi

00006868

26/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
6	NR	4	0.00	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	1023SA024
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
7	NR	10	0.00	CURVE 90° LR 2" SCH.10/S SEAMLESS	M230234-1
8	NR	12	0.00	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	M230941
				FLANGE IN ACCIAIO CALMATO ASTM A-350 GRADO LF2	
9	NR	1	0.00	Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3"	23/70747
10	NR	4	0.00	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3" thk 5,49	23/70167

raccortubi

00006868

26/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
11	NR	2	0.00	W.N. 2" S.150 RF SCH.10/S	A506/23
12	NR	15	0.00	W.N. 2" S.300 RF SCH.10/S	DL010
13	NR	8	0.00	W.N. 1.1/2" S.300 RF SCH.40/S	CH-18895
14	NR	1	0.00	Flange WN For Jackscrews diam.3" Thk.5.49mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70167
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
32	NR	10	0.00	RID. CONC. 1"x3/4" SCH.40/S SEAMLESS	MR230609
33	NR	8	0.00	RID. CONC. 3"x2" SCH.10/S SEAMLESS	JO030-1
34	NR	4	0.00	RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	LN007-1

raccortubi

00006868

26/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
35	NR	1	0.00	RID. CONC. 4"x2" SCH.10/S SEAMLESS	J0043-1
38	NR	1	0.00	RID. ECC. 2"x1.1/2" SCH.10S/40S SEAMLESS	MN086-1
40	NR	6	0.00	TEE RID. 4"x2" SCH.10/S SEAMLESS	MN094-1
42	NR	6	0.00	TEE RID. 6"x3" SCH.40S/10S SEAMLESS	M0070-1

raccortubi

00006868

26/07/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
6	4	NR	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	1023SA024
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
7	10	NR	CURVE 90° LR 2" SCH.10/S SEAMLESS	M230234-1
8	12	NR	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	M230941
			FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
11	2	NR	W.N. 2" S.150 RF SCH.10/S	A506/23
12	15	NR	W.N. 2" S.300 RF SCH.10/S	DL010
13	8	NR	W.N. 1.1/2" S.300 RF SCH.40/S	CH-18895
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
32	10	NR	RID. CONC. 1"x3/4" SCH.40/S SEAMLESS	MR230609
33	8	NR	RID. CONC. 3"x2" SCH.10/S SEAMLESS	JO030-1

raccortubi

00006868

26/07/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
34		4 NR	RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	LN007-1
35		1 NR	RID. CONC. 4"x2" SCH.10/S SEAMLESS	J0043-1
38		1 NR	RID. ECC. 2"x1.1/2" SCH.10S/40S SEAMLESS	MN086-1
40		6 NR	TEE RID. 4"x2" SCH.10/S SEAMLESS	MN094-1
42		6 NR	TEE RID. 6"x3" SCH.40S/10S SEAMLESS	M0070-1

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pcs. marking: 1023SA024 - Qty:4.00

Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000028

Protocol: CTCERC2024000068 * CERTIFIED TRUE COPY * Issued 26-07-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: Master plan Marzo 2024/2

Pos. N. / Item/Poste: 14 — **Q.tà** / Q.ty/Q.té: 158

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1023SA024

Created on: 12-03-2024

Descrizione / Description / Description: ELBOWS 90° LR 1.1/2" SCH.40/S SEAMLESS

Specifica / Specification / Spécification: BW FITTINGS TO ASME II Part.A SA/815M Ed.2023
ASTM A/815M-2023 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 715498
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 715498

Test produzione / Production test/Coupon de production

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	57031	22/24	716	902	31.1	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**Nb**	**W**	**Co**	**N**	**PRE**	**FERRITE**
57031	0,011	0,230	0,52	0,019	0,0004	25,60	6,90	3,65	0,69	0,004	0,63	0,045	0,251	41.661	49.9

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 6215/24
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction

Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique

Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0236

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

raccortubi
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH 40/S SEAMLESS
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
32963	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	54,11	23,53	3,46	30,84	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Lavorato/ Machined	Peso iniziale/ Initial weight (g)	32,5083	
Temperatura di prova/ Test temperature (°C)	50	Peso finale/ Final weight (g)	32,508	
Tempo di esposizione (ore)/ Exposure time (hours)	24	Perdita di peso/ Weigth loss (g)	0,0003	
Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time	Perdita di massa/ Specimen mass loss	0.1	g/m²
18/03/2024 11:16:50	19/03/2024 11:16:50	**Limite perdita di massa max/ Limit Specimen mass loss max**	**1.0**	**g/m²**
Soluzione/ Solution	FeCl3 6% SOLUTION			

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 25,46 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	13/03/2024	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Rapporto di prova/ Test Report Date	19/03/2024 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pcs. marking: 1023SA024 - Qty:4,00

Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002823

Protocol: CTCERC2024000006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

SIDERTEST
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Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

E562 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
32959	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	19/03/2024

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv (% Volume Fraction) 49.9	**40**	**55**

s 3.4 95% C.I. 1.3 %RA 2.53

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**46**	2	**48**	3	**48**	4	**54**	5	**50**
6	**52**	7	**48**	8	**54**	9	**54**	10	**48**
11	**50**	12	**50**	13	**46**	14	**46**	15	**54**
16	**42**	17	**46**	18	**48**	19	**54**	20	**48**
21	**52**	22	**46**	23	**54**	24	**50**	25	**54**
26	**52**	27	**54**	28	**48**	29	**48**	30	**54**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.50 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **13/03/2024**

Data Rapporto di prova/ Test Report Date **19/03/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
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Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

ANL 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — ilac-MRA

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova/ Test temperature (°C)	ID Gruppo/ Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
32966	PO 04-145 RC R13:2024	RTX_D53 Rev.9	B / UP	20	10324	% by weight	18/03/2024

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,012	±0,003		0.030	Nb					Fe				
Si	0,26	±0,02		1.00	Ti					Ca				
Mn	0,53	±0,03		2.00	W	0,65	±0,05	0.50	1.00	Ta				
P	0,020	±0,002		0.030	Pb					Sb				
S	0,004	±0,001		0.010	Sn					H				
Cr	25,8	±0,2	24,0	26.0	As					Cd				
V					B					Se				
Mo	3,7	±0,2	3,0	4,0	N	0,27	±0,02	0.20	0,30	Bi				
Ni	7,0	±0,4	6.0	8.0	La					Hg				
Cu	0,72	±0,06	0.50	1.00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	42,33	±0,71	40.00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
13/03/2024				
Data Rapporto di prova/ Test Report Date: 19/03/2024	Antonielli Stefano	Amani Paolo		

firmato elettronicamente/electronically signed

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [/]-/; [B]-Specimen in Base Material; [UP]-external sup.

raccortubi
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Protocol: CTCERC20240000868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000823

SIDERTEST
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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

DUR 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

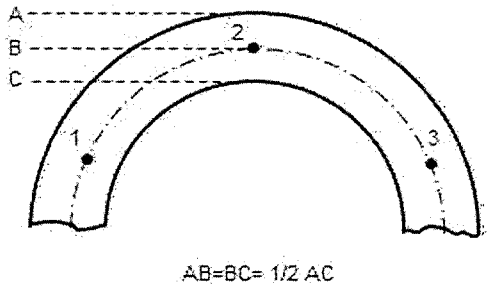
Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	ASTM A 815-23 UNS S32760

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
32958	ASTM E92 – 23 (only Vickers)	RTX_D53 Rev.9	B T	20 °C	HV10	19/03/2024

(B1) - Base Material MAX 286

HV10	1	267	2	269	3	261



Position	Average	
(B1) - Base Material	266	HV10

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **13/03/2024**

Data Rapporto di prova/ Test Report Date **19/03/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:4,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000028823

Protocol: CTCERC2024000068 68 * CERTIFIED TRUE COPY
* Issued 26-07-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

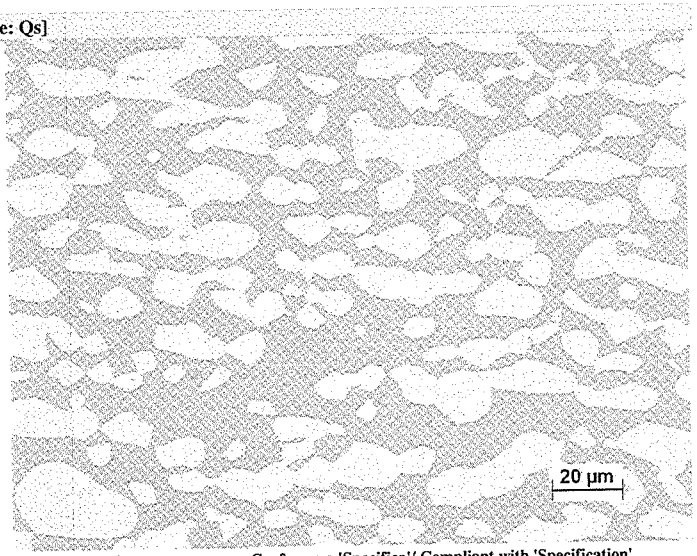
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32960	ASTM E3 – 11(R2017) / ASTM E407 – 23	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	10% Oxalic	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
13/03/2024				
Data Rapporto di prova/ Test Report Date **19/03/2024**	*Antonielli Stefano*	*Amani Paolo*		

firmato elettronicamente/electronically signed

DECISION RULE:
- Ql = Qualitative
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- Qn = Quantitative (Implicit Uncertainty)
- Qi = Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

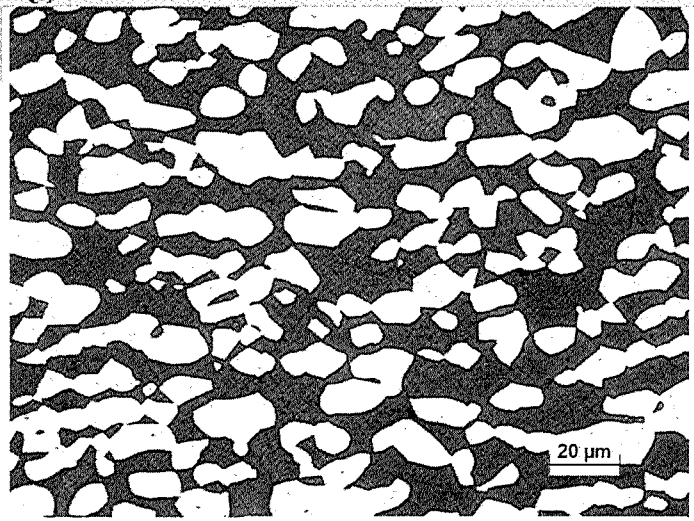
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	ASTM A 815-23 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32961	ASTM E3 – 11(R2017) / ASTM E407 – 23	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	20% NaOH	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

		Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Ingresso Materiale/ Date of Material Arrival	13/03/2024				
Data Rapporto di prova/ Test Report Date	19/03/2024 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		

DECISION RULE:
• Ql — Qualitative
• Qs — Semi-quantitative
• Qn — Quantitative (Implicit Uncertainty)
• Qx — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000028 23
Protocol: CTCERC2024000686 8 * CERTIFIED TRUE COPY
* Issued 26-07-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

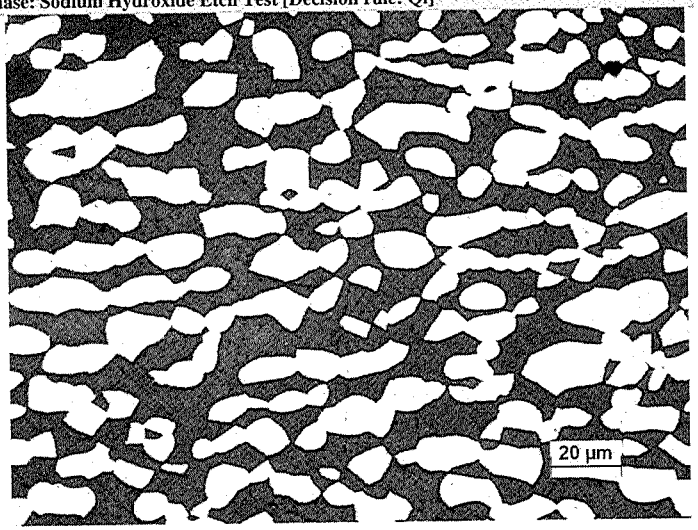
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32965	ASTM A923 – 22 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

		Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Ingresso Materiale/ Date of Material Arrival	13/03/2024				
Data Rapporto di prova/ Test Report Date	19/03/2024 firmato elettronicamente/electronically signed	*Antonielli Stefano*	*Amani Paolo*		

DECISION RULE:
- QI — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qx — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923C 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	ASTM A 815-23 UNS S32760

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
32964	ASTM A923 – 22 Method C	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	54,34	23,55	3,47	31

Condizioni superficiali/ Surface condition: Lavorato/ Machined

Temperatura di prova/ Test temperature (°C): 50

Temperatura Minima Rilevata/ Minimum temperature observed (°C): 49,73

Temperatura Massima Rilevata/ Maximum temperature observed (°C): 50,41

Tempo di esposizione (ore)/ Exposure time (hours): 24

Data inizio/ Initial date	Data fine/ End date
18/03/2024 13:28:14	19/03/2024 13:28:14

Soluzione/ Solution: FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	32,3744	
Peso finale/ Final weight (g)	32,3739	
Perdita di peso/ Weigth loss (g)	0,0005	
Perdita di massa/ Specimen mass loss	0.2	(g/m²)

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **1,6**

Limite velocità di corrosione (mg/(dm²*d)) max/ Corrosion rate limit (mg/(dm²*d)) max **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	13/03/2024	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Rapporto di prova/ Test Report Date	19/03/2024	Antonielli Stefano	Amani Paolo		
	firmato elettronicamente/electronically signed				

DECISION RULE:
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- Qs — Semi-quantitative
- Qu — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Heat num. or Pcs. marking: 1023SA024 - Qty:4,00
Order: 1724001267 - 24.06.24 - Item n.: 6 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PM 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm

Qta/ Qty: **1**

Posizione/ Item:

Prova Nr./ Test Nr.: **22/24**

Colata/ Heat: **57031**

Materiale/ Material
ASTM A 815-23 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength MPa		MPa	Rottura/ Tensile strength Rm MPa		Allungamento/ Elongation after fracture A (%)		Strizione/ Area Reduction Z (%)		S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
32956	ASTM A370 – 23 §6÷14, § A1.3, § A2.2 and § A3.2	**Material Standard**	3,70	12,40		50,00	B L FT	23,0	(≥550)	Rp0,2% **716**		(≥750)	**902**	(≥25)	**31,1**				19/03/2024

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **13/03/2024**

Data Rapporto di prova/ Test Report Date: **19/03/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qo → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: M230234-1 - Qty:10,00

Order: 1724001267 - 24.06.24 - Item n.: 7 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

CTCERT202400002971.1.0001

Cert. to EN 10204 / 3.1

INSPECTION CERTIFICATE

S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Page (頁) : 1

Date (日付) : JANUARY 31, 2024

LRQA CERTIFIED ISO 9001
Approval No:ISO9001-0048008
PED Cert No:0343/PED/MUM/101008/1

Order No. : 23SAN007

Certificate No. : 24-01-0126 (書類番号)

P.O. No. : 806739

Product (形状)	Product Specification (規格)	Specification for Raw Material (材料規格)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 (ASME SEC II PART A) ASME B16.9-2018 / MSS SP-43-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size (寸法)	Dimension in mm (寸法)		Lot No. (製造番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I. Code No.	Manufacturing Method
		Outside Dia (外径)	Thickness (厚さ)						
1	FBBLR-S316L- 1½"x10S	48.26	2.77	M230731	300	GOOD	GOOD	24311500	COLD FORMED
X 2	FBBLR-S316L- 2"x10S	60.33	2.77	M230234-1	1000	GOOD	GOOD	24312000	COLD FORMED
3	FBBLR-S316L- 5"x10S	141.30	3.40	M230820	15	GOOD	GOOD	24315000	COLD FORMED
4	FBBLR-S316L- 5"x10S	141.30	3.40	M220523	2	GOOD	GOOD	24315000	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

		Chemical Composition of Raw Material % (化学成分) (材料)									Mechanical Properties of Raw Material (機械的性質)								
*	Raw Pipe Heat No. (溶解番号)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
1	230628AS08	1.9	45.1	89	34	1	1001	1649	201			253	593	52		GOOD	GOOD	78	
2	220729AT15	1.7	36.2	86	35	1	1005	1625	203			255	591	54		GOOD	GOOD	82	
3	230628AS08	1.9	45.1	89	34	1	1001	1649	201			253	595	54		GOOD	GOOD	79	
4	220406AS09	1.7	36	96.5	30	1	1008	1627	202			254	597	54		GOOD	GOOD	81	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015
ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION
We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は、当該規格及び、で注文の要求事項に適合するてとを証明します。)

Head of QA/QC Dept.
質量/品質管理課長

CTCERT20240000044434.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2404-00012-12

LRQA CERTIFIED ISO 9001

Invoice No : SP/FIT24-040

Date (日付) : 17/04/2024

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC006
(注文番号) 00000323 S dtd 11-12-2023

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1-1/2" SCH.40/S SEAMLESS

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	1½" X 40S	48.26	3.68	M230941	500	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	NY230828AW12	2.0	33.2	101	35	1	1002	1642	202		Longitudinal	259	599	55		PASSED	-		79
	Specification	MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.
We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

raccortubi Heat num. or Pcs. marking: M230941 - Qty:12,00

Order: 1724001267 - 24.06.24 - Item n.: 8 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002823

Protocol: CTCERC2024000006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01793 — **Data / Dated** 17.07.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	6097 A07
Viale Lidice 38/40/42		**Item**	009 A07
10095 GRUGLIASCO TO IT		**DDT / Delivery note**	2024-3E301-0001635 A10
		Packing List	2024-3E401-0001641 A11
		Fattura / Invoice	2024-3E401-0001641 A12
		Ns. rif. / Our ref.	2024-3E201-0001062-0001 A08

Dest. **RACCORTUBI SPA** A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70747	1,00	BLIND 150 RF 3" LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03
FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED IN ACC. TO ASME V SEE REPORT No: 043/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,220	1,040	0,007	0,009	0,100	0,090	0,020	0,019	0,180	0,002	0,001	0,009
PRODUCT ANALYSIS	0,189	0,232	1,020	0,003	0,012	0,131	0,065	0,011	0,016	0,192	0,002	0,001	0,009
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,396	0,353	0,392	0,120	--
PRODUCT ANALYSIS	0,027								0,405	0,359	0,401	0,142	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
29,50	25,00	1	20	371,0	--	548,0	33,9	74,6

DUREZZA / HARDNESS C30 — **RESILIENZA / IMPACT TEST**

HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
159,0 ; 160,0 ; 158,0	KV	10x10x55 mm	-46	102	104	103	103,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		Vis. & Dim. D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018		SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724001267 - 24.06.24 - Item n.: 9 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3"

raccortubi Heat num. or Pcs. marking: 23/70747 - Qty:1,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	043/2024	Date	02/07/2024	Customer	RACCORTUBI S.P.A.	Order no.	6097
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASME V	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	20°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	009	BL 150 RF 3"	23/70747	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected
	010	WN 150 RF 3" STD	23/70167	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	014	WN 150 RF 3" STD	23/70167	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected

Operator Signature		Approved by	*Metalfar Prodotti Industriali S.p.A.* *Mr. Simone Frigerio* *Quality Control Manager* *NDE Level II ISO 9712* *e-mail: qcm@metalfaritaly.com*	Customer Inspector	

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 9 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3"

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01793 — **Data / Dated** 17.07.2024 Z02

RACCORTUBI S.P.A. A06
Viale Lidice 38/40/42
10095 GRUGLIASCO TO IT

Ordine / PO	6097	A07
Item	010	A07
DDT / Delivery note	2024-3E301-0001635	A10
Packing List	2024-3E401-0001641	A11
Fattura / Invoice	2024-3E401-0001641	A12
Ns. rif. / Our ref.	2024-3E201-0001062-0002	A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70167	4,00	W/N 150 RF 3" STD LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03
FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED IN ACC. TO ASME V SEE REPORT No: 043/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,250	1,030	0,008	0,011	0,090	0,110	0,020	0,018	0,190	0,002	0,001	0,010
PRODUCT ANALYSIS	0,190	0,197	1,010	0,009	0,011	0,130	0,071	0,011	0,020	0,200	0,002	0,001	0,010
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,027								0,394	0,352	0,412	0,110	--
PRODUCT ANALYSIS	0,026								0,405	0,358	0,414	0,141	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
29,98	25,00	1	20	337,0	--	521,0	29,8	69,6

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
154,0 ; 158,0	KV	10x10x55 mm	-46	58	53	49	53,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		Vis. & Dim. D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018		SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3" thk 5,49

raccortubi Heat num. or Pcs. marking: 23/70167 - Qty:4,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	043/2024	Date	02/07/2024	Customer	RACCORTUBI S.P.A.	Order no.	6097
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASME V	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	20°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	009	BL 150 RF 3"	23/70747	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected
	010	WN 150 RF 3" STD	23/70167	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	014	WN 150 RF 3" STD	23/70167	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected

Operator Signature		Approved by	*Metalfar Prodotti Industriali S.p.A.* *Mr. Simone Frigerio* *Quality Control Manager* *NDE Level II ISO 9712* *e-mail: qcm@metalfaritaly.com*	Customer Inspector	

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 3" thk 5,49

raccortubi Heat num. or Pcs. marking: 23/70167 - Qty:4,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

MAASS GLOBAL GROUP
WILHELM MAASS GMBH

Zeche Ernestine 12-18
45141 Essen
Tel.: +49 (0) 201 – 29 49 30
Fax.: +49 (0) 201 – 29 18 75
E-Mail: info@wmaass.de
Internet: www.wmaass.de

Inspection Certificate EN 10204 3.1
Abnahmeprüfzeugnis EN 10204 3.1

Maass Special Alloys Nederland B.V.
Wattbaan 51-6
Nieuwegein, 3439 ML
Netherlands

Customer´s Reference - Kundennummer
MSA24-50050
Manufacturer´s Works Order No - Hersteller Auftragsnummer
2080036

Material: Werkstoff	F316 / F316L
Requirements: Anforderungen	A182/A182M:2024 // SA182/SA182M:2023 // NACE MR0175:2021 // NACE MR 0103:2015 // ISO 15156:2020 // ASME Code Sect. II Part A:2023 // ASME B16.5:2020
Heat treatment: Wärmebehandlung	Solution annealed at 1050°C, rapid cooling by quenching in cold water

Item Characteristics – Artikelmerkmale

Line Item No Position	Quantity Menge	Material Description Material Bezeichnung	Heat No Schmelz Nr	Sample No Probe	
11	50	Flange NPS 2" Class 150 BL RF (ASME B16.5)	A-506/23	C1898	
14	100	Flange NPS 4" Class 150 SO RF (ASME B16.5)	A-7978	C1897	
15	21	Flange NPS 6" Class 150 SO RF (ASME B16.5)	A-7978	C1897	
15	54	Flange NPS 6" Class 150 SO RF (ASME B16.5)	A-7976	C1892	
26	100	Flange NPS 2" Class 150 WN S10S RF (ASME B16.5)	A-506/23	C1898	
27	30	Flange NPS 2" Class 300 WN S80S RF (ASME B16.5)	A-506/23	C1898	
28	25	Flange NPS 3" Class 600 WN S40S RF (ASME B16.5)	A-7978	C1897	
29	20	Flange NPS 6" Class 150 WN S40S RF (ASME B16.5)	A-7978	C1897	
30	10	Flange NPS 6" Class 150 WN S80S RF (ASME B16.5)	A-7978	C1897	

Chemical analysis - Chemische Analyse

Heat No. Schmelz Nr.	Req.	C%	Si%	Mn%	P%	S%	Mo%	Cr%	Ni%	Al%	Cu%	Ti%	Co%	N%
	min	**0**	**0**	**0**	**0**	**0**	**2,00**	**16,00**	**10,00**	**0**	**0**	**0**	**0**	**0**
	max	**0,030**	**1,00**	**2,00**	**0,045**	**0,030**	**3,00**	**18,00**	**15,00**					**0,100**
A-7978	**HA**	0,021	0,38	1,48	0,041	0,010	2,00	16,79	10,05					0,083
A-506/23	**HA**	0,016	0,32	1,50	0,041	0,014	2,02	16,65	10,05					0,065
A-7976	**HA**	0,022	0,39	1,44	0,042	0,006	2,01	16,59	10,02					0,076

Mechanical properties - Mechanische Eigenschaften

Heat No Schmelz Nr.	Sample No Probe	Temp. [°C]	Yield Strength Dehngrenze [N/mm²]		Tensile Strength Zugfestigkeit [N/mm²]	Elongation Bruchdehnung [%]	Reduction of Area Brucheinschnürung [%]	Location Lage	Dimension Abmessung [Ø]
			R_p 0,2	R_p 1,0	R_m	A_4	Z		
			>205		**>515**	**>30**	**>50**		
A-7978	C1897	+20	264	305	571	67	70	transversal	12,50
A-506/23	C1898	+20	297	315	565	59	72	transversal	12,50
A-7976	C1892	+20	256	298	583	58	75	transversal	12,50

Impact Strength - Kerbschlagzähigkeit

Heat No Schmelz Nr	Sample No Probe	Temp. [°C]	Impact energy Schlagarbeit [J]				Laterale expansion Laterale Breitung [mm]			Location Lage	Type Art	Dimension Abmessung
			1	2	3	Avg.						

Surface and dimensional check according to ASME B16.5
100% PMI with X-Ray Fluorescene (XRF) Spectro xSORT & found satisfactory
Mechanical tests according to ASTM A370
Steel made by electric furnace // Melting process = EAF/AOD
Flange facing finish according to ASME B16.5 - 2020 Cl.6.4.5
DIN ISO 9001 - 2015 - Certificate No. 01 100 2209906
This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with purchaser order requirements.
This certificate is not a declaration of origin nor may it be used as a declaration of origin
Free from mercury and radioactive contamination
HA = Ladle Analysis // PA = Product Analysis // Req. = Requirements // Avg = Average

Trade Mark Handelszeichen	Customer Third Party Kundendritter	WMAASS Quality Department Signature WMAASS Qualitätswesen Unterschrift	
		Head of Quality Department Murat Cengiz	Work Inspector Patrick Oberhauser

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 11 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: A506/23 - Qty:2,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

MAASS GLOBAL GROUP
WILHELM MAASS GMBH

Zeche Ernestine 12-18
45141 Essen
Tel.: +49 (0) 201 – 29 49 30
Fax.: +49 (0) 201 – 29 18 75
E-Mail: info@wmaass.de
Internet: www.wmaass.de

Inspection Certificate EN 10204 3.1
Abnahmeprüfzeugnis EN 10204 3.1

Hardness - Härte

Sample No Probe	Hardness measurement Härtemessung	1	2	3	4	5	Avg.	Req
C1897	HBW	158	161				159,5	
C1898	HBW	160	161				160,5	
C1892	HBW	158	161				159,5	

Additional tests - Zusätzliche Prüfungen

IGC resistant acc. ASTM A262 Pr.E: satisfactory

Company Wilhelm Maass GmbH is a AD2000 W0 and PED 2014/68/EU ANNEX I, Section 4.3 approved manufacturer

Surface and dimensional check according to ASME B16.5
100% PMI with X-Ray Fluorescene (XRF) Spectro xSORT & found satisfactory
Mechanical tests according to ASTM A370
Steel made by electric furnace // Melting process = EAF/AOD
Flange facing finish according to ASME B16.5 - 2020 Cl.6.4.5
DIN ISO 9001 - 2015 - Certificate No. 01 100 2209906
This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with purchaser order requirements.
This certificate is not a declaration of origin nor may it be used as a declaration of origin
Free from mercury and radioactive contamination
HA = Ladle Analysis // PA = Product Analysis // Req. = Requirements // Avg = Average

Trade Mark Handelszeichen	Customer Third Party Kundendritter	WMAASS Quality Department Signature WMAASS Qualitätswesen Unterschrift	
		Head of Quality Department Murat Cengiz	Work Inspector Patrick Oberhauser

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 11 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: W.N. 2" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: A506/23 - Qty:2,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

VIRAJ PROFILES PRIVATE LIMITED (fonnerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER : M/S. RACCORTUBI SPA VIALE DE GASPERI 194 I-20010 MARCALLO CON CASONE MI Italy.	Manufacturer's Symbol (A04)	(A03)MTR NO	100028548 / 53 REV.1
		INVOICE NUMBER	
		(Z02) DATE	23.12.2023
		MATERIAL SPEC	ASTM A182/A182M- 23 / ASME SA182/SA182M-23
		(B02) GRADE	F316/316L
		DIMENSIONAL SPEC	ASME B16.5-2020

(B01) STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED & FULLY MACHINED

ISO 9001:2015-TUV NORD REG No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE(PED) 2014/68/EU.CERTIFING BODY-TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION No. 0045)

(A07)ORDER NO. 245	(A08) Sales Order No. 100028548 / 520	(A09)Article No: 52

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
2" WNRF S10S 300#	150	DL010

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%N
MIN						16.00	10.00	2.00	
MAX	0.030	2.00	1.00	0.030	0.045	18.00	14.00	3.00	0.1000
HEAT	0.026	1.51	0.35	0.021	0.038	16.76	10.07	2.01	0.0790
PROD.	0.023	1.51	0.34	0.017	0.039	16.76	10.05	2.01	0.0770

MECHANICAL PROPERTIES

Test Specification ASTM - A370

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Specimen Shape - Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13) Elongation%	Reduction of Area	(C32) Hardness			(C40) Charpy V-Notch 10x10x55mm (Values in Joules)			
		Rp=0.2%	Rp = 1%						(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=4D	%	BHN-1	BHN-2	AVG	1	2	3	AVG
Req.	515 MIN	205 MIN		30 MIN	50 MIN							
T	571.20	268.79	310.69	58.40	68.13	155	153	154	194	178	192	188

Other applicable Specifications :: NACE MR 0175 / ISO 15156-2015 & NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Induction furnace/Aragon Oxygen Decarburisation (AOD-IRS), Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimension	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness Value - RA 3.2 TO 6.3 µm / 125 TO 250 AARH
PMI Test	: No objection (100% tested with mobile spectro)
Inter Grunular Corrosion Test	: Passed IGC test in accordance with ASTM A262 practice E
Radioactitivity Test	: All the above material is tested for Radioactivity and found with in the limit of background radiation.
Liquid penetrant test	: No objection(test method-ASTM E 165 & accepted as per ASME Sec VIII division 1-appendix 8)

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

VIRAJ PROFILES PVT. LTD. VIRAJ QUALITY ASSURANCE

VIJAY KUMAR PILLAI (PRESIDENT)

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011012

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66250600. Fax.: 91-22-66250633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net
L/c. No. :
L/c. Date:

WORKS: Plot No. 35, Survery No.102/2 & 3 G. I. D. C.,
Village : Deheri, Tal- Umbergaon.
Dist Valsad, Gujarat - 396 171. INDIA.
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : 1673F/23-24- 21
Date of Issue :
P. O. No. : 00000088 Dt. 06.04.2023
Invoice No. & Date : 1673F/23-24

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
21	CH-18895	164	8	519.388	ASTM/ASME A/SA182 F316/316L	1-1/2" WNRF 300 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
21	0.022	0.43	1.66	0.036	0.028	16.82	2.01	10.08	-	-	0.072	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
21	268	563	58	72	162-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.

Q.A.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 13 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: W.N. 1.1/2" S.300 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: CH-18895 - Qty:8,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01793 — **Data / Dated** 17.07.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	6097 A07
Viale Lidice 38/40/42		**Item**	014 A07
10095 GRUGLIASCO TO IT		**DDT / Delivery note**	2024-3E301-0001635 A10
		Packing List	2024-3E401-0001641 A11
		Fattura / Invoice	2024-3E401-0001641 A12
		Ns. rif. / Our ref.	2024-3E201-0001062-0003 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70167	1,00	W/N 150 RF 3" STD LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED IN ACC. TO ASME V SEE REPORT No: 043/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,250	1,030	0,008	0,011	0,090	0,110	0,020	0,018	0,190	0,002	0,001	0,010
PRODUCT ANALYSIS	0,190	0,197	1,010	0,009	0,011	0,130	0,071	0,011	0,020	0,200	0,002	0,001	0,010

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,027	0,394	0,352	0,412	0,110	--
PRODUCT ANALYSIS	0,026	0,405	0,358	0,414	0,141	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
29,98	25,00	1	20	337,0	--	521,0	29,8	69,6

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST						
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
154,0 ; 158,0	KV	10x10x55 mm	-46	58	53	49	53,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018	Vis. & Dim.	SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724001267 - 24.06.24 - Item n.: 14 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange WN For Jackscrews diam.3" Thk.5.49mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70167 - Qty:1,00 Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	043/2024	Date	02/07/2024	Customer	RACCORTUBI S.P.A.	Order no.	6097
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASME V	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	20°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	009	BL 150 RF 3"	23/70747	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected
	010	WN 150 RF 3" STD	23/70167	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	014	WN 150 RF 3" STD	23/70167	1	WHOLE ACCESSIBLE SURFACE	1	X		No indications detected

Operator Signature		Approved by	*Metalfar Prodotti Industriali S.p.A.* *Mr. Simone Frigerio* *Quality Control Manager* *NDE Level II ISO 9712* *e-mail: qcm@metalfaritaly.com*	Customer Inspector	

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 14 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange WN For Jackscrews diam.3" Thk.5.49mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70167 - Qty:1,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY
* Issued 26-07-2024

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 1"x3/4" SCH 40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: MR230609 - Qty:10,00

Order: 1724001267 - 24.06.24 - Item n.: 32 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002823

Protocol: CTCERC20240006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

CTCERT20240001912.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC002
(注文番号) 00000126 S dtd 11-05-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-16

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL CONCENTRIC REDUCER (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 / MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	1" x ¾" X 40S	33.40 X 26.67	3.38 X 2.87	MR230609	25	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230103AT04	1.2	38.4	89.1	35	1	1004	1630	204		Longitudinal	257	597	57		PASSED	-		81
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

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Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

NSF Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47131

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000128 S	E000005893	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
JO030-1	3" X 2"	SCH 10s	CON-REDUCER	43	WP316/316L-S	PASSED	11Y467
FTA051-01-103CR	3" X 2"	SCH 10s	CON-REDUCER	12	WP316/316L-S	PASSED	D151001
HTA077-01-103CR	3" X 2"	SCH 10s	CON-REDUCER	3	WP316/316L-S	PASSED	D180405
ITA087-01-103CR	3" X 2"	SCH 10s	CON-REDUCER	7	WP316/316L-S	PASSED	D190210

Specification / Heat No.	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
JO030-1	0.025	0.35	1.12	0.029	0.002	16.42	11.08	2.06	< 0.01		254	603	54	79	PASSED
FTA051-01-103CR	0.020	0.45	0.91	0.038	0.002	16.29	11.07	2.05	< 0.01		240	560	54	76	PASSED
HTA077-01-103CR	0.022	0.32	0.91	0.038	0.002	16.95	11.09	2.06	< 0.01		230	560	52	71	PASSED
ITA087-01-103CR	0.021	0.35	1.10	0.033	0.005	16.75	11.12	2.15	< 0.01		235	530	60	73	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
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Tel: +607-251 8888 Fax: +607-251 9999

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 33 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. CONC. 3"x2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: JO030-1 - Qty:8,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

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http:// www.pantech-group.com

Certified to NSF/ANSI 61 | LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0017465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX I, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-49115

Date : 1 Apr 2024

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000052 S	E000006270	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 23	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 23 / ASME SECTION II PART A-2023	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
INA002-01-103CR	2" X 1 1/2" SCH 40s CON-REDUCER	3	WP316/316L-S	PASSED	11W561
JO030-1	2" X 1 1/2" SCH 40s CON-REDUCER	17	WP316/316L-S	PASSED	11Y467
LN007-1	2" X 1 1/2" SCH 40s CON-REDUCER	80	WP316/316L-S	PASSED	NY220905AS01

Specification / Heat No.	Chemical Composition (%) C	Si	Mn	P	S	Cr	Ni	Mo	Pb	Tensile Test *1 YS (KSI / MPa)	TS	E (%)	Hardness (HRB)	Inter-granular corrosion test
Max														
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-	-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-	205	515	28	-	
INA002-01-103CR	0.017	0.36	1.19	0.034	0.002	16.44	11.14	2.14	< 0.01	245	545	52	71	PASSED
JO030-1	0.025	0.35	1.12	0.029	0.002	16.42	11.08	2.06	< 0.01	254	607	59	79	PASSED
LN007-1	0.015	0.39	0.91	0.037	0.001	16.35	10.16	2.09	< 0.01	262	565	67	70	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD. SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION. GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

GENERAL MARKING FORMAT : NSF8-61 PANTECH S.A. [PRODUCT TYPE FOR LR/SR ONLY] [SIZE]* [THICKNESS] A/SA403 [GRADE] HEAT NO. [HEAT NO] MALAYSIA

Pantech Stainless & Alloy Industries Sdn. Bhd.
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81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

Form :FQA-030b R.7; 30-01-2024

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 34 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: LN007-1 - Qty:4,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY

* Issued 26-07-2024

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

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NSF Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-38860

Date : 26 May 2022

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000103 S	E000004754	ASTM A403/A403M - 20 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 20 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
JO043-1	4" X 2" SCH 10s CON-REDUCER	100	WP316/316L-S	PASSED	19AL138

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	Inter-granular corrosion test
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
JO043-1	0.027	0.36	1.09	0.028	0.002	16.35	11.05	2.04	< 0.01		256	605	58	80	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-12a STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

Pantech Stainless & Alloy Industries Sdn. Bhd.
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Tel: +607-251 8888 Fax: +607-251 9999

QACC MANAGER HASSANUDDIN

Head of Quality Assurance Department

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 35 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. CONC. 4"x2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: J0043-1 - Qty:1,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY

* Issued 26-07-2024

CTCERT202400004042.1.0001

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

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NSF Certified to NSF/ANSI 61 — LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX I, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-49124

Date : 1 Apr 2024

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000052 S	E000006270	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 23	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 23 / ASME SECTION II PART A-2023	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN007-1	2" X 1 1/2"	SCH 40s	ECC-REDUCER	18	WP316/316L-S	PASSED	NY220905AS01
MN086-1	2" X 1 1/2"	SCH 40s	ECC-REDUCER	7	WP316/316L-S	PASSED	NY230413AS07

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
LN007-1	0.015	0.39	0.91	0.037	0.001	16.35	10.16	2.09	< 0.01		262	565	67	70	PASSED
MN086-1	0.021	0.40	0.88	0.030	0.001	16.20	10.01	2.07	< 0.01		323	638	62	76	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD. SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

GENERAL MARKING FORMAT : NSF-61 PANTECH S.A. [PRODUCT TYPE FOR LR/SR ONLY] [SIZE]" [THICKNESS] A-SA 403 [GRADE] HEAT NO. [HEAT NO.] MALAYSIA

Pantech Stainless & Alloy Industries Sdn. Bhd.
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QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

Form :FQA-030b R.7; 30-01-2024

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 38 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. ECC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: MN086-1 - Qty:1,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

MILL TEST CERTIFICATE

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MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO.: 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-48124

Date : 19 Feb 2024

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000329 S	E000006192	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 23	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 23 / ASME SECTION II PART A-2023	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
MN094-1	4" X 2"	SCH 10s	REDUCING TEE	25	WP316/316L-S	PASSED	NY230412AT09
MN094-1	4" X 3"	SCH 10s	REDUCING TEE	20	WP316/316L-S	PASSED	NY230412AT09
LN011-1	4" X 3"	SCH 40s	REDUCING TEE	32	WP316/316L-S	PASSED	NY220903AV08
HTA080-01-103RT	4" X 3"	SCH 40s	REDUCING TEE	18	WP316/316L-S	PASSED	D180805
MN041-1	6" X 3"	SCH 10s	REDUCING TEE	25	WP316/316L-S	PASSED	NY230412AV04
MN077-1	2 1/2" X 2"	SCH 10s	CON-REDUCER	25	WP316/316L-S	PASSED	230308BE10-01
MN040-1	3" X 2 1/2"	SCH 40s	CON-REDUCER	30	WP316/316L-S	PASSED	NY230412AT09
LN011-1	5" X 4"	SCH 40s	CON-REDUCER	10	WP316/316L-S	PASSED	NY220903AV08
MN075-1	6" X 4"	SCH 10s	CON-REDUCER	50	WP316/316L-S	PASSED	221220AE10-01
MO070-1	6" X 4"	SCH 40s	CON-REDUCER	25	WP316/316L-S	PASSED	N230129AW16

Specification / Heat No.	Chemical Composition (%)									Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb	YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max														
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-	-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-	205	515	28	-	
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01	246	588	58	71	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01	246	588	58	71	PASSED
LN011-1	0.015	0.34	0.88	0.033	0.001	16.52	10.01	2.06	< 0.01	246	573	60	76	PASSED
HTA080-01-103RT	0.018	0.37	0.89	0.039	0.004	16.85	11.08	2.07	< 0.01	235	565	54	72	PASSED
MN041-1	0.021	0.37	0.88	0.033	0.001	16.26	10.20	2.02	< 0.01	299	609	51	68	PASSED
MN077-1	0.013	0.29	1.06	0.035	0.001	16.44	10.04	2.03	< 0.01	280	556	55	64	PASSED
MN040-1	0.018	0.47	0.83	0.034	0.001	16.39	10.15	2.04	< 0.01	270	578	56	74	PASSED
LN011-1	0.015	0.34	0.88	0.033	0.001	16.52	10.01	2.08	< 0.01	235	559	63	63	PASSED
MN075-1	0.014	0.24	0.96	0.034	0.001	16.41	10.10	2.04	< 0.01	254	587	56	68	PASSED
MO070-1	0.018	0.35	0.85	0.032	0.001	16.25	10.01	2.01	< 0.01	255	595	57	79	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

GENERAL MARKING FORMAT : NSF#-61 PANTECH S.A. [PRODUCT TYPE FOR LR/SR ONLY] [SIZE]" [THICKNESS] A/SA403 [GRADE] HEAT NO. [HEAT NO.] MALAYSIA

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER MASSANUDDIN

Head of Quality Assurance Department

Form :FQA-030b R.7; 30-01-2024

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: TEE RID. 4"x2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: MN094-1 - Qty:6,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY

* Issued 26-07-2024

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: .

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-46697

Date : 30 Dec 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
806800 & 806740 & 806779 & 806820	E000006115	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

	Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
	MN048-1	4"	SCH 40s	TEE	30	WP316/316L-S	PASSED	221220BE15-02
	LN010-1	6"	SCH 10s	TEE	20	WP316/316L-S	PASSED	NY220903AS05
	MN078-1	10"	SCH 10s	TEE	30	WP316/316L-S	PASSED	221220BE13-01
	MN094-1	3" X 1 1/2"	SCH 10s	REDUCING TEE	20	WP316/316L-S	PASSED	NY230412AT09
	MN094-1	4" X 3"	SCH 10s	REDUCING TEE	30	WP316/316L-S	PASSED	NY230412AT09
X	MO070-1	6" X 3"	SCH 40s	REDUCING TEE	20	WP316/316L-S	PASSED	N230129AW16
	MN034-1	3" X 1"	SCH 10s	CON-REDUCER	10	WP316/316L-S	PASSED	NY220918AT17
	MN094-1	3" X 2"	SCH 10s	CON-REDUCER	100	WP316/316L-S	PASSED	NY230412AT09
	MN073-1	3" X 2"	SCH 40s	CON-REDUCER	50	WP316/316L-S	PASSED	221113AE04-02
	MN075-1	6" X 3"	SCH 10s	CON-REDUCER	30	WP316/316L-S	PASSED	221220AE10-01

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS	TS	E	(HRB)	
Max											(KSI / MPa)		(%)		
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
MN048-1	0.015	0.27	0.94	0.039	0.001	16.31	10.16	2.03	< 0.01		310	591	59	77	PASSED
LN010-1	0.017	0.44	0.89	0.031	0.001	16.60	10.01	2.06	< 0.01		237	550	64	68	PASSED
MN078-1	0.011	0.24	0.96	0.036	0.001	16.50	10.04	2.00	< 0.01		220	535	56	76	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		251	600	58	65	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		246	588	58	71	PASSED
MO070-1	0.018	0.35	0.85	0.032	0.001	16.25	10.01	2.01	< 0.01		255	595	57	79	PASSED
MN034-1	0.013	0.43	0.98	0.032	0.001	16.46	10.01	2.07	< 0.01		262	590	59	65	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		251	600	58	65	PASSED
MN073-1	0.012	0.28	0.99	0.036	0.001	16.18	10.03	2.01	< 0.01		228	560	60	67	PASSED
MN075-1	0.014	0.24	0.96	0.034	0.001	16.41	10.10	2.04	< 0.01		314	615	60	73	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD. SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION. GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

Head of Quality Assurance Department

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 42 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: TEE RID. 6"x3" SCH.40S/10S SEAMLESS

raccortubi Heat num. or Pcs. marking: M0070-1 - Qty:6,00

Protocol: CTCERC202400006868 * CERTIFIED TRUE COPY * Issued 26-07-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400601

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: 26/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 26/07/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00006977
Packing list	PLPLIS202400006940
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00006977

22/07/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002823

Ordine N. P.O. number: 1724001267 - 24.06.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
1	5	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM/ASME A/SA350 Gr.LF2 3/4''	RW9 CTCERT202400004932_1.0001.TIF
3	40	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L 3/4''	SI9 CTCERT202400004932_1.0001.TIF
26	35	Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A312 Gr.TP316/316L 3/4'' thk 2,87mm	SZ8 CTCERT202400004932_1.0001.TIF
41	6	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	E61718 CTCERT202400004935_1.0001.TIF

raccortubi

00006977

26/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	**U.M.**	**Q.ta'** *Q.ty*	**Tubi** *Tubes*	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI FORGIATI ASTM A-350 LF2	
1	NR	5	0.00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM/ASME A/SA350 Gr.LF2 3/4''	RW9
				RACCORDI FORGIATI ASTM A-182 F316/316L DIM. ANSI B16.11	
3	NR	40	0.00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L 3/4''	SI9
				NIPPLI DA TUBO ASTM A-312 TP.316/316L	
26	NR	35	0.00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A312 Gr.TP316/316L 3/4'' thk 2,87mm	SZ8
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
41	NR	6	0.00	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	E61718

raccortubi

00006977

26/07/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			RACCORDI FORGIATI ASTM A-182 F316/316L DIM. ANSI B16.11	
3		40 NR	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L 3/4"	SI9
			NIPPLI DA TUBO ASTM A-312 TP.316/316L	
26		35 NR	Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A312 Gr.TP316/316L 3/4" thk 2,87mm	SZ8
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
41		6 NR	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	E61718

ITALTEST NDT
CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT TEST REPORT

50 dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.198 / 2024

CLIENTE / Customer: RACCORTUBI S.p.A.	ORDINE / Order: 1724001267 - 24.06.24	COMMESSA / Job: 00002823

OGGETTO / Object: SEE PAGE 2

SPECIFICA GENERALE / General specification	PIANO DI CONTROLLO / Control Plan	FASE / Phase	CRITERIO D'ACCETTAZIONE / Acceptance Standards
ASME V ART.6			ASME VIII DIV.1 App.8

PROCEDURA / Procedure	MATERIALE / Material	DISEGNO / Drawing FIG. / Fig.	% CONTROLLATA / Extent %
	SEE PAGE 2		100%

CONDIZIONE SUPERFICE / Surface Conditions	SALDATO / As Welded	MOLATO / Ground	LAVORATO / Machined	FORGIATO / As Forged	FUSO / As Cast
				X	

STATO DEL MATERIALE / Material Status	PRIMA DEL T.T. / Before Heat Treatment	DOPO T.T. / After Heat Treatment	DOPO RIPARAZIONE / After Repair

DATI DELLA PROVA / Test Data

METODO DI PULIZIA / Precleaning Method: SOLVENT AND PAPER

TECNICA / Technique	CONTRASTO DI COLORE / Color Contrasting	FLUORESCENTE / Fluorescent
	X	
	ILLUMINAZIONE / White Light Intensity: 1200 lx	ILLUMINAZIONE / Black Light Intensity

METODO DI ISPEZIONE / Liquid Penetrant Inspection Method	MARCA / Brand	TIPO / Type	PENETRANTE / Penetrant		LOTTO / Batch	SCADENZA / Expiry
	N.D.T.	LAVABILE IN ACQUA / Water Washable X		SPRAY / Spray X	210115Ps	02/2025
				PENNELLO / Brush		
		POST EMULSIONABILE / Post Emulsifiable	RIVELATORE / Developer	SECCO / Dry		
		RIMOVIBILE CON SOLVENTE / Solvent Removable		UMIDO / Wet X	230206W150s	01/2027

TEMPO DI PENETRAZIONE / Dwell Time	METODO DI PULIZIA / Cleaning Method
20 MINUTE	WATER AND PAPER
TEMPO DI SVILUPPO / Developing Time: 10 MINUTE	METODO DI PULIZIA / Cleaning Method: WATER AND PAPER

RISULTATI DELLA PROVA / Test Results

SENZA DIFETTI / No Defects	DIFETTI ACCETTABILI / Accettable Defects	DIFETTI NON ACCETTABILI / Unaccepptable Defects
X		

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI / Description Of Defects, Size And Location

RISULTATI / Results	CONFORME ALLA SPECIFICA / According To Specification	NON CONFORME ALLA SPECIFICA / Not According To Specification	SCARTO / Scrap
	X		

NOTE / Notes

PROVA EFFETTUATA PRESSO / Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE / Technician	RAPPRESENTANTE DEL CLIENTE / Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO / 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA / Date: 24 / 07 / 2024	DATA / Date	DATA / Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI

SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

50 dal 1965

CERT. ISO 9001 LRC0100763/QMS

N° 4.198 / 2024

PAGINA Page 2 DI of 2 PAGINE Pages

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
41	6	RID. CONC. 1.1/2"x3/4" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403 WP.316/316L ANSI B16.9/B16.25	E61718
-	-	-	-	-
3	40	CAP FORGED THRD-F NPT 3000 3/4"	ASTM A182 GR. F316/F316L ASME B16.11	SI9
-	-	-	-	-
26	35	THRD-M NPT x PE 3/4" SEAMLESS	ASTM A-312 TP. 316/316L ASME B36.19M	SZ8
-	-	-	-	-

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA Date 24 / 07 / 2024	DATA Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO MAGNETOSCOPICO MAGNETIC PARTICLE TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 3.151 / 2024 PAGINA DI PAGINE Page 1 of 1 Pages

CLIENTE Customer	RACCORTUBI S.p.A.	ORDINE Order	1724001267 - 24.06.24	COMMESSA Job	00002823

OGGETTO
Object NR. 5 CAPS FORGED THRD-F NPT 3000 3/4"- ASME B16.11 – HEAT RW9 – ITEM 1

SPECIFICA GENERALE General specification	PROCEDURA Procedure	PIANO DI CONTROLLO Control Plan	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASME V ART.7 - 25			ASME VIII DIV.1 APP.6

MATERIALE Material	COLATA Heat	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
ASTM/ASME A/SA350 GR.LF2			100%

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI MAGNETIZZAZIONE Method Of Mmagnetizazion								
PUNTALI Prods		GIOGO Yoke		BANCO Bench				
CORRENTE Current		CORRENTE Current		BOBINA Coil	Magnetization Longitudinal	TESTE Heads	Magnetization Circular	
INTENSITÀ Intensity		DISTANZA Spacing		CORRENTE Current	HWDC	CORRENTE Current	HWDC	
DISTANZA Spacing		MARCA Brand		INTENSITÀ Intensity	500 A	INTENSITÀ Intensity	600 A	
MATERIALE Material		TIPO Type		MATERIALE Material	Cu	MATERIALE Material	Cu	

METODO DI ISPEZIONE Particle Application Method					
SECCO Dry		UMIDO Wet		FLUORESCENTE Fluorescent	X
COLORE POLVERE Powder Color		COLORE POLVERE PowderColor		COLORE Color	YELLOW
SEZIONE POLVERE Powder Size		FONDO BIANCO White Bottom		TIPO Type	FW1 – AC
FONDO BIANCO White Bottom		SOSPENSIONE Suspension In		SOSPENSIONE Suspension In	WATER
MARCA Brand		MARCA Brand		MARCA Brand	N.D.T.
ILLUMINAZIONE White Light Intensity		ILLUMINAZIONE White Light Intensity		ILLUMINAZIONE Black Light Intensity	> 1000 µW/cm²

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects	X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification	X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
LELIO ZEZI LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 24 / 07 / 2024	DATA Date	DATA Date

CTCERT202400004932.1.0001

Customer: ROSETTI MARINO S.p.A.

Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM/ASME A/SA350 Gr.LF2 3/4"

Order: 1724001267 - 24.06.24 - Item n.: 1 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

raccortubi Heat num. or Pcs. marking: RW9 - Qty:5,00

Protocol: CTCERC202400006977 * CERTIFIED TRUE COPY
* Issued 22-07-2024

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/002978

Certificate N°: 002978
Omsa Job: 2024/ODV/010393
Data/Date: 18/07/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	5	TAPPO FEMMINA 3000 3/4" NPT LF2 CL1	ASTM/ASME SA/A350LF2 CL1	RW9	23/79198	RIVA SPA	12551	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1800	1,0400	0,2000	0,0120	0,0080	0,0700	0,1400	0,0100	0,0150	0,0280	0,0020	0,1500	0,0010	0,0109	0,0000	0,0000	0,0000	0,0000	0,0060	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
632	356	43	56				160	162	59	68	64	-50	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11 -21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	40	TAPPO FEMMINA 3000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	SI9	291416	VALBRUNA SPA	MEST120265/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0150	1,5500	0,5500	0,0290	0,0270	10,1000	16,6100	2,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0590	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
620	325	54	69				184	180	188	190	185	-196	SOLUTION ANN AT 1040°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11 -21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	35	N.TUBO 40 3/4"x4"(100mm) PE/NPT TP316/L	ASTM/ASME S/A312 TP316L	SZ8	563045	ALLEIMA	C-7087/20	Repubblica Ceca

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0130	1,7100	0,3800	0,0340	0,0080	11,0900	16,6400	2,0200	0,0000	0,0000	0,0000	0,0000	0,0000	0,0730	0,0000	0,0980	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618,60	286.20	58,30			999,90	7	175	169					Solution annealed at 1060°

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

raccortubi
Heat num. or Pcs. marking: SI9 - Qty:40,00
Customer:
Description:
Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L 3/4"
ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 3 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000028 23
Protocol: CTCERC2024000006977 * CERTIFIED TRUE COPY
* Issued 22-07-2024
CTCERT2024000049 32.1.0001

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/002978

Certificate N°: 002978
Omsa Job: 2024/ODV/010393
Data/Date: 18/07/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	5	TAPPO FEMMINA 3000 3/4" NPT LF2 CL1	ASTM/ASME SA/A350LF2 CL1	RW9	23/79198	RIVA SPA	12551	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1800	1,0400	0,2000	0,0120	0,0080	0,0700	0,1400	0,0100	0,0150	0,0280	0,0020	0,1500	0,0010	0,0109	0,0000	0,0000	0,0000	0,0000	0,0060	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
632	356	43	56				160	162	59	68	64	-50	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11 -21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	40	TAPPO FEMMINA 3000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	SI9	291416	VALBRUNA SPA	MEST120265/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0150	1,5500	0,5500	0,0290	0,0270	10,1000	16,6100	2,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0590	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
620	325	54	69				184	180	188	190	185	-196	SOLUTION ANN AT 1040°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11 -21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	35	N.TUBO 40 3/4"x4"(100mm) PE/NPT TP316/L	ASTM/ASME S/A312 TP316L	SZ8	563045	ALLEIMA	C-7087/20	Repubblica Ceca

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0130	1,7100	0,3800	0,0340	0,0080	11,0900	16,6400	2,0200	0,0000	0,0000	0,0000	0,0000	0,0000	0,0730	0,0000	0,0980	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618,60	286,20	58,30			999,90	7	175	169					Solution annealed at 1060°

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

Customer: ROSETTI MARINO S.p.A.
Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A312 Gr.TP316/316L 3/4" thk 2,87mm
Order: 1724001267 - 24.06.24 - Item n.: 26 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
raccortubi Heat num. or Pcs. marking: SZ8 - Qty:35,00
Protocol: CTCERC202400006977 * CERTIFIED TRUE COPY * Issued 22-07-2024
CTCERT202400004932.1.0001

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/002978

Certificate N°: 002978
Omsa Job: 2024/ODV/010393
Data/Date: 18/07/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	5	TAPPO FEMMINA 3000 3/4" NPT LF2 CL1	ASTM/ASME SA/A350LF2 CL1	RW9	23/79198	RIVA SPA	12551	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1800	1,0400	0,2000	0,0120	0,0080	0,0700	0,1400	0,0100	0,0150	0,0280	0,0020	0,1500	0,0010	0,0109	0,0000	0,0000	0,0000	0,0000	0,0060	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
632	356	43	56				160	162	59	68	64	-50	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11 -21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	40	TAPPO FEMMINA 3000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	SI9	291416	VALBRUNA SPA	MEST120265/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0150	1,5500	0,5500	0,0290	0,0270	10,1000	16,6100	2,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0590	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
620	325	54	69				184	180	188	190	185	-196	SOLUTION ANN AT 1040°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

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Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	35	N.TUBO 40 3/4"x4"(100mm) PE/NPT TP316/L	ASTM/ASME S/A312 TP316L	SZ8	563045	ALLEIMA	C-7087/20	Repubblica Ceca

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0130	1,7100	0,3800	0,0340	0,0080	11,0900	16,6400	2,0200	0,0000	0,0000	0,0000	0,0000	0,0000	0,0730	0,0000	0,0980	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618,60	286,20	58,30			999,90	7	175	169					Solution annealed at 1060°

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
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We declare that the certified material complies with the above standards and to the client's order requirements.

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ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Heat num. or Pcs. marking: E61718 - Qty:6,00

Order: 1724001267 - 24.06.24 - Item n.: 41 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Protocol: CTCERC20240000697 * CERTIFIED TRUE COPY * Issued 22-07-2024

MILL TEST CERTIFICATE

ZHEJIANG JNDIA PIPELINE INDUSTRY CO., LTD.
No.366,Avenue 6,Binhai, Jinhai Industrial Park, Economy& Technology Developing Zone, Wenzhou, 325025, Zhejiang Province, China.
Tel: +86-577-85826161 Fax: +86-577-85826565
Email: Sales@jndia.com.cn

According to
EN 10204 3.1

MTC NO.	JNDIA2023-GW517-08
Date of issue	21/Jul/23
Material Specification	ASTM A403-22
Material	WP316/316L
Dimensional Specification	ASME B16.9-2018
Melting Process	Electric Furnace

Order No.:803
ISO 9001:2015: 50095-2009-AQ-RGC-RvA
PED 2014/68/EU Cer: 07/202/9030/WZ/2456/20
AD 2000-Merkblatt W0 Cert. No.: 07/202/9030/WP/2456/20

Chemical Analysis

Item No.	Item Description	Heat No.	Qty(PCS)	%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Cu	%N	%Mo	
				≤0.030	≤1.00	≤2.00	≤0.045	≤0.030	16.0-18.0	10.0-14.0			2.0-3.0	
55	TEE RID 11/2"X3/4" SCH.10S	E61718	10	0.021	0.47	1.08	0.031	0.002	16.57	10.26			2.07	
56	TEE RID 11/2"X3/4" SCH.40S	E61718	20	0.021	0.47	1.08	0.031	0.002	16.57	10.26			2.07	
13	CURVE 90 SR 8" SCH.40S	E61770	25	0.019	0.55	0.75	0.031	0.001	16.56	10.15			2.11	
19	RID CONC 6"X21/2" SCH.40	E61770	10	0.019	0.55	0.75	0.031	0.001	16.56	10.15			2.11	
24	RID ECC 6"X3" SCH.40S	E61770	20	0.019	0.55	0.75	0.031	0.001	16.56	10.15			2.11	
25	RID ECC 8"X6" SCH.40S	E61770	10	0.019	0.55	0.75	0.031	0.001	16.56	10.15			2.11	
			95											

Mechanical Properties

Item No.	Item Description	Sample Specification	Lab Temperature	Tensile MPa	Yield (MPa) Rp 0.2	Elong %	Red.Area %	Hardness HRC	Corrosion Test ASTM A262 Practice E	PMI Test	RT Test	HT Test	Visual & Dimension
		12.5*50	20℃	≥515	≥205	≥28	-	≤22	-	-	-	-	-
55	TEE RID 11/2"X3/4" SCH.10S	-	-	620	301	54	-	<20/<20/<20	ACC	ACC	-	-	ACC
56	TEE RID 11/2"X3/4" SCH.40S	-	-	620	301	54	-	<20/<20/<20	ACC	ACC	-	-	ACC
13	CURVE 90 SR 8" SCH.40S	-	-	610	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
19	RID CONC 6"X21/2" SCH.40	-	-	610	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
24	RID ECC 6"X3" SCH.40S	-	-	610	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
25	RID ECC 8"X6" SCH.40S	-	-	610	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC

HEAT TREATMENT: SOLUTION TREATED AT 1050℃, WATER QUENCHED
WE CERTIFY THIS MATERIAL HAS BEEN MANUFACTURED AND EXAMINED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE SPECIFICATION(S) AND THE RESULTS OF ALL EXAMINATIONS ARE ACCEPTABLE
NACE MR0175/ISO 15156-1 2020.IGC-262 E.

CHIEF INSPECTOR:

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400602

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani 24/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi

00007059

24/07/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
1610	80	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=85mm	103540 CTCERT202400005000_1.0001.TIF CTCERT202400005000_1.0002.TIF
1620	180	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=95mm	103540 CTCERT202400005001_1.0001.TIF CTCERT202400005001_1.0002.TIF
1630	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100mm	103540 CTCERT202400005002_1.0001.TIF CTCERT202400005002_1.0002.TIF
1650	180	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=70mm	111462 CTCERT202400005003_1.0001.TIF CTCERT202400005003_1.0002.TIF
1660	40	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80mm	091205 CTCERT202400005004_1.0001.TIF CTCERT202400005004_1.0002.TIF
1670	750	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm	111462 CTCERT202400005005_1.0001.TIF CTCERT202400005005_1.0002.TIF
1680	550	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=115mm	246827 CTCERT202400005006_1.0001.TIF CTCERT202400005006_1.0002.TIF
1690	250	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=125mm	246827 CTCERT202400005007_1.0001.TIF CTCERT202400005007_1.0002.TIF
1700	600	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=80mm	103540 CTCERT202400005008_1.0001.TIF CTCERT202400005008_1.0002.TIF

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ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
1710	30	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=105mm	246827 CTCERT202400005009_1.0001.TIF CTCERT202400005009_1.0002.TIF
1720	280	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm	103540 CTCERT202400005010_1.0001.TIF CTCERT202400005010_1.0002.TIF
1730	20	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105mm	103540 CTCERT202400005011_1.0001.TIF CTCERT202400005011_1.0002.TIF
1740	140	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=75mm	125796 CTCERT202400005012_1.0001.TIF CTCERT202400005012_1.0002.TIF
1750	30	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60mm	091205 CTCERT202400005013_1.0001.TIF CTCERT202400005013_1.0002.TIF
1760	60	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=130mm	297755 CTCERT202400005014_1.0001.TIF CTCERT202400005014_1.0002.TIF
1770	40	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=135mm	78606 CTCERT202400005015_1.0001.TIF CTCERT202400005015_1.0002.TIF
1790	80	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=95mm	128623 CTCERT202400005016_1.0001.TIF CTCERT202400005016_1.0002.TIF
1800	60	Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm	111462 CTCERT202400005017_1.0001.TIF CTCERT202400005017_1.0002.TIF CTCERT202400005017_1.0003.TIF

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00007059

24/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TIRANTI FILETTATI CON 2 DADI:	
1610	NR	80	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=85mm	103540
1620	NR	180	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=95mm	103540
1630	NR	20	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100mm	103540
1650	NR	180	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=70mm	111462
1660	NR	40	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80mm	091205
1670	NR	750	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm	111462
1680	NR	550	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=115mm	246827
1690	NR	250	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=125mm	246827

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24/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

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Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1700	NR	600	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=80mm	103540
1710	NR	30	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=105mm	246827
1720	NR	280	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm	103540
1730	NR	20	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105mm	103540
1740	NR	140	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=75mm	125796
1750	NR	30	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60mm	091205
1760	NR	60	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=130mm	297755
1770	NR	40	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=135mm	78606

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24/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1790	NR	80	0.00	Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-'' L=95mm	128623
1800	NR	60	0.00	Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-'' L=65mm	111462

PRESSBOLT

Pressbolt s.r.l. con unico socio
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Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	1	Item	10
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0085 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	80	P1679686	0001225773

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1001	796	23.6	60.3

	Elongation % 4D
Required	Min 14
Actual	20.8

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	301;300;299	62;60;63

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 1/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1610 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=85mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:80,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

Pressbolt s.r.l. con unico socio
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email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	1	Item	20
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	160	P1653697	0001225774

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47
Required	Hardness test after Termical Tr		
Actual	Min. 179 258;258;258		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 2/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1610 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=85mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:80,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	2	Item	30
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0095 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	180	P1679689	0001225775

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.77	0.219	0.012	0.0252	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1003	797	23.5	60.3

	Hardness "HB"	Impact Test +20 C "J"
Required	max 321	min med 27 J
Actual	301;301;301	59;67;62

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 000003167558 Rev. 000 of 22 July 2024 - Page 21/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1620 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=95mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:180,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	2	Item	40
Job		Shipping ref.	3411829 of 22 July 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H
PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	360	P1653697	0001225776

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47
Required	Hardness test after Termical Tr		
Actual	Min. 179 258;258;258		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

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QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 22/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1620 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=95mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:180,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

PRESSBOLT

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	3	Item	50
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0100 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	20	P1679690	0001225777

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1001	796	23.6	60.3

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	301;300;299	69;62;65

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 26/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1630 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:20,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	3	Item	60
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	40	P1653697	0001225778

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47
Required	Hardness test after Termical Tr		
Actual	Min. 179 258;258;258		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 27/37

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	5	Item	90
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0070 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	180	P1679682	0001225779

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N.0000003167558 Rev. 000 of 22 July 2024 - Page 28/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1650 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=70mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:180,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	5	Item	100
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	360	P1610274	0001225780

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.45	0.70	0.23	0.012	0.022	

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	295;301;296	258;292;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

Davide Feggi
Laboratory manager

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	6	Item	110
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0080 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
091205	40	P1679683	0001225781

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.410	0.762	0.222	0.011	0.026	1.054	0.177	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1060.6	849.9	20.9	56.8

	Elongation % 4D
Required	Min 14
Actual	18.4

	Hardness "HB"
Required	max 321
Actual	319;320;317

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 30/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1660 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80mm

raccortubi Heat num. or Pcs. marking: 091205 - Qty:40,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	6	Item	120
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	80	P1610274	0001225782

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	295;301;296	258;292;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 31/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1660 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80mm

raccortubi Heat num. or Pcs. marking: 091205 - Qty:40,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	7	Item	130
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0065 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	750	P1679681	0001225783

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 32/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1670 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:750,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	7	Item	140
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	1500	P1610274	0001225784

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	295;301;296	258;292;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.p.A.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 33/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1670 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:750,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	8	Item	150
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0115 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
246827	550	P1679695	0001225785

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.430	0.830	0.240	0.017	0.010	0.970	0.210	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	978	780	22.9	60.5

	Elongation % 4D
Required	Min 14
Actual	20.2

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	292;291;289	61;55;59

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 34/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1680 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=115mm

raccortubi Heat num. or Pcs. marking: 246827 - Qty:550,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	8	Item	160
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	1100	P1641375	0001225786

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42

	Hardness test after Termical Tr
Required	Min. 179
Actual	243;258;241

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 35/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1680 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=115mm

raccortubi Heat num. or Pcs. marking: 246827 - Qty:550,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

PRESSBOLT

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	9	Item	170
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0125 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
246827	250	P1679696	0001225787

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.430	0.830	0.240	0.017	0.010	0.970	0.210	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	978	780	22.9	60.5

	Elongation % 4D
Required	Min 14
Actual	20.2

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	292;291;289	58;58;68

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 36/37

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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	9	Item	180
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	500	P1641375	0001225788

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42

	Hardness test after Termical Tr
Required	Min. 179
Actual	243;258;241

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 37/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1690 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4" L=125mm

raccortubi Heat num. or Pcs. marking: 246827 - Qty:250,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	10	Item	190
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0080 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	600	P1679684	0001225789

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.77	0.219	0.012	0.0252	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1003	797	23.5	60.3

	Hardness "HB"	Impact Test +20 C "J"
Required	max 321	min med 27 J
Actual	301;301;301	67;56;66

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 3/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1700 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=80mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:600,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	10	Item	200
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	1200	P1653697	0001225790

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.440	0.638	0.205	0.013	0.024	

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47

	Hardness test after Termical Tr
Required	Min. 179
Actual	258;258;258

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 4/37

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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	11	Item	210
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0105 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
246827	30	P1679693	0001225791

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.430	0.830	0.240	0.017	0.010	0.970	0.210	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	978	780	22.9	60.5

	Elongation % 4D
Required	Min 14
Actual	20.2

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	292;291;289	69;54;54

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 5/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1710 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=105mm

raccortubi Heat num. or Pcs. marking: 246827 - Qty:30,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	11	Item	220
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	60	P1641375	0001225792

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42
Required	Hardness test after Termical Tr		
Actual	Min. 179 243;258;241		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 6/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1710 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=105mm

raccortubi Heat num. or Pcs. marking: 246827 - Qty:30,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	12	Item	230
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0090 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	280	P1679759	0001225793

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1001	796	23.6	60.3

	Elongation % 4D
Required	Min 14
Actual	20.8

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	301;300;299	54;62;53

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 7/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1720 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:280,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	12	Item	240
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	560	P1653697	0001225794

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47
Required	Hardness test after Termical Tr		
Actual	Min. 179 258;258;258		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 8/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1720 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=90mm

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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	13	Item	250
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0105 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	20	P1679691	0001225795

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1001	796	23.6	60.3

	Elongation % 4D
Required	Min 14
Actual	20.8

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	301;300;299	65;66;62

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 9/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1730 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:20,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	13	Item	260
Job		Shipping ref.	3411829 of 22 July 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H
PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	40	P1653697	0001225796

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47
Required	Hardness test after Termical Tr		
	Min. 179		
Actual	258;258;258		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 10/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1730 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105mm

raccortubi Heat num. or Pcs. marking: 103540 - Qty:20,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	14	Item	270
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0075 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
125796	140	P1631450	0001225797

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.400	0.870	0.260	0.014	0.003	1.020	0.210	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	977.9	786.2	19.6	53.2

	Elongation % 4D
Required	Min 14
Actual	17.2

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	293;288;299	62;65;65

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 11/37

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	14	Item	280
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
P0JS1900A17658	280	P1653697	0001225798

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.638	0.205	0.013	0.024

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	313;318;302	50;49;47

	Hardness test after Termical Tr
Required	Min. 179
Actual	258;258;258

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 12/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1740 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=75mm

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	15	Item	290
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0060 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
091205	30	P1679680	0001225799

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.410	0.762	0.222	0.011	0.026	1.054	0.177	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1060.6	849.9	20.9	56.8

	Hardness "HB"
Required	max 321
Actual	319;320;317

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 13/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1750 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60mm

raccortubi Heat num. or Pcs. marking: 091205 - Qty:30,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	15	Item	300
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	60	P1610274	0001225800

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	295;301;296	258;292;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 14/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1750 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60mm

raccortubi Heat num. or Pcs. marking: 091205 - Qty:30,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
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Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	16	Item	310
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0130 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
297755	60	P1679697	0001225801

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.409	0.824	0.283	0.009	0.003	1.022	0.205	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	990	795	21.4	56.2

	Hardness "HB"	Impact Test +20 C "J"
Required	max 321	min med 27 J
Actual	295;295;295	57;68;56

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1760 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=130mm

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	16	Item	320
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	120	P1641375	0001225802

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42
Required	Hardness test after Termical Tr		
Actual	Min. 179 243;258;241		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 16/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1760 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=130mm

raccortubi Heat num. or Pcs. marking: 297755 - Qty:60,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	17	Item	330
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 7/8"-9 UNCX0135 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
78606	40	P1679700	0001225803

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.43	0.76	0.27	0.018	0.028	0.99	0.2	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	947	845	18.2	59

	Elongation % 4D
Required	Min 14
Actual	16

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	292;292;292	65;68;67

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 17/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1770 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=135mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:40,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	17	Item	340
Job		Shipping ref.	3411829 of 22 July 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H
PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 7/8"-9 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
22982	80	P1578935	0001225804

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.450	0.720	0.230	0.012	0.025

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	285;292;306	301;299;304

	Impact Test +20 C "J"
Required	Min med 27J
Actual	43;48;46

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 18/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1770 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 7/8-" L=135mm

raccortubi Heat num. or Pcs. marking: 78606 - Qty:40,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	19	Item	370
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 3/4"-10 UNCX0095 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
128623	80	P1679692	0001225805

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.410	0.870	0.200	0.013	0.003	1.060	0.210	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1036.5	848.5	20	58.3

	Elongation % 4D
Required	Min 14
Actual	17.6

	Hardness "HB"	Impact Test T Room "J"
Required	max 321	min med 27 J
Actual	312;310;315	66;69;63

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.p.A.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 19/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1790 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=95mm

raccortubi Heat num. or Pcs. marking: 128623 - Qty:80,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	19	Item	380
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 3/4"-10 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
559914	160	P1641375	0001225806

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.440	0.730	0.190	0.011	0.005

	Proof Load	Hardness "HB"	Impact Test +20 C "J"
Required	Positive	max 327	Min med 27J
Actual	Positive	304;291;284	47;47;42
Required	Hardness test after Termical Tr		
Actual	Min. 179 243;258;241		

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 000003167558 Rev. 000 of 22 July 2024 - Page 20/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1790 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 3/4-" L=95mm

raccortubi Heat num. or Pcs. marking: 128623 - Qty:80,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

PRESSBOLT

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	20	Item	390
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

PED 2014/68/EU A% according to 5.65 SQR (Speciment Area)

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0065 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	60	P1679681	0001225807

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	Min 14	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 23/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1800 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:60,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	20	Item	400
Job		Shipping ref.	3411829 of 22 July 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

PED 2014/68/EU

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	120	P1610274	0001225808

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	HB after H.T. 24h
Required	Positive	max 327	Min. 179
Actual	Positive	295;301;296	258;292;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

Manufacturer has a quality-assurance system with specific assessment for materials 2014/68/EU-Annex I-Sect.4.3 certified by TUV Rheinland for materials according to the directive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 24/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1800 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:60,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3167558	0	22 July 2024

Client Reference Order		Reference Order	
Number	00005827 of 09 May 2024	Number	3402943
Reference			
Item	20	Item	410
Job		Shipping ref.	3411829 of 22 July 2024

Standard	
UNI 6602-02 / ISO 7089-00 - HV100	
Item Description	Heat Treatment
WASHER EN ISO 7089 100HV 12 HOT DIP GALVANIZED ASTM A153 / F2329	

Heat	Quantity	Lot	Job PB
21/74033	120	P1577912	0001225809

Chemical Analysis "%"

	C	Mn	P	S
Required	max 0.58 %	min 0.25 %	max 0.06 %	max 0.15 %
Actual	0.390	0.840	0.016	0.013

	Hardness "HB"
Required	100 - 200 HV
Actual	189;199;129

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Visual and dimensional Test	Positive

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003167558 Rev. 000 of 22 July 2024 - Page 25/37

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1800 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=65mm

raccortubi Heat num. or Pcs. marking: 111462 - Qty:60,00

Protocol: CTCERC202400007059 * CERTIFIED TRUE COPY
* Issued 24-07-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400606

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani **24/07/2024**

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 22/07/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00006963
Packing list	PLPLIS202400006865
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00006963

22/07/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002207

Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
13	5	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 4''	5876 CTCERT202400004927_1.0001.TIF CTCERT202400004927_1.0002.TIF CTCERT202400004927_1.0003.TIF
14	5	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 8''	5876 CTCERT202400004927_1.0001.TIF CTCERT202400004927_1.0002.TIF CTCERT202400004927_1.0003.TIF
15	5	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 10''	5876 CTCERT202400004927_1.0001.TIF CTCERT202400004927_1.0002.TIF CTCERT202400004927_1.0003.TIF
16	5	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 12''	5876 CTCERT202400004927_1.0001.TIF CTCERT202400004927_1.0002.TIF CTCERT202400004927_1.0003.TIF

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323007
Invoice/ddt No: 3007
Invoice/ddt date: 18/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005876**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 4" 150 Code :	5,000
SWG 316L/FG/316L/CS 8" 150 Code :	5,000
SWG 316L/FG/316L/CS 10" 150 Code :	5,000
SWG 316L/FG/316L/CS 12" 150 Code :	5,000

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 13 - Our ref.: OCVEIT202400002207

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 4"

raccortubi Heat num. or Pcs. marking: 5876 - Qty:5,00

Protocol: CTCERC202400006963 * CERTIFIED TRUE COPY
* Issued 22-07-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323007
Invoice/ddt No: 3007
Invoice/ddt date: 18/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005876**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 14 - Our ref.: OCVEIT202400002207

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 8"

raccortubi Heat num. or Pcs. marking: 5876 - Qty:5,00

Protocol: CTCERC202400006963 * CERTIFIED TRUE COPY
* Issued 22-07-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 4" 150 Code :	5,000
SWG 316L/FG/316L/CS 8" 150 Code :	5,000
SWG 316L/FG/316L/CS 10" 150 Code :	5,000
SWG 316L/FG/316L/CS 12" 150 Code :	5,000

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323007
Invoice/ddt No: 3007
Invoice/ddt date: 18/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005876**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 15 - Our ref.: OCVEIT202400002207

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 10"

raccortubi Heat num. or Pcs. marking: 5876 - Qty:5,00

Protocol: CTCERC202400006963 * CERTIFIED TRUE COPY
* Issued 22-07-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 4" 150 Code :	5,000
SWG 316L/FG/316L/CS 8" 150 Code :	5,000
SWG 316L/FG/316L/CS 10" 150 Code :	5,000
SWG 316L/FG/316L/CS 12" 150 Code :	5,000

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466323007
Invoice/ddt No: 3007
Invoice/ddt date: 18/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005876**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 16 - Our ref.: OCVEIT202400002207

Description: Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 12"

raccortubi Heat num. or Pcs. marking: 5876 - Qty:5,00

Protocol: CTCERC202400006963 * CERTIFIED TRUE COPY
* Issued 22-07-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 4" 150 Code :	5,000
SWG 316L/FG/316L/CS 8" 150 Code :	5,000
SWG 316L/FG/316L/CS 10" 150 Code :	5,000
SWG 316L/FG/316L/CS 12" 150 Code :	5,000

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5959300
P.IVA 04186010271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400542

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: 11/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi

00006315

10/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaals d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1260	NR	4	0,00	Flange WN For Jackscrews diam.1" Thk.4,55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335

CTCERT202400004630.1.0001

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 656441 - FAX +39 031 656149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01566 Data / Dated 25.06.2024 Z02

RACCORTUBI S.P.A. Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	A06	Ordine / PO 5826 Rev.1 A07 Item 011 A07 DDT / Delivery note 2024-3E301-0001536 A10 Packing List 2024-3E401-0001537 A11 Fattura / Invoice 2024-3E401-0001537 A12 Ns. rif. / Our ref. 2024-3E201-0000800-0012 A08
Dest. RACCORTUBI SPA VIA F.LLI KENNEDY, 59 20010 MARCALLO CON CASONE MI IT	A00	

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	23/70335	4,00	WN 150 RF 1" 160 WI/2 JACK SCREWS LF2CL.1 AS PER ATT. DRAWING

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED IN ACC. TO ASTM A508/A275

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,230	1,000	0,009	0,012	0,140	0,110	0,020	0,019	0,200	0,002	0,002	0,010
PRODUCT ANALYSIS	0,182	0,235	1,002	0,010	0,009	0,144	0,106	0,018	0,020	0,196	0,003	0,002	0,011
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,400	0,347	0,472	0,160	--
PRODUCT ANALYSIS	0,025								0,402	0,349	0,467	0,162	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen		Forma C10 Shape	°C C03	Snervamento>0,2% C11 Yield Strength>0,2%	Snervamento>1,0% C11 Yield Strength>1,0%	Rottura C12 Tensile	Allungamento C13 Elongation	Contrazione C14 Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	350,0	--	545,0	30,3	65,4

DUREZZA / HARDNESS C30 HBW C31	RESILIENZA / IMPACT TEST Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 163,0	KV	10x10x55 mm	-46	52	35	72	53,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to		D01		Origine B18 Origin of Steel	
	ANSI/MSS SP-25-2018	Vis. & Dim.	SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1260 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN For Jackscrews diam.1" Thk.4,55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pos. marking: 23/70335 - Qty:4,00

Protocol: CTCERC202400006315 * CERTIFIED TRUE COPY
* Issued 10-07-2024

CTCERT202400003459.2.0001

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Sliver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compliant - NC = Non Compliant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1/2" Thk.3.73mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfor Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail qcm@metalforlabs.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1/2" Thk.3.73mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400543

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: 11/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi

00006462

10/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
820	NR	6	0,00	BLIND 3/4" S.150 RF	290706

raccortubi

00006462

10/07/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			FLANGE SEC. ASTM A-182 F53 UNS S32750 DIMS SEC. ANSI B16.5	
820	6	NR	BLIND 3/4" S.150 RF	290706

CTCERT202400004617.1.0001

officine ambrogio melesi

23813 Cortenova (Lecco)
ITALY
Largo De Vecchi 11
P.o. box 11
Tel. 0341.98341
Fax 0341.983486 - 983497

FLANGE E FORGIATI

CERTIFICATO DI COLLAUDO
INSPECTION CERTIFICATE
CERTIFICAT D'ESSAIS

N.	DATA / *DATE*	SHEET /
193228	02/07/24	1/1

EN 10204/3.1

ORDINE / *ORDER / C.DE*: 00005848

DATA / *DATE*	COMMESSA
14/05/24	76668

RACCORTUBI S.P.A.
VIA S.PIETRO ALL'ORTO, 9
20121 MILANO MI

N. RIF.	ITEM	N / *QUANTITY*	DESCRIZIONE / *DESCRIPTION / DÉSIGNATION*	NOTE
SJ541	1-820	6	A182F53 3/4" BL 150 RF	125-250AARH A2532

N.	MATERIALE / *MATERIAL / MATÉRIEL*	HEAT / *COULÉE*	ACCIAIERIA / *STEEL PLANT / ACIÉRIE*	ORIGIN. CERT. / *CERT. D'ORIGIN*
SJ541	ASTM A182 F53	290706	ACCIAIERIE VALBRUNA	MEST035775

N. RIF. — ANALISI CHIMICA / *CHEMICAL ANALYSIS / COMPOSITION CHIMIQUE*

	C	Mn	Si	P	S	Cr	Ni	Mo	N	Cu				PRE
Min						24,000	6,000	3,000	0,240					40,000
Max	0,030	1,200	0,800	0,035	0,020	26,000	8,000	5,000	0,320	0,500				48,000
SJ541Ladle	0,020	0,730	0,460	0,025	0,001	25,740	6,100	3,560	0,280	0,280				41,968
SJ541Check	0,020	0,739	0,466	0,025	0,001	25,780	6,140	3,600	0,280	0,284				42,140

N. RIF. — PROVE MECCANICHE / *MECHANICAL TESTS / ESSAIS MECANIQUES*

	ø mm.	SO mm.2	LU mm.	RS.-YIELD *LIMITE* MPA	R.-TENSILE *RUPTURE* MPA	A. %-ELONG. *ALLONGEM.*	C. %-REDUCT. *STRICTION*	RESILIENZA / *IMPACT TEST / RESILIENCE* MEDIO / *AVERAGE MOYEN* Joule		MINIMO *MINIMUM* Joule		TIPO *TYPE*	TEMP. °C	*HARDNESS / DURETÉ* H R C
				550,00	750,00	25,00		45		35				Max 32
A2532TRAN	12,50	122,65	50,00	582,00	837,00	42,98	66,73	162	169	176		KV	- 50	22/23
LONG	12,50	122,65	50,00					165	172	184		KV	- 50	

N. RIF. — TRATTAMENTI TERMICI / *HEAT TREATMENTS / TRAITEMENTS THERMIQUES*

SJ541 — Solubilizzazione/Solution annealed at 1120° C for min 1/2 h/inch quenched water

EN 10204/3.1
Products supplied are in conformance with the requirements of the order
Surface and dimensional check according to ASME B16.5 2020.
Steel made by electric furnace.
Mechanical tests according to ASTM A370
Test specimen orientation: transversal and longitudinal.
Impact test specimen size 10 x 10 x 55 mm
Corrosion test acc. to ASTM G48 method "A" at 50°C / 24 hours, no weight loss,no pitiing at 20x
Ferrite determined using ferritoscope fisher MP30 on all pieces, results: 35-60% on total body.
water temperature before quenching<40°C water temperature after quenching<50°C
P.M.I. test performed on 100% of pieces with satisfactory results.
Material acc. to QTR 04 R7; Norsok M630 2020, MDS D54 Rev.6; MDS DH54 Rev.1 as applicable
Material acc. to IOGP S-563:2021, MDS ID254/ID254S Rev.02 as applicable
The works operate a quality management system acc. to annex I, section 4.3 of the pressure equipment directive (PED) 2014/68/EU certificate by TUV certificate nr 58/2002/MUC.

ESITO DELLE PROVE / *TEST ISSUE / RESULTS DES ESSAIS:* FAVOREVOLE SATISFACTORY SATISFAISANT

TRADE MARK	P. OFF. A. MELESI & C.	COLLAUDATORE / *INSPECTOR / INSPECTEUR*	ENTE COLLAUDATORE / *INSPECTION AGENCY AUTHORITÉE DE RECETTE*
	Electronically Generated Certificate	Monica Vanini	

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 820 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3/4" S.150 RF

raccortubi Heat num. or Pos. marking: 290706 - Qty:6,00

Protocol: CTCERC202400006462 * CERTIFIED TRUE COPY
* Issued 10-07-2024

CTCERT202400004617.1.0002

officine ambrogio melesi

23813 Cortenova (Lecco)
ITALY
Largo De Vecchi, 11
P.o. box 11
Tel 0341 98.341 rie.aut.
Fax 0341 90.15.06 - 90.14.88
FLANGE E FORGIATI

CERTIFICATO CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT TEST

Nr.	Data / Date	Pag / Sheet	Commessa / Job
25575	02/07/24	1 / 1	76668
Ordine / Order		Cliente / Customer	
00005848		1031 RACCORTUBI S.P.A.	

Specifica / Specification
ASME BPVC, Section V, Article 5

Criteri di accettazione / Acceptance criteria
ASME VIII Div.1, Appendix 8

Procedura / Procedure
PT 01 - Rev. 1 Ed. 2

Stadio di controllo / Inspection phase
After final h.t. machined before drilling

Pos Item	Q.tà Quantity	Descrizione Description	Colata Heat	Cond. Superficiali Surface status
1-820	6	A182F53 3/4" BL 150 RF 125-250AARH	290706	FINITO/FINISHED

TECNICA D'ESAME / EXAMINATION TECHNIQUE

- [ ] Fluorescente / Fluorescent
- [X] Contrasto colore / Color constract
- [ ]
- [X] Lavabile con acqua / Water washable
- [ ] Rimovibile con solvente / Solvent removable
- [ ]

FASI / STEPS	PRODOTTI / PRODUCTS - TIPO / TYPE FABBRICANTE / MANUFACTURER	LOTTO N. / BATCH NR.
Pulizia / Cleaning	Solvente/Cleaner CGM (R2 60 velnet solnet)	
Applicazione penetrante / Penetrant application	CGM (R2.71 RED "WW")	24/010
Rimozione eccesso penetrante / Excess penetrant removal	Acqua/Water Pressione/Pressure <275 kPa (40psi) Temperatura/Temperature <40°C	
Asciugatura / Drying	Asciugatura con stracci / Wiping	
Applicazione rilevatore / Developer application	CGM (R.82 ROTRIVEL "U" / white)	24/029

TECNICA D'ESAME / EXAMINATION TECHNIQUE

Tempo di penetrazione / Penetrant dwell time	20 min
Tempo di sviluppo / Developer dwell time	12 min

ATTREZZATURA DI ILLUMINAZIONE / LIGHTING EQUIPMENT

Beta 1838SW Lamp

NOTE / NOTES

No defects
Examination performed on 100% of pieces

RISULTATI / RESULTS

Conforme

FIRME / SIGNATURES

OPERATORI / OPERATORS

LOCATELLI DARIO Liv. II

ENTE COLLAUDATORE / INSPECTION AUTHORITIES | **ISPETTORE CLIENTE / CUSTOMER INSPECTOR**

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 820 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3/4" S.150 RF

raccortubi Heat num. or Pcs. marking: 290706 - Qty:6,00

Protocol: CTCERC202400006462 * CERTIFIED TRUE COPY
* Issued 10-07-2024

officine ambrogio melesi
23813 Cortenova (Lecco)
ITALY
Largo De Vecchi 11
P.o. box 11
Tel. 0341.98341
Fax 0341.983498 - 983497

DATA / *DATE*	CERTIFICATO N° / *REPORT N°*
02/07/2024	1417/2024

MATERIALE / *MATERIAL*	ASTM A182 F53		
COLATA / *HEAT N°*	290706	LOTTO / *LOT*	A2532

ESAME MICROSCOPICO / *MICROSCOPIC EXAMINATION*

Informazioni generali *General info*	
Descrizione prova *Test description*	Esame microscopico *Microscopic examination*
Standard di prova *Test standard*	ASTM E3-11 (2017) + ASTM E407-23
Strumentazione *Equipment*	Metallographic microscope Leica DMI8 M (OAM n°1631)
Parametri di prova *Test parameters*	

Ingrandimento *Magnification*	500X	**Attacco** *Etching*	20% NaOH elettrolitico *electrolytic*
Posizione di Prelievo *Sample Position*	Intero spessore *Full Thickness*		

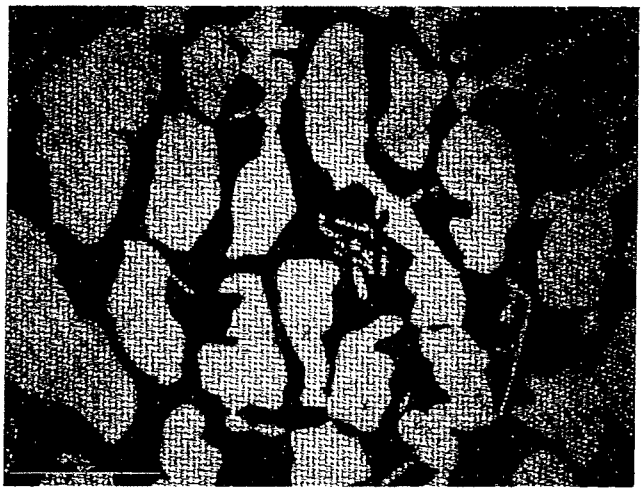


Immagine non in scale / *Image not in scale*

Note / *Remarks*
L'analisi metallografica mostra una struttura regolare libera da fasi intermetalliche e precipitati
The results of metallographic examination show a regular structure free from intermetallic phases and precipitates

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 820 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3/4" S.150 RF

raccortubi Heat num. or Pcs. marking: 290706 - Qty:6,00

Protocol: CTCERC202400006462 * CERTIFIED TRUE COPY
* Issued 10-07-2024

officine ambrogio melesi
23813 Cortenova (Lecco)
ITALY
Largo De Vecchi 11
P.o. box 11
Tel. 0341.98341
Fax 0341.983498 - 983497

DATA / *DATE* 02/07/2024		CERTIFICATO N° *REPORT N°* 1417/2024	
		MATERIALE *MATERIAL*	ASTM A182 F53
COLATA *HEAT N°*	290706	LOTTO *LOT*	A2532

CONTENUTO PERCENTUALE DI UNA FASE CON METODO DELL'ANALISI DI IMMAGINE

DETERMINING THE INCLUSION OR SECOND-PHASE COSTITUENT CONTENT BY AUTOMATIC IMAGE ANALYSIS

Informazioni generali *General Info*	
Descrizione prova *Test description*	Contenuto percentuale di una fase con met. dell'analisi di immagine *Determining the inclusion or second phase costituent content by automatic image analysis*
Standard di prova *Test standard*	ASTM E1245-03(2023)
Strumentazione *Equipment*	Metallographic microscope Leica DMi8 M (OAM n°1631)

Caratteristiche provino *Specimen information*			
Preparazione della superficie *Surface preparation*	Lucidatura 1µm *1µm polishing*	**Attacco** *Etching*	20% NaOH elettrolitico *electrolytic*

Parametri di prova *Test parameters*			
Posizione di Prelievo *Sample Position*	Intero spessore *Full Thickness*	**Ingrandimento** *Magnification*	200X
N° campi X N° sezioni *Nr fields X Nr sections*	30 campi X 1 sezione *30 fields X 1 section*		

Risultati *Results*	
Vv :% Frazione di volume della ferrite ± 95% C.I. [%] % Volume fraction of the constituent ± 95% C.L.	49,30 ± 1,96

Valore Richiesto *Required Value*			
Vv% Minimo [%] *Minimum*	35	**Vv% Massimo [%]** *Maximum*	55

Note / *Remarks*

Valore Richiesto : Indicato nell'ordine cliente o nei documenti di riferimento / *Required Value: Indicated in the order or reference documents*

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 820 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3/4" S.150 RF

raccortubi Heat num. or Pcs. marking: 290706 - Qty:6,00

Protocol: CTCERC202400006462 * CERTIFIED TRUE COPY
* Issued 10-07-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400477

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani 27/06/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 27/06/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	SEE BELOW
Prot. N.	00005857
Packing list	PLPLIS202400005824
Ns. Rif.	00002010
Vs. Rif.	1724000839 - 22.04.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00005857

27/06/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaals d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
810	NR	20	0,00	Spectacle Blinds diam.1" 300LB RF ASTM A182 F316/316L	292603

raccortubi

00005857

27/06/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
810	20	NR	Spectacle Blinds diam.1" 300LB RF ASTM A182 F316/316L	292603

CLAMAR FLANGE
DI MANGOLINI MARIO CLAUDIO
VIA MANZONI N°8
26020 AGNADELLO(CR)
P.IVA 01451740193

COMPANY
WITH CERTIFIED QUALITY SISTEM
ACCORDING TO UNI EN ISO 9001:2015

CERTIFICATO DI COLLAUDO/TEST CERTIFICATE EN 10204/3.1

Cliente/Customer	Ordine Cliente/Customer's order	Certificato N° / Certificate N°
Spett.le: RACCORTUBI S.P.A	5845 Data/Date 10/05/24	125/24
Data/Date 11/06/2024	**D.d.t. N°/ Delivery note N°** 179	**PAG.N°** 1

TIPOLOGIA- TYPOLOGY

COLATA/HEAT	Materiale / Material	Acciaieria / Steel Plant	Certificato n° / Certificate n°	Produttore / Producer	Certificato n° / Certificate n°	Posizione / Item	Quantita' / Quantity	Descrizione / Description
292603	A182 F316/316L	VALBRUNA MEST073277 / 2024				1	20	SPECTACLE BLINDS Ø1" 300 RF

ANALISI CHIMICA -CHEMICAL ANALYSIS

COLATA/HEAT	Carbon C%	*Mangan MN%*	Silicium Si%	Phospor P%	Sulfur S%	Chrom CR%	NicKel NI%	Molibdeno MO%	Titanium Ti%	Vanadium V%	Copper CU%	Allum:AL%	Niobium NB%	Nitrogen N%
292603	0,014	1,540	0,580	0,030	0,027	16,550	10,090	2,090						0,059

PROVE MECCANICHE -MECCHANICAL TESTS

COLATA/HEAT	Snervamento / Yeld Point	Rottura / Tensile Strength	Allungamento % / Elongation %	Contrazione % / Contraction %	Resilienze-Impact Test Iso Jules	Type Temp.C°	Durezza Hb / Hardness Hb	Trattamento termico / Heat Treatment
292603	298-348	588	50	69		20°	187	ANNEALED PEELED

Si dichiara che i dati relativi al presente certificato sono strettamente conformi a quanto dichiarato dal fabbricante o dal laboratorio che ha eseguito le prove
We hereby certify that all dates mentioned in this certificate are true and correct copy of the certificate issued by the manufacturer or by the charged laboratory

THE MATERIAL CONFORMS TO ASTM A182-23, ASME SECTION II PART A SA182-23 & DIMENSION CONFIRMS TO ASME B16.5-20.

VISUAL INSPECTION AND DIMENSIONAL CONTROL:SATISFACTORY.
MATERIAL COMPLIANT WITH THE NACE MR01.75/ISO 15156

QUALITY CONTROL
QUALITY CONTROL

CLAMAR FLANGE
MANGOLINI MARCO

Customer: ROSETTI MARINO S.p.A.
Description: Spectacle Blinds diam.1" 300LB RF ASTM A182 F316/316L
Order: 1724000839 - 22.04.24 - Item n.: 810 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
raccortubi Heat num. or Pcs. marking: 292603 - Qty:20,00
Protocol: CTCERC20240000857 * CERTIFIED TRUE COPY * Issued 27-06-2024

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.144 / 2024 PAGINA DI PAGINE Page 1 of 2 Pages

CLIENTE Customer	RACCORTUBI S.p.A.	ORDINE Order	1724000839 - 22.04.24	COMMESSA Job	00002010

OGGETTO
Object: SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASME V ART.6			ASME VIII DIV.1 APP.8

PROCEDURA Procedure	MATERIALE Material	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method: SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method	MARCA Brand N.D.T.		PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
	TIPO Type	LAVABILE IN ACQUA Water Washable X		PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
		POST EMULSIONABILE Post Emulsifiable	RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
		RIMOVIBILE CON SOLVENTE Solvent Removable		UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 24 / 06 / 2024	DATA Date	DATA Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI

SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

50 dal 1965

CERT. ISO 9001 LRC0100763/QMS

N° 4.144 / 2024

PAGINA DI PAGINE
Page 2 of 2 Pages

CLIENTE Customer	ORDINE Order	COMMESSA Job
RACCORTUBI S.p.A.	1724000839 - 22.04.2024	00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
810	20	SPECTACLE BLINDS DN 1" S.300 LB RF	ASTM A-182 ANSI B16.5 125 GR. F316/316L	292603
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA Date 24 / 06 / 2024	DATA Date	DATA Date

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400541

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 11/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 11/07/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	SEE BELOW
Prot. N.	00006527
Packing list	PLPLIS202400006489
Ns. Rif.	00002010
Vs. Rif.	1724000839 - 22.04.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00006527

11/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Date: 11/07/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1270	NR	10	0.00	Gasket Flat Thk. 1.5 mm diam.1" 150LB FF GRAPHITE	COLATA
1280	NR	30	0.00	Gasket Flat Thk. 3 mm diam.1" 150LB FF NITRILE RUBBER	COLATA
1290	NR	40	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1" 150LB RF UNS S32760+GRAPHITE c/w INNER RING	68283
1300	NR	50	0.00	GaGasket Spiral Wound Thk. 3.2 mm diam.1.1/2" 150LB RF UNS S32760+GRAPHITE c/w INNER RING	68283
1310	NR	20	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.2" 150LB RF UNS S32760+GRAPHITE c/w INNER RING	68283
1320	NR	20	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.3/4" 150LB RF UNS S32760+GRAPHITE c/w INNER RING	68283
1330	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1/2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396

raccortubi

00006527

11/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Date: 11/07/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1340	NR	50	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.3/4" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1350	NR	220	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	L4WJ
1360	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1.1/4" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1370	NR	40	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1.1/2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	L4WJ
1380	NR	40	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1390	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.3" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1400	NR	30	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.4" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396

raccortubi

00006527

11/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 11/07/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1410	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.6" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1420	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.10" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1430	NR	30	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1/2" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1440	NR	30	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.3/4" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1450	NR	400	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1460	NR	30	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.1.1/2" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1470	NR	20	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.2" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396

raccortubi

00006527

11/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 11/07/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1480	NR	10	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.3" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1490	NR	130	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.4" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1500	NR	40	0.00	Gasket Spiral Wound Thk. 3.2 mm diam.6" 300LB RF AISI 316 + GRAPHITE c/w INNER RING	433396
1510	NR	4	0.00	Insulation Kit diam.2" 150LB RF	COLATA
1520	NR	1	0.00	Insulation Kit diam.3" 150LB RF	COLATA
1530	NR	3	0.00	Insulation Kit diam.10" 150LB RF	COLATA
1540	NR	8	0.00	Insulation Kit diam.4" 300LB RF	COLATA
1550	NR	12	0.00	Insulation Kit diam.1" 150LB RF	COLATA
1560	NR	50	0.00	Insulation Kit diam.1" 300LB RF	COLATA
1570	NR	10	0.00	Gasket Flat Thk. 1.5 mm diam.3" 150LB FF GRAPHITE	COLATA
1580	NR	10	0.00	Gasket Flat Thk. 1.5 mm diam.1" 150LB FF NEOPRENE	COLATA

raccortubi

00006527

11/07/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaals d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 11/07/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	**U.M.**	**Q.ta'** *Q.ty*	**Tubi** *Tubes*	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1590	NR	10	0.00	Gasket Flat Thk. 3 mm diam.3/4" 150LB FF NITRILE RUBBER	COLATA
1600	NR	2	0.00	Insulation Kit diam.1.1/2" 300LB RF	COLATA

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

FLAT GASKET CF2001G

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
FLAT GASKET CF2001G 1"150 THK1.5MM DWG 16 Code :	1,000
FLAT GASKET CF2001G 1"150 THK1.5MM DWG 16 Code :	9,000
FLAT GASKET CF2001G 3" 150 THK 1.5MM Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041 4568562 Fax 041.5952900
P.IVA 03950010271 - info@cfservice.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632284O-D
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 1/2" 150 Code :	2,000
SWG 316L/FG/316L/CS 1/2" 150 Code :	8,000
SWG 316L/FG/316L/CS 3/4" 150 Code :	22,000
SWG 316L/FG/316L/CS 3/4" 150 Code :	28,000
SWG 316L/FG/IR316L/ORCS 1" 150 Code :	106,000
SWG 316L/FG/IR316L/ORCS 1" 150 THK.4.5MM Code :	114,000
SWG 316L/FG/316L/CS 1"1/4 150 Code :	1,000
SWG 316L/FG/316L/CS 1"1/4 150 Code :	9,000
SWG 316L/FG/IR316L/ORCS 1"1/2 150 Code :	17,000
SWG 316L/FG/IR316L/ORCS 1"1/2 150 THK.4.5MM Code :	23,000
SWG 316L/FG/316L/CS 2" 150 Code :	14,000
SWG 316L/FG/316L/CS 2" 150 Code :	26,000
SWG 316L/FG/316L/CS 3" 150 Code :	1,000
SWG 316L/FG/316L/CS 3" 150 Code :	9,000
SWG 316L/FG/316L/CS 4" 150 Code :	15,000
SWG 316L/FG/316L/CS 4" 150 Code :	15,000
SWG 316L/FG/316L/CS 6" 150 Code :	2,000
SWG 316L/FG/316L/CS 6" 150 Code :	8,000
SWG 316L/FG/316L/CS 10" 150 Code :	3,000
SWG 316L/FG/316L/CS 10" 150 Code :	7,000
SWG 316L/FG/316L/CS 1/2" 3/600 Code :	12,000
SWG 316L/FG/316L/CS 1/2" 3/600 Code :	18,000
SWG 316L/FG/316L/CS 3/4" 3/600 Code :	14,000
SWG 316L/FG/316L/CS 3/4" 3/600 Code :	16,000

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

SWG 316L/FG/316L/CS 1" 3/600 Code :	188,000
SWG 316L/FG/316L/CS 1" 3/600 Code :	212,000
SWG 316L/FG/316L/CS 1"1/2 3/600 Code :	14,000
SWG 316L/FG/316L/CS 1"1/2 3/600 THK.4.5MM Code :	16,000
SWG 316L/FG/316L/CS 2" 3/600 Code :	5,000
SWG 316L/FG/316L/CS 2" 3/600 THK. 4,5MM Code :	15,000
SWG 316L/FG/316L/CS 3" 3/600 Code :	1,000
SWG 316L/FG/316L/CS 3" 3/600 Code :	9,000
SWG 316L/FG/316L/CS 4" 300 Code :	63,000
SWG 316L/FG/316L/CS 4" 300 Code :	67,000
SWG 316L/FG/316L/CS 6" 300 Code :	18,000
SWG 316L/FG/316L/CS 6" 300 Code :	22,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041 4568562 Fax 041.5952930
P.IVA 04138610271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.017	1.274	0.031	0.001	0.335	16.715	10.01	2.021	0.042

Heat No: L4WJ

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
620	285	52	135

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.016	1.081	0.0317	0.0025	0.365	16.787	10.208	2.155	0.0206

Heat No: 433396

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HRB
Min.485	Min.170	Min.40	Max 95
583	270	51.9	78

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952930
P.IVA 04158410271 - info@cfservice.biz

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840-E
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

Spiral Wound Gasket - UNS 32760/FG/IR-UNS32760/OR_CS

Material Designations:

ASTM:	**A240 type 2507 (F55)**
EN No:	**1.4501**
DIN:	
OTHERS:	**UNS S32760**

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041 4568168 Fax 041.5952930
P.IVA 04185610271 - info@cfservice.biz

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG UNS32760/FG/IRUNS S32760/ORCS 1" 150 THK.4.5MM Code :	18,000
SWG UNS32760/FG/IRUNS S32760/ORCS 1" 150 THK.4.5MM Code :	22,000
SWG UNS32760/FG/IRUNS S32760/ORCS 1"1/2 150THK.4.5MM Code :	20,000
SWG UNS32760/FG/IRUNS S32760/ORCS 1"1/2 150THK.4.5MM Code :	30,000
SWG UNS32760/FG/IRUNS S32760/ORCS 2" 150 THK.4.5MM Code :	4,000
SWG UNS32760/FG/IRUNS S32760/ORCS 2" 150 THK.4.5MM Code :	16,000
SWG UNS32760/G/IRUNSS32760/ORCS 3/4" 150 THK.4.5MM Code :	6,000
SWG UNS32760/G/IRUNSS32760/ORCS 3/4" 150 THK.4.5MM Code :	14,000

A240 Tp. UNS 32760 windings Thk. 4,5 mm.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%	Cu%
max	0.03	1.20	0.035	0.020	0.80	26.00	8.00	5.00	0.32	0.50
min						24.00	6.00	3.00	0.24	
actual	0.022	0.86	0.022	0.015	0.32	24.65	6.82	3.28	0.30	0.32

Heat No: 68283

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.795	Min.550	Min.15	Max 180
856.32	615.24	23.40	172

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

UNS 32760 inner

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%	Cu%
max	0.03	1.20	0.035	0.020	0.80	26.00	8.00	5.00	0.32	0.50
min						24.00	6.00	3.00	0.24	
actual	0.021	0.80	0.020	0.014	0.35	24.50	6.80	3.20	0.29	0.31

Heat No: 321658

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.795	Min.550	Min.15	Max 180
850	617	22	174

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.05	0.33	0.015	0.024

Heat No: 280209

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
416	307	31

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952300
P.IVA 04185010271 - info@cfservice.su

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840-F
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

FLAT GASKET CF3090 PTFE/Sil

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATING GASKET CF3090 2" 150 THK.3MM Code :	2,000
INSULATING GASKET CF3090 2" 150 THK.3MM Code :	2,000
INSULATING GASKET CF3090 3" 150 THK.3MM Code :	1,000
INSULATING GASKET CF3090 THK.3MM 10"150 Code :	2,000
INSULATING GASKET CF3090 THK.3MM 10"150 Code :	1,000
INSULATING GASKET CF3090 4" 150 THK.3MM Code :	6,000
GASKET CF3090 4" 150 THK.3MM TYPE F Code :	2,000
INSULATING GASKET CF3090 1" 150 THK.3MM Code :	7,000
INSULATING GASKET CF3090 1" 150 THK.3MM Code :	5,000
INSULATING GASKET CF3090 1" 300 TYPE F THK 3MM Code :	36,000
INSULATING GASKET CF3090 1" 300 TYPE F THK 3MM Code :	14,000
INS. GASKET CF3090 1 1/2" 300 TYPE F THK 3MM Code :	2,000

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632284O-G
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

FLAT GASKET NITRILE

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041/4568562 Fax 041/5954500
P.IVA 04185610271 - info@cfservice.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
FLAT GASKET NITRILE 3/4" 150 THK3MM FF DWG 16 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041 4568562 Fax 041.5952930
P.IVA 04156610271 - info@cfservice.net

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840-A
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: 00005850

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 2" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	2,000
INSULATION KITS FLANGE TYPE F 2" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	2,000
INSULATION KITS FLANGE TYPE F 3" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	1,000
INSULATION KITS FLANGE TYPE F 10" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	2,000
INSULATION KITS FLANGE TYPE F 10" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	1,000
INSULATION KITS FLANGE TYPE F 4" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	6,000
INSULATION KITS FLANGE TYPE F 4" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	2,000
INSULATION KITS FLANGE TYPE F 1" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	7,000
INSULATION KITS FLANGE TYPE F 1" 150 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	5,000
INSULATION KITS FLANGE TYPE F 1" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	36,000

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

INSULATION KITS FLANGE TYPE F 1" 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	14,000
INSULATION KITS FLANGE TYPE F 1"1/2 300 Kit made by: -) No.1 G10 insulating sleeve per each bolt -) No.2 G10 insulating washers per each bolt -) No.2 ZPS washers per each bolt Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952800
P.IVA 04184010271 - info@cfservice.eu

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840-C
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

FLAT GASKET NEOPRENE RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
FLAT GASKET NEOPRENE 1" 150 THK.1.5MM FF DWG 16 Code :	10,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952930
P.IVA 04155610271 - info@cfservice.it

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466322840-B
Invoice/ddt No: 2840
Invoice/ddt date: 05/07/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00005850**

Gasket description:

FLAT GASKET NBR RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
FLAT GASKET NBR RUBBER 1" 150 THK.3MM DWG 16 Code :	13,000
FLAT GASKET NBR RUBBER 1" 150 THK.3MM DWG 16 Code :	17,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952930
P.IVA 02155010271 - info@cfservice.net

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400459

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani **24/06/2024**

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 21/06/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00005873
Packing list	PLPLIS202400005840
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00005873

21/06/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002207

Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
17	5	Weldolet MSS SP-97 BW FRG ASTM/ASME A/SA350 Gr.LF2 8"x3" thk 6,35/5,49mm	280285 CTCERT202400004368_1.0001.TIF
18	10	Weldolet MSS SP-97 BW FRG ASTM/ASME A/SA350 Gr.LF2 10"x3" thk 6,35/5,49mm	280285 CTCERT202400004368_1.0001.TIF

raccortubi Heat num. or Pcs. marking: 280285 - Qty:5,00

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet MSS SP-97 BW FRG ASTM/ASME A/SA350 Gr.LF2 8"x3" Ihk 6,35/5,49mm

Order: 1724000994 - 16.05.24 - Item n.: 17 - Our ref.: OCVEIT202400002207

Protocol: CTCERC202400005873 * CERTIFIED TRUE COPY * Issued 21-06-2024

CTCERT202400004368.1.0001

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 5877 del 16/05/24
DDT/Delivery note/Packing list: 2024/DDT/002445

Certificate N°: 002445
Omsa Job: 2024/ODV/008356
Data/Date: 14/06/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
17	5.0	WELDBR. STD/20 3"x8" BW A350 LF2 CL.1	ASTM/ASME SA/A350LF2 CL1	280285	280285	ACCIAIERIE BERTOLI SAFAU SPA	356304/1	Italia

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1710	0,9700	0,2100	0,0090	0,0030	0,1200	0,1900	0,0300	0,0023	0,0230	0,0040	0,1700	0,0020	0,0058	0,0000	0,0090	0,0000	0,0000	0,0120	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending Test	Flatting Test	Hydraulic Test	1^HBW Hardness test	2^HBW Hardness test	1^Impact test J/cm2	2^Impact test J/cm2	3^Impact test J/cm2	Impact test temp °C	Heat treatment
517,00	337,00	32,30	71,40	0,00	0,00	0,00	152,00	157,00	85,00	72,00	76,00	-46,00	Normalized at 900°C - Cooled in still air

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with ASME B31.1&B31.3&B16.25&MSS SP97-19, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
18	10.0	WELDBR. STD/20 3"x10" BW LF2 CL.1	ASTM/ASME SA/A350LF2 CL1	280285	280285	ACCIAIERIE BERTOLI SAFAU SPA	356304/1	Italia

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1710	0,9700	0,2100	0,0090	0,0030	0,1200	0,1900	0,0300	0,0023	0,0230	0,0040	0,1700	0,0020	0,0058	0,0000	0,0090	0,0000	0,0000	0,0120	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending Test	Flatting Test	Hydraulic Test	1^HBW Hardness test	2^HBW Hardness test	1^Impact test J/cm2	2^Impact test J/cm2	3^Impact test J/cm2	Impact test temp °C	Heat treatment
517,00	337,00	32,30	71,40	0,00	0,00	0,00	152,00	157,00	85,00	72,00	76,00	-46,00	Normalized at 900°C - Cooled in still air

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with ASME B31.1&B31.3&B16.25&MSS SP97-19, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet MSS SP-97 BW FRG ASTM/ASME A/SA350 Gr.LF2 10"x3" thk 6,35/5,49mm

raccortubi Heat num. or Pcs. marking: 280285 - Qty:10,00

Order: 1724000994 - 16.05.24 - Item n.: 18 - Our ref.: OCVEIT202400002207

Protocol: CTCERC202400005873 * CERTIFIED TRUE COPY * Issued 21-06-2024

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 5877 del 16/05/24
DDT/Delivery note/Packing list: 2024/DDT/002445

Certificate N°: 002445
Omsa Job: 2024/ODV/008356
Data/Date: 14/06/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
17	5.0	WELDBR. STD/20 3"x8" BW A350 LF2 CL.1	ASTM/ASME SA/A350LF2 CL1	280285	280285	ACCIAIERIE BERTOLI SAFAU SPA	356304/1	Italia

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1710	0,9700	0,2100	0,0090	0,0030	0,1200	0,1900	0,0300	0,0023	0,0230	0,0040	0,1700	0,0020	0,0058	0,0000	0,0090	0,0000	0,0000	0,0120	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending Test	Flatting Test	Hydraulic Test	1^HBW Hardness test	2^HBW Hardness test	1^Impact test J/cm2	2^Impact test J/cm2	3^Impact test J/cm2	Impact test temp °C	Heat treatment
517,00	337,00	32,30	71,40	0,00	0,00	0,00	152,00	157,00	85,00	72,00	76,00	-46,00	Normalized at 900°C - Cooled in still air

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with ASME B31.1&B31.3&B16.25&MSS SP97-19, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
18	10.0	WELDBR. STD/20 3"x10" BW LF2 CL.1	ASTM/ASME SA/A350LF2 CL1	280285	280285	ACCIAIERIE BERTOLI SAFAU SPA	356304/1	Italia

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,1710	0,9700	0,2100	0,0090	0,0030	0,1200	0,1900	0,0300	0,0023	0,0230	0,0040	0,1700	0,0020	0,0058	0,0000	0,0090	0,0000	0,0000	0,0120	0,0000	0,4000	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending Test	Flatting Test	Hydraulic Test	1^HBW Hardness test	2^HBW Hardness test	1^Impact test J/cm2	2^Impact test J/cm2	3^Impact test J/cm2	Impact test temp °C	Heat treatment
517,00	337,00	32,30	71,40	0,00	0,00	0,00	152,00	157,00	85,00	72,00	76,00	-46,00	Normalized at 900°C - Cooled in still air

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with ASME B31.1&B31.3&B16.25&MSS SP97-19, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400454

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: **21/06/2024**

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi

00005072

07/06/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaals d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
830	NR	1	0,00	BLIND 3" S.150 RF	CH-19713
840	NR	12	0,00	BLIND 3/4" S.150 RF	CH-17409
850	NR	6	0,00	BLIND 1" S.150 RF	DB152
860	NR	8	0,00	BLIND 1" S.300 RF	SL1602
910	NR	13	0,00	W.N. 2" S.150 RF SCH.10/S	DJ836
920	NR	4	0,00	W.N. 2" S.300 RF SCH.10/S	DL010
930	NR	6	0,00	W.N. 6" S.300 RF SCH.10/S	CH-3217
940	NR	17	0,00	W.N. 4" S.150 RF SCH.10/S	CH-20600
950	NR	20	0,00	W.N. 3/4" S.150 RF SCH.40/S	CH-18532
960	NR	54	0,00	W.N. 1" S.150 RF SCH.40/S	CH-19714
970	NR	8	0,00	W.N. 1.1/2" S.150 RF SCH.40/S	CH-20177
980	NR	14	0,00	W.N. 1/2" S.300 RF SCH.40/S	CH-18812
990	NR	18	0,00	W.N. 3/4" S.300 RF SCH.40/S	A-5735

ROSETTI MARINO
Supply Management Dept.
Witness Review

raccortubi

00005072

07/06/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1000	NR	2	0,00	W.N. 6" S.150 RF SCH.10/S	DK782
1010	NR	97	0,00	W.N. 1" S.300 RF SCH.40/S	DL364
1010	NR	30	0,00	W.N. 1" S.300 RF SCH.40/S	DG136
1010	NR	53	0,00	W.N. 1" S.300 RF SCH.40/S	DJ346
1020	NR	1	0,00	W.N. 3" S.300 RF SCH.10/S	CH-16463
1030	NR	6	0,00	W.N. 6" S.300 RF SCH.40/S	CH-16164
1040	NR	48	0,00	W.N. 4" S.300 RF SCH.10/S	DK476
1040	NR	2	0,00	W.N. 4" S.300 RF SCH.10/S	EA085
1040	NR	20	0,00	W.N. 4" S.300 RF SCH.10/S	DG350
1050	NR	16	0,00	W.N. 1.1/2" S.300 RF SCH.40/S	CH-18895
1060	NR	7	0,00	W.N. 10" S.150 RF SCH.10/S	DF309/1
1120	NR	3	0,00	W.N. 3" S.150 RF SCH.10/S	3289
1130	NR	4	0,00	W.N. 1/2" S.150 RF SCH.40/S	CH-16628
1140	NR	3	0,00	W.N. 1" S.150 FF SCH.40/S	CA048/1

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

ITALTEST NDT
CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT TEST REPORT

50 dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.134 / 2024

PAGINA DI PAGINE
Page 1 of 2 Pages

CLIENTE Customer: RACCORTUBI S.p.A.	ORDINE Order: 1724000839 - 22.04.24	COMMESSA Job: 00002010

OGGETTO Object: SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASME V ART.6			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	**MATERIALE Material**	**DISEGNO Drawing / FIG. Fig.**	**% CONTROLLATA Extent %**
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged	FUSO As Cast
				X	

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA Precleaning Method: SOLVENT AND PAPER

TECNICA Technique		
	CONTRASTO DI COLORE Color Contrasting: X	FLUORESCENTE Fluorescent:
	ILLUMINAZIONE White Light Intensity: 1200 lx	ILLUMINAZIONE Black Light Intensity:

METODO DI ISPEZIONE Liquid Penetrant Inspection Method						
MARCA Brand: N.D.T.			PENETRANTE Penetrant	SPRAY Spray: X	LOTTO Batch: 210115Ps	SCADENZA Expiry: 02/2025
TIPO Type	LAVABILE IN ACQUA Water Washable: X			PENNELLO Brush:	LOTTO Batch:	SCADENZA Expiry:
	POST EMULSIONABILE Post Emulsifiable:		RIVELATORE Developer	SECCO Dry:	LOTTO Batch:	SCADENZA Expiry:
	RIMOVIBILE CON SOLVENTE Solvent Removable:			UMIDO Wet: X	LOTTO Batch: 230206W150s	SCADENZA Expiry: 01/2027

TEMPO DI PENETRAZIONE Dwell Time	20 MINUTE	METODO DI PULIZIA Cleaning Method	WATER AND PAPER
TEMPO DI SVILUPPO Developing Time	10 MINUTE	METODO DI PULIZIA Cleaning Method	WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects
X		

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specifiention	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap
	X		

NOTE Notes:

PROVA EFFETTUATA PRESSO Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 DATA Date: 10 / 06 / 2024 RT	ROSETTI MARINO Supply Management Dept. ☑ Witness ☑ Review DATA Date:	DATA Date:

ITAL NDT

CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

dal 1965 — CERT. ISO 9001 LRC0100763/QMS

N° 4.134 / 2024

PAGINA DI PAGINE
Page 2 of 2 Pages

CLIENTE / Customer: RACCORTUBI S.p.A.
ORDINE / Order: 1724000839 - 22.04.2024
COMMESSA / Job: 00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
830	1	BLIND 3" S.150 RF	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-19713
840	12	BLIND 3/4" S.150 RF	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-17409
850	6	BLIND 1" S.150 RF	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DB152
860	8	BLIND 1" S.300 RF	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	SL1602
910	13	W.N. 2" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DJ836
920	4	W.N. 2" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DL010
930	6	W.N. 6" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-3217
940	17	W.N. 4" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-20600
950	20	W.N. 3/4" S.150 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-18532
960	54	W.N. 1" S.150 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-19714
970	8	W.N. 1.1/2" S.150 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-17777
980	14	W.N. 1/2" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-18812
990	18	W.N. 3/4" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	A-5735
1000	2	W.N. 6" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DK782
1010	30	W.N. 1" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DG136
1010	53	W.N. 1" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DJ346
1010	97	W.N. 1" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DL364
1020	1	W.N. 3" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-16463
1030	6	W.N. 6" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-16164
1040	20	W.N. 4" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DG350
1040	48	W.N. 4" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DK476
1040	2	W.N. 4" S.300 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	EA085
1050	16	W.N. 1.1/2" S.300 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-18895
1060	7	W.N. 10" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	DF309/1
1120	3	W.N. 3" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	3289
1130	4	W.N. 1/2" S.150 RF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CH-16628
1140	3	W.N. 1" S.150 FF SCH.40/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	CA048/1

PROVA EFFETTUATA PRESSO / Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT	ROSETTI MARINO Supply Management Dept. ☑ Witness ☑ Review	
DATA / Date: 10 / 06 / 2024	DATA / Date	DATA / Date

raccortubi

00005072

12/06/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
830	1	NR	BLIND 3" S.150 RF	CH-19713
840	12	NR	BLIND 3/4" S.150 RF	CH-17409
850	6	NR	BLIND 1" S.150 RF	DB152
860	8	NR	BLIND 1" S.300 RF	SL1602
910	13	NR	W.N. 2" S.150 RF SCH.10/S	DJ836
920	4	NR	W.N. 2" S.300 RF SCH.10/S	DL010
930	6	NR	W.N. 6" S.300 RF SCH.10/S	CH-3217
940	17	NR	W.N. 4" S.150 RF SCH.10/S	CH-20600
950	20	NR	W.N. 3/4" S.150 RF SCH.40/S	CH-18532
960	54	NR	W.N. 1" S.150 RF SCH.40/S	CH-19714
970	8	NR	W.N. 1.1/2" S.150 RF SCH.40/S	CH-17777
980	14	NR	W.N. 1/2" S.300 RF SCH.40/S	CH-18812
990	18	NR	W.N. 3/4" S.300 RF SCH.40/S	A-5735

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

raccortubi

00005072

12/06/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaiulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1000	2	NR	W.N. 6" S.150 RF SCH.10/S	DK782
1010	30	NR	W.N. 1" S.300 RF SCH.40/S	DG136
1010	53	NR	W.N. 1" S.300 RF SCH.40/S	DJ346
1010	97	NR	W.N. 1" S.300 RF SCH.40/S	DL364
1020	1	NR	W.N. 3" S.300 RF SCH.10/S	CH-16463
1030	6	NR	W.N. 6" S.300 RF SCH.40/S	CH-16164
1040	20	NR	W.N. 4" S.300 RF SCH.10/S	DG350
1040	48	NR	W.N. 4" S.300 RF SCH.10/S	DK476
1040	2	NR	W.N. 4" S.300 RF SCH.10/S	EA085
1050	16	NR	W.N. 1.1/2" S.300 RF SCH.40/S	CH-18895
1060	7	NR	W.N. 10" S.150 RF SCH.10/S	DF309/1
1120	3	NR	W.N. 3" S.150 RF SCH.10/S	3289
1130	4	NR	W.N. 1/2" S.150 RF SCH.40/S	CH-16628
1140	3	NR	W.N. 1" S.150 FF SCH.40/S	CA048/1

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 81022

ADM. OFFICE: 501, SUKH SAGAR, N. S. PATKAR MARG,
Chowpatty MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net
L/c. No. :
L/c. Date:

Works : Plot # 31 to 36, 45 to 49/2, 142 (Exp. Area), G.I.D.C. Umbergaon,
Survey No. 102/2 & 102/3, Village - Dehri, Dist. - Valsad, Gujarat - 396171 India.
Tel. : (+91) 260 7128999/800/802 .
Email : info@chandansteel.com
GSTIN - 24AAACC4713B1ZG

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : 1779E/23-24 - 18
Date of Issue : 16.11.2023
P. O. No. : 00000175
Invoice No. & Date : 1779E/23-24 & 16.11.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES (HS Code : 7307.21.00)

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
18	CH-19713	66	5	336.26	ASTM/ASME A/SA182 F316/316L	3" BLRF 150 LBS	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
18	0.023	0.44	1.68	0.039	0.024	16.66	2.03	10.10	-	-	0.070	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm^2 (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
18	263	570	60	76	152-155
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions Inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.
12. Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

CHANDAN STEEL LTD. Q. A.

V.Y.NARAYANAN
WORKS INSPECTOR

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 830 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3" S.150 RF

raccortubi Heat num. or Pos. marking: CH-19713 - Qty:1,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171,INDIA
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/22-23/0000- 24
Date of Issue : 20.10.2022/Rev.01 Dt. 22.10.2022
P. O. No. : 00000200 S DTD 24.05.2022 Dt. 26-05-2022
Invoice No. & Date : EXP/22-23/0000 Dt.20.10.2022

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Part Code	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
52	-	CH-17409	200	53	134.14	ASTM/ASME A/SA182 F316/316L	3/4" BLRF 150 LBS	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	N	OTHERS
52	0.021	0.45	1.67	0.041	0.010	16.74	10.07	2.02	-	-	0.078	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm² ($R_{p0.2}$)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
52	268	576	55	72	162-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 20, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

CHANDAN STEEL LTD. Q. A.

V. NARAYAN
SR. MANAGER Q. A.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 840 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 3/4" S.150 RF

raccortubi Heat num. or Pos. marking: CH-17409 - Qty:12,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202300002669 1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER :	Manufacturer's	(A03)MTR NO.	12/230012245/28 / Rev - 01
RACCORTUBI SPA	Symbol (A04)	INVOICE NUMBER	910019372
VIALE DE GASPERI 194		(Z02) DATE	14.04.2023
I-20010 MARCALLO CON CASONE MI		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-21
			ASME SECT.II PART A-2021
		(B02) GRADE	F316/316L
Italy		DIMENSIONAL SPEC.	ASME B16.5-2020

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: 00000024	(A08)Sales Order No. 100019565/000080	(A09)Article No:8

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1" BLRF 150#,	100	DB152

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%N
MIN						16.00	10.00	2.00	
MAX	0.030	2.00	1.00	0.030	0.045	18.00	14.00	3.00	0.1000
HEAT	0.019	1.58	0.36	0.027	0.036	16.60	10.01	2.01	0.0630

MECHANICAL PROPERTIES

Test Specification ASTM - A370

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	LO=4D	%	BHN	1	2	3	AVG
Req.	515 MIN	205 MIN		30 MIN	50 MIN	237 MAX				
T	549.61	275.63	329.93	58.40	71.67	150	203	172	190	188

Other applicable Specifications :: NACE MR 0175-2021 / ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surfacequality	: Satisfactory
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactitivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 850 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: BLIND 1" S.150 RF

raccortubi Heat num. or Pcs. marking: DB152 - Qty:6,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

Customer: ROSETTI MARINO S.p.A.

Description: BLIND 1" S.300 RF

Order: 1724000839 - 22.04.24 - Item n.: 860 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

raccortubi Heat num. or Pcs. marking: SL1602 - Qty:8.00

Protocol: CTCERC2024000005072 * CERTIFIED TRUE COPY * Issued 03-06-2024

CTCERT2023000002209.1.0001

GOOD LUCK ENGINEERING CO.

GOODLUCK

ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

(AS PER EN - 10204 - 3.1 ☑ / 3.2 ☐)

Entry No. : 5446

CUSTOMER	CUSTOMER P.O. No. & Dt.	OUR W.O. No. & Dt.	SPCN. No.	QAP NO.	DOC. NO.	PROJECT:	TEST CERTIFICATE No & Dt.
RACCORTUBI S.P.A Viale De Gasperi 194 20010 Marcallo con Casone (MI) ITALY	00000295 S 14/10/22	Exp/1391/22-23 18.10.2022					GLECO/J-1391-9 Date 28.01.2023

STEEL MELTING PROCESS	ORDER STATUS	DIMENSIONS AS PER	INSPECTION AGENCY	DATE OF INSPN. & TESTING
EF-AOD	PARTIAL	ASME B16.5 (Ed.2020)	M/S RACCORTUBI	27 & 28.01.2023

Item Sr.No.	Item Code	ITEM DESCRIPTION	MATERIAL SPEC.	QUANTITY (NOS)	HEAT NUMBER	BATCH NUMBER	HEAT TREATMENT CONDITION	TEMP °C	SOAKING TIME (Hrs)	COOLING MEDIUM	DELIVERY STATUS
9.000		1.0 in x 300 # x BLRF (NACE)	ASTM A 182 Gr.F316/316L (Ed.2021)	100	SL1602	GJ2200C	Solution Treat & Quenched	1080	04 Hrs	Stirred Water & cooled Below 260°C	Complete

*GASKET FACE FINISH : 125-250 AARH

Total Qty Pc 100

Report Type	Heat No	Batch No	C%	Mn%	Si%	S%	P%	Cr%	Ni%	Mo%	N%
Ladle	SL1602	-	0.0220	1.5300	0.3100	0.0140	0.0430	17.1800	10.0300	2.0400	0.0600
Product	SL1602	GJ2200C	0.0240	1.5500	0.3400	0.0120	0.0400	17.1400	10.0600	2.0600	0.0600
Required Value	-	Min	-	-	-	-	-	16.0000	10.0000	2.0000	-
		Max	0.0300	2.0000	1.0000	0.0300	0.0450	18.0000	14.0000	3.0000	0.1000

Good Luck Engg. Co. * Dadri (U.P.) * Nikhil Gupta Asst. Manager (Q.C.)

For Raccortubi S.P.A
Kmaheshwari
28/01/23

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.
Description: BLIND 1" S.300 RF
raccortubi Heat num. or Pos. marking: SL1602 - Qty:8.00
Order: 1724000839 - 22.04.24 - Item n.: 860 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC2024000005072 * CERTIFIED TRUE COPY * Issued 03-06-2024
CTCERT2023000002209.1.0002

GOODLUCK
ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

Entry No. : 5446

MECHANICAL TEST REPORT AT ROOM TEMPERATURE IN AS DELIVERED CONDITION	Batch No	Gauge Dia / Size (mm)	Yield Strength (N / mm sq.) (0.2% Proof Stress)	Tensile strength (n/mm Sq.)	Elongation % On GL = 4D	Reduction in Area %	Hardness BHN	Impact Test10X10X55 mm (Charpy 2mm V-Notch) 01	02	03	Avg(Joules)	Temp °C	Grain Size as per ASTM E-112
	GJ2200C	12.45	320.23	587.09	51.80	71.04	174, 176	- - -	- - -	- - -	- - -	- - -	
	REQUIRED	MIN MAX	205.00 -	515.00 -	30.00 -	50.00 -	- -	- -	- -	- -	- -	- -	

SUPPORTING TESTING	TEST STANDARD	ACCEPTANCE LEVEL	RELEVANT REPORT

SEAL/STAMP OF TPI WITNESS

SEAL / STAMP of Incharge Quality

VIMAL KUMAR
Prepared by:

NIKHIL GUPTA
Inspected by:

Good Luck Engg. Co. * Dadri (U.P.) * Nikhil Gupta Asst. Manager (Q.C.)

(1) No Weld repair performed on forging.
(2) Hardness Test carried out on job & found satisfactory.
(3) Material comply all the requirements of PO & Specification.
(4) Material conformed all the requirements of ASTM A961/A961M (Ed. 2021)
(5) No Chinese and East European material is used.
(6) Material 100% visual & dimensional checked & found surface free from all types of defects.
(7) PMI carried out on job (PMI Report No. GLECO/PMI/J-1391/9 DATED 28.01.2023 enclosed) & found satisfactory.
(8) IGC test carried out as per ASTM A262 Practice E Test piece Bend over mandrel Dia = 1t X 180° and reviewed under 20X Mag. Observed "Bend Specimen free of any crack and Grain dropping" Microscopic Structure observed under magnification of 250 X and observed "Step Structure" - Found satisfactory.
(9) Material comply all the requirements of NACE MR0175/ISO 15156 (Ed 2015).
(10) Packing carried out as per PO & Spec.RT_FL_EXEU_2011 and found satisfactory.
(11) Material is free from Mercury & Radioactive Contamination.

We hereby certify that material declared above meets the requirement of P.O./ relevant specification

Identification Mark :

Doc No	Doc Rev No	Date	Effective Date	Doc. Retention Period	Doc. Prepared by	Doc. Approved by	Recorded document will be prepared, Maintained And preserved by incharge Quality
QA 11 TCFP 08	04	13/08/2018	13/08/2018	AS SPECIFIED BY CUSTOMER / COMPANY PROCEDURE	MR	Dir.works	

Document Route
(01) Original copy - Forwarded to CUSTOMER as self certified authentic record from GOOD LUCK ENGG. CO.
(02) 1st Copy - Inchange quality to maintain and preserve the record.

CONTROLLED COPY

For Raccortubi S.P.A
28/01/23

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER : M/S. RACCORTUBI SPA VIALE DE GASPERI 194 I-20010 MARCALLO CON CASONE MI Italy	Manufacturer's Symbol (A04)	(A03)MTR NO.	100028548 / 52 REV.1
		INVOICE NUMBER	
		(Z02) DATE	23.12.2023
		MATERIAL SPEC	ASTM A182/A182M- 23 / ASME SA182/SA182M-23
		(B02) GRADE	F316/316L
		DIMENSIONAL SPEC	ASME B16.5-2020

(B01) STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED & FULLY MACHINED

ISO 9001:2015-TUV NORD REG No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE(PED) 2014/68/EU,CERTIFING BODY-TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION No. 0045)

(A07)ORDER NO. 245	(A08) Sales Order No. 100028548 / 510	(A09)Article No: 51

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
2" WNRF S10S 150#	200	DJ836

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%N								
MIN						16.00	10.00	2.00									
MAX	0.030	2.00	1.00	0.030	0.045	18.00	14.00	3.00	0.1000								
HEAT	0.016	1.58	0.35	0.022	0.036	17.40	10.03	2.01	0.0700								
PROD	0.015	1.58	0.34	0.019	0.036	17.40	10.02	2.01	0.0640								

MECHANICAL PROPERTIES

Test Specification ASTM - A370

(C01) Sample location : Mid thickness-forging	(C03) Test Temp . RT	(C02) Test Direction Tr	(C10) Specimen Shape - Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13) Elongation%	Reduction of Area	(C22) Hardness			(C40) Charpy V-Notch 10x10x55mm (Values in Joules)			
		Rp=0.2%	Rp = 1%						(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=4D	%	BHN-1	BHN-2	AVG	1	2	3	AVG
Req	515 MIN	205 MIN		30 MIN	50 MIN							
1	565.94	286.34	327.09	60.60	71.27	154	156	155	174	190	196	187

Other applicable Specifications :: NACE MR 0175 / ISO 15156-2015 & NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Induction furnace/Aragon Oxygen Decarburisation (AOD-IRS), Concast

Heat Treatment	Solution Annealed at 1080°C and water Quenched
Dimension	Conform with the specification (100% inspected)
Surface quality	Satisfactory Roughness Value - RA 3.2 TO 6.3 µm / 125 TO 250 AARH
PMI Test	No objection (100% tested with mobile spectro)
Inter Granular Corrosion Test	Passed IGC test in accordance with ASTM A262 practice E
Radioactivity Test	All the above material is tested for Radioactivity and found with in the limit of background radiation
Liquid penetrant test	No objection(test method-ASTM E 165 & accepted as per ASME Sec VIII division 1-appendix 8)

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

VIJAY KUMAR PILLAI (PRESIDENT)

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER : M/S. RACCORTUBI SPA VIALE DE GASPERI 194 I-20010 MARCALLO CON CASONE MI Italy	Manufacturer's Symbol (A04)	(A03)MTR NO	100028548 / 53 REV.1
		INVOICE NUMBER	
		(Z02) DATE	23.12.2023
		MATERIAL SPEC	ASTM A182/A182M- 23 / ASME SA182/SA182M-23
		(B02) GRADE	F316/316L
		DIMENSIONAL SPEC	ASME B16.5-2020

(B01) STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED & FULLY MACHINED

ISO 9001:2015-TUV NORD REG No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE(PED) 2014/68/EU,CERTIFING BODY-TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION No. 0045)

(A07)ORDER NO. 245	(A08) Sales Order No. 100028548 / 520	(A09)Article No: 52

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
2" WNRF S10S 300#	150	DL010

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%N								
MIN						16.00	10.00	2.00									
MAX	0.030	2.00	1.00	0.030	0.045	18.00	14.00	3.00	0.1000								
HEAT	0.026	1.51	0.35	0.021	0.038	16.76	10.07	2.01	0.0790								
PROD	0.023	1.51	0.34	0.017	0.039	16.76	10.05	2.01	0.0770								

MECHANICAL PROPERTIES

Test Specification ASTM - A370

(C01) Sample location Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Specimen Shape - Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13) Elongation%	Reduction of Area	(C32) Hardness			(C40) Charpy V-Notch 10x10x55mm (Values in Joules)			
		Rp=0.2%	Rp = 1%						(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=4D	%	BHN-1	BHN-2	AVG	1	2	3	AVG
Req	515 MIN	205 MIN		30 MIN	50 MIN							
T	571.20	268.79	310.69	58.40	68.13	155	153	154	194	178	192	188

Other applicable Specifications : NACE MR 0175 / ISO 15156-2015 & NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Induction furnace/Aragon Oxygen Decarburisation (AOD-IRS), Concast

Heat Treatment	Solution Annealed at 1080°C and water Quenched
Dimension	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness Value - RA 3.2 TO 6.3 µm / 125 TO 250 AARH
PMI Test	: No objection (100% tested with mobile spectro)
Inter Granular Corrosion Test	: Passed IGC test in accordance with ASTM A262 practice E
Radioactivity Test	: All the above material is tested for Radioactivity and found with in the limit of background radiation.
Liquid penetrant test	: No objection(test method-ASTM E 165 & accepted as per ASME Sec VIII division 1-appendix 8)

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

VIRAJ PROFILES PVT. LTD. QUALITY ASSURANCE

VIJAY KUMAR PILLAI (PRESIDENT)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 920 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 2" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DL010 - Qty:4,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2008 CERTIFICATE No. 04 100 011022-E3

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171.
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

I/c. No. :
I/c. Date:

179014

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA VIALE DE GASPERI, 194 20010 MARCALLO CON CASONE (MILANO) - ITALIA	Test Certificate No. : EXP/ 0004 -30/2016-17 Date of Issue : 26.03.2016 P. O. No. : OS000011 S Dtd. 26.01.2016 Invoice No. & Date : EXP/ 0004 /2016-17

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
83	CH-3217	7	67	132.86	ASTM A 182 F316/316L	6" WNRF 300 LBS S10S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
83	0.024	0.39	1.65	0.044	0.016	16.71	2.05	10.03	-	-	0.0510	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm² ($R_{p0.2}$)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (B. H. N.)
83	271	580	50	76	159-163
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection 100%:- OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Micro Structure Reveals Austenitic grains with annealing twins and is free from carbide precipitation (At 500 X).
7. Inter-Granular Corrosion Test (ASTM A262 - 13 (Pr.E)):- Satisfactory.
6. The material conforms to ASTM A 182 - 13, ASME SECTION II PART A SA 182 - 13 & Dimension confirms to ANSI B16.5 - 09 Specification.
9. The material hardness conforms to NACE MR 0175-09 & NACE MR 0103-07.
10. Surface roughness quality checked by comparator & found 125 - 250 AARH

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y. NARAYAN
SR. MANAGER Q.A.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

F/QA/18, Rev. 0, 25.08.2012

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 930 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 6" S.300 RF SCH.10/S

raccortubi Heat num. or Pos. marking: CH-3217 - Qty:6,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 811022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
Chowpatty MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net
L/c. No. :
L/c. Date:

Works : Plot # 31 to 36, 45 to 49/2, 142 (Exp. Area), G.I.D.C. Umbergaon,
Survey No. 102/2 & 102/3, Village - Dehri, Dist. - Valsad, Gujarat - 396171 India.
Tel. : (+91) 260 7128999/800/802 .
Email : info@chandansteel.com
GSTIN - 24AAACC4713B1ZG

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : 1779F/23-24 - 58
Date of Issue : 16.11.2023
P. O. No. : 06000175
Invoice No. & Date : 1779F/23-24 & 16.11.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES (HS Code : 7307.21.00)

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
58	CH-20600	317	23,24&25	2130.00	ASTM/ASME A/SA182 F316/316L	4" WNRF 150 LBS 10S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
58	0.022	0.43	1.78	0.042	0.024	16.90	2.02	10.05	-	-	0.080	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
58	268	559	63	75	151-157
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.
12. Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 940 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 4" S.150 RF SCH.10/S

raccortubi Heat num. or Pos. marking: CH-20600 - Qty:17,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202300002094.1

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001:2015 CERTIFICATE No. 01 100 011022

ADM. OFFICE: 104, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel: 91-22- 66290600. Fax: 91-22-66290633/34
Website : www.chandansteel.net
Email : cs10@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171, INDIA
Tel: 91-260-256 2064/ 4367 / 1166. Fax: 91-260-256 2267
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA VIALE DE GASPERI, 194 20010 MARCALLO CON CASONE (MILANO) - ITALIA	Test Certificate No. : EXP/22-23/01571 - 30 Date of Issue : 18.03.2023 P. O. No. : 00000294 Dt. 17-10-2022 Invoice No. & Date : EXP/22-23/01571 Date- 18.03.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
27	CH-18532	102	9 & 10	76.26	ASTM/ASME A/SA182 F316/316L	3/4" WNRF 150 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
27	0.019	0.55	1.62	0.039	0.003	16.68	2.05	10.12	-	-	0.074	-
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
27	257	558	56	70	162-166
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"

Remarks:

1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory,
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual, Dimension and PMI performed by CSL.
11. Mechanical Testing performed by CSL.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 950 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3/4" S.150 RF SCH.40/S

raccortubi Heat num. or Pos. marking: CH-18532 - Qty:20,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
Chowpatty MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net
I/c. No. :
I/c. Date:

Works : Plot # 31 to 36, 45 to 49/2, 142 (Exp. Area), G.I.D.C. Umbergaon,
Survey No. 102/2 & 102/3, Village - Dehri, Dist. - Valsad, Gujarat - 396171 India.
Tel. : (+91) 260 7128999/800/802 .
Email : info@chandansteel.com
GSTIN - 24AAACC4713B1ZG

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No.	: 1779F/23-24 - 45
Date of Issue	: 16.11.2023
P. O. No.	: 00000175
Invoice No. & Date	: 1779F/23-24 & 16.11.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES (HS Code : 7307.21.00)

Po Sr No.	Heat No.	Pcs	Box No.	WtKgs	Grade	Item	Process Route
45	CH-19714	217	14	238.00	ASTM/ASME A/SA182 F316/316L	1" WNRF 150 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
45	0.022	0.40	1.75	0.039	0.021	17.10	2.03	10.04	-	-	0.074	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
45	255	561	63	72	162-164
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.
12. Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

CHANDAN STEEL LTD. Q. A. Valsad (Gujarat)

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

ROSETTI MARINO
Supply Management Dept.

Witness Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 960 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: CH-19714 - Qty:54,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 503, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax: 91-22-6629063/34
Website : www.chandansteel.net
Email : cs@chandansteel.net

WORKS: Plot No. 13, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171, INDIA
Tel.: 91-260-256 2066 / 6367 / 1166. Fax.: 91-260-256 2187
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/22-23/00790- 12
Date of Issue : 30.10.2022
P. O. No. : 00000200 S DTD 24.05.2022 Dt. 26-05-2022
Invoice No. & Date : EXP/22-23/00790 Dt.30.10.2022

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Part Code	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
29	-	CH-17777	383	46	695.31	ASTM/ASME A/SA182 F316/316L	1-1/2" WNRF 150 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	N	OTHERS
29	0.020	0.42	1.70	0.038	0.004	16.83	10.08	2.04	-	-	0.090	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm² ($R_{p0.2}$)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (B. H. N.)
29	269	565	52	69	164-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%. Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Fr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 20, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing performed by CSL.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

Q. A.

V.Y. NARAYAN
SR. MANAGER Q. A.

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 970 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pos. marking: CH-17777 - Qty:8,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202300002331.1.0001

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 051022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG, MUMBAI 400 007, INDIA
Tel: 91-22- 66293600. Fax: 91-22-66293633/34
Website : www.chandansteel.net
Email : cs1@chandansteel.net

WORKS: Plot No. 33, G. I. D. C. Umbergaon Dist Valsad, Gujarat - 396 171, INDIA
Tel: 91-260-256 1066 / 4347 / 1166. Fax: 91-260-256 2187
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/22-23/01571 -47
Date of Issue : 18.03.2023
P. O. No. : 00000350 Dt. 02-12-2022
Invoice No. & Date : EXP/22-23/01571 Date- 18.03.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
21	CH-18812	27	9	17.54	ASTM/ASME A/SA182 F316/316L	1/2" WNRF 300 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	
"	"	"	"	"	"	"	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
21	0.023	0.46	1.86	0.039	0.015	16.98	2.02	10.00	"	"	0.074	"
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"	"	"	"	"	"

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm^2 (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
21	253	553	57	75	166-170
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"

Remarks:

1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions Inspection OK.
3. PMI Test 100%- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual, Dimension and PMI performed by CSL.
11. Mechanical Testing performed by CSL.

We hereby certify that, the material described herein, and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 980 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1/2" S.300 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: CH-18812 - Qty:14,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

raccortubi Heat num. or Pos. marking: A-5735 - Qty:18.00
Customer: ROSETTI MARINO S.p.A.
Description: W.N. 3/4" S.300 RF SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 990 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY * Issued 03-06-2024
CTCERT202300002219.1.0001

GOODLUCK

ADM. OFFICE: II F-166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.
Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

(AS PER EN - 10204 - 3.1. ☑ / 3.2 ☐)

Entry No. : 5558

CUSTOMER	CUSTOMER P.O. No. & Dt.	OUR W.O. No. & Dt.	SPCN. No.	QAP NO.	DOC. NO.	PROJECT:	TEST CERTIFICATE No & Dt.
RACCORTUBI S.P.A Viale De Gasperi 194 20010 Marcallo con Casone (MI) ITALY	00000295 S 14/10/22	Exp/1391/22-23 18.10.2022					GLECO/J-1391-18 Date 28.01.2023

STEEL MELTING PROCESS	ORDER STATUS	DIMENSIONS AS PER	INSPECTION AGENCY	DATE OF INSPN. & TESTING
EF-AOD		ASME B16.5 (Ed.2020)	M/s RACCORTUBI	27 & 28.01.2023

Item Sr.No.	Item Code	ITEM DESCRIPTION	MATERIAL SPEC.	QUANTITY (NOS)	HEAT NUMBER	BATCH NUMBER	HEAT TREATMENT CONDITION	TEMP °C	SOAKING TIME (Hrs)	COOLING MEDIUM	DELIVERY STATUS
19.000		0.75 in x 300 # x WNRF x SCH 40S (NACE)	ASTM A 182 Gr.F316/316L (Ed.2021)	75	A-5735	GJ2200D	Solution treat & Quenched	1080	04 Hrs	Stirred Water & cooled Below 260°C	Complete

GASKET FACE FINISH:125-250 AARH

Total Qty Pc 75

Report Type	Heat No	Batch No	C%	Mn%	Si%	S%	P%	Cr%	Ni%	Mo%	N%
Ladle	A-5735	-	0.0230	1.4700	0.3700	0.0090	0.0420	16.6400	10.0500	2.0200	0.0790
Product	A-5735	GJ2200D	0.0250	1.5100	0.3800	0.0080	0.0400	16.6800	10.0800	2.0500	0.0790
Required Value	-	Min	-	-	-	-	-	16.0000	10.0000	2.0000	-
		Max	0.0300	2.0000	1.0000	0.0300	0.0450	18.0000	14.0000	3.0000	0.1000

Good Luck Engg. Co. Dadri (U.P.) Nikhil Gupta Asst. Manager (Q.C.)

For Raccortubi S.P.A

Authorised Signatory

28/01/23

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

raccortubi Heat num. or Pos. marking: A-5735 - Qty:18.00
Customer: ROSETTI MARINO S.p.A.
Description: W.N. 3/4" S.300 RF SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 990 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000010
Protocol: CTCERC20240005072 * CERTIFIED TRUE COPY * Issued 03-06-2024
CTCERT20230000219.1.0002

GOODLUCK
ADM. OFFICE: II F-166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

Entry No. : 5558

MECHANICAL TEST REPORT AT ROOM TEMPERATURE IN AS DELIVERED CONDITION	Batch No	Gauge Dia / Size (mm)	Yield Strength (N / mm sq.) (0.2% Proof Stress)	Tensile strength (n/mm Sq.)	Elongation % On GL = 4D	Reduction in Area %	Hardness	Impact Test10X10X55 mm (Charpy 2mm V-Notch)					Grain Size as per ASTM E-112
							BHN	01	02	03	Avg(Joules)	Temp °C	
	GJ2200D	12.49	310.02	583.33	52.00	72.08	168, 170	- - -	- - -	- - -	- - -	- - -	
	REQUIRED	MIN	205.00	515.00	30.00	50.00	-	-	-	-	-	-	
		MAX	-	-	-	-	-	-	-	-	-	-	

SUPPORTING TESTING	TEST STANDARD	ACCEPTANCE LEVEL	RELEVANT REPORT

SEAL/STAMP OF TPI WITNESS

ARJUN CHAUDHARY
Prepared by:

SEAL / STAMP of Incharge Quality

Nkihil Gupta
Asst. Manager (Q.C.)
Good Luck Engg. Co.
Dadri (U.P.)

Remark:
(1) No Weld repair performed on forging.
(2) Hardness Test carried out on job & found satisfactory.
(3) Material comply all the requirements of PO & Specification.
(4) Material conformed all the requirements of ASTM A961/A961M (Ed. 2021)
(5) No Chinese and East European material is used.
(6) Material 100% visual & dimensional checked & found surface free from all types of defects.
(7) PMI carried out on job (PMI Report No. GLECO/PMI/J-1391/18 DATED 28.01.2023 enclosed) & found satisfactory.
(8) IGC test carried out as per ASTM A262 Practice E Test piece Bend over mandrel Dia = 1t X 180° and reviewed under 20X Mag. Observed "Bend Specimen free of any crack and Grain dropping" Microscopic Structure observed under magnification of 250 X and observed "Step Structure" - Found satisfactory.
(9) Material comply all the requirements of NACE MR0175/ISO 15156 (Ed 2015).
(10) Packing carried out as per PO & Spec.RT_FL_EXEU_2011 and found satisfactory.
(11) Material is free from Mercury & Radioactive Contamination.

We hereby certify that material declared above meets the requirement of P.O./ relevant specification

Identification Mark:

Doc No	Doc Rev No	Date	Effective Date	Doc. Retention Period	Doc. Prepared by	Doc. Approved by	Recorded document will be prepared, Maintained And preserved by inchange Quality
QA 11 TCFP 08	04	13/08/2018	13/08/2018	AS SPECIFIED BY CUSTOMER / COMPANY PROCEDURE	MR	Dir.works	

Document Route
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(02) 1st Copy - Inchange quality to maintain and preserve the record.

CONTROLLED COPY

for Raccortubi S.P.A
Authorised Signatory
28/01/23

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

CTCERT202400002389.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web,www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER : M/S. RACCORTUBI SPA VIALE DE GASPERI 194 I-20010 MARCALLO CON CASONE MI Italy	Manufacturer's Symbol (A04)	(A03)MTR NO.	100028548 / 57 REV.1
		INVOICE NUMBER	
		(Z02) DATE	23.12.2023
		MATERIAL SPEC	ASTM A182/A182M-23 / ASME SA182/SA182M-23
		(B02) GRADE	F316/316L
		DIMENSIONAL SPEC	ASME B16.5-2020

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED & FULLY MACHINED

ISO 9001:2015,TUV NORD REG No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE(PED) 2014/68/EU,CERTIFING BODY-TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION No. 0045)

(A07)ORDER NO. 245	(A08) Sales Order No. 100028548 / 560	(A09)Article No: 56

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
6" WNRF S10S 150#	100	DK782

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%N								
MIN						16.00	10.00	2.00									
MAX	0.030	2.00	1.00	0.030	0.045	18.00	14.00	3.00	0.1000								
HEAT	0.019	1.64	0.40	0.021	0.037	16.90	10.05	2.03	0.0480								
PROD.	0.017	1.64	0.40	0.020	0.037	16.90	10.00	2.03	0.0460								

MECHANICAL PROPERTIES

Test Specification ASTM - A370

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Specimen Shape - Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13) Elongation%	Reduction of Area	(C32) Hardness			(C40) Charpy V-Notch 10x10x55mm (Values in Joules)			
		Rp=0.2%	Rp = 1%						(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=4D	%	BHN-1	BHN-2	AVG	1	2	3	AVG
Req.	515 MIN	205 MIN		30 MIN	50 MIN							
T	562.35	270.75	311.33	59.60	69.13	152	154	153	206	224	198	209

Other applicable Specifications :: NACE MR 0175 / ISO 15156-2015 & NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Induction furnace/Aragon Oxygen Decarburisation (AOD-IRS), Concast

Heat Treatment	Solution Annealed at 1080°C and water Quenched
Dimension	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness Value - RA 3.2 TO 6.3 µm / 125 TO 250 AARH
PMI Test	No objection (100% tested with mobile spectro)
Inter Granular Corrosion Test	: Passed IGC test in accordance with ASTM A262 practice E
Radioactivity Test	All the above material is tested for Radioactivity and found with in the limit of background radiation.
Liquid penetrant test	: No objection(test method-ASTM E 165 & accepted as per ASME Sec.VIII division 1-appendix 8)

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 461A and 461B and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☒ Review

VIJAY KUMAR PILLAI (PRESIDENT)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1000 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 6" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DK782 - Qty:2,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCER[redacted]1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230026936/54 / Rev - 00
		INVOICE NUMBER	910024465
		(Z02) DATE	05.08.2023
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-21
			EN10222-5-2017/ASME SECT.II PART A-2021
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION :

ISO 9001:2015-TUV NORD REG No-04100031210 05 EXPIRY DATE: 21.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. 0045)

(A07)ORDER NO: PUR-IOX04045RH	(A08)Sales Order No. 100024860/000320	(A09)Article No:125

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1" WNRF 300# S40S	600	DG136

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.024	1.62	0.38	0.025	0.035	16.75	10.09	2.03	0.002	0.0660

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10				
Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	546.88	282.81	325.65	59.40	70.40	151	195	209	214	206

Other applicable Specifications :: NACE MR 0175-2021 / ISO 15156 - 2020 NACE MR 0103 - 2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1010 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.300 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: DG136 - Qty:30,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCER[redacted]0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230039622/57 / Rev - 00
	INVOICE NUMBER	910028963
	(Z02) DATE	26.11.2023
	MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-23
		EN10222-5-2017/ASME SECT.II PART A-2023
	(B02) GRADE	F316/316L/1.4401/1.4404
	DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STAINLESS STEEL FORGED | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG No-01100031210.05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATIONBODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: PUR-IOX06888RH	(A08)Sales Order No. 100029354/001020	(A09)Article No:102

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1" WNRF 300# S40S	70	DJ346

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.017	1.56	0.43	0.011	0.036	17.05	10.09	2.03	0.002	0.0600

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10				
Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	573.74	307.64	350.95	60.00	71.72	156	216	208	190	205

Other applicable Specifications :: NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1010 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.300 RF SCH.40/S

raccortubi Heat num. or Pos. marking: DJ346 - Qty:53,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003761.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230044598/27 / Rev - 00
		INVOICE NUMBER	910030406
		(Z02) DATE	31.12.2023
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-23
			EN10222-5-2017/ASME SECT.II PART A-2023
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG No-04100031210.03 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: PUR-IOX07383RH	(A08)Sales Order No. 100029987/000950	(A09)Article No:95

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1" WNRF 300# 840S	108	DL364

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.022	1.61	0.35	0.026	0.040	17.10	10.07	2.04	0.001	0.0640

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10				
Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
							(C42) Single values			(C43)
		Rp=0.2%	Rp = 1%	Elongation%						
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	560,44	263,53	301,34	59,00	70,40	154	166	172	188	175

Other applicable Specifications : NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

VIJAY KUMAR PILLAI (GM, QAD)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1010 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1" S.300 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: DL364 - Qty:97,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 071022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171,INDIA
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/22-23/0000-17
Date of Issue : 20.10.2022/Rev.01 Dt. 22.10.2022
P. O. No. : 00000200 S DTD 24.05.2022 Dt. 26-05-2022
Invoice No. & Date : EXP/22-23/0000 Dt.20.10.2022

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Part Code	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
38	-	CH-16463	96	51	668.00	ASTM/ASME A/SA182 F316/316L	3" WNRF 300 LBS 10S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
38	0.020	0.42	1.69	0.038	0.022	16.65	10.02	2.02	-	-	0.069	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm² ($R_{p0.2}$)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
38	260	565	59	74	162-164
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions Inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 20, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

Q. A.

V.Y. NARAYAN
SR. MANAGER Q. A.

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☒ Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1020 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: CH-16463 - Qty:1,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202200002953.1

CHANDAN STEEL LIMITED
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)
ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG, MUMBAI 400 007, INDIA
Tel.: 91-22-66290600, Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : cel@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon Dist Valsad, Gujarat - 396 171, INDIA
Tel.: 91-260-256 2066 / 4367 / 1166, Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/21-22/01811-56
Date of Issue : 30.03.2022
P. O. No. : 00000041 S Dtd.07.02.2022
Invoice No. & Date : EXP/21-22/01811 Dt.30.03.2022

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Part Code	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
85	G6LWN6S300RFS40SE	CH-16164	25	31	515.00	ASTM/ASME A/SA 182 F316/316L	6" WNRF 300 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
85	0.022	0.38	1.73	0.043	0.012	17.03	2.06	10.04	-	-	0.084	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm² ($R_{p0.2}$)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
85	276	573	56	72	165-168
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions Inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 20, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL and 5% witnessed by TPI
11. Mechanical Testing performed by CSL and Reviewed By TPI

We hereby certify that, the material described herein, and supplied are in compliance with the requirements of the order.

Q.A.

V.Y. NARAYAN
SR. MANAGER Q. A.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1030 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 6" S.300 RF SCH.40/S

raccortubi Heat num. or Pos. marking: CH-16164 - Qty:6,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003763.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230025685/18 / Rev - 00
		INVOICE NUMBER	910024113
		(Z02) DATE	29.07.2023
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-21
			EN10222-5-2017/ASME SECT.II PART A-2021
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION :

ISO 9001:2015-TUV NORD REG.No-04100031210/03 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0015)

(A07)ORDER NO: 4500035311	(A08)Sales Order No. 100023231/000350	(A09)Article No:158846

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
4" WNRF 300# S10S	57	DG350

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.018	1.60	0.53	0.020	0.038	16.64	10.08	2.03	0.001	0.0670

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0,2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=5D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	553.75	271.00	317.51	59.60	72.52	152	214	226	206	215

Other applicable Specifications :: NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface Quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin.
Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment. :

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1040 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 4" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DG350 - Qty:20,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003759.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER :	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230041537/26 / Rev - 00
		INVOICE NUMBER	910029390
		(Z02) DATE	05.12.2023
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-23
			EN10222-5-2017/ASME SECT.II PART A-2023
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: PUR-IOX06129RH-AA	(A08)Sales Order No. 100028433/000720	(A09)Article No:102

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
4" WNRF 300# S10S	26	DK476

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.017	1.62	0.40	0.024	0.036	17.02	10.01	2.03	0.006	0.0760

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
							(C42) Single values			(C43)
		Rp=0.2%	Rp = 1%	Elongation%			1	2	3	AVG
	MPA	MPA	MPA	Lo=4D	%	BHN				
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	586,33	288,79	334,58	68,00	68,64	158	192	190	176	186

Other applicable Specifications :: NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/ 2014 and further amendment.

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1040 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 4" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DK476 - Qty:22,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003758.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghur,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230041151/21 / Rev - 00
		INVOICE NUMBER	910029252
		(Z02) DATE	01.12.2023
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-23
			EN10222-5-2017/ASME SECT.II PART A-2023
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STAINLESS STEEL FORGED | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: PUR-IOX06334RH	(A08)Sales Order No. 100028708/001530	(A09)Article No:178

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
4" WNRF 300# S10S	26	DK476

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.017	1.62	0.40	0.024	0.036	17.02	10.01	2.03	0.006	0.0760

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10				
Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	586.33	288.79	334.58	68.00	68.64	158	192	190	176	186

Other applicable Specifications :: NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1040 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 4" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DK476 - Qty:26,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003757.1.0001

VIRAJ PROFILES PRIVATE LIMITED (formerly, Viraj Profiles Limited)(Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/240000620/40 / Rev - 01
		INVOICE NUMBER	910030727
		(Z02) DATE	14.01.2024
		MATERIAL SPEC.	ASTM A182/A182M-23/ASME SA182/SA182M-23
			EN10222-5-2017/ASME SECT.II PART A-2023
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020/EN1759-1-2005

(B01) : STAINLESS STAINLESS STEEL FORGED | (B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: PUR-IOX06888RH	(A08)Sales Order No. 100029354/001070	(A09)Article No:107

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
4" WNRF 300# S10S	78	EA085

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.024	1.64	0.35	0.025	0.036	16.95	10.02	2.02	0.007	0.0740

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10				

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	552.57	250.57	291.64	56.40	70.80	152	199	192	220	204

Other applicable Specifications :: NACE MR 0175-2021/ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10 / NORSOK MDS S01 Rev.5-2021

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface quality	: Satisfactory Roughness value - RZ 12.5 to 25 µm / RA 3.2 to 6.3 µm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

HS Code: 73072100 The material is manufactured /melted in Viraj Profiles Private Limited Steel Mill and is of Indian Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1040 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 4" S.300 RF SCH.10/S

raccortubi Heat num. or Pos. marking: EA085 - Qty:2,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001:2015 CERTIFICATE No. IN 013151

ADM. OFFICE: 501, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel: 91-22- 66196600, Fax: 91-22-66196633/34
Website : www.chandansteel.net
Email : sal@chandansteel.net

WORKS: Plot No. 35, Survey No.102/2 & 3 G. I. D. C.,
Village : Dehari, Tal- Umbergaon,
Dist Valsad, Gujarat - 396 171. INDIA.
Tel.: 91-260-256 2066 / 4367 / 1166. Fax: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA VIALE DE GASPERI, 191 20010 MARCALLO CON CASONE (MILANO) - ITALIA	Test Certificate No. : 1673F/23-24- 21 Date of Issue : P. O. No. : 00000058 Dt. 06.04.2023 Invoice No. & Date : 1673F/23-24

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
21	CH-18895	164	8	519.388	ASTM/ASME A/SA182 F316/316L	1-1/2" WNRF 300 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
21	0.022	0.43	1.66	0.036	0.028	16.82	2.01	10.08	-	-	0.072	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
21	268	563	58	72	162-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.

Q.A.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

V.Y.NARAYANAN
WORKS INSPECTOR

F/QA/18, Rev. 00, 11.01.2018

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1050 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/2" S.300 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: CH-18895 - Qty:16,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202300004221.1.0001

Flanschenwerk Bebitz

Flanschenwerk Bebitz GmbH • Lebendorfer Str. 1 • 06420 Könnern OT Bebitz • GERMANY
(A01)

Abnahmeprüfzeugnis 3.1 / Inspection certificate 3.1 / Certificat de reception 3.1

nach (A02) / acc. DIN EN 10204 : 2005 Nr. (A03) / No.23-04271 **Datum (Z02) / Date** 18.10.2023

Zeichen des Herstellers (A04) / Manufacturer's brand: [B]

Stempel des Abnehmers (Z03) / Stamp of the testing engineer: TKO 7

Überprüft als Hersteller nach AD-Merkblatt W0 / TRD100 und VdTÜV Werkstoffblätter 350/3, 354, 399 / Approved as manufacturer according AD-Merkblatt W0 / TRD100 and VdTÜV Material Sheets 350/3, 354, 399
Zertifiziert nach DGR 2014/68/EU durch TÜV NORD Systems GmbH Co. KG, notifizierte Stelle 0045 / Certified according to PED 2014/68/EU, certifying body TÜV NORD GmbH Co. KG, notified body no. 0045

Besteller (A06) Customer
RACCORTUBI S. p. A.
Viale De Gasperi 194
20010 MARCALLO CON CASONE - MILANO

Bestell-Nr (A07) / Order-No. 00000117
Auftrag (A08) / Order 20002536
Lieferschein / Delivery No. 30009853
Position (B07.1) / Item 37B

Stck (B08) Quantity	Bezeichnung (B01; B09 - B11) Product	Schmelze/Prüflos (B07) Heat no./Test no.
18	10 inch Welding Neck Flange 150 lbs S10s raised face	DF309/1

Material (B02; B05) F 316/F 316L ASTM A182M-21 / ASME SA-182M
solution annealed > 1040 °C and quenched in water

Anford. (B03) Require-ments
ASME B16.5-2017
NACE MR0175-2015 / MR0103-2015 - DIN EN ISO 15156-3:2015 / DIN EN ISO 17945:2015
2021 ASME Boiler & Pressure Vessel Code - Section II Part A

PMI-tested 100%, IC-test acc. to DIN EN ISO 3651-2 Test A / ASTM A262 practice E

Schmelzenanalyse (C71 - C92) / Ladle analysis **Erschmelzung (C70) / Melting process** E

C	Si	Mn	P	S	Cr	Ni	Ti	Mo	Nb	V	N	Cu	Al	PREN
0,013	0,32	1,66	0,037	0,022	16,80	10,10	0,001	2,04			0,070	0,45		24,65

$$CEV = C + \frac{Mn}{6} + \frac{V + Mo + Cr}{5} + \frac{Ni + Cu}{15} \qquad PREN = Cr + 3{,}3 \times Mo + 16 \times N$$

Mechanische Prüfungen / Mechanical tests

Probenlage (C02): T / Position of Specimen: T Zugversuch / Tensile Test - ASTM A 370						KBV / Impact test DIN EN ISO 148-1 ASTM A370 (V-Kerb / V-notch)				Härte (C32) Hardness ISO 6506-1
Temp (C03) ° C	Streckgrenze (C11) / Yield 0,2% MPa (N/mm²)	1,0% MPa (N/mm²)	Zugfestigkeit (C12) Tensile MPa (N/mm²)	Dehnung (C13) Elongation %	Einschnürg. Red. of area %	Temp. (C03) ° C	Einzelwerte (C42) Single values J		MW (C43) Average J	HBW 2,5/187,5
20	min 205 max		515	30,0 $5d_0$ $4d_0$	50	20				
20	255	304	569	56,8 71,0	68	20	186 198 176		186,7	157 152

Country of Origin: Germany

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Am Material wurden keine Reparaturschweißungen vorgenommen. / No welding repair on the material.
Material ist nicht radioaktiv oder mit Quecksilber kontaminiert. / Material is free from radioactive or mercury contamination.
Sicht- und Maßprüfungen ohne Beanstandungen. (D01) / Visual and dimensional examinations without objections.
Die Anforderungen der Bestellung sind erfüllt. / The product meets the requirements of the order specifications.
Die Angaben in Klammern entsprechen den Vorgaben der DIN EN 10168 / Data in parentheses refer to DIN EN 10168.
APZ ist mit EDV erstellt und ohne Unterschrift gültig. / MTR was electronically generated and is valid without a signature.

R. Sparing
Abnahmebeauftragter des Herstellers (Z02) / Inspection Representative of the Manufacturer

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 1060 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 10" S.150 RF SCH.10/S

raccortubi Heat num. or Pos. marking: DF309/1 - Qty:7,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202300004970.1.0001

MAASS GLOBAL GROUP
WILHELM MAASS GMBH

Zeche Ernestine 12-18
45141 Essen
Tel.: +49 (0) 201 – 29 49 30
Fax.: +49 (0) 201 – 29 18 75
E-Mail: info@wmaass.de
Internet: www.wmaass.de

Inspection Certificate EN 10204 3.1
Abnahmeprüfzeugnis EN 10204 3.1

Maass Special Alloys Nederland B.V.
Wattbaan 51-6
Nieuwegein, 3439 ML
Netherlands

Customer's Reference - Kundennummer
MSA23-60236
Manufacturer's Works Order No - Hersteller Auftragsnummer
2071240

Material: Werkstoff	F316 / F316L
Requirements: Anforderungen	A182/A182M:2023 // SA182/SA182M:2021 // NACE MR0175:2021 // NACE MR 0103:2015 // ISO 15156:2021 // ASME Code Sect. II Part A:2021 // ASME B16.5:2021
Heat treatment: Wärmebehandlung	Solution annealed at 1050°C, rapid cooling by quenching in cold water

Item Characteristics – Artikelmerkmale

Line Item No Position	Quantity Menge	Material Description Material Bezeichnung	Heat No Schmelz Nr	Sample No Probe	
33	30	Flange NPS 3" Class 300 SO RF (ASME B16.5)	3289	C1852	
34	100	Flange NPS 4" Class 150 SO RF (ASME B16.5)	3289	C1852	
61	75	Flange NPS 3" Class 150 WN 10S RF (ASME B16.5)	3289	C1852	
62	75	Flange NPS 3" Class 150 WN 40S RF (ASME B16.5)	3289	C1852	
64	150	Flange NPS 4" Class 150 WN 10S RF (ASME B16.5)	3289	C1852	
65	50	Flange NPS 4" Class 150 WN 40S RF (ASME B16.5)	3289	C1852	
66	50	Flange NPS 4" Class 300 WN 40S RF (ASME B16.5)	3289	C1852	
67	10	Flange NPS 5" Class 150 WN 40S RF (ASME B16.5)	3289	C1852	

Chemical analysis - Chemische Analyse

Heat No. Schmelz Nr.	Req.	C%	Si%	Mn%	P%	S%	Mo%	Cr%	Ni%	Al%	Cu%	Ti%	Co%	N%
	min	0	0	0	0	0	2,00	16,00	10,00	0	0	0	0	0
	max	0,030	1,00	2,00	0,045	0,030	3,00	18,00	15,00					0,100
3289	HA	0,017	0,35	1,44	0,043	0,015	2,03	16,85	10,05					0,085

Mechanical properties - Mechanische Eigenschaften

Heat No Schmelz Nr.	Sample No Probe	Temp. [°C]	Yield Strength Dehngrenze [N/mm²]		Tensile Strength Zugfestigkeit [N/mm²]	Elongation Bruchdehnung [%]	Reduction of Area Bruchein-schnürung [%]	Location Lage	Dimension Abmessung [Ø]
			R_p 0,2	R_p 1,0	R_m	A_4	Z		
			>205		>515	>30	>50		
3289	C1852	+20	261	304	535	55,2	72,4	transversal	12,50

Impact Strength - Kerbschlagzähigkeit

Heat No Schmelz Nr	Sample No Probe	Temp. [°C]	Impact energy Schlagarbeit [J]				Laterale expansion Laterale Breitung [mm]			Location Lage	Type Art	Dimension Abmessung
			1	2	3	Avg.						

Hardness - Härte

Sample No Probe	Hardness measurement Härtemessung	1	2	3	4	5	Avg.	Req
C1852	HBW	163	164				163,5	

Surface and dimensional check according to ASME B16.5
100% PMI with X-Ray Fluorescene (XRF) Spectro xSORT & found satisfactory
Mechanical tests according to ASTM A370
Steel made by electric furnace // Melting process = EAF/AOD
Flange facing finish according to ASME B16.5 - 2020 Cl.6.4.5
DIN ISO 9001 - 2015 - Certificate No. 01 100 2209906
This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with purchaser order requirements.
This certificate is not a declaration of origin nor may it be used as a declaration of origin
Free from mercury and radioactive contamination
HA = Ladle Analysis // PA = Product Analysis // Req. = Requirements // Avg = Average

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Trade Mark Handelszeichen	Customer Third Party Kundendritter	WMAASS Quality Department Signature WMAASS Qualitätswesen Unterschrift	
		Head of Quality Department Murat Cengiz	Work Inspector Patrick Oberhauser

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3" S.160 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 3289 - Qty:3,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

MAASS GLOBAL GROUP
WILHELM MAASS GMBH

Zeche Ernestine 12-18
45141 Essen
Tel.: +49 (0) 201 – 29 49 30
Fax.: +49 (0) 201 – 29 18 75
E-Mail: info@wmaass.de
Internet: www.wmaass.de

Inspection Certificate EN 10204 3.1
Abnahmeprüfzeugnis EN 10204 3.1

Additional tests - Zusätzliche Prüfungen

IGC resistant acc. ASTM A262 Pr.E: satisfactory

Company Wilhelm Maass GmbH is a AD2000 W0 and PED 2014/68/EU ANNEX I, Section 4.3 approved manufacturer

Surface and dimensional check according to ASME B16.5
100% PMI with X-Ray Fluorescene (XRF) Spectro xSORT & found satisfactory
Mechanical tests according to ASTM A370
Steel made by electric furnace // Melting process = EAF/AOD
Flange facing finish according to ASME B16.5 - 2020 Cl.6.4.5
DIN ISO 9001 - 2015 - Certificate No. 01 100 2209906
This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with purchaser order requirements.
This certificate is not a declaration of origin nor may it be used as a declaration of origin
Free from mercury and radioactive contamination
HA = Ladle Analysis // PA = Product Analysis // Req. = Requirements // Avg = Average

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Trade Mark Handelszeichen	Customer Third Party Kundendritter	WMAASS Quality Department Signature WMAASS Qualitätswesen Unterschrift	
		Head of Quality Department Murat Cengiz	Work Inspector Patrick Oberhauser

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 3" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 3289 - Qty:3,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 604, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171, INDIA
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. :
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No.	: EXP/22-23/00122 - 21
Date of Issue	: 29.04.2022
P. O. No.	: 00000041 S Dtd.07.02.2022
Invoice No. & Date	: EXP/22-23/00122 Dt.29.04.2022

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Part Code	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
49	G6LWNMS150RFS40SH	CH-16628	250	47	130.70	ASTM/ASME A/SA 182 F316/316L	1/2" WNRF 150 LBS 40S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
49	0.026	0.40	1.73	0.043	0.010	16.99	2.02	10.06	-	-	0.084	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm^2 ($R_{p0.2}$)	Tensile Strength N/mm^2 (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
49	269	567	60	76	163-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.B)):- Satisfactory.
7. The material conforms to ASTM A 182 - 20, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
8. The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL and 5% witnessed by TPI
11. Mechanical Testing perfomed by CSL and Reviewed By TPI

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

Q. A.

V.Y. NARAYAN
SR. MANAGER Q. A.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

F/QA/18, Rev. 00, 11.01.2018

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1130 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1/2" S.150 RF SCH.40/S

raccortubi Heat num. or Pcs. marking: CH-16628 - Qty:4,00

Protocol: CTCERC202400005072 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202200003855.1

Flanschenwerk Bebitz

Flanschenwerk Bebitz GmbH • Lebendorfer Str. 1 • 06420 Könnern OT Bebitz • GERMANY (A01)

Abnahmeprüfzeugnis 3.1 / Inspection certificate 3.1 / Certificat de reception 3.1

nach (A02) / acc. DIN EN 10204 : 2005 Nr. (A03) / No. 22-03029 **Datum (Z02) / Date** 25.07.2022

Zeichen des Herstellers (A04) / Manufacturer's brand: B

Stempel des Abnehmers (Z03) / Stamp of the testing engineer: TKO 7

Überprüft als Hersteller nach AD-Merkblatt W0 / TRD100 und VdTÜV Werkstoffblätter 350/3, 354, 399 / Approved as manufacturer according AD-Merkblatt W0 / TRD100 and VdTÜV Material Sheets 350/3, 354, 399
Zertifiziert nach DGR 2014/68/EU durch TÜV NORD Systems GmbH Co. KG, notifizierte Stelle 0045 / Certified according to PED 2014/68/EU, certifying body TÜV NORD GmbH Co. KG, notified body no. 0045

Besteller (A06) / Customer: RACCORTUBI S. p. A.
Viale De Gasperi 194
20010 MARCALLO CON CASONE - MILANO

Bestell-Nr (A07) / Order-No. 00000271 S
Auftrag (A08) / Order 20002158
Lieferschein / Delivery No. 30008137
Position (B07.1) / Item 22B

Stck (B08) Quantity	Bezeichnung (B01; B09 - B11) Product	Schmelze/Prüflos (B07) Heat no./Test no.
210	1 inch Welding Neck Flange 150 lbs S40s raised face Customer ID: G6LWN1S150RFS40S	CA048/1

Material (B02; B05): F 316/F 316L ASTM A182M-21 / ASME SA-182M
solution annealed > 1040 °C and quenched in water

Anford. (B03) Requirements: ASME B16.5-2017
NACE MR0175-2015 / MR0103-2015 - DIN EN ISO 15156-3:2015 / DIN EN ISO 17945:2015
2019 ASME Boiler & Pressure Vessel Code - Section II Part A

PMI-tested 100%, IC-test acc. to DIN EN ISO 3651-2 Test A / ASTM A262 practice E

Schmelzenanalyse (C71 - C92) / Ladle analysis **Erschmelzung (C70) / Melting process** E+AOD

C	Si	Mn	P	S	Cr	Ni	Ti	Mo	Nb	V	N	Cu	Al	PREN
0,017	0,43	1,69	0,037	0,020	16,90	10,10	0,002	2,03			0,078	0,45		24,85

$CEV = C + \frac{Mn}{6} + \frac{V + Mo + Cr}{5} + \frac{Ni + Cu}{15}$ $PREN = Cr + 3{,}3 \times Mo + 16 \times N$

Mechanische Prüfungen / Mechanical tests

Probenlage (C02): T / Position of Specimen: T Zugversuch / Tensile Test - ASTM A 370						KBV / Impact test DIN EN ISO 148-1 ASTM A370 (V-Kerb / V-notch)			Härte (C32) Hardness ISO 6506-1
Temp (C03) ° C	Streckgrenze (C11) / Yield 0,2% MPa (N/mm²)	1,0% MPa (N/mm²)	Zugfestigkeit (C12) Tensile MPa (N/mm²)	Dehnung (C13) Elongation %	Einschnürg. Red. of area %	Temp. (C03) ° C	Einzelwerte (C42) Single values J	MW (C43) Average J	HBW 2,5/187,5
20	min 205 max		515	30,0 $5d_0$ $4d_0$	50	20			
20	291	339	558	57,2 71,5	69	20	214 208 216	212,7	161 156

Country of Origin: Germany

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Am Material wurden keine Reparaturschweißungen vorgenommen. / No welding repair on the material.
Material ist nicht radioaktiv oder mit Quecksilber kontaminiert. / Material is free from radioactive or mercury contamination.
Sicht- und Maßprüfungen ohne Beanstandungen. (D01) / Visual and dimensional examinations without objections.
Die Anforderungen der Bestellung sind erfüllt. / The product meets the requirements of the order specifications.
Die Angaben in Klammern entsprechen den Vorgaben der DIN EN 10168. / Data in parentheses refer to DIN EN 10168.
APZ ist mit EDV erstellt und ohne Unterschrift gültig. / MTR was electronically generated and is valid without a signature.

R. Sparing
Abnahmebeauftragter des Herstellers (Z02) / Inspection Representative of the Manufacturer

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400453

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: 21/06/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

raccortubi

00005381

12/06/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
130	NR	4	0,00	Weldolet BW diam.10"x2" Thk.4.19mmx2.77mm ASTM A182 Gr.F316/316L	BAJV
140	NR	3	0,00	Weldolet BW diam.6"x1" Thk.3.4mmx3.38mm ASTM A182 Gr.F316/316L	BAKV
150	NR	5	0,00	Weldolet BW diam.10"x1" Thk.4.19mmx3.38mm ASTM A182 Gr.F316/316L	BAKV
160	NR	1	0,00	NipoFlange Reinforced diam.2"x3/4" Thk.2,77mmx2,87mm 150LB RF ASTM A182 Gr.F316/316L FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	278443
1070	NR	4	0,00	W.N. 1.1/4" S.150 RF SCH.10/S	DB166

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.136 / 2024 PAGINA DI PAGINE Page 1 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.24	COMMESSA Job 00002010

OGGETTO
Object SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASME V ART.6			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	MATERIALE Material	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method						
MARCA Brand N.D.T.			PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
TIPO Type	LAVABILE IN ACQUA Water Washable X			PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
	POST EMULSIONABILE Post Emulsifiable		RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
	RIMOVIBILE CON SOLVENTE Solvent Removable			UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 DATA Date 11 / 06 / 2024 RT	ROSETTI MARINO Supply Management Dept. ☑ Witness ☑ Review DATA Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1985 CERT. ISO 9001 LRC0100763/QMS	N° 4.136 / 2024 PAGINA DI PAGINE Page 2 of 2 Pages

CLIENTE Customer	RACCORTUBI S.p.A.	ORDINE Order	1724000839 - 22.04.2024	COMMESSA Job	00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
1070	4	W.N. 1 ¼" S.150 RF SCH.10/S	ASTM A-182 ANSI B16.5 125 - 250 AARH GR. F316/316L	DB166
130	4	WELDOLET BW 10"x 2" Thk. 4.19 x 2.77 mm	ASTM A-182 GR. F316/316L	BAJV
140	3	WELDOLET BW 6"x 1" Thk. 3.4 x 3.38 mm	ASTM A-182 GR. F316/316L	BAKV
150	5	WELDOLET BW 10"x 1" Thk. 4.19 x 3.38 mm	ASTM A-182 GR. F316/316L	BAKV
160	1	NIPOFLANGE REINFORCED 2"x ¾" Thk. 2.77 x 2.87 mm 150LB RF ASTM	ASTM A-182 GR. F316/316L	278443
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 11 / 06 / 2024	ROSETTI MARINO Supply Management Dept. ☑ Witness ☑ Review DATA Date	DATA Date

raccortubi

00005381

12/06/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
130		4 NR	Weldolet BW diam.10"x2" Thk.4.19mmx2.77mm ASTM A182 Gr.F316/316L	BAJV
140		3 NR	Weldolet BW diam.6"x1" Thk.3.4mmx3.38mm ASTM A182 Gr.F316/316L	BAKV
150		5 NR	Weldolet BW diam.10"x1" Thk.4.19mmx3.38mm ASTM A182 Gr.F316/316L	BAKV
160		1 NR	NipoFlange Reinforced diam.2"x3/4" Thk.2,77mmx2,87mm 150LB RF ASTM A182 Gr.F316/316L	278443
			FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
1070		4 NR	W.N. 1.1/4" S.150 RF SCH.10/S	DB166

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

raccortubi Heat num. or Pcs. marking: BAJV - Qty:4.00

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.10"x2" Thk:4.19mmx2.77mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 130 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

Protocol: CTCERC2024000005381 * CERTIFIED TRUE COPY * Issued 12-06-2024

CTCERT2024000003865.1.0001

M.E.G.A.

INSPECTION CERTIFICATE
Certificato d'ispezione

REPORT N. / Rapporto N.	TC-030146-23-0006	Issued on / Revised on	23/11/2023	Customer		Job n. / Com. n.	30146	Page n. / Pagina n.	1 of 2
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1	Purchase order and project/Ordine e progetto	PUR-IOX02550MA		

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
BAJV	10	24	WEL6L-210-3	ASTM A182/23 F316/316L	286213	MEGALET Sch.10S A/SA182 F316/L 2x8-80
AQWN	21	25	WEL4L-240-2	ASTM A182/23 F304/304L	538678	MEGALET Sch.40S A/SA182 F304/L 2x3.1/2-6

Test Prova	STEEL MELTING AND HEAT TREATMENT DATA / Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
BAJV	ELECT.FURN.-SOLUT.ANNEALED at 1060^C WATER QUENCHED CERT 8958.MEGA	IT	MEST871377/2022/ by VALBRUNA / FC-011784-21-0055 by M.E.G.A. S.P.A.	MC-000000-22-728
AQWN	ELECT.FURN.-SOLUT.ANNEALED at 1060^C WATER QUENCHED CERT HTR.9758.MEGA	ES	492347 by OLARRA / FC-011784-21-0302 by M.E.G.A. S.P.A.	MC-000000-23-0060

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente: Specimen / Provino Shape Forma	A Sez.[mm²]	Gage Length Lungh.[mm]	Yield strength Sner. [Mpa] Min:	Tensile strength Rottura [Mpa] Min:	Elongation Allung. [%] Min:	Red. Of Area Contraz. [%] Min:	CVN IMPACT TEST (KV) / Prova di resilienza: Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]	Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [HBW 2.5/187.5]	Grain Size Dimens. grano
BAJV	T/2	TRANS	Round	31.100	25.000	278.700	582.800	53.800	71.600				–	–		164-169	
AQWN	T/2	TRANS	Round	30.900	25.000	492.100	627.900	53.300	72.000				–	–		173-183	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE[A] [%]	PREN[B] [%]	CEs[E] [%]	J fact.[D] [%]
BAJV	0.0100	0.5300	1.5100	0.0290	0.0300	16.6500	10.0700	2.0600																
AQWN	0.0130	0.3700	1.5000	0.0270	0.0390	18.1000	8.0800								0.0600 0.0840							24.4080 19.4440		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2020,NACE MR0103 Ed.2015, 2014/68/EU (PED)
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.
3: MATERIAL CAPABLE OF PASSING AN INTERGRANULAR CORROSION A262 Pr.E PMI 100% ON RAW MATERIAL: SATISFACTORY
4: MATERIALS ARE FREE FROM MERCURY CONTAMINATION AND RADIOACTIVITY

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'BAJV': Co 0.2110 | 'AQWN': Co 0.1600 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Emmanuel Centemeri

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.10"x2" Thk.4.19mmx2.77mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 130 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pos. marking: BAJV - Qty:4,00

Protocol: CTCERC202400005381 * CERTIFIED TRUE COPY * Issued 12-06-2024

CTCERT202400003865.1.0002

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

REPORT N. / Rapporto N.	TC-030146-23-0006	Issued on / Revised on	23/11/2023	Customer		Job n. / Com. n. 30146	Page n./ Pagina n. 2 of 2
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1	Purchase order and project/Ordine e progetto: PUR-IOX02550MA	

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2021; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013 (R 2018)
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and MSS SP 97 Ed. 2019 and ASME B.31.8 Ed. 2022
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2022 or B36.19 Ed. 2022
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Quality Control Inspector Certification department Ispettore controllo qualità	Emmanuel Centemeri

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.6"x1" Thk.3.4mmx3.38mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 140 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pos. marking: BAKV - Qty:3.00

Protocol: CTCERC202400005381 * CERTIFIED TRUE COPY * Issued 12-06-2024

CTCERT202400003866.1.0001

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-029860-23-0001	Issued on / Revised on	22/02/2023	Customer / Cliente	Job n. / Com. n. 29860 — Page n./ Pagina n.
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1
					Purchase order and project/Ordine e progetto: PUR-IOX01132MA

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
BAKV	5	100	WEL6L-140-2	ASTM A182-22a F316/316L	1KAP	MEGALET Sch.40S A/SA182 F316/L 1x3-80
AXAB	6	20	WEL6L-180-1	ASTM A182-22a F316/316L	0AWP	MEGALET Sch.80S A/SA182 F316/L 1x1.1/4-2.1/2
AVHH	7	30	WEL4L-1280-1	ASTM A182-22a F304/304L	501395	MEGALET Sch.80S A/SA182 F304/L 1/2x3/4-80
AXBN	8	50	WEL4L-140-1	ASTM A182-22a F304/304L	Z5PW	MEGALET Sch.40S A/SA182 F304/L 1x1.1/4-2.1/2
AXAA	9	50	WEL4L-140-2	ASTM A182-22a F304/304L	Z5PW	MEGALET Sch.40S A/SA182 F304/L 1x3-80

Test Prova	STEEL MELTING AND HEAT TREATMENT DATA / Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
BAKV	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 8957.MEGA	ES	2021/034777 by ROLDAN / FC-011784-21-0056 by M.E.G.A. S.P.A.	MC-000000-22-728
AXAB	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 7852.MEGA	ES	2021/000972 by ROLDAN / FC-011173-19-0339 by M.E.G.A. S.P.A.	MC-000000-21-0352
AVHH	ELECT.FURN.-SOLUT.ANNEALED at 1060^C WATER QUENCHED CERT 7134 MEGA	ES	428719 by OLARRA / FC-011173-19-0181 by M.E.G.A. S.P.A.	MC-000000-20-0733
AXBN	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT HTR.7853.MEGA	ES	2020/016209 by ROLDAN / FC-011173-19-0355 by M.E.G.A. S.P.A.	MC-000000-21-0352
AXAA	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT HTR.7790.MEGA	ES	2020/016209 by ROLDAN / FC-011173-19-0368 by M.E.G.A. S.P.A.	MC-000000-21-0361

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente — Specimen / Provino: Shape Forma	A Sez.[mm²]	Gage Length Lungh.[mm]	Yield strength Sner. [Mpa] Min:	Tensile strength Rottura [Mpa] Min:	Elongation Allung. [%] Min:	Red. Of Area Contraz. [%] Min:
BAKV	T/2	TRANS	Round	31.000	25.000	261.000	578.800	52.800	72.900
AXAB	T/2	TRANS	Round	31.000	25.000	297.400	567.300	55.000	80.100
AVHH	T/2	LONG	Round	30.800	25.000	309.500	602.400	56.900	72.300
AXBN	T/2	TRANS	Round	31.100	25.000	349.500	562.000	50.800	77.400
AXAA	T/2	TRANS	Round	30.500	25.000	272.200	583.000	58.200	78.200

Test Prova	CVN IMPACT TEST (KV) / Prova di resilienza — Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]	Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [HBW$_{2.5/187.5}$]	Grain Size Dimens. grano
BAKV				–	–		158-162	
AXAB				–	–		155-159	
AVHH				–	–		165-170	
AXBN				–	–		158-166	
AXAA				–	–		157-163	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE^{A} [%]	PREN^{B} [%]	CES^{E} [%]	J fact.^{D} [%]
BAKV	0.0220	0.4170	1.4550	0.0270	0.0290	16.7000	10.3450	2.0460	0.0060	0.3780					0.0400							24.0918		
AXAB	0.0170	0.5960	1.5960	0.0260	0.0290	16.6150	10.8200	2.1260	0.0970	0.4270					0.0260							24.0468		
AVHH	0.0240	0.3900	1.5000	0.0260	0.0350	18.1100	8.0900								0.0940							19.6140		
AXBN	0.0240	0.2950	1.4860	0.0290	0.0260	18.1700	8.0300	0.3000	0.0040	0.3490					0.0850							20.5200		
AXAA	0.0240	0.2950	1.4860	0.0290	0.0260	18.1700	8.0300	0.3000	0.0040	0.3490					0.0850							20.5200		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2020,NACE MR0103 Ed.2015, 2014/68/EU (PED)
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.
3: MATERIAL CAPABLE OF PASSING AN INTERGRANULAR CORROSION A262 Pr.E PMI 100% ON RAW MATERIAL: SATISFACTORY
4: MATERIALS ARE FREE FROM MERCURY CONTAMINATION AND RADIOACTIVITY

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'BAKV': Co 0.1960 | 'AXAB': Co 0.3520 | 'AVHH': Co 0.1600 | 'AXBN': Co 0.1840 | 'AXAA': Co 0.1840 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev.D 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail inspection@mega-fittings.com

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.6"x1" Thk.3.4mmx3.38mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 140 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

raccortubi Heat num. or Pos. marking: BAKV - Qty:3.00

Protocol: CTCERC2024000005381 * CERTIFIED TRUE COPY * Issued 12-06-2024

CTCERT2024000003866.1.0002

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-029860-23-0001	Issued on / Revised on	22/02/2023	Customer / Cliente		Job n. / Com. n. 29860	Page n./ Pagina n.
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1	Purchase order and project/Ordine e progetto: PUR-IOX01132MA	

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2021; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013 (R 2018)
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and MSS SP 97 Ed. 2019 and ASME B.31.8 Ed. 2022
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2022 or B36.19 Ed. 2022
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

Quality Control Inspector Certification department Ispettore controllo qualità	Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev.0 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail: inspection@mega.it - www.mega.it

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.10"x1" Thk.4.19mmx3.38mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

raccortubi Heat num. or Pos. marking: BAKV - Qty:5.00

Protocol: CTCERC2024000005381 * CERTIFIED TRUE COPY * Issued 12-06-2024

CTCERT2024000003866.1.0001

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-029860-23-0001	Issued on / Revised on	22/02/2023	Customer / Cliente		Job n. / Com. n.	29860	Page n./ Pagina n.
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1	Purchase order and project/Ordine e progetto	PUR-IOX01132MA	

DESCRIPTION / DESCRIZIONE

Test / Prova	Item / Pos.	Qty / Q.tà	Customer code / Codice cliente	Material / Materiale	Heat / Colata	Product / Prodotto
BAKV	5	100	WEL6L-140-2	ASTM A182-22a F316/316L	1KAP	MEGALET Sch.40S A/SA182 F316/L 1x3-80
AXAB	6	20	WEL6L-180-1	ASTM A182-22a F316/316L	0AWP	MEGALET Sch.80S A/SA182 F316/L 1x1.1/4-2.1/2
AVHH	7	30	WEL4L-.1280-1	ASTM A182-22a F304/304L	501395	MEGALET Sch.80S A/SA182 F304/L 1/2x3/4-80
AXBN	8	50	WEL4L-140-1	ASTM A182-22a F304/304L	Z5PW	MEGALET Sch.40S A/SA182 F304/L 1x1.1/4-2.1/2
AXAA	9	50	WEL4L-140-2	ASTM A182-22a F304/304L	Z5PW	MEGALET Sch.40S A/SA182 F304/L 1x3-80

Test / Prova	STEEL MELTING AND HEAT TREATMENT DATA / Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
BAKV	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 8957.MEGA	ES	2021/034777 by ROLDAN / FC-011784-21-0056 by M.E.G.A. S.P.A.	MC-000000-22-728
AXAB	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 7852.MEGA	ES	2021/000972 by ROLDAN / FC-011173-19-0339 by M.E.G.A. S.P.A.	MC-000000-21-0352
AVHH	ELECT.FURN.-SOLUT.ANNEALED at 1060^C WATER QUENCHED CERT 7134 MEGA	ES	428719 by OLARRA / FC-011173-19-0181 by M.E.G.A. S.P.A.	MC-000000-20-0733
AXBN	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT HTR.7853.MEGA	ES	2020/016209 by ROLDAN / FC-011173-19-0355 by M.E.G.A. S.P.A.	MC-000000-21-0352
AXAA	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT HTR.7790.MEGA	ES	2020/016209 by ROLDAN / FC-011173-19-0368 by M.E.G.A. S.P.A.	MC-000000-21-0361

Test / Prova	Test loc. / Preso a	Orient. / Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [$HBW_{2.5/187.5}$]	Grain Size Dimens. grano
			Specimen / Provino			Yield strength Sner. [Mpa]	Tensile strength Rottura [Mpa]	Elongation Allung. [%]	Red. Of Area Contraz. [%]	Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]			
			Shape Forma	A Sez.[mm^2]	Gage Length Lungh.[mm]	Min:	Min:	Min:	Min:								
BAKV	T/2	TRANS	Round	31.000	25.000	261.000	578.800	52.800	72.900				--	--		158-162	
AXAB	T/2	TRANS	Round	31.000	25.000	297.400	567.300	55.000	80.100				--	--		155-159	
AVHH	T/2	LONG	Round	30.800	25.000	309.500	602.400	56.900	72.300				--	--		165-170	
AXBN	T/2	TRANS	Round	31.100	25.000	349.500	562.000	50.800	77.400				--	--		158-166	
AXAA	T/2	TRANS	Round	30.500	25.000	272.200	583.000	58.200	78.200				--	--		157-163	

Test / Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE^A [%]	$PREN^B$ [%]	CEs^E [%]	J fact.^{D} [%]
BAKV	0.0220	0.4170	1.4550	0.0270	0.0290	16.7000	10.3450	2.0460	0.0060	0.3780					0.0400							24.0918		
AXAB	0.0170	0.5960	1.5960	0.0260	0.0290	16.6150	10.8200	2.1260	0.0970	0.4270					0.0260							24.0468		
AVHH	0.0240	0.3900	1.5000	0.0260	0.0350	18.1100	8.0900								0.0940							19.6140		
AXBN	0.0240	0.2950	1.4860	0.0290	0.0260	18.1700	8.0300	0.3000	0.0040	0.3490					0.0850							20.5200		
AXAA	0.0240	0.2950	1.4860	0.0290	0.0260	18.1700	8.0300	0.3000	0.0040	0.3490					0.0850							20.5200		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2020,NACE MR0103 Ed.2015, 2014/68/EU (PED)
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.
3: MATERIAL CAPABLE OF PASSING AN INTERGRANULAR CORROSION A262 Pr.E PMI 100% ON RAW MATERIAL: SATISFACTORY
4: MATERIALS ARE FREE FROM MERCURY CONTAMINATION AND RADIOACTIVITY

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 – elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C+ Mn/6

Additional elements: 'BAKV': Co 0.1960 | 'AXAB': Co 0.3520 | 'AVHH': Co 0.1600 | 'AXBN': Co 0.1840 | 'AXAA': Co 0.1840 |

Quality Control Inspector Certification department / Ispettore controllo qualità

Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail:inspection@mega-tubos.com

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

CTCERT20240000003866.1.0002

raccortubi Heat num. or Pos. marking: BAKV - Qty:5.00

Customer: ROSETTI MARINO S.p.A.

Description: Weldolet BW diam.10"x1" Thk.4.19mmx3.38mm ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000201O

Protocol: CTCERC20240000538I * CERTIFIED TRUE COPY * Issued 12-06-2024

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-029860-23-0001	Issued on / Revised on	22/02/2023	Customer / Cliente	Job n. / Com. n. 29860	Page n./ Pagina n.
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005	Type / Tipo	3.1	Purchase order and project/Ordine e progetto: PUR-IOX01132MA

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2021; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013 (R 2018)
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and MSS SP 97 Ed. 2019 and ASME B.31.8 Ed. 2022
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2022 or B36.19 Ed. 2022
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2022, B.31.3 Ed. 2022 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

Quality Control Inspector Certification department Ispettore controllo qualità	Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

Customer: ROSETTI MARINO S.p.A.
Description: NipoFlange Reinforced diam.2"x3/4" Thk.2,77mmx2,87mm 150LB RF ASTM A182 Gr.F316/316L
Order: 17240000839 - 22.04.24 - Item n.: 160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
raccortubi Heat num. or Pcs. marking: 278443 - Qty:1,00
Protocol: CTCERC202400005381 • CERTIFIED TRUE COPY • Issued 12-06-2024
CTCERT202400004063.1.0001

fittinox PIPE FITTINGS SOLUTIONS
VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0274/01 Rev.0
type: 3.1
DATA 06/06/2024

FITTINOX JOB	CUSTOMER	CUSTOMER P.O.	PROJECT
24C0274	RACCORTUBI S.p.A.	00005870	N/A
MATERIAL SPECIFICATION & GRADE	ASTM A182/A182M:23 F316/316L	DIMENSIONS & TOLERANCES	ASME B16.5-2017 - MSS SP97-2012

FITTINOX ITEM	CUSTOMER ITEM	Q. TY	ITEM DESCRIPTION	HEAT	LOT	CODE	TEST N.
0001	1	1	NIPOFLANGE REINFORCED D.2" x 3/4" WT.2.77mm / 2.87mm 150# RF ASTM A182 F316/316L - ITEM 160	278443			TS00394

BASE MATERIAL TRACEABILITY

HEAT NUMBER	MELTING PROCESS	MILL CERTIFICATE	STEEL MAKER
278443	E.A.F.+ A.O.D.	202304383	COGNE ACCIAI SPECIALI S.P.A.

CHEMICAL ANALYSIS (%)

Min						16,00	10,00	2,00	
Max	0,030	2,00	1,00	0,045	0,030	18,00	14,00	3,00	0,1000
HEAT N°	C	Mn	Si	P	S	Cr	Ni	Mo	N
278443	0,016	1,74	0,29	0,028	0,024	16,75	10,13	2,08	0,0740

HEAT TREATMENT DETAILS

HEAT	LOT	TEST N.	TYPE HT	HEATING RATE °C/h	HOLDING TEMPERATURE °C	HOLDING TIME (hh:mm)	COOLING RATE °C/h	COOLING MEDIA
278443		TS00394	SOLUTION ANNEALING		1050			WATER

MECHANICAL PROPERTIES

		TENSILE TEST											HARDNESS			IMPACT TEST (KV)					
		LIMITS				≥ 205		≥ 515	≥ 30		≥ 50					10 x 10	+20				
HEAT LOT	TEST N.	TEMP	DIR.	POS.	DIM.	YS 0.2%	YS (1%)	TS	A Elong.	L0	Z	YS/ TS	VALUES	AVG VALUE	DIR.	POS.	DIM.	TEMP	IMPACT TEST VALUES	IMPACT TEST AVG	SHEAR AREA VALUES	LATERAL EXP. VALUES
		(°C)			(mm)	(MPa)	(MPa)	(MPa)	(%)		(%)						(mm)	(°C)	(J)	(J)	%	mm.
278443 -	TS00394	23	T	1/2	Ø 8,75	230		553	54,8	4d	76,6	0,42			T	1/2	10 x 10	+20	270-280-276	275,33		

TRADE MARK FX
DATE 06/06/2024
ISSUED BY A. ARCELLI
VERIFIED BY G. RAIMONDI
DATE
INSPECTOR ROSETTI MARINO S.p.A. Supply Management Dept.
☐ Witness ☒ Review
DATE
INSPECTOR

fittinox
PIPE FITTINGS SOLUTIONS

VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0274/01 Rev.0
type: 3.1
DATA 06/06/2024

REMARKS AND SUPPLEMENTARY INFORMATION

-Mechanical properties on pieces in finished conditions.
-Starting material: Round forged bar
-Type of construction: seamless.
-Method of manufacture: Machined directly from solution-annealed round forged bar
-100% Positive material identification (PMI) carried out on finished pieces with satisfactory results.
-100% Visual dimensional and marking check carried out on finished pieces with satisfactory results.
-Marking: MSS-SP25-13
-Surface protection: Degreasing
MATERIAL MANUFACTURER APPROVED WITH CERTIFICATE NR. 07/202/9080/WZ/1524/17 BY TUV NORD (NOTIFIED BODY 0045) TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDANCE WITH PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3. MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27 J AT 20°C.

WE CERTIFY THAT THE DELIVERED PRODUCTS COMPLY WITH THE ORDER

TRADE MARK FX

ISSUED BY A. ARCELLI

VERIFIED BY G. RAIMONDI

DATE 06/06/2024

DATE

INSPECTOR
ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

DATE

INSPECTOR

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: NipoFlange Reinforced diam.2"x3/4" Thk.2,77mmx2,87mm 150LB RF ASTM A182 Gr.F316/316L

Order: 1724000839 - 22.04.24 - Item n.: 160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Heat num. or Pos. marking: 278443 - Qty:1,00

Protocol: CTCERC202400005381 * CERTIFIED TRUE COPY
* Issued 12-06-2024

CTCERT202400004064.1.0001

VIRAJ

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230014285/46 / Rev - 00
		INVOICE NUMBER	910020059
		(Z02) DATE	29.04.2023
		MATERIAL SPEC.	ASTM A182/A182M-22/ASME SA182/SA182M-21
			EN10222-5-2017/ASME SECT.II PART A-2021
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION :

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: 82 | (A08)Sales Order No. 100019034/000330 | (A09)Article No:FLGWN15011/4"316L*

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1-1/4" WNRF 150# S40S	31	DB166

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.019	1.58	0.32	0.024	0.043	16.80	10.05	2.01	0.002	0.0660

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	546.72	253.32	302.19	61.40	72.96	150	196	182	176	185

Other applicable Specifications :; NACE MR 0175-2021 / ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface Quality	: Satisfactory Roughness value - RZ 12.5 TO 25 lm / RA 3.2 TO 6.3 lm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1070 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/4" S.150 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: DB166 - Qty:2,00

Protocol: CTCERC202400005381 * CERTIFIED TRUE COPY
* Issued 12-06-2024

CTCERT202400004064.1.0001

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

	Manufacturer's Symbol (A04)	(A03)MTR NO.	12/230014285/46 / Rev - 00
		INVOICE NUMBER	910020059
		(Z02) DATE	29.04.2023
		MATERIAL SPEC.	ASTM A182/A182M-22/ASME SA182/SA182M-21
			EN10222-5-2017/ASME SECT.II PART A-2021
		(B02) GRADE	F316/316L/1.4401/1.4404
		DIMENSIONAL SPEC.	ASME B16.5-2020

(B01) : STAINLESS STEEL FORGED FLANGES | (B04) DELIVERY CONDITION :

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: 82	(A08)Sales Order No. 10001903 4/000330	(A09)Article No:FLGWN15011/4"316L*

(B09-B11)ITEM DESCRIPTION	(B08)QUANTITY(PCS)	(B07)HEAT NUMBER
1-1/4" WNRF 150# S40S	31	DB166

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N
MIN						16.50	10.00	2.00		
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50		0.1000
HEAT	0.019	1.58	0.32	0.024	0.043	16.80	10.05	2.01	0.002	0.0660

MECHANICAL PROPERTIES

(C01) Sample location : Mid thickness-forging	(C03) Test Temp : RT	(C02) Test Direction : Tr	(C10) Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Yield Strength		(C13)	Reduction of Area	(C32) Hardness	(C40) Charpy V-Notch 10x10x55mm Values At +20°C (Joules)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	MPA	MPA	MPA	Lo=4D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN	237 MAX				
T	546.72	253.32	302.19	61.40	72.96	150	196	182	176	185

Other applicable Specifications :: NACE MR 0175-2021 / ISO 15156-2020 NACE MR 0103-2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment	: Solution Annealed at 1080°C and water Quenched
Dimensional Inspection	: Conform with the specification (100% inspected)
Surface Quality	: Satisfactory Roughness value - RZ 12.5 TO 25 lm / RA 3.2 TO 6.3 lm
PMI Test	: No objection (100% tested with mobile spectro)
Corrosion Test	: Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation	: No carbide precipitation observed on grain boundaries
Radioactivity Test	: We here by certify that all the material is free from radioactive contamination
Mercury Contamination	: Free from mercury contamination

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

VIJAY KUMAR PILLAI (GM, QAD)

VIRAJ PROFILES LTD. QUALITY ASSURANCE

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1070 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: W.N. 1.1/4" S.150 RF SCH.10/S

raccortubi Heat num. or Pos. marking: DB166 - Qty:2,00

Protocol: CTCERC202400005381 * CERTIFIED TRUE COPY
* Issued 12-06-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400448

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 14.06.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 13/06/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00005566
Packing list	PLPLIS202400005534
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00005566

13/06/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002207
Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz. Immagine** *Heat N° or PCS. Marking Image*
24	2	TEE RID. 10"x4" SCH.20/STD SEAMLESS ALESATI DA STD	981188 CTCERT202400003468_1.0001.TIF

Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 10"x4" SCH.20/STD SEAMLESS ALESATI DA STD
raccortubi Heat num. or Pcs. marking: 981188 - Qty:2,00
Order: 1724000994 - 16.05.24 - Item n.: 24 - Our ref.: OCVEIT20240000220
Protocol: CTCERC20240000566 * CERTIFIED TRUE COPY
* Issued 13-06-2024
CTCERT20240000346 8.1.0001

O.M.R. OFFICINE MECCANICHE RIGHI
Zona artigianale Loc. Cà Verde
29011 Borgonovo V.T. - PC - Italy
Phone +39 0523 861711
Fax +39 0523 862794
AD 2000 - WO TRD 100
COMPANY WITH QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV = ISO 9001:2008 =

INSPECTION CERTIFICATE
ABNAHMEPRUFZEUGNIS
CERTIFICAT DE RECEPTION
CERTIFICATO DI ISPEZIONE

EN 10204: 2004 ☒ 3.1 ☐ 3.2

CERT No 056189
REV. No 0
DATE 29/12/11

CLIENT

ORDER No OS-0000286

OMR JOB No 037257 1

We hereby certify that the listed materials have been manufactured in compliance with the above standards and order specifications if any.

A420M-10a-ASME II/A Ed.10 SA420-ASME B16.9/07

ITEM	P.O. ITEM	Q.TY	DESCRIPTION	HEAT	ITEM CODE	TAG No
095	—	19	RED.TEE 10" x 4" XS WPL6	981188	//	/

CHEMICAL COMPOSITION *H= LADLE ANALISYS* *P= PRODUCT ANALYSIS*

HEAT		C %	Mn %	Si %	P %	S %	Ni %	Cr %	Mo %	Cu %	V %	Nb %	Ti%	Al %	B %	Ceq %		RAW MATERIAL	STEEL MAKER	CERT. No.
981188	H	0,09	1,07	0,25	0,011	0,002	0,1	0,07	0,03	0,15	0,01	0,002	0,002	0,028		0,306		SMLS PIPE	/	/
	P																			

MECHANICAL PROPERTIES ☐ *ON RAW MATERIAL* ☒ *ON PIECES IN FINISHED CONDITION*

TEST	Direction	YIELD STR. 0.2%		U.T.S.		Elongation (2")		Y.S. / U.T.S.		Hardness		IMPACT TEST (CHARPY V)							
		Required	Obtained	Required	Obtained	Required	Obtained	Required	Obtained	Required	Obtained	Dimension	Direction	Temp.	Shear area	Obtained Values (Joules)			Average
		N/mm²	N/mm²	N/mm²	N/mm²	%	%	/	/	HB	HB	mm	/	°C	/	1	2	3	Joules
020259	/	/	317	/	468	/	46,6	/	0,68	/	145	10x10	L	-50	/	307	315	326	316

REMARKS:

METHOD OF FABRICATION: COLD FORMING

HEAT TREATMENT: NORMALIZING AT 920°C PERMANENCE 1 Hr/1" Wth
(30 min. MINIMUM), WITH COOLING IN STILL AIR.

FITTINGS CONFORM TO:
- ASME II PT.A ED.2007 - ASME B16.9/07
- STOOMWEZEN M0803-03-02

VISUAL & DIMENSIONAL CONTROL OF FITTINGS SATISFACTORY
RESULTS.

WE HEREBY CERTIFY THAT THE LISTED MATERIALS HAVE BEEN MANUFACTURED IN COMPLIANCE WITH THE ABOVE STANDARDS AND ORDER SPECIFICATIONS IF ANY

MT 100% ACC. TO ASTM E709 AND A275, ACCEPTANCE CRITERIA
ASME VIII DIV.1 APP.6: SATISFACTORY
THIS MATERIAL MEETS THE SPECIFICATION NACE MR 01-75/2003-
ISO 15156/2003 AND NACE MR 01-03/2007 WHEN USED IN THE
SPECIFIC CONDITIONS DETAILED IN THE STANDARDS. HRC< 22
YELD STRENGTH VALUES GUARANTEED
IN ACCORDANCE WITH ASME II PART D TABLE Y1.

MANUFACTURER AUTHORIZED INSPECTOR

O.M.R. S.p.A. MULAZZI O.C. DEPT.

DATE 29/12/11

PURCHASER AUTHORIZED INSPECTOR

DATE

OFFICIAL DESIGNATED INSPECTOR

DATE

THE QUALITY MANAGEMENT SYSTEM SUPPORTS THE REQUIREMENT OF ANNEX I, SECT. 4.3 OF PED 97/23/EC

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400394

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 07.06.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 06/06/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00005261
Packing list	PLPLIS202400005235
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00005261

06/06/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002207
Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
4		3 CURVE 90° LR 8" SCH.20 SEAMLESS	W25A CTCERT202400003467_1.0001.TIF
5		2 CURVE 90° LR 10" SCH.20 SEAMLESS	X94J CTCERT202400003471_1.0001.TIF

INTERFIT®

GQ-0001T

N° de Cde Usine
Mill Ref / Werks-Nr 2400051 025 / 2400673

N° Certificat
Certificate Nr / Zeugnis Nr 24-01720

INTERFIT
B.P 10132 59602 MAUBEUGE FRANCE
Tél : 03.27.69.11.01

Raccords sans soudure à Souder
Seamless Butt Welding Fittings
Nahtlose Schweissformstücke

Client :
Consignee
Besteller

INSPECTION CERTIFICATE

EN 10204 3.1(2004)

Cde Client N° : LS-0000008 (WPL6)
Your Order Nr
Bestell-Nr

Spécifications :
Specifications :
Spezifikationen :

Acier et Normes
Steel and Standard
Werkstoff und Norm

Matière de départ / *Raw Material / Werkstoff*		
	Tubes sans soudure / Seamless Tube / Nahtlose Rohre Acier procédé Electrique / Electric Steel / Elektroofenstahl	INTERPIPE Acier calmé / Killed Steel / beruhigter Stahl

Etat de livraison
Delivery Condition / Lieferzustand

Marquage
Marking / Stempelung

Sur pièces en creux low stress
Low stress hard stamp
Kennzeichnung auf dem Fitting durch kerbfreie Einprägung

If 8" STD WPL6 FRANCE 219 8 EN2 P265NL A420 W25A

= If

Poste N° *Item Nr Pos Nr*	Nombre *Number Stückzahl*	N° Certificat Matière Raw Material *Rohrzeugnis Nr*	Code *Marking Markierung*	Coulée N° *Heat Nr Schmelze*	Dimensions / *Sizes / Abmessungen*
025	84	0874-5	W25A	1240438	90° 3D 219.1 X 8.0 / LR 90° 8" STD WPL6 BELGY5P90881800000S CALR 90 8 STD WPL6

CARACTERISTIQUES CHIMIQUES - *CHEMICAL ANALYSIS - SCHMELZENANALYSE*

Product analysis

Coulée N° *Heat Nr Schmelze*		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Al	Sn	Ti	Nb	B
	mini		0.150	0.600								0.020				
	maxi	0.200	0.400	1.350	0.025	0.010	0.300	0.080	0.300	0.300	0.020			0.040	0.020	
1240438		0.10	0.21	1.24	0.016	0.001	0.11	0.011	0.10	0.10	0.001	0.029		0.001	0.001	

Carbone équivalent / *Carbon equivalent / Kohlenstoffäquivalent* (*Maxi : 0.41*)

CF : C + (Mn / 6) = 0,307 LF : C + (Mn / 6) + ((Cr + V + Mo) / 5) + ((Cu + Ni) / 15) = 0,344

CARACTERISTIQUES MECANIQUES
MECHANICAL PROPERTIES - MECHANISCHE EIGENSCHAFTEN

Sur Pièces
On Fittings
am Fittings

Essais de Traction / *Tensile Tests / Zugversuch* *Room temperature* *longitudinal direction*

Limite Elastique *Yield Point / Streckgrenze*	Résistance Rupture *Tensile strength / Zugfestigkeit*	Allongement *Elongation / Dehnung*	Dureté *Hardness test on fittings Härte HBW*
Re ≥ 265 MPa	415 ≤ Rm ≤ 570 MPa	2" A% ≥ 30	
347 MPa	493 MPa	2" 31,4 %	162 163 160 159

Résilience / Impact Test / Kerbschlagarbeit : *Sur pièces / On fittings / am Fittings*

Essai Test Versuch	Test 1	Test 2	Test 3	Moyenne : Unité Mean : Units Mittelwert : Einheit	Type : KV Specimen Muster	Température -50° Celsius or -58°F
Kvc 10x5	≥ 15	≥ 15	≥ 15	≥ 20		KV >= 40J (long.) at -40°C
Kvc 10x10	≥ 30	≥ 30	≥ 30	≥ 40		The results at -50°C fulfill the requirements at -40°C
24-00341	53,5	57,4	54,6	55,2 Joules	10 x 5 mm	Long / Long / Längs
24-00341	107	114,8	109,2	110,3 Joules	10 x 10 mm	Long / Long / Längs

Date : 14/05/2024

LE RESPONSABLE QUALITE

F. FRIART

WE CERTIFY THAT THE DELIVERED PRODUCTS WERE MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION OF THE ORDER.

INTERFIT GARANTIT QUE LE PRODUIT DU CERTIFICAT,RESPECTE LES PRESCRIPTIONS ART15 DU A.M 24/03/78 MODIFIE:C<=0.25,P<0.05,S<0.05,R<=700N/mm2 ,E<=0.9xR,A%(Lo=5.65VSo)min.16%long.R(A-2)>=10500, A%(Lo=5.65VSo)min.14% en transv.RxA>=10500

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 4 - Our ref.: OCVEIT202400002207

Description: CURVE 90° LR 8" SCH.20 SEAMLESS

raccortubi Heat num. or Pcs. marking: W25A - Qty:3,00

Protocol: CTCERC202400005261 * CERTIFIED TRUE COPY
* Issued 06-06-2024

INTERFIT®

GQ-0001T

INTERFIT
B.P 10132 59602 MAUBEUGE FRANCE
Tél : 03.27.69.11.01

Raccords sans soudure à Souder
Seamless Butt Welding Fittings
Nahtlose Schweissformstücke

Client :
Consignee
Besteller

COMMERCIALE TUBI ACCIAIO S.P.A.
VIALE LIDICE, 40
Italie

N° de Cde Usine
Mill Ref 2400051 027
Werks-Nr 2400344

N° Certificat
Certificate Nr
Zeugnis Nr 24-01358

INSPECTION CERTIFICATE
EN 10204 3.1(2004)

Cde Client N° : LS-0000008 (WPL6)
Your Order Nr
Bestell-Nr

Spécifications :
Specifications :
Spezifikationen :

Acier et Normes
Steel and Standard
Werkstoff und Norm

Matière de départ / *Raw Material / Werkstoff*: Tubes sans soudure / Seamless Tube / Nahtlose Rohre — Acier procédé Electrique / Electric Steel / Elektroofenstahl — TENARIS DALMINE — Acier calmé / Killed Steel / beruhigter Stahl

Etat de livraison
Delivery Condition / Lieferzustand

Marquage
Marking / Stempelung
Sur pièces en creux low stress
Low stress hard stamp
Kennzeichnung auf dem Fitting durch kerbfreie Einprägung

If 10" STD WPL6 FRANCE 273 10 EN2 P265NL A420 X94Y

If = If

Poste N° *Item Nr Pos Nr*	Nombre *Number Stückzahl*	N° Certificat Matière Raw Material *Rohrzeugnis Nr*	Code *Marking Markierung*	Coulée N° *Heat Nr Schmelze*	Dimensions / *Sizes* / *Abmessungen*
027	293	01-22-14607	X94Y	925678	90° 3D 273.0 X 10.0 / LR 90° 10" STD WPL6 BELGYSP91092700000S CALR 9010° STD WPL6

CARACTERISTIQUES CHIMIQUES - *CHEMICAL ANALYSIS - SCHMELZENANALYSE*

Product analysis

Coulée N° *Heat Nr Schmelze*		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Al	Sn	Ti	Nb	B
	mini		0.150	0.600								0.020				
	maxi	0.200	0.400	1.350	0.025	0.010	0.300	0.080	0.300	0.300	0.020			0.040	0.020	
925678		0.08	0.20	1.01	0.011	0.003	0.13	0.06	0.15	0.19	0.001	0.024		0.001	0.001	

Carbone équivalent / *Carbon equivalent / Kohlenstoffäquivalent* (*Maxi : 0.41*)
CF : C + (Mn / 6) = 0,248 LF : C + (Mn / 6) + ((Cr + V + Mo) / 5) + ((Cu + Ni) / 15) = 0,309

CARACTERISTIQUES MECANIQUES
MECHANICAL PROPERTIES - MECHANISCHE EIGENSCHAFTEN

Sur Pièces
On Fittings
am Fittings

Essais de Traction / *Tensile Tests / Zugversuch* *Room temperature* *longitudinal direction*

Limite Elastique *Yield Point / Streckgrenze*	Résistance Rupture *Tensile strength / Zugfestigkeit*	Allongement *Elongation / Dehnung*	Dureté *Hardness test on fittings Härte HBW*
Re ≥ 265 MPa	415 ≤ Rm ≤ 570 MPa	2" A% ≥ 30	
327 MPa	470 MPa	2" 38,9 %	147 148 150 150

Résilience / Impact Test / Kerbschlagarbeit : *Sur pièces / On fittings / am Fittings*

Essai Test Versuch	Test 1	Test 2	Test 3	Moyenne : Unité Mean : Units Mittelwert : Einheit	Type : KV Specimen Muster	Température -50° Celsius or -58°F KV >= 40J (long.) at -40°C The results at -50°C fulfill the requirements at -40°C
Kvc 10x10	≥ 30	≥ 30	≥ 30	≥ 40		
23-00055	230,9	230,5	237,1	232,8	10 x 10 mm	Long / Long / Längs

Date : 05/04/2024
LE RESPONSABLE QUALITE
F. FRIART

WE CERTIFY THAT THE DELIVERED PRODUCTS WERE MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION OF THE ORDER.

INTERFIT GARANTIT QUE LE PRODUIT DU CERTIFICAT,RESPECTE LES PRESCRIPTIONS ART15 DU A.M 24/03/78 MODIFIE:C<=0.25,P<0.05,S<0.05,R<=700N/mm2 ,E<=0.9xR,A%(Lo=5.65VSo)min.16%long.R(A-2)>=10500, A%(Lo=5.65VSo)min.14% en transv.RxA>=10500

ISO 9001 / ISO 14001 / ISO 45001

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 5 - Our ref.: OCVEIT202400002207

Description: CURVE 90° LR 10" SCH.20 SEAMLESS

raccortubi Heat num. or Pcs. marking: X94J - Qty:2,00

Protocol: CTCERC202400005261 * CERTIFIED TRUE COPY
* Issued 06-06-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000839	123A90A	Q012400393

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 06.06.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi

00004301

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TUBI ELETTROUNITI SEC. ASME/ASTM SA/A-312 TP.316/316L, DIM. SEC. ANSI B36.19	
100	M	36,00	6,00	273.00x4.19 WELDED - RX 100%	VCC062015

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

raccortubi

00004301

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
100	36,00	M	TUBI ELETTROUNITI SEC. ASME/ASTM SA/A-312 TP.316/316L, DIM. SEC. ANSI B36.19 273.00x4.19 WELDED - RX 100%	VCC062015

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

CTCERT20230000217 7.1

Customer: ROSETTI MARINO S.p.A.

Description: 273.00x4.19 WELDED - RX 100%

raccortubi Heat num. or Pcs. marking: VCC062015 - Qty:36.00

Order: 1724000839 - 22.04.24 - Item n.: 100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240000430 1 * CERTIFIED TRUE COPY * Issued 22-05-2024

YC INOX CO., LTD.

INSPECTION CERTIFICATE
EN 10204-3.1:2004

No.270,Sec.4,Jungshan Rd.,Shijou Shiang,
Chang-Hwa,Taiwan,R.O.C
http://www.ycinox.com
TELo +886-4-8899666 FAXo +886-4-8899770

Customer	RACCORTUBI S.P.A			Customer No.	FIT016	Certificate No.	230320P0077
Product	STAINLESS STEEL WELDED PIPE			Commercial Invoice No.	J23020120	Date of Issue	2023/03/20
Specification	ASTM A312/A312M-22			PO No.	00000192 S	Order No.	EP22050134-5
Steel Grade	TP316/316L	Finish	PICKLED	P.I.No.	PI 2205-087	Weight No.	C23030200

Item No.	Heat No.	Product Description		Chemical Composition(%)								Tension Test			*01	*02	*03	*04	Coil No
		Dimension	Quantity Pcs	C	Si	Mn	P	S	Ni	Cr	Mo	0.2% Y.S.	T.S.	E.L.	HR	HT	HY	F1	
				X10^{-3}	X10^{-2}	X10^{-2}	X10^{-3}	X10^{-3}	X10^{-2}	X10^{-2}	X10^{-2}	MPa		%	HRB	%	MPa		
Specification			Min.						1000	1600	200	205	515	35		1040			
			Max.	35	100	200	45	30	1400	1800	300								
1	VCC062015	10"(273.1mm) x SCH-10S(4.19mm) x 6M	67	22	44	136	28	2	1005	1676	202	309	636	57	83	1060	3.5	OK	N2112140216
		TOTAL:	67																

Remark

*STANDARDS:ASTM A312/ASME SA312 (2021 Section II Part A)
*Weld Factor = 0.8 (Acc. to ASME B31.3 Table 302.3.4)
*QM-System for Material Manufacturer according to PED 2014/68/EU Annex 1 par 4.3

Note

100% Alloy Verification(PMI)o OK
Intergranular Corrosion Test (according to ASTM A262 Practice E)o OK
Hardness according to NACE MR0175 / ISO 15156-3:2015 : Satisfactory.
Hardness according to NACE MR0103 / ISO 17945:2015 : Satisfactory.

*01= Hardness Test
*02= Heat Treatment(W.Q.)
*03= Hydrostatic Test
*04= Flattening Test
*Gauge Length: 50mm

Visual Inspection(Surface) and Dimension Checko OK

1MPa=1N/mm^2=10bar=145psi=10.2kgf/cm^2

Surveyor By			
N/A	We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification. The material described above has been found free of radiation by raw material supplier.	1.ISO 9001:2015 (No.01 100 056299) 2.PED / AD2000 (No.01 202 TWN/Q-05 0105) 3.ISO 3834 (No.01 240 TWN/A-15 0104) 4.ISO 45001:2018 (No.01 113 822 096385) 5.ISO 50001:2018 (No.01 407 096385)	Manager of Quality Assurance Department Pippen Chiu

YC-2Q007-01D

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Doc. Cliente/ Client's doc.	*Doc. Sider Test/ Sider Test doc.*	*Norma Esecuzione/ Execution Standard*	*Accettabilità/ Acceptance Std*
	PO 04-005 RT Rev. 22 - IL 04-005-001 RT Rev. 08	**ASME BPVC.V-2023 Art. 2**	**ASME BPVC.VIII.1-2023 UW-51**

Area Esame/ Area Tested **100% Sald. e Z.T.A./ 100% Weld and HAZ** Superficie/ Surface **Come Saldato/ As Welded** Marcatura/ Marking **Stamping**

Tecnica/ Technique: Direzionale - Parete Doppia - Immagine singola - F/ Directional - Double wall - Single wall viewing

Raggi X/ X-Ray Classe EN/ EN Class Strumento/ Equipment **115/RT - MHF 300-D (Gilardoni Spa)** Macchina Focale/ Focal spot (mm) **3**

Parametri/ Details

Spessore/ Thickness (mm) **4.19** Sovrametallo/ Weld Reinforcement (mm) **1** Energia/ Energy **270 kV 3 mA** Tempo di esposizione/ Exposure time **1'**

Distanze/ Distances

Distanza sorgente-oggetto lato sorgente/ Source to source-side-object distance (mm) **1000** Distanza oggetto lato sorgente-film/ Source-side-object to film distance (mm) **5,19**

Films/ IQI

Sviluppo/ Film developing	**Automatico/ Automatic**	Tipo film/ Film type	**KODAK MX125**	Posizione penetrametro/ IQI location	**Lato film/ Film side**
Schermo anteriore/ Front screen	**0,05**	Formato pellicola/ Film size	**100 x 480**	Densità richiesta/ Required density	**1,8 ÷ 4**
Schermo posteriore/ Back screen	**0,1**	N° Film per busta/ Nr of films for case	**1**	Filo richiesto/ Required wire	**No. 4 (3°) - 0.0063 Inches**
Ug: Effetto Penombra/ Geometric unsharpness	**0,02 OK**			IQI	**ASTM 1A**

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles C - Tarli/ Wormholes E - Inclusioni allineat/ Slang lines G - Mancanza di penetrazione/ Lack of penetration I - Incisione/ Undercutting

B - Porosità/ Porosity D - Inclusioni di scoria/ Slang inclusions F - Mancanza di fusione/ Lack of fusion H - Cricca/ Crack L - Cordone irregolare/ Erratic weld bead

1) Da marker iniziale/ From starting marker

M - Difetto film/ Processing defect

N - Tungsteno/ Wolfarm

R - Riparazione/ Repair

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Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BARBATO LEVEL II SNT-TC-1A LEVEL II ISO 9712	**13/05/2024**	**20/05/2024**	**21/05/2024**	ROSETTI MARINO Supply Management Dept. ☐ Witness ☒ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A - 10122/RG-11 ISO 9712 NDT-END-401119-C RT - UT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1])		
59029			1-2	2,5		0	0	3	☐
59029			2-3	2,5		0	0	3	☐
59029			3-4	2,5	M	0	0	3	☐
59029			4-5	2,5		0	0	3	☐
59029			5-6	2,5		0	0	3	☐
59029			6-7	2,5		0	0	3	☐
59029			7-8	2,5		0	0	3	☐
59029			8-9	2,5		0	0	3	☐
59029			9-10	2,5		0	0	3	☐
59029			10-11	2,5		0	0	3	☐
59029			11-12	2,5		0	0	3	☐
59029			12-13	2,5		0	0	3	☐
59029			13-14	2,5		0	0	3	☐
59029			14-15	2,5		0	0	3	☐
59029			15-16	2,5		0	0	3	☐

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead

[1]) Da marker iniziale/ From starting marker
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

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Operatore CND Liv. II/ Lev. 2 NDE Operator

SIDER TEST S.r.l.
SERGIO FABIO BARBATO
UNI EN ISO 9712
LEVEL II SNT-TC-1A
LEVEL II ISO 9712

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date
13/05/2024	**20/05/2024**	**21/05/2024**

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
Witness
Review

Ispettori/ Inspector

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

PAOLO AMANI
LEVEL 3
SNT-TC-1A - NDT 1016/RG-11
ISO 9712 N° IIS-PRD-001119-C
RT - UT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59029			16-17	2,5		0	0	3	☐
59030			1-2	2,6		0	0	3	☐
59030			2-3	2,6		0	0	3	☐
59030			3-4	2,6		0	0	3	☐
59030			4-5	2,6		0	0	3	☐
59030			5-6	2,6		0	0	3	☐
59030			6-7	2,6		0	0	3	☐
59030			7-8	2,6		0	0	3	☐
59030			8-9	2,6		0	0	3	☐
59030			9-10	2,6	M	0	0	3	☐
59030			10-11	2,6		0	0	3	☐
59030			11-12	2,6		0	0	3	☐
59030			12-13	2,6		0	0	3	☐
59030			13-14	2,6		0	0	3	☐
59030			14-15	2,6		0	0	3	☐

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A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead

[1]) Da marker iniziale/ From starting marker
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

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Operatore CND Liv. II/ Lev. 2 NDE Operator

SIDER TEST S.r.l.
SERGIO FABIO BIANCHI
LEVEL II SNT-TC-1A
LEVEL II ISO 9712

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date
13/05/2024	**20/05/2024**	**21/05/2024**

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Ispettori/ Inspector

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

PAOLO MANI
LEVEL 3
SNT-TC-1A - 1016/RG 11
ISO 9712 NDT-PND-001119-C
RT - PT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
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RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59030			15-16	2,6		0	0	3	☐
59030			16-17	2,6		0	0	3	☐
59031			1-2	2,6		0	0	3	☐
59031			2-3	2,6		0	0	3	☐
59031			3-4	2,6		0	0	3	☐
59031			4-5	2,6		0	0	3	☐
59031			5-6	2,6		0	0	3	☐
59031			6-7	2,6		0	0	3	☐
59031			7-8	2,6		0	0	3	☐
59031			8-9	2,6		0	0	3	☐
59031			9-10	2,6		0	0	3	☐
59031			10-11	2,6		0	0	3	☐
59031			11-12	2,6		0	0	3	☐
59031			12-13	2,6		0	0	3	☐
59031			13-14	2,6		0	0	3	☐

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C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
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G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfamn
R - Riparazione/ Repair

[1]) Da marker iniziale/ From starting marker

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SIDER TEST S.r.l. SERGIO FABIO BIVIBATO LEVEL II SNT-TC-1A LEVEL II ISO 9712	13/05/2024	20/05/2024	21/05/2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☒ Review		PAOLO AMANI LEVEL 3

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

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RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59031			14-15	2,6		0	0	3	☐
59031			15-16	2,6		0	0	3	☐
59031			16-17	2,6		0	0	3	☐
59032			1-2	2,3		0	0	3	☐
59032			2-3	2,3		0	0	3	☐
59032			3-4	2,3		0	0	3	☐
59032			4-5	2,3		0	0	3	☐
59032			5-6	2,3		0	0	3	☐
59032			6-7	2,3		0	0	3	☐
59032			7-8	2,3		0	0	3	☐
59032			8-9	2,3		0	0	3	☐
59032			9-10	2,3		0	0	3	☐
59032			10-11	2,3		0	0	3	☐
59032			11-12	2,3		0	0	3	☐
59032			12-13	2,3		0	0	3	☐

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L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
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R - Riparazione/ Repair

[1]) Da marker iniziale/ From starting marker

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Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BARBATO LEVEL II SNT-TC-1A LEVEL II ISO 9712	13/05/2024	20/05/2024	21/05/2024	ROSETTI MARINO Supply Management Dept Witness ☒ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A - 10160RG 11 ISO 9712 NDT-END-001112.C RT - PT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59032			13-14	2,3		0	0	3	☐
59032			14-15	2,3		0	0	3	☐
59032			15-16	2,3		0	0	3	☐
59032			16-17	2,3		0	0	3	☐
59033			1-2	2,5		0	0	3	☐
59033			2-3	2,5		0	0	3	☐
59033			3-4	2,5		0	0	3	☐
59033			4-5	2,5		0	0	3	☐
59033			5-6	2,5		0	0	3	☐
59033			6-7	2,5		0	0	3	☐
59033			7-8	2,5		0	0	3	☐
59033			8-9	2,5		0	0	3	☐
59033			9-10	2,5		0	0	3	☐
59033			10-11	2,5		0	0	3	☐
59033			11-12	2,5		0	0	3	☐

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

[1]) Da marker iniziale/ From starting marker

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptance Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

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Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BARBATO LEVEL II ISO 9712 LEVEL II SNT-TC-1A LEVEL II ISO 9712	13/05/2024	20/05/2024	21/05/2024	ROSETTI MARINO Supply Management Dept		PAOLO AMANI LEVEL 3 SNT-TC-1A / 1016/RG 11 ISO 9712 NDT-ENIP-001119-C RT - PT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59033			12-13	2,5		0	0	3	☐
59033			13-14	2,5		0	0	3	☐
59033			14-15	2,5		0	0	3	☐
59033			15-16	2,5		0	0	3	☐
59033			16-17	2,5		0	0	3	☐
59034			1-2	2,6		0	0	3	☐
59034			2-3	2,6		0	0	3	☐
59034			3-4	2,6		0	0	3	☐
59034			4-5	2,6		0	0	3	☐
59034			5-6	2,6		0	0	3	☐
59034			6-7	2,6		0	0	3	☐
59034			7-8	2,6		0	0	3	☐
59034			8-9	2,6		0	0	3	☐
59034			9-10	2,6		0	0	3	☐
59034			10-11	2,6		0	0	3	☐

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

[1]) Da marker iniziale/ From starting marker

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptance Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

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Operatore CND Liv. II/ Lev. 2 NDE Operator

SIDER TEST S.r.l.
SERGIO FABIO BARBATO
UNI EN ISO 9712
LEVEL II SNT-TC-1A
LEVEL II ISO 9712

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date
13/05/2024	**20/05/2024**	**21/05/2024**

Cliente/ Customer

ROSETTI MARINO
Suoply Management Dept.
☐ Witness ☑ Review

Ispettori/ Inspector

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

PAOLO AMANI
LEVEL 3
SNT-TC-1A - 10122/RG 11
ISO 9712 NDT-ENDO-001119-C
MT - PT - RT - UT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1006 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
425	**100**	**Mt. 36,00**	**VCC062015**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1])		
59034			11-12	2,6		0	0	3	☐
59034			12-13	2,6		0	0	3	☐
59034			13-14	2,6		0	0	3	☐
59034			14-15	2,6		0	0	3	☐
59034			15-16	2,6		0	0	3	☐
59034			16-17	2,6		0	0	3	☐

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles
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C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
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I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead

[1]) Da marker iniziale/ From starting marker
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

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Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BARBATO LIV. 2 ISO 9712 LEVEL II SNT-TC-1A LEVEL II ISO 9712	13/05/2024	20/05/2024	21/05/2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☐ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A - UT - 1015/RG 11 ISO 9712 - NDT-PRO-001 rev.0 MT - PT - RT - UT

raccortubi

00004640

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TUBI SMLS SEC. ASTM ASTM/ASME A/SA-790 S32760 DIMS. SEC. ANSI B36.19	
10	M	53,58	8,00	33.40x3.38 SEAMLESS	BC2877
20	M	6,68	1,00	114.30x3.05 SEAMLESS	59571
30	M	6,51	1,00	26.67x2.87 SEAMLESS	739859
				TUBI SMLS SECONDO ASTM/ASME A/SA-790 UNS S32750 DIMS. SEC. ANSI B36.19	
40	M	60,27	11,00	48.26x3.68 SEAMLESS	556787
				TUBI SMLS ASME/ASTM SA/A-312 TP.316/316L, DIM. SEC.ANSI B36.19	
50	M	306,00	51,00	33.40x3.38 SEAMLESS	235689
60	M	189,36	31,00	48.26x3.68 SEAMLESS	235415

raccortubi

00004640

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	**U.M.**	**Q.ta'** *Q.ty*	**Tubi** *Tubes*	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
70	M	62,08	10,00	60.33x2.77 SEAMLESS	235632
80	M	76,23	11,00	114.30x3.05 SEAMLESS	NJ113
90	M	18,56	3,00	168.28x3.40 SEAMLESS	NJ112
110	M	5,98	1,00	21.34x2.77 SEAMLESS	CH-19563
120	M	6,88	1,00	26.67x2.87 SEAMLESS	A-6925

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi

00004640

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			TUBI SMLS SEC. ASTM ASTM/ASME A/SA-790 S32760 DIMS. SEC. ANSI B36.19	
10	53,58	M	33.40x3.38 SEAMLESS	BC2877
20	6,68	M	114.30x3.05 SEAMLESS	59571
30	6,51	M	26.67x2.87 SEAMLESS	739859
			TUBI SMLS SECONDO ASTM/ASME A/SA-790 UNS S32750 DIMS. SEC. ANSI B36.19	
40	60,27	M	48.26x3.68 SEAMLESS	556787
			TUBI SMLS ASME/ASTM SA/A-312 TP.316/316L, DIM. SEC.ANSI B36.19	
50	306,00	M	33.40x3.38 SEAMLESS	235689
60	189,36	M	48.26x3.68 SEAMLESS	235415
70	62,08	M	60.33x2.77 SEAMLESS	235632
80	76,23	M	114.30x3.05 SEAMLESS	NJ113
90	18,56	M	168.28x3.40 SEAMLESS	NJ112

raccortubi

00004640

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
110	5,98	M	21.34x2.77 SEAMLESS	CH-19563
120	6,88	M	26.67x2.87 SEAMLESS	A-6925

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

SCHOELLER BLECKMANN TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 751007 Page: 1 / 6	Rev:
Created on: Date: 26.02.2024	Modified on: 07.03.2024

SCHOELLER-BLECKMANN Edelstahlrohr GmbH
2630 Ternitz, Rohrstrasse 1
Austria

TL: +43 2630 316-810
FAX: +43 2630 316-894
E-MAIL: wolfgang.hecher@sber.co.at

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT

TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO
ESPAÑA

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:00000076 S
SOLD ORDER REF.:395624
COPY NUMBER: 002

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I010576
SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

HR. W. HECHER

(WORKS INSPECTOR)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 33.40x3.38 SEAMLESS

raccortubi Heat num. or Pcs. marking: BC2877 - Qty:53,58

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

SCHOELLER BLECKMANN
TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 751007 Page: 2 / 6	Rev:
Created on: Date: 26.02.2024	Modified on: 07.03.2024

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)
GRADE / ACERO / GRADE / WERKSTOFF: 1.4501,S32760,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: EN 10297-2:2005
NORSOK M650
NORSOK M630:2020 MDS D51 REV.6
ASME SECT.II PART.A SA790/SA790M-2021 ED.
EN 10216-5:2021 TC2
ASTM A790/A790M-22
RTX_D51S REV.6
CHECK ANALYSIS
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C
CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B
SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)
QAD 68 REV.0
SHELL MESC SPE 74/014 FEBRUARY 2021 EXCEPT:
NO LIQUID PENETRANT TEST (POINT 14.12.1),
TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.
ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.
IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.
ANSI/NACE MR0103/ISO 17945:2015
ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213
ANSI/NACE MR0175/ISO15156-3:2015
HYDROTEST
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: EN ISO 1127/03.2019 D3/T3
ASTM A999/A999M-18
ASME SECT.II PART.A SA999/SA999M-2021 ED.
RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 6.000/7.000 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 33,40 X 3,38 MM / 1" SCH 40S
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item Pos Ped. AuftrgPos Usine Pos	Client Item Pos Clnt Kunde Pos Com. Pos	Delivery No N° Entrega Lieferung Avis. d'exp	Lot No. N° lote Los Nr. Lot d'inspection	Heat No Colada Schmelze Coulée	Pieces Piezas Stück Pcs	Weight Peso Gewicht Poids	Tot Lgth Long. Tot Gesamtlänge Tolength	Un Lgth Long. Un Längentyp Long. Un
20		8170101417	295471	BC2877	24	409 KG	161,06 M	6000-7000 MM

CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)
*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
L	BC2877	1	0,020	0,47	0,240	0,021	0,0010	7,49	25,12	3,58	0,008	0,55
C	BC2877	1	0,020	0,51	0,260	0,022	0,0010	7,45	25,24	3,71	0,021	0,56
C	BC2877	23	0,021	0,49	0,270	0,022	0,0010	7,44	25,08	3,60	0,020	0,59

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

HR. W. HECHER

(WORKS INSPECTOR)

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 33.40x3.38 SEAMLESS

raccortubi Heat num. or Pcs. marking: BC2877 - Qty:53,58

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
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Number: 751007 Page: 3 / 6	Rev:
Created on: Date: 26.02.2024	Modified on: 07.03.2024

CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
C	BC2877	24	0,020	0,49	0,280	0,022	0,0010	7,35	25,02	3,60	0,019	0,59

*	Heat	Seq	Nb	W	Co	N	Pren	V
L	BC2877	1	0,006	0,510	0,130	0,2200	40,4540	
C	BC2877	1	0,009	0,600	0,130	0,2210	41,0200	0,070
C	BC2877	23	0,005	0,600	0,130	0,2230	40,5300	0,070
C	BC2877	24	0,006	0,600	0,130	0,2210	40,4400	0,070

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1110 °C , 5 min , Agua
SOLUTION ANNEALED AT 1110 °C , 5 min , WATER
HYPERTREMPES 1110 °C , 5 min , L' EAU
LOESUNGSGEGLUEHT 1110 °C , 5 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*
Min		*20*	*550*	*640*	*800*	*25*	
Max		*20*					
295471	1	20	776	800	943	26	32
	2	20	753	792	948	27	33

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No	Sample	HRC
Min		
Max		*32*
295471	1	24
	2	24

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/
METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E:
SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND
ASTM A262 PRACT.E: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E: SATISFAISANT

INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B:
SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B:
SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND
ISO 3651-2 MET."B": IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B": SATISFAISANT

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

HR. W. HECHER

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Customer: ROSETTI MARINO S.p.A.

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Description: 33.40x3.38 SEAMLESS

SCHOELLER BLECKMANN
TUBACEX GROUP

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PITTING CORROSION TEST ACCORDING TO ASTM G48 METHOD A
TEST TEMPERATURE 50°C TEST DURATION: 24 HRS
NO SIGNS OF PITTING ARE PRESENT. WEIGHT LOSS: 0,0624 g/m2

CORROSION TEST ACC. TO ASTM A923 METHOD C (AT 50 °C DURING 24 H)
NO SIGNS OF PITTING ARE PRESENT. WEIGHT LOSS: : 0,6240 : MDD

ETCH TEST ACC. TO ASTM A923 METH.A: UNAFFECTED STRUCTURE

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/
ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS

100% ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213: SATISFACTORY
100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM A999/A999M / ASTM E213:
SATISFACTORIO
100% ULTRASCHALLPRÜFUNG NACH ASTM A999/A999M / ASTM E213: IN ORDNUNG
100% ESSAI D´ULTRASON D'ACCORD A ASTM A999/A999M / ASTM E213:
SATISFAISANTE

POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE
BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE
FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR
"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 172 bar, 2500 PSI DURING 5 SEC
ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 172 bar, 2500 PSI DURANTE 5 SEC EN CADA TUBO:
SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 172 bar, 2500 PSI HALTEZEIT 5 SEC JE ROHR:
IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 172 bar, 2500 PSI PENDANT 5 SEC
SUR CHAQUE TUBE: SATISFAISANT

EDDY CURRENT TEST ACC. TO ASTM A999/E426 ON EACH TUBE: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO ASTM A999/E426:
SATISFACTORIO
WIRBELSTROMPRÜFUNG ENTSPR. ASTM A999/E426 JE ROHR: IN ORDNUNG
100% CONTROLE COURANTS FOUCAULT D'APRES ASTM A999/E426: BIEN

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/
TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS

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FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

THE TUBES/PIPES CONFORM ALSO TO
ANSI/NACE MR0103/ISO 17495:2015
ANSI/NACE MR0175/ISO15156-3:2015

QUALIFIED ACCORDING TO NORSOK M650 / QTR 005 / QTR 006
FOR COLD PILGERED/COLD DRAWN PRODUCTS

BESICHTIGUNG UND NACHMESSUNG: IN ORDNUNG
INSPECTION AND CHECKING OF DIMENSIONS: SATISFACTORY
INSPECTION ET CONTROL DES DIMENSIONS: SATISFAISANT

GEFÜGEKONTROLLE: SIEHE ANLIEGENDEN REPORT
FOR MICROGRAPHIC EXAMINATION SEE ENCLOSED REPORT

FOR HARDNESS RESULTS PLEASE SEE ENCLOSURE

DIE WERKSTOFFWERTE ENSPRECHEN PUNKT 7.5 DER DRUCKGERÄTERICHTLINIE 2014/68/EU, ANHANG 1, MIT EINER BRUCHDEHNUNG VON MINDESTENS 14 % IM ZUGVERSUCH UND EINER KERBSCHLAGARBEIT VON MINDESTENS 27 J AN EINER ISO-V-KERBSCHLAGPROBE BEI 20° C.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14 % AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27 J AT 20°C.

MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

SCHOELLER BLECKMANN / TUBACEX GROUP - SBS 33,40 X 3,38 MM / 1" SCH 40S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 1.4501 S32760 CFD CDSMLS HEAT/ PMI-AV LOT NO/ MADE IN AUSTRIA T/A ZFP

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

MECHANICAL TESTS WERE PERFORMED IN LONGITUDINAL DIRECTION IF NOT OTHERWISE STATED.

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REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

REALIZADOS TEST MECÁNICOS EN DIRECCIÓN LONGITUDINAL SI NO HAY OTRAS INSTRUCCIONES.

DIE MECHANISCHEN PRÜFUNGEN WURDEN, SOWEIT NICHT ANDERS ANGEGEBEN, IN LÄNGSRICHTUNG DURCHGEFÜHRT.

LES ESSAIS MÉCHANIQUES ONT ÉTÉ FAITS, SI PAS SPÉCIFIÉ, EN DIRECTION LONGITUDINALE.

NO WELD REPAIR HAS BEEN PERFORMED ON THE MATERIAL.

SIN REPARACION POR SOLDADURA

AM MATERIAL WURDE NICHT GESCHWEISST.

SANS RÉPARATION AVEC SOUDURE

MATERIAL MANUFACTURER APPROVED WITH CERTIFICATE NR. 245/2004/MUC BY TÜV SÜDDEUTSCHLAND (NOTIFIED BODY 0036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.

FABRICANTE DE MATERIALES APROBADO CON CERTIFICADO Nº 245/2004/MUC EMITIDOPOR TUV SUDDEUTSCHLAND (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO DE LA DIRECTIVA DE EQUIPOS A PRESION 2014/68/EU.

WERKSTOFFHERSTELLER MIT BERECHTIGUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. ZERTIFIKAT NR. 245/2004/MUC DER BENANNTEN STELLE NR.0036, TÜV SÜDDEUTSCHLAND

PRODUCTEUR DU MATERIEL APPROUVE SOUS CERTIFICATION Nº 245/2004/MUC PAR TUV SUDDEUTSCHLAND (N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU.

MATERIAL IS FREE OF RADIOACTIVE CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IST FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

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SCHOELLER BLECKMANN EDELSTAHLROHR / TUBACEX GROUP	Anlage zu **ABNAHMEPRÜFZEUGNIS** EN 10204 3.1 Annex to **INSPECTION CERTIFICATE** EN 10204 3.1	Zertifikat Nr. Certificate No. **751007**
		Rev.: 00
		Date: 07.03.2024

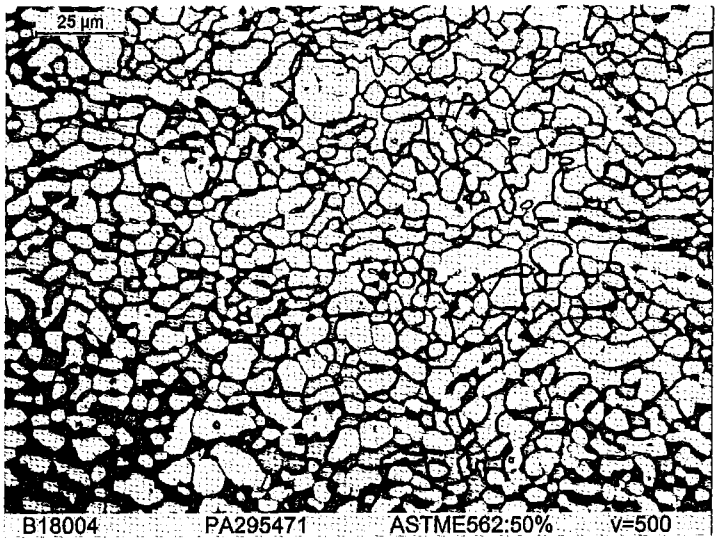
GEFÜGEKONTROLLE
MICROGRAPHIC EXAMINATION REPORT

WORK ORDER NO.: I010576 / 20

GEFÜGE: EINHEITLICHES GEFÜGE ÜBER DIE GANZE WANDDICKE, FREI VON KARBIDEN, NITRIDEN UND INTERMETALLISCHEN PHASEN.

MICROSTRUCTURE: UNIFORM STRUCTURE ACROSS FULL WALLTHICKNESS, FREE FROM CARBIDES, NITRIDES AND INTERMETALLIC PHASES.

FERRITGEHALT / FERRITE CONTENT TO ASTM E562: 50%



ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

SCHOELLER-BLECKMANN EDELSTAHLROHR GmbH Rohrstraße 1 2630 Ternitz, AUSTRIA	TL.: +43 2630 316 601 FAX: +43 2630 316 894 E-MAIL: **qualitysber@sber.co.at**	**Zeichen des Prüfers** Symbol of Inspector	**Wolfgang Hecher** **Der Werkssachverständige** Works Inspector

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

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TTI
TUBACEX
GROUP

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Number: 745216 Page: 1 / 7	Rev: 00
Created on: Date: 19.06.2023	Modified on: 29.06.2023

TTI - TUBACEX TUBOS INOXIDABLES

Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI 2885 - N.I.F. A-01140227

Tres cruces, 8
01400 Llodio (Alava)
SPAIN

TL: 946721350
FAX: 946725062
E-MAIL:

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT

TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:00000171 S
SOLD ORDER REF.:377154
COPY NUMBER: 001

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I010723

SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

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Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 114.30x3.05 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59571 - Qty:6,68

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

TTI TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCION
CERTIFICAT DE RECEPTION
ABNAHMEPRUFZEUGNIS
EN 10204:2004 / 3.1

Number: 745216 Page: 2 / 7	Rev: 00
Created on: Date: 19.06.2023	Modified on: 29.06.2023

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)
GRADE / ACERO / GRADE / WERKSTOFF: S32760,1.4501,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: ASME SECT.II PART.A SA790/SA790M-2021 ED.
ASTM A790/A790M-22
EN 10216-5:2021 TC2
EN 10297-2:2005
NORSOK M650 QTR N.2
NORSOK M630:2020 MDS D51 REV.6
CHECK ANALYSIS
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C
CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B
SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)
HYDROTEST
ANSI/NACE MR0103/ISO 17945:2015
ANSI/NACE MR0175/ISO15156-3:2015
QAD 68 REV.0
RTX_D51S REV.6
SHELL MESC SPE 74/014 FEBRUARY 2021 EXCEPT:
NO LIQUID PENETRANT TEST (POINT 14.12.1),
TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.
ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.
IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.
ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASME SECT.II PART.A SA999/SA999M-2021 ED.
ASTM A999/A999M-18
EN ISO 1127/03.2019 D3/T3
RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 6.000/7.000 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 114,3 X 3,05 MM - 4" SCH 10S
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item / Pos Ped. / AuftrgPos / Usine Pos	Client Item / Pos Clnt / Kunde Pos / Com. Pos	Delivery No / N° Entrega / Lieferung / Avis. d'exp	Lot No. / N° lote / Los Nr. / Lot d'inspection	Heat No / Colada / Schmelze / Coulée	Pieces / Piezas / Stück / Pcs	Weight / Peso / Gewicht / Poids	Tot Lgth / Long. Tot / Gesamtlänge / Tolength	Un Lgth / Long. Un / Längentyp / Long. Un
20		8110077700	P2302287	59571	12	696 KG	80,01 M	6000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr:	Supplier	Method
59571	ACERALAVA (SPAIN)	Electric furnace+AOD

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AENOR Gestión Ambiental UNE EN ISO 14001

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INGENIERIA DE CALIDAD

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Description: 114.30x3.05 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59571 - Qty:6,68

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CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
L	59571	1	0,010	0,71	0,310	0,027	0,0006	6,85	25,45	3,64	0,009	0,66
C	59571	5	0,010	0,70	0,290	0,027	0,0006	6,92	25,45	3,58	0,008	0,65
C	59571	6	0,010	0,70	0,290	0,027	0,0006	6,91	25,45	3,59	0,008	0,65

*	Heat	Seq	V	Nb	W	Co	N	Pren
L	59571	1	0,048	0,005	0,600	0,045	0,2405	41,3100
C	59571	5	0,047	0,006	0,590	0,047	0,2405	41,1120
C	59571	6	0,047	0,006	0,590	0,047	0,2405	41,1450

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1100 °C , Agua
SOLUTION ANNEALED AT 1100 °C , WATER
HYPERTREMPES 1100 °C , L' EAU
LOESUNGSGEGLUEHT 1100 °C , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No.	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5	Type	Spc.Type	Spc.Dim
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*			*mm*
P2302287	1	20	654	717	840	37	37	L	S	20,12
	2	20	649	715	831	35	35	L	S	20,11

CORROSION ACCORDING TO ASTM A923 C/CORROSION DE ACUERDO ASTM A923 C/CORROSION SUIVANT ASTM A923 C/CORROSION ACCORDING TO ASTM A923 C

Lot No.	Sample	T	Pits-20x	Wloss	time
		°C		*MDD*	*Horas*
P2302287	1	50	N	1,7750	24,0

Corrosion test ASTM G48 practice A/Corrosión ASTM G48 práctica A/TEST DE CORROSION ASTM G48 practice A/LOCHFRASSTEST ASTM G 48 PR.A

Lot No.	Sample	T	Pits-20x	W.loss	time
		°C		*g/m2*	*Horas*
P2302287	1	50	N	0,1775	24,0

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No.	Sample	0°Ext1	0°Ext2	0°Ext3	0°Int1	0°Int2	0°Int3	90°Ext1	90°Ext2	90°Ext3	90°Int1	90°Int2	90°Int3	180°Ext1
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2302287	1	16,3	15,7	17,6	15,9	15,1	14,3	15,1	15,6	15,9	16,2	15,8	16,8	14,7

Lot No.	Sample	180°Ext 2	180°Ext3	180°Int1	180°Int2	180°Int3	270°Ext1	270°Ext2	270°Ext3	270°Int1	270°Int2	270°Int3
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2302287	1	15,6	15,3	17,1	16,5	16,4	17,2	16,1	16,0	15,9	15,7	14,8

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AENOR Gestión Ambiental UNE EN ISO 14001

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FERRITE ACCORDING TO ASTM E 562/Contenido de Ferrita según ASTM E562/FERRITE SUIVANT ASTM E562/FERRIT ENTSPRECHEND ASTM E562

Lot No.	Sample	%Fer	Dev.Ferr
		%	%
P2302287	1	53,53	1,99

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

EXAMEN DE MICROESTRUCUTRA DE ACUERDO A ASTM A923 MET.A: ESTRUCTURA NO AFECTADA. MATERIAL LIBRE DE FASES INTERMETALICAS Y PRECIPITADOS. ESTRUCTURA UNIFORME A TRAVES DEL ESPESOR.

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY

ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E: SATISFACTORIO

BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262 PRACT.E: IN ORDNUNG

ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT

INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B: SATISFACTORY

ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B: SATISFACTORIO

BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2 MET."B": IN ORDNUNG

ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS

FERRITE CONTENT DETERMINED BY FISCHER FERRITOSCOPE TO 100% OF PRODUCTS

CONTENIDO EN FERRITA MEDIDO CON FERRITOSCOPIO SOBRE EL 100% DEL MATERIAL.

Ferritescope-Test auf 100% des Materials.

100% ULTRASONIC TEST ACC. TO ASTM A999 / E213: SATISFACTORY

100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM A999 / E213: SATISFACTORIO

100% ULTRASCHALLPRÜFUNG NACH ASTM A999 / E.213:IN ORDNUNG

100% ESSAI D´ULTRASON D'ACCORD A ASTM A999 / E.213: SATISFAISANTE

100% ULTRASONIC TEST ACC. TO EN 10246-7, U2C: SATISFACTORY

100% ENSAYO DE ULTRASONIDOS DE ACUERDO A EN 10246-7, U2C: SATISFACTORIO

100% ULTRASCHALLPRÜFUNG NACH EN 10246-7, U2C:

AENOR ER Empresa Registrada UNE-EN ISO 9001

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IN ORDNUNG
100% ESSAI D´ULTRASON D'ACCORD A EN 10246-7, U2C: SATISFAISANTE
POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT "RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR "X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 120 bar, 1700 PSI DURING 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 120 bar, 1700 PSI DURANTE 5 SEC EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 120 bar, 1700 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 120 bar, 1700 PSI PENDANT 5 SEC SUR CHAQUE TUBE: SATISFAISANT
100% EDDY CURRENT TEST AT ASTM E426: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A ASTM E426: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH ASTM E426: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES ASTM E426: BIEN

DIMENSIONAL CHECKING ON EACH TUBE: SATISFACTORY
INSPECCION DIMENSIONAL AL 100% DE LOS TUBOS SATISFACTORIA
100% MASSKONTROLLE: O.B.
VERIFICATION DIMENTIONNELLE AU 100% DES TUBES, SATISFAISANTE

VISUAL INSPECTION ON EACH TUBE: SATISFACTORY
INSPECCION VISUAL AL 100% DE LOS TUBOS, SATISFACTORIA
100% BESIGCHTIGUNG: O.B.
EXAMEN VISUEL AU 100% DES TUBES, SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS
FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

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MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

TX2 TX1 TUBACEX 114,3 X 3,05 MM - 4" SCH 10S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 S32760 1.4501 CFD CD SMLS HEAT/ PMI-AV LOT NO/MADE IN SPAIN

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.
DURANTE LOS PROCESOS DE FABRICACIÓN E INSPECCIÓN NO SE HA USADO MERCURIO NI INSTRUMENTOS Y/O EQUIPOS CONTENIENDO MERCURIO O CON COMPONENTES DE MERCURIO.
KEINE QUEKSILBER, BZW. QUECKSILBERVERUNREINIGTES KOMPONENTEN ODER KUGELLAGERINSTRUMENTE UND/ODER GERÄTE SIND BENUTZT WORDEN PRODUKTIONS UND BESICHTIGUNGSPROZESS.
IL N'A PAS ÉTÉ FAIT USAGE DE MERCURE, DE COMPOSÉS CONTENANT DU MERCURE OU DE MATÉRIAUX ET/OU D'INSTRUMENT CONTENANT DU MERCURE TOUT AU LONG DES ÉTAPES DE FABRICATION ET DU PROCESSUS D'INSPECTION ET DE CONTRÔLE.

NO WELDING OR WELD REPAIRS WERE MADE
SIN REPARACION POR SOLDADURA
KEINE SCHWEISSBEARBEITUNG WURDE VORGENOMMEN
SANS RÉPARATION AVEC SOUDURE
MATERIAL MANUFACTURER APPROVED BY TÜV SÜD Industrie Service GmbH
(NOTIFIED BODY 036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN
ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX I POINT 4.3.
FABRICANTE DE MATERIALES APROBADO POR TÜV SÜD Industrie Service GmbH (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO AL ANEXO I, PUNTO 4.3 DE LA DIRECTIVADE EQUIPOS A PRESION 2014/68/EU.
WERKSTOFFHERSTELLER MIT BERECHTIUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. DER BENANNTEN STELLE NR.0036, TÜV SÜD Industrie Service GmbH
PRODUCTEUR DU MATERIEL APPROUVE PAR TÜV SÜD Industrie Service GmbH N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU ANNEXE I POINT 4.3.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20ºC.
LAS CARACTERISTICAS DEL MATERIAL CUMPLEN CON LOS REQUISITOS DEL PUNTO 7.5 DE LA DIRECTIVA PED POR TENER UN ALARGAMIENTO TRAS ROTURA EN EL ENSAYO DE TRACCION NO INFERIOR AL 14% Y PO DE TRACCION NO INFERIOR AL 14% Y POR TENER UNA RESISTENCIA AL IMPACTO NO INFERIOR A 27 J A 20º C.
DIE WERKSTOFF-WERTE ENTSPRECHEN PUNKT 7.5. DER DGRL, ANHANG I, MIT EINERBRUCHDEHNUNG = 14% IM NORMGEMÄSS DURCHGEFÜHRTEN ZUGVERSUCH UND DER KERBSCHLAGARBEIT = 27J AN EINER ISO - v PRO PROBE BEI EINER TEMPERATUR VON HÖCHSTENS 20ºC
LES CARACTERISTIQUES DU MATERIEL, AYANT UN ALLONGEMENT APRES RUPTURE A L'ESSAI DE TRACTION NON INFERIEUR DU 14% ET UNE RESISTENCE A LA FLEXION PAR CHOC A 20ºC NON INFERIEUR A 27J, SONT CONFORMES AUX PRESCIPTIONS DU PONT 7.5 DE L'ANNEXE I DE PED.

MATERIAL IS FREE OF RADIATION CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES

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MATERIAL IS FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

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INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 114.30x3.05 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59571 - Qty:6,68

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

TUBACEX GROUP	STRUCTURE EXAMINATION	MTC / Certificate
		745216

MATERIAL IDENTIFICATION / IDENTIFICACIÓN DEL MATERIAL

Lot No. / Num Lote	P2302287	Dimension / Dimensión	114,3 x 3,05 mm - 4'SCH 10
Heat / Colada	59571	Grado de acero / Steel grade	S32760

Type Of test / Tipo de Ensayo:	MICROSTRUCTURE EVALUATION

RESULTS / RESULTADO

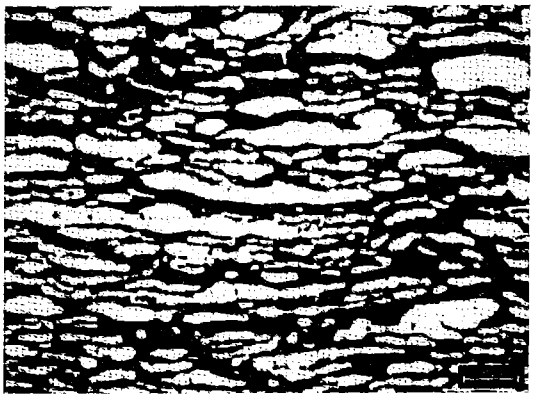
Result: The microestructure is formed by austenite and ferrite. The presence of intermetallic phases or precipitates is not observed. Uniform structure across full wall thickness Etching method according to ASTM E-407.

Resultado: la microestructura está compuesta por austenita y ferrita. No se observa la presencia de fases intermetálicas y precipitados. Estructura uniforme a través de todo el espesor. Método de ataque según ASTM E-407.

GRAPHICS RECORDS / REGISTROS FOTOGRÁFICOS:



Dir: LONGITUDINAL / MAG: 500X /



Dir: TRANSVERSAL / MAG: 500X /

María Cano
Responsable del Laboratorio
Laboratory Manager

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 114.30x3.05 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59571 - Qty:6,68

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

(A01) **Salzgitter Mannesmann Stainless Tubes Italia Srl**
(A05) Via Pio 30 - 24062 Costa Volpino (BG) - ITALY
www.mannesmann-stainless-tubes.com

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-24-00368-rev.01** Pag. 1 / 6

(A06) **Purchaser**	(A07) **Customer Order No**
RACCORTUBI Spa	PO 00000251S
Viale De Gasperi	(A08) **SMST-Tubes Order No**
20010 MARCALLO	0000295816
Milano	**SMST-Item** (A09) **Part No**
Italia	0000295816-000004

(B01) (B02) (B04) **Product Description**

Seamless Stainless Steel Cold Finished Pipes Solution Annealed Free From Scale Plain Ends Square Cut Deburred

Specifications	ASME SA 790M 23;ASTM A 790M 23;NORSOK MDS D51 REV 06;RACCORTUBI RTX_D51S Rev.6; ANSI/NACE MR0103/ISO 17945 2016; ANSI/NACE MR0175/ISO 15156-3 2015
Grade	UNS S32760;DMV 25.7N
Tolerances	A 790M / A999;SA 790M / A999

(B03) Supplementary Requirements

None

(B06 - D01) Marking of the Product

Technical marking	MANNESMANN MST-I - ASME SA 790 / ASTM A 790 - DMV 25.7N - UNS S32760 - NPS 3/4 X SCH 40 - 26,70 MM X 2,87 MM - SML - HEAT $HEAT_NBR$ - $QUAL_LOT_NBR$ - MADE IN ITALY - BUNDLE $BUNDLE_NBR$

Country of Origin of the tubes **Italy**

Quantity						Dimensions			
(B07) Heat	Quality Lot	SMST-Item	(B08) Pieces	(B13) Weight	(B16) Length	(B09) OD	(B10) WT	(B11) Ordered Length min	(B11) Ordered Length max
739859	QL40082122	000004	30	329.15 kg	194.000 m	26.70 mm	2.87 mm	5000 mm	7000 mm
				725.65 lbs	636.48 ft	NPS 3/4	SCH 40	16.40 ft	22.97 ft
				725.65 lbs	636.48 ft	1.051 "	0.113 "	16.40 ft	22.97 ft
BC4514	QL40082124	000004	4	40.67 kg	24.000 m	26.70 mm	2.87 mm	5000 mm	7000 mm
				89.66 lbs	78.74 ft	NPS 3/4	SCH 40	16.40 ft	22.97 ft
				89.66 lbs	78.74 ft	1.051 "	0.113 "	16.40 ft	22.97 ft
			34	**369.82 kg**	**218.000 m**				
			34	**815.31 lbs**	**715.22 ft**				

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

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INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-24-00368-rev.01** Pag. 2 / 6

Heat Analysis

		Request	C	Si	Mn	P	S	Cr	Ni	Mo	N
	Min		0.00	0.00	0.00	0.00	0.0000	24.0	6.0	3.0	0.20
	Max		0.030	1.0	1.0	0.030	0.0100	26.0	8.0	4.0	0.30
(B07) Heat	Heat Origin	(C70) Melting Process	%	%	%	%	%	%	%	%	%
739859	Germany	EAF + AOD	0.017	0.35	0.65	0.025	0.0004	26.0	7.2	3.8	0.25
BC4514	Austria	EAF + AOD	0.019	0.34	0.49	0.022	<0.0003	25.7	7.1	3.7	0.25

		Request	Cu	W	PREN	PREN_W
	Min		0.50	0.50	40.0	41.00
	Max		1.0	1.0		
(B07) Heat	Heat Origin	(C70) Melting Process	%	%		
739859	Germany	EAF + AOD	0.59	0.60	42.3	43.29
BC4514	Austria	EAF + AOD	0.51	0.53	41.9	42.74

Product Analysis

NORSOK MDS D51;ASTM A 790M;D-232;ASME SA 790M

	Request	C	Si	Mn	P	S	Cr	Ni	Mo	N
	Min	0.00	0.00	0.00	0.00	0.0000	24.0	6.0	3.0	0.20
	Max	0.030	1.0	1.0	0.030	0.0100	26.0	8.0	4.0	0.30
Quality Lot	(C00) Sample	%	%	%	%	%	%	%	%	%
QL40082122	49245069	0.018	0.37	0.67	0.025	0.0007	25.9	7.1	3.8	0.25
QL40082124	49245077	0.019	0.36	0.50	0.022	0.0002	25.7	7.0	3.7	0.26

	Request	Cu	W	PREN	PREN_W
	Min	0.50	0.50	40.0	41.00
	Max	1.0	1.0	99.99	
Quality Lot	(C00) Sample	%	%		
QL40082122	49245069	0.60	0.60	42.47	43.46
QL40082124	49245077	0.50	0.53	42.21	43.08

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INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-24-00368-rev.01** Pag. 3 / 6

Tensile Test at Room Temperature

ASTM A 370;D-220

(C02) Direction: LONGITUDINAL

(C10) Description: FULL SIZE TEST SPECIMEN

		(C11)	(C12)	(C13)
		YS 0.2%	U.T.S.	EL
		Rp 0,2%	Rm	50mm
Request	Min	550	800	25.0
Quality Lot	Max (C00) Sample	MPa	MPa	%
QL40082122	49245069	825	961	29.2
QL40082124	49245077	725	925	33.2

(C30) Hardness HRC

ASTM E 18;EN ISO 6508-1

			(C30) HRC		
		Request			32.0 max
Quality Lot	(C00) Sample	Result	(C31) Min	(C31) Max	(C32) Avg
QL40082122	49245069		28	29	28.5
	49245070		27	28	27.5
QL40082124	49245077		25	26	25.5
	49245078		26	27	26.5

(C50) Flattening Test

ASTM A 999;D-226

Quality Lot	(C00) Sample	Result
QL40082122	49245069	OK
	49245070	OK
QL40082124	49245077	OK
	49245078	OK

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INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

Pitting Corrosion Resistance Test

ISO 17781;D-237;ASTM G48 METHOD A

Quality Lot	(C00) Sample	Result
QL40082122	49245069	OK
QL40082124	49245077	OK

See attached certificate for results and details

Pitting Corrosion Resistance Test

ASTM A 923 METHOD C

Description: NO PITTING AT 20X

	Request Max			10.0000	
	Unit	HOURS	°C	MDD	
Quality Lot	(C00) Sample	Holding time	Temperature	Loss Weight	Result
QL40082122	49245069	24	50	2.29450	Satisfactory
QL40082124	49245077	24	50	2.05440	Satisfactory

Ferrite

D-236;ASTM E 562;ISO 17781

Quality Lot	(C00) Sample	Result
QL40082122	49245069	OK
QL40082124	49245077	OK

See attached certificate for results and details

Micrographic Examination Structure

ASTM E 407;D-259;ISO 17781

Quality Lot	(C00) Sample	Result
QL40082122	49245069	OK
QL40082124	49245077	OK

See attached certificate for results and details

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(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-24-00368-rev.01** Pag. 5 / 6

Other Tests and Declarations

QL40082122; QL40082124

Heat Treatment Solution Annealed 1120 °C Holding Time 1 Min / mm WT MIN rapid cooling

(D01)	Visual and dimensional inspection (VT) on 100% of tubes according to the order	Satisfactory
(D51)	Antimixing Check (PMI) on 100% of tubes	Satisfactory
(D02)	Eddy Current Testing (ET) on 100% of tubes ASTM A 999; ASTM E 309	Satisfactory
(D52)	Hydro Pressure Test on 100% of tubes 5 sec. at 17.00 MPA ASTM A 999	Satisfactory
(D04)	Ultrasonic Testing (UT) on 100% of tubes ASTM E 213; ASTM A 999	Satisfactory

No Weld Repair

(Z01) SMST declares that the product was manufactured, sampled, tested, inspected and packed in accordance with the specifications and any other requirements designated in the purchase order within the extent listed in SMST order acknowledgment, and has been found to meet such requirements

Tubes are free from mercury contamination and from radioactive contamination

The material is conforming to directive 2000/53/EC and 2011/65/EU

Confirmation with reference to Pressure Equipment Directive 2014/68/EU:
The works operates a quality management system that has undergone a specific assessment for materials for pressure equipment and is certified by a competent body (TUV-Cert. No: 70/2002/MUC)

QTR ref. N°: SMST-I QTR- 017 rev. 11

(Z02) Mill's Inspector **Ruggero Clementi (QC)** Date of Edition **04/03/2024**

This certificate is issued by SALZGITTER MANNESMANN STAINLESS TUBES via a computerized system bearing a traceable unique number. It is valid without signature. An intermediary may only pass on the original certificate without any alterations. Providing a copy of the original is only permitted subject to strict compliance with the prerequisites set out in § 6 of EN 10204:2004 i.e. traceability and availability of the original upon request . Any modification or alteration of the certificate or any copies are strictly prohibited . Any contravention of this notice or § 6 of EN 10204:2004 is illegal and will be prosecuted. Any falsification of a certificate e.g. by introducing false or fraudulent data for the purpose of promoting the sales of goods is a criminal offence under German law (and many other jurisdictions) punishable with fines and imprisonment. If an authentification is needed, please contact info@mst.mannesmann.com

(A01) **Salzgitter Mannesmann Stainless Tubes Italia Srl**
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INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-24-00368-rev.01** Pag. 6 / 6

Certificate anti counterfeiting check

A set of information from the Inspection Certificate cover page are included in encrypted form in the above QR code.
By scanning it with your mobile device you can check if the Inspection Certificate is genuine.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51
Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

FERRITE CONTENT EVALUATION IN AUSTENITIC-FERRITIC ASTM E 562 /ASTM E 1245

(Duplex and Super Duplex) STAINLESS STEELS GRADES

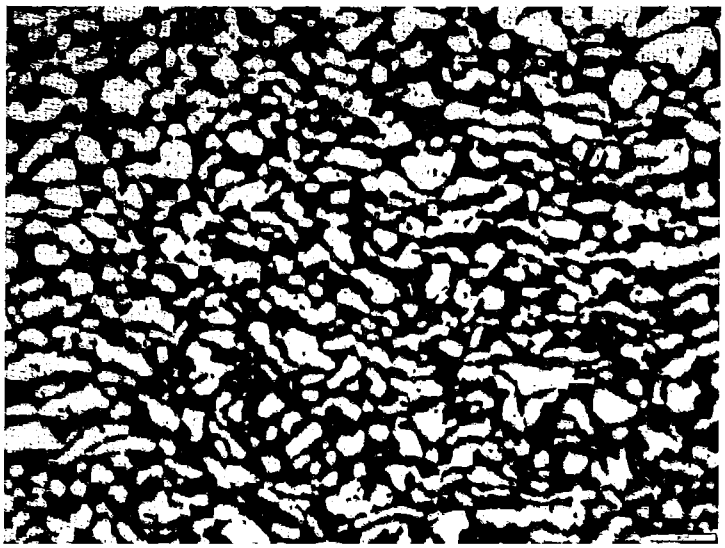
Reference standard Norsok M-650/ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082122
Sample Nr: 49245069
Heat Nr.: 739859
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-236 rev. In force		
Identification of the test specimens Numero del campione	49245069		
Test Direction/Location Direzione test/Posizione	Transversal		
Specimen size (mm) Misure del campione (mm)	From 12 to 25 mm		
Etching Attacco	NaOH 20%		
Magnification Ingrandimenti	500x		
Total estimated volume % ± 95% CI Volume totale stimato % ± 95% CI	Acceptance criteria: Criteri di accettabilità:	Min 40%	Max 55%
	Result: risultati:	54.08% ± 0.61%	
% Standard deviation Deviazione standard %	1.63%		
% relative accuracy Accuratezza relativa %	1.13%		
Numero di campi per sezione metallografica Number of fields for metallographic section	30		
Descrizione Griglia Grid description	N/A		
Spaziatura e disposizione dei campi Field array description and spacing	10 x 3 – 400 µm		
Photo magnification Foto ingrandimenti	Yes 500x		
Identif. Test Machine used Strumento utilizzato	L- 960		

All. 1 Rev. 3 del 22 Febbraio 2019 (ref:D-236)

ROSETTI MARINO
Supply Management Dept
☐ Witness ☐ Review



49245069 500x

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	Tech. Lab.	Forchini P.	26/02/2024
Approved by	Lab coord.	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 3 del 22 Febbraio 2019 (ref:D-236)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
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MANNESMANN
STAINLESS TUBES
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FERRITE CONTENT EVALUATION IN AUSTENITIC-FERRITIC ASTM E 562 /ASTM E 1245

(Duplex and Super Duplex) STAINLESS STEELS GRADES

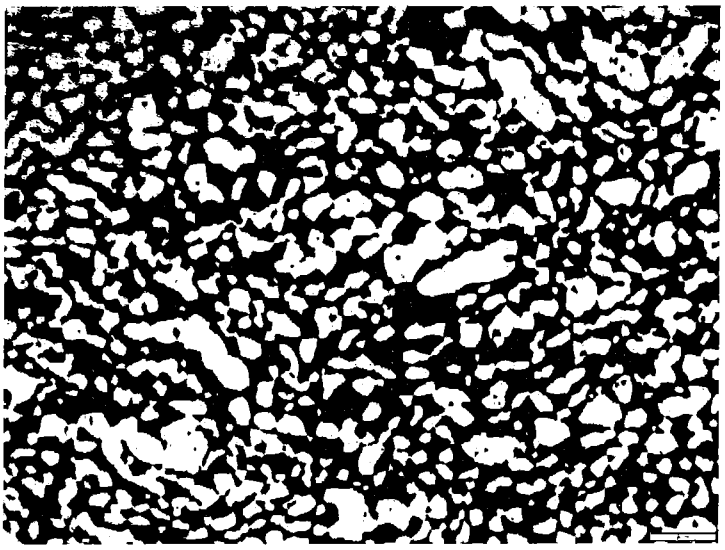
Reference standard Norsok M-650/ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082124
Sample Nr: 49245077
Heat Nr.: BC4514
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-236 rev. In force		
Identification of the test specimens Numero del campione	49245077		
Test Direction/Location Direzione test/Posizione	Transversal		
Specimen size (mm) Misure del campione (mm)	From 12 to 25 mm		
Etching Attacco	NaOH 20%		
Magnification Ingrandimenti	500x		
Total estimated volume % ± 95% CI Volume totale stimato % ± 95% CI	Acceptance criteria: Criteri di accettabilità:	Min 40%	Max 55%
	Result: risultati:	52.78% ± 0.28%	
% Standard deviation Deviazione standard %	0.75%		
% relative accuracy Accuratezza relativa %	0.53%		
Numero di campi per sezione metallografica Number of fields for metallographic section	30		
Descrizione Griglia Grid description	N/A		
Spaziatura e disposizione dei campi Field array description and spacing	10 x 3 – 400 µm		
Photo magnification Foto ingrandimenti	Yes 500x		
Identif. Test Machine used Strumento utilizzato	L- 960		

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 3 del 22 Febbraio 2019 (ref:D-236)



49245077 500x

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	Tech. Lab.	Forchini P.	26/02/2024
Approved by	Lab coord.	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

All. 1 Rev. 3 del 22 Febbraio 2019 (ref:D-236)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
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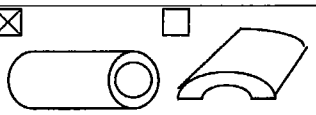
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

CORROSION TEST ASTM G48 Method A

Reference standard Norsok M-650/ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082122
Heat Nr.: 739859
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-237 rev. In force
Identification of the test specimens Numero del campione	49245069
Section orientation transversal and longitudinal Orientamento sezione trasversale e longitudinale	☒ ☐ 
Specimen size (cm^2) and surface condition Misure del campione (cm^2) e superfice del campione	26.1497 cm^2 Delivered condition OD and ID surface, edges with 120-grit abrasive paper
Test temperature Temperatura di prova	50°C
Duration of the test Durata del test	24H
Initial Weight of specimen (with balance T-019) in g Peso iniziale del campione (con bilancia T-019) in g	24.6513 gr
Final Weight of specimen (with balance T-019) in g Peso finale del campione (con bilancia T-019) in g	24.6507 gr
Weight loss g Calo in peso g	0.0006 gr
Acceptance criteria (g/m^2) Criteri accettabilità (g/m^2)	1.00 gr/m^2
Result (g/m^2) Risultato (g/m^2)	0.2294 gr/m^2
Magnification used during examination Ingrandimenti usati per l'esame macro	20 X
Statement on presence of pitting Dichiarazione sulla presenza di pitting	Free of pitting

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	**Tech. Lab.**	Forchini P.	27/02/2024
Approved by	**Lab. Coord.**	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-237)

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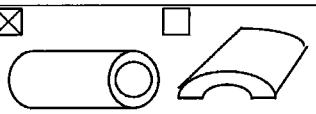
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

CORROSION TEST ASTM G48 Method A

Reference standard Norsok M-650/ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082124
Heat Nr.: BC4514
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-237 rev. In force
Identification of the test specimens Numero del campione	49245077
Section orientation transversal and longitudinal Orientamento sezione trasversale e longitudinale	☒ ☐ 
Specimen size (cm^2) and surface condition Misure del campione (cm^2) e superfice del campione	29.2058 cm^2 Delivered condition OD and ID surface, edges with 120-grit abrasive paper
Test temperature Temperatura di prova	50°C
Duration of the test Durata del test	24H
Initial Weight of specimen (with balance T-019) in g Peso iniziale del campione (con bilancia T-019) in g	28.4065 gr
Final Weight of specimen (with balance T-019) in g Peso finale del campione (con bilancia T-019) in g	28.4059 gr
Weight loss g Calo in peso g	0.0006 gr
Acceptance criteria (g/m^2) Criteri accettabilità (g/m^2)	1.00 gr/m^2
Result (g/m^2) Risultato (g/m^2)	0.2054 gr/m^2
Magnification used during examination Ingrandimenti usati per l'esame macro	20 X
Statement on presence of pitting Dichiarazione sulla presenza di pitting	Free of pitting

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	**Tech. Lab.**	Forchini P.	27/02/2024
Approved by	**Lab. Coord.**	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
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All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-237)

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* Issued 22-05-2024

MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

MICROSTRUCTURAL EVALUATION OF FERRITIC/AUSTENITIC

(DUPLEX AND SUPERDUPLEX) STAINLESS STEEL

Reference standard Norsok M-650 / ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082122
Heat Nr.: 739859
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-259 rev. In force
Identification of the test specimens Numero del campione	49245069
Test Direction/Location Direzione test/Posizione	Transverse/Full thickness
Specimen size (mm) Misure del campione (mm)	From 12 to 25 mm
Number of fields for metallographic section Numero di campi per sezione metallografica	30
Grid description Descrizione Griglia	Square 100 points Quadrata 100 punti
Etching for intermetallic phases Attacco per fasi intermetalliche	NaOH 20%
Etching to detected nitrides/carbides precipitates Attacco per determinare precipitati di nitruri/carburi	Oxalic Acid 10%
Magnification Ingrandimenti	400x
Acceptance criteria: Basically free from intermetallic precipitates and Nitrides/carbides Criteri di accettabilità: Fondamentalmente libero da precipitati intermetallici e nitruri/carburi	From 0% To 0% Result: 0.00%
Photo magnification Foto ingrandimenti	Yes – 400x
Identif. Test Machine used Strumento utilizzato	L-960

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-259)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

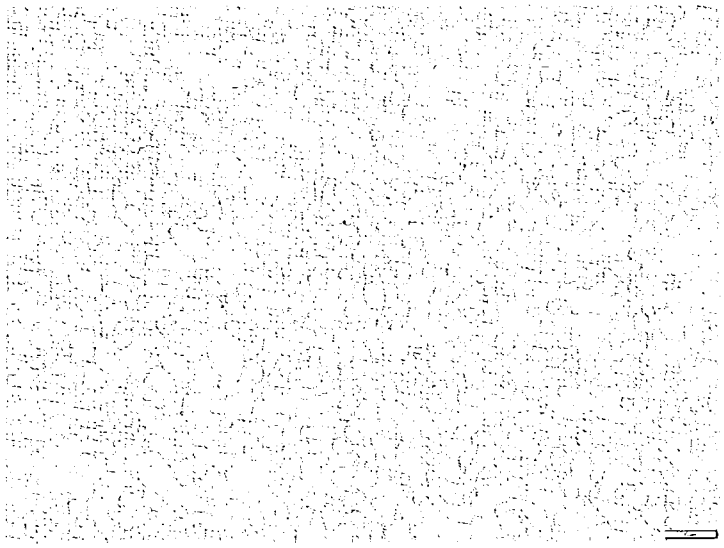
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

MICROSTRUCTURAL EVALUATION OF FERRITIC/AUSTENITIC

(DUPLEX AND SUPERDUPLEX) STAINLESS STEEL

Reference standard Norsok M-650 / ISO 17781



49245069 400x

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	**Tech. Lab.**	Forchini P.	26/02/2024
Approved by	**Lab coord.**	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-259)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

MICROSTRUCTURAL EVALUATION OF FERRITIC/AUSTENITIC

(DUPLEX AND SUPERDUPLEX) STAINLESS STEEL

Reference standard Norsok M-650 / ISO 17781

Order Nr.: 0000295816
Quality Lot: QL40082124
Heat Nr.: BC4514
Grade: UNS S32760 (DMV25.7N)
Tube Dimensions: 26.70 x 2.87

Reference to examination procedure Procedura di riferimento	D-259 rev. In force
Identification of the test specimens Numero del campione	49245077
Test Direction/Location Direzione test/Posizione	Transverse/Full thickness
Specimen size (mm) Misure del campione (mm)	From 12 to 25 mm
Number of fields for metallographic section Numero di campi per sezione metallografica	30
Grid description Descrizione Griglia	Square 100 points Quadrata 100 punti
Etching for intermetallic phases Attacco per fasi intermetalliche	NaOH 20%
Etching to detected nitrides/carbides precipitates Attacco per determinare precipitati di nitruri/carburi	Oxalic Acid 10%
Magnification Ingrandimenti	400x
Acceptance criteria: Basically free from intermetallic precipitates and Nitrides/carbides Criteri di accettabilità: Fondamentalmente libero da precipitati intermetallici e nitruri/carburi	From 0% To 0% Result: 0.00%
Photo magnification Foto ingrandimenti	Yes – 400x
Identif. Test Machine used Strumento utilizzato	L-960

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-259)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

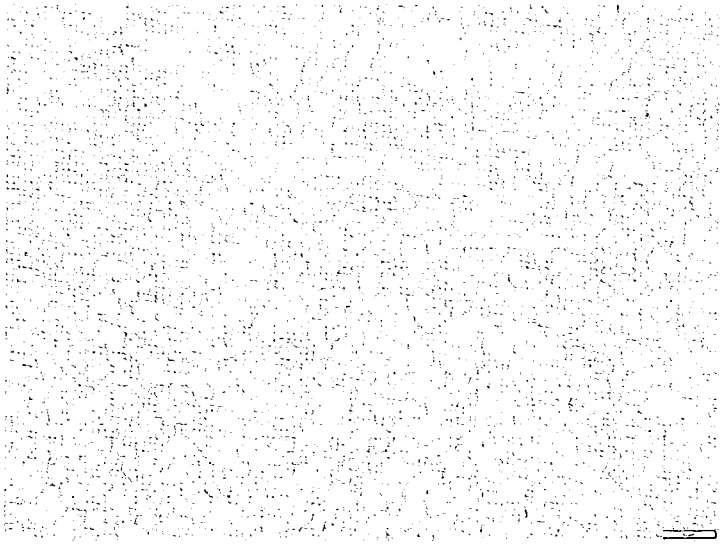
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

Laboratory - Costa Volpino (BG) - Italy

MICROSTRUCTURAL EVALUATION OF FERRITIC/AUSTENITIC

(DUPLEX AND SUPERDUPLEX) STAINLESS STEEL

Reference standard Norsok M-650 / ISO 17781



49245077 400x

Results are in conformity with the applicable test documents

	Function	Name & Signature	Date
Prepared by	**Tech. Lab.**	Forchini P.	26/02/2024
Approved by	**Lab coord.**	Bonomi S.	

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

All. 1 Rev. 0 del 24 Gennaio 2019 (ref: D-259)

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: 739859 - Qty:6,51

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

SANDVIK

CERTIFICATE

A03/Z02
No. A/19-847363 Rev 00
Date 2019-09-30 Page 1/3

A02/Z03
INSPECTION CERTIFICATE acc to
EN 10204 3.1

208368

INSPECTION STAMP
QA-TUBE

Customer References A07		Sandvik References A08		
	Customer order	Order No.	Subs No.	ABSMT Dispatch note
837250	2019-05-29	537220	670853	04127/54
		ABSMT No.	C.Code	
125-00991 SVERDR EUR		300-97261	03	

Material description B01/B04
SEAMLESS STAINLESS HOT FINISHED PIPE

Steel making process C70
Electric furnace+AOD

Steel/material Designations B02	
Sandvik	UNS
SAF 2507	S32750
EN no	
1.4410	

REVIEWED

Technical requirements B03
ASTM A-790-18, ASME SA-790-ED-17
NORSOK M-630 ED-6, NORSOK MDS D51 REV.5, NP-T-010-0 Rev.0
NACE MR0175/ISO 15156-3:-2015, NACE MR0103/ISO 17945-1:-2015
PED 2014/68/EU EN 10216-5 TC1

EXTENT OF DELIVERY B07-B13

	It	Product designation	Heat	Lot	Pieces	Kg	M
3	02	TST-E-SAF2507-11/2-SCH40 48.26 X 3.68	556787	15933	140	3200.0	766.97
				Total	140	3200.0	766.97

TEST RESULTS
Chemical composition (weight%)

Heat	PRE
556787	42.9

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
556787	0.015	0.32	0.66	0.023	0.0008	25.72	6.54	3.86

Heat	Cu	N
556787	0.20	0.277

Quality assurance - Helen Jämtemyr / QA-manager A05/Z02
MTC Service / Certificates

A01 AB SANDVIK MATERIALS TECHNOLOGY Reg No: 556234-6832 VAT No. SE663000-060901
SE-81181 SANDVIKEN SWEDEN www.smt.sandvik.com mtc_service.smt@sandvik.com

ROSETTI MARINO
Witness

Tensile test at room temperature

	Yield strength		Tensile strength	Elongation	
	Mpa.	MPa	Mpa	%	%
Lot	Rp0.2	Rp1.0	Rm	A	2"
15933	652	701	835	35	32
	641	690	834	35	32

Hardness test

	Min	Max
Lot	HRC	HRC
15933	26	27

Ferrite acc to ASTM E-562

Lot	%
15933	48.4

Corrosion test adoording to ASTM G-48A, 50°C for 24 hours.
In delivery condition.
No pitting corrosion found at 20x enlargement.

	Specimen weight loss
Lot	g/m2
15933	0.00

Following controls/tests have been satisfactorily performed:
- The structure, examined at 400x magnifications is free from detrimental intermetallic phases and precipitates.
- Flattening test.
- Flaring test
- 100% PMI-test.
- Leak test: Eddy current test acc to EN ISO 10893-1 and ASTM Pr.E309 with drilled hole as reference standard in lieu of hydrostatic test.
- Visual inspection and dimensional control.

Heat Treatment:
Solution annealed at a temperature of 1075° C, 5 minutes
and quickly cooled with water.

Marking:
SANDVIK SAF 2507 ASTM A790 ASME SA790 EN10216-5 TC1 UNS S32750 EN 1.4410 HFD S ML 48.26 X 3.68 MM 1 1/2 SCH 40S HT 556787 SS LOT 15933 *QA-TUBE*

The raw material is free from radioactive contamination.

Material free from mercury contamination.

No welding or weld repair.

NORSOK M-650 QTR NO: QTR25Cr_H_326

NORSOK M-650 QTR NO: QTR25Cr_C326

Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (2014/68/EU, Annex 1 para 4.3) by TUEV NORD; notified body, reg.no. 0045.

The number of tests are based on the size of the manufacturing lot before cutting to finished lengths.

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Description: 48.26x3.68 SEAMLESS

raccortubi Heat num. or Pcs. marking: 556787 - Qty:60,27
Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

SANDVIK

CERTIFICATE

No. A/19-847363 Rev 00
Date 2019-09-30 Page 3/3

The delivered products comply with the specifications and requirements of the order.

The material is manufactured according to a Quality system, approved and registered to ISO 9001:2015.

No unauthorized alterations. The contents of this Inspection Certificate may not be modified or revised in any way without the prior written approval of AB Sandvik Materials Technology. Unauthorized alterations to the Inspection Certificate, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Inspection Certificate may be copied only in the manner and for the purposes specified in Section 6 of EN 10204:2004. Contravention of this notice will be prosecuted to the fullest extent of applicable law.

The certificate is produced with EDP and valid without signature.

ROSETTI MARINO
Supply Management Dept.
Witness Review

AB SANDVIK MATERIALS TECHNOLOGY Reg No. 556234-6832 VAT No. SE663000-060901
SE-81181 SANDVIKEN SWEDEN www.smt.sandvik.com mtc_service.smt@sandvik.com

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 48.26x3.68 SEAMLESS

raccortubi Heat num. or Pcs. marking: 556787 - Qty:60,27

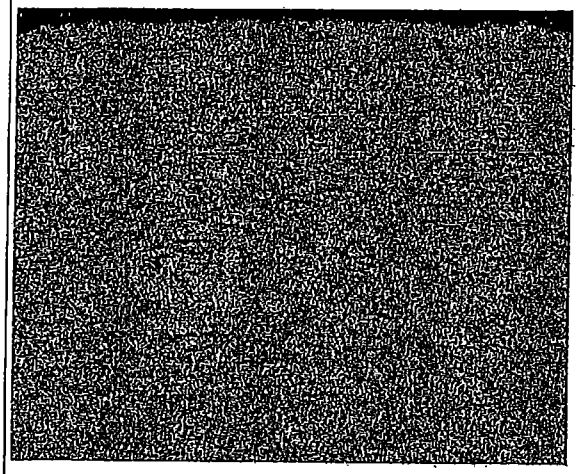
Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

Microstructure Examination Report

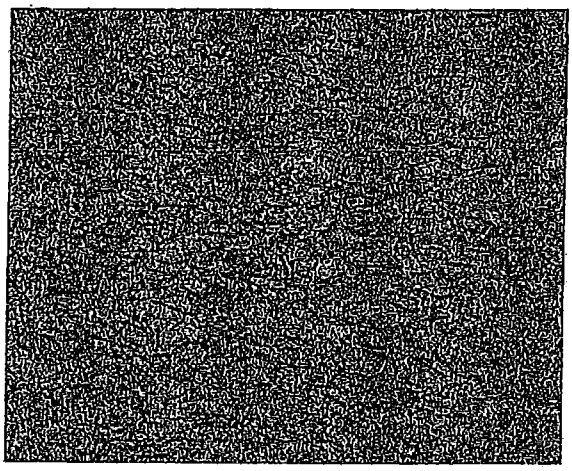
Material Information	
Grade	SAF2507
Heat	556787
Lot	15933-5
Dim	48,26X3,68

Technical Information	
Certificate No.	A/19-847363
Test Date	2019-09-20
Etchant	NAOH
Test Result	OK

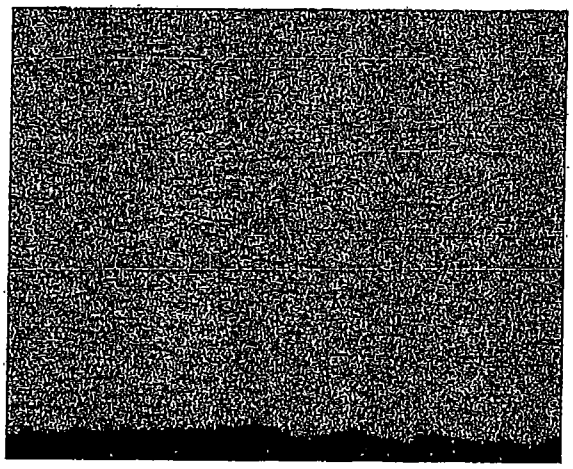
Test No: 639 O | Magnification: 400x



Test No: 639 C | Magnification: 400x



Test No: 639 I | Magnification: 400x



STQD:Emelie Karlsson (SANDVIK\ko8819)

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 48.26x3.68 SEAMLESS

raccortubi Heat num. or Pcs. marking: 556787 - Qty:60,27

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

raccortubi Heat num. or Pcs. marking: 235689 - Qty:306,00
Customer: ROSETTI MARINO S.p.A.
Description: 33.40x3.38 SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 50 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY * Issued 22-05-2024
CTCERT202400002477.1.0001

Welspun SPECIALTY SOLUTIONS

Alloy & Stainless | Bars & Tubes

Plot No. 1, G.I.D.C Industrial Estate, Jhagadia-Valia Road, Jhagadia, Dist. -Bharuch- 393 110, Gujarat, India. (Tel.) - +91-70690 85572, (Website) - www.welspunspecialty.com
Manufacturer of Stainless Steel Seamless Pipes , Tubes & U Tubes

Manufacturer's Mark | QR Code | Client / TPI Mark

MATERIAL TEST CERTIFICATE

FORMAT NO.- QMS-QA/QC-F-42, REV. NO. & DATE : 02, 19.08.2019

Customer	M/s. RACCORTUBI S.p.A	Customer PO No.	00000060 S_Rev.01	Date	07.11.2023
	Viale De Gasperi 194, 20010 Marcallo con Casone, Milano Italy	SO No.	4120000280	Date	-
MTC Type	EN 10204 Type 3.1 & PED 2014/68/EU	MTC No.	WSSL/SP-316L/0923/1223	Date	30.12.2023
Project Details	—				

Material Description	AUSTENITIC STAINLESS STEEL COLD FINISHED (CFD) SEAMLESS PIPES, PLAIN END	Specs & Grades	ASTM A-312 Ed-2021 TP316/TP316L, ASME Sec. II Part "A" SA-312 Ed-2021 TP316/TP316L, EN 10216-5 TC1 Ed. 2021 1.4401/1.4404, NACE MR 0175/ISO 15156-3 Ed. 2015 & MR0103/ISO 17495-1 Ed.2016 ANSI B36.19
Heat Treatment	SOLUTION ANNEALING AT 1060 ± 10°C TEMP. FOLLOWED BY WATER QUENCHING	Dimensions	ASTM/ASME-A/SA-312/999
		Approved QAP No	WSSL/QAP/051-1123 Rev.00 & Date 22.11.2023
		TDC Reference	Purchasing Specification RTX_SES Rev.5 Dtd. 13.09.2022
		Surface Condition	SOLUTION ANNEALED, PICKLED & PASSIVATED

Approved acc. to AD 2000 Merkblatt W0 and certified as per PED (2014/68/EU) Annex. I, Sec.4.3 by certification body for Pressure Equipment of TÜV SÜD Industrie Service GmbH (Reg. No.0036)

Chemical Composition in %

PO Sr. No.	Heat No.	OD (mm)	THK (mm)	Length (Mtr)	No. of Pcs.	Total Mtrs.	LA / PA	C	Si	Mn	P	S	Cr	Ni	Mo	Nb	Cu	N	PMI & VDI Check 100%
							Min	-	-	-	-	-	16.50	10.00	2.00	-	-	-	-
							Max	0.030	1.00	2.00	0.040	0.015	18.00	13.00	2.50	-	-	0.10	-
29	235689	33.40	3.38	6.00	74	444.000	LA	0.017	0.33	1.53	0.036	0.011	16.80	10.03	2.02	-	-	0.0670	-
							PA	0.017	0.321	1.516	0.035	0.010	16.791	10.018	2.014	-	-	0.0664	OK

Mandatory & Supplementary Test Conformity

PO Sr. No.	Heat No.	OD (mm)	THK (mm)	Tensile Strength MPa	Yield Strength 0.2% offset MPa	Yield Strength 1% offset MPa	Elongation (%) (Gauge Length = 5.65 √(Area))	Hardness (HRB)	Drift Expanding Test	Flattening Test	Macro Test	IGC Test as per ASTM A262 Practice E	Hydro Test 100% (HOLDING TIME 5 SEC. Min., Chloride Content <25 ppm)	Ultrasonic Test	DPT
				515 - 690	min.=205	min.= 240	40% min.	99 HRB Max.		-	-				
29	235689	33.40	3.38	620.070	375.619	397.634	49.11	76-84	Satisfactory	Satisfactory	-	Satisfactory	OK (Test Pressure : 2500 PSI (g))	—	—
				619.298	308.056	343.549	48.19								

Remark / Spl. Note	STEEL MELTING PROCESS : I.F + A.O.D .
	SAMPLING OF TEST COUPONS AND MECHANICAL TESTING(TENSILE TEST, DRIFT EXPANDING TEST, FLATTENING TEST & HARDNESS) CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	DIRECTION OF TENSILE SPECIMEN: LONGITUDINAL
	PRODUCT ANALYSIS & IGC TEST (ASTM A262 PRACTICE "E") CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	100% HYDRO TEST CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	100% VISUAL AND DIMENTIONS CHECKED BY WSSL : FOUND SATISFACTORY.
	100% POSITIVE MATERIAL IDENTIFICATION CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	LAND OF MELTING -INDIA (WELSPUN SPECIALTY SOLUTIONS LTD- STEEL PLANT)HS CODE : 72042190
	BILLETS MANUFACTURER-INDIA (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT)HS CODE : 7218
	RAW MATERIAL HS CODE : 72221199
	AS PER NACE MR-0175/ISO 15156-3 / NACE MR 0103 / ISO 17945-3 HARDNESS REQ. 22 HRC MAX. (99 HRB APPROX.) : FOUND SATISFACTORY.
	PIPES/HOLLOW BARS (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT/PIPES PLANT) HS CODE : 73044100
	MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT.
Marking	(W) WSSL SMLS CFD PIPE ASTM/ASME-A/SA-312 / EN 10216-5 TC-1 TP 316/316L/1.4401/1.4404 33.40 MM OD X 3.38 MM THK X 6000 MM LENGTH HEAT NO. 235689 WSSL-01 PO NO. 00000060 S

L.A - LADLE ANALYSIS, P.A - PRODUCT ANALYSIS, VDI - VISUAL & DIMENTIONAL INSPECTION, PMI - POSITIVE MATERIAL IDENTIFICATION, TC - TEST CERTIFICATE , TDC - TECHNICAL DELIVERY CONDITIONS, WSSL - WELSPUN SPECIALTY SOLUTIONS LIMITED.

Overall liability of WSSL is limited to the value of the defective material supplied
to proven evidence of manufacturing defects only & not application failure/misuse.
Material Produced & Supplied is Free From any major Harmful Mercury or other Radioactive Contamination.
Duplication / Forged Photocopy / Unauthorised Usage of any documentary property of WSSL is a punishable criminal act & subject to Law of Indian Jurisdiction.

Insist on Authentically Sealed Certificate
(Photocopy Invalid)

We Certify that the Material Herein Described Have Been Manufactured & Tested in accordance w the above Specifications & the Results comply in accordance to the Requisite of the Order.

Prepared By Engineer-QA/QC

Authorised By Head - QA/QC

ROSETTI MARINO
Supply Management Dept.
Witness Review

Customer: ROSETTI MARINO S.p.A.
Description: 48.26x3.68 SEAMLESS
raccortubi Heat num. or Pcs. marking: 235415 - Qty:189.36
Order: 1724000839 - 22.04.24 - Item n.: 60 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC20240000464O * CERTIFIED TRUE COPY * Issued 22-05-2024
CTCERT2024000000247.1.0001

Welspun SPECIALTY SOLUTIONS

Alloy & Stainless | Bars & Tubes

Plot No. 1, G.I.D.C Industrial Estate, Jhagadia-Valia Road, Jhagadia, Dist. -Bharuch- 393 110, Gujarat, India, [Tel.] - +91-70690 05575, (Website) - www.welspunspecialty.com
Manufacturer of Stainless Steel Seamless Pipes , Tubes & U Tubes

Manufacturer's Mark | QR Code | Client / TPI Mark

MATERIAL TEST CERTIFICATE

FORMAT NO.- QMS-QA/QC-F-42, REV. NO. & DATE : 02, 19.08.2019

Customer	M/s. RACCORTUBI S.p.A	Customer PO No.	00000174 S	Date	03.07.2023
	Viale De Gasperi 194, 20010 Marcallo con Casone, Milano Italy	SO No.	4120000217	Date	-
MTC Type	EN 10204 Type 3.1	MTC No.	WSSL/SP-316L/0757/1023	Date	25.10.2023
Project Details	—				

Material Description	AUSTENITIC STAINLESS STEEL COLD FINISHED (CFD) SEAMLESS PIPES, PLAIN END	Specs & Grades	ASTM A-312 Ed-2021 TP316/TP316L, ASME Sec. II Part "A" SA-312 Ed-2021 TP316/TP316L, EN 10216-5 TC1 Ed. 2021 1.4401/1.4404, NACE MR 0175/ISO 15156-3 Ed. 2015 & MR0103/ISO 17495-1 Ed.2016 ANSI B36.19
Heat Treatment	SOLUTION ANNEALING AT 1060± 10°C TEMP. FOLLOWED BY WATER QUENCHING	Dimensions	ASTM/ASME-A/SA-312/999
		TDC Reference	Purchasing Specification RTX_SES Rev.5 Dtd. 13.09.2022
		Surface Condition	SOLUTION ANNEALED, PICKLED & PASSIVATED

Chemical Composition in %

Sr. No.	Heat No.	OD	THK	Length (Mtr)	No. of Pcs.	Total Mtrs.	LA / PA	C	Si	Mn	P	S	Cr	Ni	Mo	Nb	Cu	N	PMI & VDI Check 100%
							Min	-	-	-	-	-	16.50	10.00	2.00	-	-	-	-
							Max	0.030	1.00	2.00	0.040	0.015	18.00	13.00	2.50	-	-	0.10	-
							LA	0.022	0.27	1.59	0.040	0.010	16.95	10.11	2.03	-	-	0.0940	-
1	235316	48.26 MM (1 1/2" NPS)	3.68 MM (Sch. 40S)	5.00 - 7.00	36	215.790	P.A	0.021	0.263	1.585	0.039	0.010	16.942	10.106	2.024	-	-	0.0936	OK
							LA	0.015	0.30	1.60	0.038	0.011	16.85	10.10	2.11	-	-	0.0666	-
2	235415	48.26 MM (1 1/2" NPS)	3.68 MM (Sch. 40S)	5.00 - 7.00	153	955.595	P.A	0.015	0.295	1.591	0.037	0.010	16.846	10.094	2.102	-	-	0.0563	OK

Mandatory & Supplementary Test Conformity

PO Sr. No.	Heat No.	OD	THK	Tensile Strength MPa	Yield Strength 0.2% offset MPa	Yield Strength 1% offset MPa	Elongation (%) (Gauge Length = 50mm)	Hardness (HRB)	Flaring Test	Flattening Test	Macro Test	IGC Test as per ASTM A262 Practice E	Hydro Test 100% (HOLDING TIME 5 SEC. Min., Chloride Content <25 ppm)	Ultrasonic Test	DPT
				515 - 690	min.=205	min.= 240	40% min.	99 HRB Max.	-	-	-				
1	235316	48.26 MM (1 1/2" NPS)	3.68 MM (Sch. 40S)	602.194	300.438	324.912	53.460	84-87	-	Satisfactory	-	Satisfactory	OK (Test Pressure : 2300 PSI (g))	—	—
				606.328	306.672	330.730	53.400								
2	235415	48.26 MM (1 1/2" NPS)	3.68 MM (Sch. 40S)	610.072	304.218	332.642	53.360	83-86	-	Satisfactory	-	Satisfactory	OK (Test Pressure : 2300 PSI (g))	—	—
				608.462	298.886	328.094	53.300								

Remark / Spl. Note

- STEEL MELTING PROCESS : I.F + A.O.D .
- SAMPLING OF TEST COUPONS AND MECHANICAL TESTING(TENSILE TEST, FLATTENING TEST & HARDNESS) CARRIED OUT BY WSSL : FOUND SATISFACTORY.
- DIRECTION OF TENSILE SPECIMEN: LONGITUDINAL
- PRODUCT ANALYSIS & IGC TEST (ASTM A262 PRACTICE "E") CARRIED OUT BY WSSL : FOUND SATISFACTORY.
- 100% HYDRO TEST CARRIED OUT BY WSSL : FOUND SATISFACTORY.
- 100% VISUAL AND DIMENTIONS CHECKED BY WSSL : FOUND SATISFACTORY.
- 100% POSITIVE MATERIAL IDENTIFICATION CARRIED OUT BY WSSL : FOUND SATISFACTORY.
- LAND OF MELTING -INDIA (WELSPUN SPECIALTY SOLUTIONS LTD- STEEL PLANT)-HS CODE-72042190
- BILLETS MANUFACTURER-INDIA (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT)HS CODE-7218
- RAW MATERIAL HS CODE :72221199
- AS PER NACE MR-0175/ISO 15156-3 / NACE MR 0103 / ISO 17945-3 HARDNESS REQ. 22 HRC MAX. (99 HRB APPROX.) : FOUND SATISFACTORY.
- PIPES/HOLLOW BARS (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT/PIPES PLANT) HS CODE : 73044100
- MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT.

Marking: WSSL SMLS CFD PIPE ASTM/ASME-A/SA-312 / EN 10216-5 TC-1 TP 316/316L/1.4401/1.4404 48.26 MM OD (1 1/2" NPS) X 3.68 MM THK (Sch. 40S) X 5000-7000 MM LENGTH HEAT NO. ..... WSSL-01 PO NO. 00000174 S

LA - LADLE ANALYSIS, P.A - PRODUCT ANALYSIS, VDI - VISUAL & DIMENTIONAL INSPECTION, PMI - POSITIVE MATERIAL IDENTIFICATION, TC - TEST CERTIFICATE , TDC - TECHNICAL DELIVERY CONDITIONS, WSSL - WELSPUN SPECIALTY SOLUTIONS LIMITED.

Overall liability of WSSL is limited to the value of the defective material supplied to proven evidence of manufacturing defects only & not application failure/misuse.

Material Produced & Supplied is Free From any major Harmful Mercury or other Radioactive Contamination.

Duplication / Forged Photocopy / Unauthorised Usage of any documentary property of WSSL is a punishable criminal act & subject to Law of Indian Jurisdiction.

Insist on Authentically Sealed Certificate
(Photocopy Invalid)

We Certify that the Material Herein Described Have Been Manufactured & Tested in accordance to Purchase Specifications & the Results remain in accordance to the Records of the Order.

Prepared By Engineer-QA/QC

Authorized By Head - QA/QC

ROSETTI MARINO
Supply Management Dept.
Witness Review

CTCERT20240002492.1.0001

raccortubi Heat num. or Pcs. marking: 235632 - Qty:62,08

Customer: ROSETTI MARINO S.p.A.

Description: 60.33x2.77 SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 70 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240004640 * CERTIFIED TRUE COPY * Issued 22-05-2024

Welspun SPECIALTY SOLUTIONS

Alloy & Stainless | Bars & Tubes

Plot No. 1, G.I.D.C Industrial Estate, Jhagadia-Valia Road, Jhagadia, Dist. -Bharuch- 393 110, Gujarat, India. (Tel.)- +91-70890 05579, (Website) - www.welspunspecialty.com
Manufacturer of Stainless Steel Seamless Pipes, Tubes & U Tubes

Manufacturer's Mark | QR Code | Client / TPI Mark

MATERIAL TEST CERTIFICATE

FORMAT NO.- QMS-QA/QC-F-42, REV. NO. & DATE : 02, 19.08.2019

Customer	M/s. RACCORTUBI S.p.A	Customer PO No.	00000060 S_Rev.01	Date	07.11.2023
	Viale De Gasperi 194, 20010 Marcallo con Casone, Milano Italy	SO No.	4120000280	Date	-
MTC Type	EN 10204 Type 3.1 & PED 2014/68/EU	MTC No.	WSSL/SP-316L/0951/1223	Date	31.12.2023
Project Details	---				

Material Description	AUSTENITIC STAINLESS STEEL COLD FINISHED (CFD) SEAMLESS PIPES, PLAIN END	Specs & Grades	ASTM A-312 Ed-2021 TP316/TP316L, ASME Sec. II Part "A" SA-312 Ed-2021 TP316/TP316L, EN 10216-5 TC1 Ed. 2021 1.4401/1.4404, NACE MR 0175/ISO 15156-3 Ed. 2015 & MR0103/ISO 17495-1 Ed.2016 ANSI B36.19
Heat Treatment	SOLUTION ANNEALING AT 1060 ± 10°C TEMP. FOLLOWED BY WATER QUENCHING	Dimensions	ASTM/ASME-A/SA-312/999
		Approved QAP No	WSSL/QAP/051-1123 Rev.00 & Date 22.11.2023
		TDC Reference	Purchasing Specification RTX_SES Rev.5 Dtd. 13.09.2022
		Surface Condition	SOLUTION ANNEALED, PICKLED & PASSIVATED

Approved acc. to AD 2000 Merkblatt W0 and certified as per PED (2014/68/EU) Annex. I, Sec.4.3 by certification body for Pressure Equipment of TÜV SÜD Industrie Service GmbH (Reg. No.0036)

Chemical Composition in %

PO Sr. No.	Heat No.	OD (mm)	THK (mm)	Length (Mtr)	No. of Pcs.	Total Mtrs.	LA / PA	C	SI	Mn	P	S	Cr	Ni	Mo	Nb	Cu	N	PMI & VDI Check 100%
							Min	-	-	-	-	-	16.50	10.00	2.00	-	-	-	-
							Max	0.030	1.00	2.00	0.040	0.015	18.00	13.00	2.50	-	-	0.10	-
							LA	0.020	0.26	1.51	0.036	0.009	16.83	10.09	2.02	-	-	0.0920	-
19	235632	60.33	2.77	5.00 - 7.00	66	408.590	PA	0.020	0.246	1.504	0.035	0.009	16.818	10.083	2.014	-	-	0.0925	OK

Mandatory & Supplementary Test Conformity

PO Sr. No.	Heat No.	OD (mm)	THK (mm)	Tensile Strength MPa	Yield Strength 0.2% offset MPa	Yield Strength 1% offset MPa	Elongation (%) (Gauge Length = 5.65 √(Area))	Hardness (HRB)	Drift Expanding Test	Flattening Test	Macro Test	IGC Test as per ASTM A262 Practice E	Hydro Test 100% (HOLDING TIME 5 SEC. Min., Chloride Content <25 ppm)	Ultrasonic Test	DPT
				515 - 690	min.=205	min.= 240	40% min.	99 HRB Max.		-	-				
19	235632	60.33	2.77	601.480	302.818	341.254	53.91	75-80	Satisfactory	Satisfactory	-	Satisfactory	OK (Test Pressure : 1400 PSI (g))	–	–
				616.923	311.094	350.572	46.94								

Remark / Spl. Note	STEEL MELTING PROCESS : I.F + A.O.D .
	SAMPLING OF TEST COUPONS AND MECHANICAL TESTING(TENSILE TEST, DRIFT EXPANDING TEST, FLATTENING TEST & HARDNESS) CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	DIRECTION OF TENSILE SPECIMEN: LONGITUDINAL
	PRODUCT ANALYSIS & IGC TEST (ASTM A262 PRACTICE "E") CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	100% HYDRO TEST CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	100% VISUAL AND DIMENTIONS CHECKED BY WSSL : FOUND SATISFACTORY.
	100% POSITIVE MATERIAL IDENTIFICATION CARRIED OUT BY WSSL : FOUND SATISFACTORY.
	LAND OF MELTING -INDIA (WELSPUN SPECIALTY SOLUTIONS LTD- STEEL PLANT)HS CODE : 72042190
	BILLETS MANUFACTURER-INDIA (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT)HS CODE : 7218
	RAW MATERIAL HS CODE : 72221199
	AS PER NACE MR-0175/ISO 15156-3 / NACE MR 0103 / ISO 17945-3 HARDNESS REQ. 22 HRC MAX. (99 HRB APPROX.) : FOUND SATISFACTORY.
	PIPES/HOLLOW BARS (WELSPUN SPECIALTY SOLUTIONS- STEEL PLANT/PIPES PLANT) HS CODE : 73044100
	MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT.
Marking	(W) WSSL SMLS CFD PIPE ASTM/ASME-A/SA-312 / EN 10216-5 TC-1 TP 316/316L/1.4401/1.4404 60.33 MM OD X 2.77 MM THK X 5000 - 7000 MM LENGTH HEAT NO. 235632 WSSL-01 PO NO. 00000060 S

LA - LADLE ANALYSIS, P.A - PRODUCT ANALYSIS, VDI - VISUAL & DIMENTIONAL INSPECTION, PMI - POSITIVE MATERIAL IDENTIFICATION, TC - TEST CERTIFICATE, TDC - TECHNICAL DELIVERY CONDITIONS, WSSL - WELSPUN SPECIALTY SOLUTIONS LIMITED.

Overall liability of WSSL is limited to the value of the defective material supplied to proven evidence of manufacturing defects only & not application failure/misuse.

Material Produced & Supplied is Free From any major Harmful Mercury or other Radioactive Contamination.

Duplication / Forged Photocopy / Unauthorised Usage of any documentary property of WSSL is a punishable criminal act & subject to Law of Indian Jurisdiction.

Insist on Authentically Sealed Certificate
(Photocopy Invalid)

We Certify that the Material Herein Described Have Been Manufactured & Tested in accordance to the above Specifications & the Results comply in accordance to the Requisite of the Order.

Prepared By Engineer-QA/QC

Authorized By Head - QA/QC

WELSPUN SPECIALTY SOLUTIONS LTD. JHAGADIA

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

REGD. OFFICE :
'Suraj House',
Opp. Usmanpura Garden, Ashram Road,
Ahmedabad - 380 014. Gujarat (INDIA)
Tel. : 0091-79-2754 0720 / 2754 0721
Fax : 0091-79-2754 0722
Email : suraj@surajgroup.com

SURAJ LIMITED

(AN ISO 9001 : 2015 COMPANY)
(AN ISO 14001 : 2015 COMPANY)
(AN ISO 45001 : 2018 COMPANY)
(AN PED 2014/68/EU APPROVED COMPANY)

F / QA / 24 REV. NO. 10

WORKS :
Survey No. 779/A, Thol, Kadi - Sanand Highway,
Tal.-Kadi, Dist. Mehsana, Gujarat (India)
Tel. : (02764) 274216 / 27417 Fax : (02764) 274419
Email : quality@surajgroup.com
Visit us at www.surajgroup.com

INSPECTION CERTIFICATE

In Accordance with EN 10204/3.1

Customer: T.C No : 462 Date : 21.02.2024

Product : Austenitic S.S Seamless Cold Finish,Solution Annealed,Pickled & Passivated Pipes. P.O.No : 215941 Date : 26.10.2023

W.O.No : 2324/OEP400031 Date : 30.10.2023

Sr. No.	Specification	Grade	Heat No.	Dimensions		Quantity			Hydro Test Pressure(Psi)
				OD (MM)	THK (MM)	Length Mtr	Pcs.	Total Meter	
66	ASTM A-312 Ed.2021 SA-312 of ASME Sec.II Part "A" Ed.2021 EN 10216-5 TC1 NACE MR 0175/ISO 15156-3, NACE MR 0103	TP 316/316L 1.4401/ 1.4404	NJ113	114.30	3.05	RL	11	76.230	1000

Chemical Analysis %

Heat No.	Required	C	Mn	P	S	Si	Cr	Ni	Mo	N	Ti
	Min	--	--	--	--	--	16.50	10.00	2.00	--	--
	Max	0.030	2.00	0.040	0.015	1.00	18.00	13.00	2.50	0.100	--
NJ113	Heat Analysis	0.028	1.08	0.036	0.010	0.46	16.56	10.08	2.07	0.074	--
	Product Analysis	0.027	1.05	0.035	0.008	0.43	16.54	10.06	2.04	0.072	--

Mechanical Test

Heat No.	Required				Gauge Width	Flattening Test	Hardness Test	IGC Test
	Tensile strength Mpa	Yield strength Rp0.2% Mpa	Yield strength Rp 1 % Mpa	Elongation % GL 5.65√A				ASTM A-262 Practice"E"
MAX	690	--	--	--			Max-90 HRB	
MIN	515	205	240	40				
NJ113	616.89	314.20	332.81	54.61	25.40	Satisfactory	78-80	Satisfactory

Heat Treatment : Solution annealing conducted at 1045-1060°C temperature and rapid water quenching after final cold process.

Marking on pipes: SURAJ LTD ASTM/ASME A/SA-312 TP 316/316L __MM OD X ___ MM THK X RL SEAMLESS CFD EN 10216-5 TC1 1.4401/1.4404 HEAT NO.____ P O NO.____

Remarks:

* 100% Hydro test done at required pressure for 10 second holding time found satisfactory without any leakage.
* 100% Visual ,Dimensions (OD/THK/LENGTH) & Product Marking checked-satisfy the requirment of specification.
* 100% Positive Material Identification (PMI) done by SL & conforming to grade as per specification- found satisfactory.
* Intergranular Corrosion Test (IGC) Conducted as per ASTM A262 Pr"E"-No crack observed on bend portion at 20X - found satisfactory.
* Pickling and passivation conducted as per ASTM A-380.
* "Approved acc.to AD 2000-MERKBLATT W0 and certified acc.to PED (2014/68/EU) by certification body for pressure equipment of TUV NORD SYSTEMS (NOTIFIED BODY,REG NO.:0045)"
* Tensile test piece taken from the same lot as certified and tested in longitudinal direction.
* Melting process:EAF+AOD & Material is free of mercury & radioactive contamination.

" The material is manufactured in Suraj Ltd mill and is of India Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46IA and 46IB and Annex XVII to the (EU) Regulation No 833/2014 and further amendment."

For Suraj Limited
SURAJ LTD THOL SL-1
C.I.Nayak
Dept.Head Quality

Prepared by

TD100422318

We hereby certify that the mater... Tipo:Certificati di origine ...he specification and results comply with the requirements of the purchase order.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 80 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 114.30x3.05 SEAMLESS

raccortubi Heat num. or Pcs. marking: NJ113 - Qty:76,23

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

REGD. OFFICE :
'Suraj House',
Opp. Usmanpura Garden, Ashram Road,
Ahmedabad - 380 014. Gujarat (INDIA)
Tel. : 0091-79-2754 0720 / 2754 0721
Fax : 0091-79-2754 0722
Email : suraj@surajgroup.com

SURAJ LIMITED
(AN ISO 9001 : 2015 COMPANY)
(AN ISO 14001 : 2015 COMPANY)
(AN ISO 45001 : 2018 COMPANY)
(AN PED 2014/68/EU APPROVED COMPANY)

WORKS :
Survey No. 779/A, Thol, Kadi - Sanand Highway,
Tal.-Kadi, Dist. Mehsana, Gujarat (India)
Tel. : (02764) 274216 / 27417 Fax : (02764) 274419
Email : quality@surajgroup.com
Visit us at www.surajgroup.com

F / QA / 24 REV. NO. 10

INSPECTION CERTIFICATE

In Accordance with EN 10204/3.1

Customer: Commerciale Tubi Acciaio S.P.A.	T.C No : 416	Date: 29.01.2024
Product : Austenitic S.S Seamless Cold Finish,Solution Annealed, Pickled & Passivated Pipes.	P.O.No : OS-0000089 REV 0	Date: 30.10.2023
	W.O.No : 2324/OEP400032	Date: 31.10.2023

Sr. No.	Specification	Grade	Heat No.	Dimensions		Quantity			Hydro Test Pressure (Psi)
				NPS	SCH	Length Mtr	Pcs	Total Meter	
23	ASTM A-312 Ed.2021 SA-312 of ASME Sec.II Part "A" Ed.2021 ASME B36.19, EN 10216-5 TC1 NACE MR 0175/ISO 15156, NACE MR 0103	TP 316/316L 1.4401/1.4404	NJ112	6	10S	RL	34	209.610	1000

Chemical Analysis %

Heat No.	Required	C	Mn	P	S	Si	Cr	Ni	Mo	N	Ti
	Min	--	--	--	--	--	16.50	10.00	2.00	--	--
	Max	0.030	2.00	0.040	0.015	1.00	18.00	13.00	2.50	0.100	--
NJ112	Heat Analysis	0.027	1.07	0.038	0.010	0.45	16.59	10.08	2.06	0.073	--

Mechanical Test

Heat No.	Required					Gauge Width	Flattening Test	Hardness Test	Impact Test	IGC Test
	Tensile Strength Mpa	Yield Strength		Elongation %						
		Rp0.2% Mpa	Rp 1 % Mpa	GL 50 mm	GL 5.65√A					ASTM A-262 Practice"E" & ISO 3651-2 Method "A"
MAX	690	--	--	--	--			Max-90 HRB	100 Joule Min.(AVG)	
MIN	515	205	240	53	53					
NJ112	614.55	311.29	325.10	55.62	55.49	25.40	Satisfactory	77-79	N/A	Satisfactory

Heat Treatment : Solution annealing conducted at 1045-1060°C temperature and rapid water quenching after final cold process.

Marking on pipes: SURAJ LTD SPECIFICATION GRADE SIZE
CFD EN 10216-5 TC1 EN GRADE HEAT NO._____P O NO._____

Remarks:

- 100% Hydro test done at required pressure for 10 second holding time found satisfactory without any leakage.
- 100% Visual, Dimensions(OD/THK/LENGTH) & Product Marking checked-satisfy the requirment of specification.
- 100% Positive Material Identification (PMI) done by SL & conforming to grade as per specification.
- Intergranular Corrosion Test (IGC) Conducted as per ASTM A262 Pr"E" & ISO 3651-2 method-A-No crack observed on bend portion at 20X.
- Pickling and Passivation Conducted as per ASTM A-380.
- "Approved acc.to AD 2000-MERKBLATT W0 and certified acc.to PED (2014/68/EU) by certification body for pressure equipment of TUV NORD SYSTEMS (NOTIFIED BODY,REG NO.:0045)"
- Tensile test piece taken from the same lot as certified and tested in longitudinal direction.
- Melting process:EAF+AOD & Material is free of mercury & radioactive contamination.
- " The material is manufactured in Suraj Ltd mill and is of India Origin. Material does not contain steel products originating in Russia mentioned The Russia (Sanctions (EU Exit) (Amendment) Regulations 2023 Regulation 46(A) and (B) and Annex XVII to the (EU) Regulation No 833/2014 and further amendment."

For, Suraj Limited.

Prepared by

C.I.Nayak
Dept.Head Quality

We hereby certify that the material described herein are in accordance with the specification and results comply with the requirements of the purchase order.

PDF created with pdfFactory Pro trial version www.pdffactory.com

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: 21.34x2.77 SEAMLESS

Heat num. or Pcs. marking: CH-19563 - Qty:5.98

Order: 1724000839 - 22.04.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

Protocol: CTCERC2024000004640 * CERTIFIED TRUE COPY * Issued 22-05-2024

CTCERT2023000003988.1.0001

CHANDAN MANNESMANN

CHANDAN STEEL LIMITED

DIN EN ISO 9001:2015 & Certificate Registration No. : 04 100 011022, Valid Until : 23.05.2025

CHANDAN MANNESMANN

INSPECTION CERTIFICATE (EN 10204 / 3.1)

CUSTOMER : RACCORTUBI S.P.A.
P.O. NO. : 00000114S
PO. Date: : 04.05.2023
PRODUCT : COLD FINISHED SEAMLESS AUSTENITIC STAINLESS STEEL PIPES, CFD
SPECIFICATION : ASTM A312-22,ASTM A999-18, ASME SA 312 Ed. 2021, ASME SA999-2021, EN 10216-5 TC1 ED.2021, NACE MR 0175/ISO 15156 ED.2021,MR0103 ED.2015, & DIMENSION AS PER ANSI B36.19
GRADE : TP 316/316L / 1.4401/1.4404
REF. : As per QAP NO. : QAP/SMLS/012/23-24 , Date: 09/05/2023
PO SPECIFICATION: RTX_SES Rev.05

T.C. NO. : CSL/2023-24/QC/0326
T.C. DATE : 22/07/2023
W.O. NO. : ESC/23-24/0019
W.O. DATE : 08.05.2023

UNIT : SEAMLESS TUBE DIVISION
Plot 142, New G.I.D.C. Expansion,
Umbergaon, Dist.-Valsad,
Gujarat - 396 171, INDIA.
Tel. No. +91 260 3089 850
Fax No. +91 260 3089 872
quality.smls@chandansteel.net
exports.smls@chandansteel.net

MANUFACTURING PROCESS OF STEEL :- ELECTRIC MELTING/A.O.D. REFINING /FULLY KILLED CONTINUOUS CASTING.

PO Item No	SIZE OD IN MM	SIZE OD NPS	SIZE THICKNESS IN MM	SIZE THICKNESS SCH	SIZE LENGTH IN MM	HEAT NO.	QUANTITY PCS	QUANTITY TOTAL MTRS	HYDROSTATIC TEST PRESSURE (Psi)	FLR	DET	FLT	PMI TEST	VDI	END FINISH	DELIVERY CONDITION
9	21.34	1/2"	2.77	40S	5000-6000	CH-19563	91	500.000	2500	-	S.A.	S.A.	S.A.	S.A.	P.E.	CFD

PO Item No	HEAT NO.		CHEMICAL COMPOSITION % C	Mn	P	S	Si	Cr	Ni	Mo	N_2	Cu	Ti	-	-
REQ. (MAX.)			0.030	2.00	0.040	0.015	1.00	18.00	13.00	2.50	0.100	-	-	-	-
REQ. (MIN.)			-	-	-	-	-	16.50	10.00	2.00	-	-	-	-	-
9	CH-19563	H	0.021	1.85	0.040	0.011	0.44	17.15	10.10	2.07	0.065	-	-	-	-
	CH-19563	P	0.022	1.87	0.038	0.013	0.42	17.19	10.09	2.08	0.067	-	-	-	-

MECHANICAL PROPERTIES

PO Item No	Y.S. (Rp0.2%) (N/mm2)	Y.S. (Rp0.1%) (N/mm2)	T.S. (N/mm2)	ELONG. % Min (G.L.= 5.65√A)	ELONG. % Min (G.L. = 50mm)	HARDNESS IN HRB	WIDTH OF G.L. (mm)	DIRECTION OF SPEC.	Type of Specimen	IMPACT TEST (at RT).[in KV_J] 1	2	3	Avg.	METALLURGICAL TESTS MICRO STRUCTURE / GRAIN SIZE
Req. Max	-	-	690	-	-	100 (22 HRC)	-	-	-	-				-
Req. Min	205	240	515	40	35	-	-	-	-	-				-
9	281.31	307.22	608.28	56.64	58.15	74 - 75	-	Long	FULL SIZE	-	-	-	-	-
	290.00	314.60	616.28	55.10	56.33	73 - 75	-	Long	FULL SIZE	-	-	-	-	-

HEAT TREATMENT : Solution Annealed at 1060 °C ± 20°C temperature followed by rapid Water Quenching.

REMARKS
1 : 100% Hydrostatic Test carried out by CSL - Found Satisfactory.
2 : 100% Visual & Dimension Checked by CSL - Found Satisfactory.
3 : 100% PMI Checked by CSL - Found Satisfactory.
4 : 100% Marking done by CSL - Found Satisfactory.
5 : IGC Test as per ASTM A262 Practice "E" & EN ISO 3651-2 Method -'A' done by CSL - Found Satisfactory.
6 : Product analysis carried out by CSL - Found Satisfactory.
7 : Mechanical Test (Tensile Test, Flattening Test, Drift Expanding and Hardness Test) done by CSL - Found Satisfactory.
8 : Material is free from radio-active & mercury contamination.
9 : Pickling and Passivation carried out as per ASTM A 380 - Found Satisfactory.
10 : Reference Material According to PED 2014/68/EU.

CHANDAN STEEL LIMITED V.S.J. WORKS INSPECTION

CHANDAN STEEL LIMITED QA SEAMLESS TUBE DIVISION

FOR, CHANDAN STEEL LIMITED. (S.T.D.)

Mr. Jaydip Rathod - Engineer QA/QC

FOR, CHANDAN STEEL LIMITED. (S.T.D.)

Mr. Vaibhav Joshi - DGM QA/QC

MARKING (BY INKJET M/C.) : CHANDAN MANNESMANN S.S. SMLS COLD FINISHED PIPE (CFD) ASTM A312/ASME SA312 EN10216-5 TC1(VSJ) GRADE — — MM OD X — MM THK. X 5000 - 6000 MM R/L HEAT NO. — P.O.NO.—

It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.

LEGENDS: H = HEAT ANALYSIS, P = PRODUCT ANALYSIS, S.A. = SATISFACTORY, N.A. = NOT APPLICABLE, LONG.= LONGITUDINAL, FLR-FLARING TEST, FLT-FLATENING TEST, ECT- EDDY CURRENT TEST, VDI-VISUAL & DIMENSIONAL INSPECTION, G.L.= GAUGE LENGTH, P.E.-PLAIN END, B.E.-BEVEL END, CFD- COLD FINISHED DESCALED, RED. SPEC- REDUCED SPECIEMEN, DET-DRIFT EXPANDING TEST

ROSETTI MARINO
Supply Management Dept
Witness Review

TTP
TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204:2004 / 3.1

Number: TTP/MTC-2023/1891 Rev: 00

Created On: Modified On:

Date: 06-Aug-2023

TUBACEX TUBES AND PIPES PVT. LTD.

Survey No. 131/1, Umbergaon-Sanjan Road, Umbergaon-396 171, Dist-Valsad, Gujrat, India

TEL: +91 260 6616240

EMAIL: quality@tubacexindia.com

CUSTOMER DESCRIPTION

CLIENT SOLD TO	CLIENT SHIP TO
M/s TUBACEX SERVICE SOLUTIONS S.A.U	

CLIENT ORDER : 508473 **DATE :** 11-May-2023

SALES ORDER : 1202237

MATERIAL: SEAMLESS STAINLESS STEEL PIPES
COLD FINISHED & HEAT-TREATED. PICKLED & PASSIVATED ACC. TO ASTM A380.
GRADE: TP 316/316L/1.4401/1.4404
STANDARD: ASME SEC.II PART-A SA 312/312M-2021 ED.
ASTM A 312/A 312M-21(ED.2022)
EN 10216-5:2021-06 TC1
NACE MR0103:2015
NACE MR0175/EN ISO 15156: 2015
CHECK ANALYSIS
CORR. TESTED ACC. TO ASTM A262 PRACTICE 'E'
HYDROTEST: ASTM A999 / A999M & EN 10216 - 5
TOLERANCES : ASME SECT.II PART.A SA999/SA999M
EN ISO 1127:1997 D3/T3 & ASTM A999/A999M
LENGTHS: 6-7 M / PLAIN ENDS
DIMENSIONS: 26.67 MM OD X 2.87 MM THK - 3/4" X SCH 40S

Sales Item	Client Item	Delivery No.	Bundle No.	Heat No.	Pieces	Weight	Tot Lgth	
360	360	256	C2306631	A-6925	92	1039.00	622.725	M

RAW MATERIAL

Heat No	Method
A-6925	IF/AOD/CCP(EMS)/HR

CHEMICAL COMPOSITION (%) *L: Ladle C: Products

Heat No	Sample		C	Mn	Si	P	S	Ni	Cr	Mo	N
		MAX	0.030	2.00	1.00	0.040	0.015	13.00	18.00	2.50	0.10
		MIN						10.00	16.50	2.00	
A-6925		L	0.023	1.61	0.37	0.039	0.009	10.06	16.70	2.02	0.079
A-6925	1	C	0.022	1.58	0.35	0.036	0.008	10.09	16.66	2.06	0.075

Certified Management System acc. To ISO 9001, ISO 14001, and ISO 45001 by TUV-NORD.

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies orders requirements. This certificate is issued by a computerized system, and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBES AND PIPES PVT. LTD.

SUBODH PATRA
DY. MANAGER (QA/QC)

Form No.: F/QCD/035 Rev. 00 Date: 01.01.2022

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

TTP
TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204:2004 / 3.1

Number: TTP/MTC-2023/1891 Rev: 00
Page 2 of 3

Created On: Modified On:
Date: 06-Aug-2023

HEAT TREATMENT

SOLUTION ANNEALED AT 1040° C MIN, FOLLOWED BY WATER QUENCHING

TENSILE TEST : ACCORDING TO ASTM A 370/ EN ISO 6892-1

Heat No	Sample		Temp	YS	Rp0.2	UTS	A2"	A5	Type	Spc. Type	Spc. Dim
		UNIT	°C	MPa	MPa	MPa	%	%			mm
		MAX				690					
		MIN		205	205	515	35	40			
A-6925	1		RT	305.07	290.93	596.14	58.50	60.78	L	F	26.71

HARDNESS TEST : ACCORDING TO ASTM A 370 / NACE MR 0175 & NACE MR 0103

Heat No	Sample		H1	H2
		UNIT	HRB	HRB
		MAX	90	90
		MIN		
A-6925	1		77	79

METALLURGICAL TESTS

MICROSTRUCTURE ACC. ASTM E 112 GRAIN SIZE 5-6 MATERIALS FREE FROM CARBIDE PRECIPITATION.
UNIFORM AUSTENITIC STRUCTURE ACROSS FULL WALL THICKNESS.

INTRAGRANULAR CORROSION TEST CARRIED OUT ACC. TO ASTM A 262 PR.'E'. AT 20X MAGNIFICATION NO CRACKS OR FISSURES OBSERVED ON BENT SPECIMEN. MICRO EXAMINATION CARRIED OUT AT 250X MAGNIFICATION NO GRAIN DROPPING OBSERVED: SATISFACTORY.

NON-DESTRUCTIVE TESTS

POSITIVE MATERIAL IDENTIFICATION TEST CARRIED OUT ON EACH PIPE BY "X-RAY-FLUORESCENCE-ANALYZER" (TARGET ELEMENTS Cr, Ni & Mo) : SATISFACTORY.

HYDROSTATIC PRESSURE TEST CARRIED OUT ON EACH PIPE FOR DURATION OF 10 SEC AT PRESSURE OF 2500 PSI : NO LEAKAGE & NO PRESURE DROP OBSERVED - SATISFACTORY.

CHLORIDE CONTENT OF WATER USED FOR HYDROSTATIC TEST < 20 PPM & DRYING WITH COMPRESSED AIR.

DIMENSIONAL CHECKING ON EACH PIPE: SATISFACTORY
VISUAL INSPECTION ON EACH PIPE: SATISFACTORY

TECHNOLOGICAL TESTS

FLATTENING TEST: SATISFACTORY
DRIFT EXPANDING TEST: SATISFACTORY

MARKING

ALTX/TBX/CFD/ SEAMLESS PIPE 26.67 MM OD X 2.87 MM THK X 3/4'' - SCH 40S X 6-7 MTR LONG / ASTM ASME A/SA 312M EN10216 - 5 TC1 / TP 316/316L/1.4401/1.4404 / HEAT NO A-6925 / B.NO C2306631 / NACE MR0175/MR0103/ MADE IN INDIA

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TUBACEX TUBES AND PIPES PVT. LTD.

SUBODH PATRA
DY. MANAGER (QA/QC)

Form No.: F/QCD/035 Rev. 00 Date: 01.01.2022

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: A-6925 - Qty:6,88

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

TTP
TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204:2004 / 3.1

Number: TTP/MTC-2023/1891 Rev: 00

Page 3 of 3

Created On: Modified On:

Date: 06-Aug-2023

PMI-AV (TTP-2)

REMARKS

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.

NO WELDING OR WELD REPAIRS WERE MADE.

MATERIAL IS FREE OF RADIATION CONTAMINATION.

WE HEREBY CONFORM THAT WE ARE CERTIFIED BY TUV RHEINLAND INDUSTRIE SERVICE GmbH AS NOTIFIED BODY(0035) TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDANCE TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3 & AD 2000-NO.PED 2014/68/EU CERTIFICATE NO.: 01 202 IND/Q-15- 0036 VALID UNTILL DECEMBER 31, 2024.

MATERIAL CHARACTERISTIC COMPLY WITH POINT 7.5 OF ANNEX 1 TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20° C

ABBREVIATIONS

YS-YIELD STRESS, UTS-ULTIMATE TENSILE STRESS, A2-GAUGE LENGTH (2 INCH), A5-GAUGE LENGTH 5.65√S•, RT-ROOM TEMPERATURE, T-TRANSVERSE, L-LONGITUDINAL, R-REDUCED SECTION, F-FULL SECTION, R/L-RANDOM LENGTH, SPC-SPECIEMEN, M-METER, OD- OUTSIDE DIAMETER, WT- WALL THICKNESS, H-HARDNESS, TTP - TUBACEX TUBES AND PIPES PVT LTD.

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Description: 26.67x2.87 SEAMLESS

raccortubi Heat num. or Pcs. marking: A-6925 - Qty:6,88

Protocol: CTCERC202400004640 * CERTIFIED TRUE COPY
* Issued 22-05-2024

raccortubi

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30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
170	NR	1	0,00	CAPS 1.1/2" SCH.40/S	1016SA019
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
180	NR	2	0,00	CAPS 10" SCH.10/S	51856
190	NR	4	0,00	CAPS 1" SCH.40/S	519724
200	NR	10	0,00	CAPS 1.1/2" SCH.40/S	1014684
210	NR	3	0,00	CURVE 45° LR 2" SCH.10/S SEAMLESS	M230405
220	NR	1	0,00	CURVE 45° LR 4" SCH.10/S SEAMLESS	LN008-1
230	NR	5	0,00	CURVE 45° LR 1" SCH.40/S SEAMLESS	E62123

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Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
240	NR	18	0,00	CURVE 90° LR 1" SCH.40/S SEAMLESS	1035SA022
250	NR	22	0,00	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	1023SA024
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
260	NR	14	0,00	CURVE 90° LR 2" SCH.10/S SEAMLESS	M230234-1
260	NR	15	0,00	CURVE 90° LR 2" SCH.10/S SEAMLESS	1482623
270	NR	175	0,00	CURVE 90° LR 1" SCH.40/S SEAMLESS	M230689
270	NR	45	0,00	CURVE 90° LR 1" SCH.40/S SEAMLESS	1519623
290	NR	56	0,00	CURVE 90° LR 4" SCH.10/S SEAMLESS	M230735
300	NR	24	0,00	CURVE 90° LR 6" SCH.10/S SEAMLESS	GTA070-01-103LR

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Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
310	NR	12	0,00	CURVE 90° LR 10" SCH.10/S SEAMLESS	M230630
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
320	NR	2	0,00	RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	1018SA019
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
330	NR	1	0,00	RID. CONC. 4"x3" SCH.10/S SEAMLESS	ECC26
340	NR	14	0,00	RID. CONC. 1"x1/2" SCH.40/S SEAMLESS	MR230847
350	NR	15	0,00	RID. CONC. 1"x3/4" SCH.40/S SEAMLESS	MR230609
380	NR	1	0,00	RID. CONC. 4"x2" SCH.10/S SEAMLESS	J0043-1
390	NR	12	0,00	RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS	1163621

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Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

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Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
410	NR	1	0,00	RID. CONC. 2"x1.1/4" SCH.10/S SEAMLESS	MR211002
430	NR	1	0,00	RID. ECC. 6"x4" SCH.10/S SEAMLESS	HTA077-04-103ER
440	NR	1	0,00	RID. ECC. 4"x2" SCH.10/S SEAMLESS	YX1906-526
440	NR	5	0,00	RID. ECC. 4"x2" SCH.10/S SEAMLESS	MR230757
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
450	NR	4	0,00	TEE UG. 1.1/2" SCH.40/S SEAMLESS	1157SA019
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
460	NR	3	0,00	TEE UG. 2" SCH.10/S SEAMLESS	MT220055
470	NR	6	0,00	TEE UG. 4" SCH.10/S SEAMLESS	LN008-1
480	NR	30	0,00	TEE UG. 1" SCH.40/S SEAMLESS	66A-SWJ011

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490	NR	10	0,00	TEE UG. 1.1/2" SCH.40/S SEAMLESS	66HSWJ128
500	NR	2	0,00	TEE UG. 10" SCH.10/S SEAMLESS	INA004-03-103T
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
510	NR	5	0,00	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	1181SA05
520	NR	7	0,00	TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1005SA022
530	NR	1	0,00	TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS	1101SA02
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
540	NR	6	0,00	TEE RID. 6"x4" SCH.10/S SEAMLESS	LN011-1
550	NR	6	0,00	TEE RID. 4"x3" SCH.10/S SEAMLESS	MN036-1
610	NR	5	0,00	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	12B258

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630	NR	5	0,00	CURVE 45° LR 3/4" SCH.40/S SEAMLESS	LD230511-04
650	NR	1	0,00	RID. CONC. 3/4"x1/2" SCH.40/S SEAMLESS	LD230511-04

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

ITALTEST NDT
CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT TEST REPORT

dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.128 / 2024

PAGINA DI PAGINE
Page 1 of 2 Pages

CLIENTE / Customer: RACCORTUBI S.p.A.	ORDINE / Order: 1724000839 - 22.04.2024	COMMESSA / Job: 00002010

OGGETTO / Object: SEE PAGE 2

SPECIFICA GENERALE / General specification	PIANO DI CONTROLLO / Control Plan	FASE / Phase	CRITERIO D'ACCETTAZIONE / Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8

PROCEDURA / Procedure	MATERIALE / Material	DISEGNO / Drawing FIG. / Fig.	% CONTROLLATA / Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE / Surface Conditions	SALDATO / As Welded	MOLATO / Ground	LAVORATO / Machined	FORGIATO / As Forged	FUSO / As Cast
				X	

STATO DEL MATERIALE / Material Status	PRIMA DEL T.T. / Before Heat Treatment	DOPO T.T. / After Heat Treatment	DOPO RIPARAZIONE / After Repair

DATI DELLA PROVA / Test Data

METODO DI PULIZIA / Precleaning Method: SOLVENT AND PAPER

TECNICA / Technique	CONTRASTO DI COLORE / Color Contrasting	FLUORESCENTE / Fluorescent
	X	
	ILLUMINAZIONE / White Light Intensity: 1200 lx	ILLUMINAZIONE / Black Light Intensity

METODO DI ISPEZIONE / Liquid Penetrant Inspection Method	MARCA / Brand	TIPO / Type	PENETRANTE / Penetrant		LOTTO / Batch	SCADENZA / Expiry
	N.D.T.	LAVABILE IN ACQUA / Water Washable X		SPRAY / Spray X	210115Ps	02/2025
				PENNELLO / Brush		
		POST EMULSIONABILE / Post Emulsifiable	RIVELATORE / Developer	SECCO / Dry		
		RIMOVIBILE CON SOLVENTE / Solvent Removable		UMIDO / Wet X	230206W150s	01/2027

TEMPO DI PENETRAZIONE / Dwell Time	METODO DI PULIZIA / Cleaning Method
20 MINUTE	WATER AND PAPER

TEMPO DI SVILUPPO / Developing Time	METODO DI PULIZIA / Cleaning Method
10 MINUTE	WATER AND PAPER

RISULTATI DELLA PROVA / Test Results

SENZA DIFETTI / No Defects	DIFETTI ACCETTABILI / Accettable Defects	DIFETTI NON ACCETTABILI / Unaccepptable Defects
X		

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI / Description Of Defects, Size And Location

RISULTATI / Results	CONFORME ALLA SPECIFICA / According To Specification	NON CONFORME ALLA SPECIFICA / Not According To Specification	SCARTO / Scrap
	X		

NOTE / Notes

PROVA EFFETTUATA PRESSO / Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE / Technician	RAPPRESENTANTE DEL CLIENTE / Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO / 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA / Date 27 / 05 / 2024	ROSETTI MARINO Supply Management Dept. DATA / Date ☐ Witness ☐ Review	DATA / Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

50 dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.128 / 2024

PAGINA 2 DI 2 PAGINE
Page 2 of 2 Pages

CLIENTE Customer	ORDINE Order	COMMESSA Job
RACCORTUBI S.p.A.	1724000839 - 22.04.2024	00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
170	1	CAPS. 1 ½" SCH.40/S	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1016SA019
240	18	ELBOWS 90° LR 1" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1035SA022
250	22	ELBOWS 90° LR 1 ½" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1023SA024
320	2	CONC. REDS. 2" x 1 ½" SCH.10S/40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1018SA019
450	4	TEES 1 ½" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1157SA019
510	5	RED. TEES 1 ½" x ¾" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1181SA05
520	7	RED. TEES 1 ½" x 1" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1005SA022
530	1	RED. TEES 4" x 1 ½" SCH.10S/40S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1101SA02
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 27 / 05 / 2024	ROSETTI MARINO Supply Management Dept DATA Date ☐ Witness ☑ Review	DATA Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

5 dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.129 / 2024

PAGINA DI PAGINE
Page 1 of 3 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

OGGETTO
Object SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8

PROCEDURA Procedure	MATERIALE Material	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method						
MARCA Brand N.D.T.			PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
TIPO Type	LAVABILE IN ACQUA Water Washable X			PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
	POST EMULSIONABILE Post Emulsifiable		RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
	RIMOVIBILE CON SOLVENTE Solvent Removable			UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 DATA Date 27 / 05 / 2024 RT	ROSETTI MARINO Supply Management Dept DATA ☐ Witness ☑ Review Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.129 / 2024 PAGINA 2 DI 3 PAGINE Page 2 of 3 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
180	2	CAPS.10" SCH.10/S	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	51856
190	4	CAPS.1" SCH.40/S	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	519724
200	10	CAPS. 1 ½" SCH.40/S	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1014684
210	3	ELBOWS 45° LR 2" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230405
220	1	ELBOW 45° LR 4" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	LN008-1
230	5	ELBOWS 45° LR 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	E62123
260	14	ELBOWS 90° LR 2" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230234-1
260	15	ELBOWS 90° LR 2" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1482623
270	175	ELBOWS 90° LR 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230689
270	45	ELBOWS 90° LR 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1519623
290	56	ELBOWS 90° LR 4" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230735
300	24	ELBOWS 90° LR 6" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	GTA070-01-103LR
310	12	ELBOWS 90° LR 10" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230630
330	1	CONC. RED. 4"x 3" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	ECC26
340	14	CONC. REDS. 1"x ½" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MR230847
350	15	CONC. REDS. 1"x ¾" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MR230609
380	1	CONC. RED. 4"x 2" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	J0043-1
390	12	CONC. REDS. 1 ½"x 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1163621
410	1	CONC. RED. 2"x 1 ¼" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MR211002
430	1	ECC. RED. 6"x 4" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	HTA077-04-103ER
440	1	ECC. RED. 4"x 2" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	YX1906-526
440	5	ECC. REDS. 4"x 2" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MR230757
460	3	TEE 2" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MT220055

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 27 / 05 / 2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☐ Review DATA Date	DATA Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

50 dal 1985
CERT. ISO 9001 LRC0100763/QMS

N° 4.129 / 2024

PAGINA 3 DI PAGINE
Page 3 of 3 Pages

CLIENTE Customer	ORDINE Order	COMMESSA Job
RACCORTUBI S.p.A.	1724000839 - 22.04.2024	00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
470	6	TEES 4" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	LN008-1
480	30	TEES 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	66A-SWJ011
490	10	TEES 1 ½" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	66HSWJ128
500	2	TEES 10" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	INA004-03-103T
540	6	RED.TEES 6"x 4" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	LN011-1
550	6	RED.TEES 4"x 3" SCH.10/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MN036-1
610	5	RED.TEES 1 ½"x ¾" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	12B258
630	5	ELBOWS 45° LR ¾" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	LD230511-04
650	1	CONC. RED. ¾"x ½" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	LD230511-04
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 27 / 05 / 2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☒ Review DATA Date	DATA Date

raccortubi

00004695

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
170	1	NR	CAPS 1.1/2" SCH.40/S	1016SA019
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
180	2	NR	CAPS 10" SCH.10/S	51856
190	4	NR	CAPS 1" SCH.40/S	519724
200	10	NR	CAPS 1.1/2" SCH.40/S	1014684
210	3	NR	CURVE 45° LR 2" SCH.10/S SEAMLESS	M230405
220	1	NR	CURVE 45° LR 4" SCH.10/S SEAMLESS	LN008-1
230	5	NR	CURVE 45° LR 1" SCH.40/S SEAMLESS	E62123
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
240	18	NR	CURVE 90° LR 1" SCH.40/S SEAMLESS	1035SA022
250	22	NR	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	1023SA024

raccortubi

00004695

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	Q.ta' *Q.ty*	U.M.	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
260	14	NR	CURVE 90° LR 2" SCH.10/S SEAMLESS	M230234-1
260	15	NR	CURVE 90° LR 2" SCH.10/S SEAMLESS	1482623
270	45	NR	CURVE 90° LR 1" SCH.40/S SEAMLESS	1519623
270	175	NR	CURVE 90° LR 1" SCH.40/S SEAMLESS	M230689
290	56	NR	CURVE 90° LR 4" SCH.10/S SEAMLESS	M230735
300	24	NR	CURVE 90° LR 6" SCH.10/S SEAMLESS	GTA070-01-103LR
310	12	NR	CURVE 90° LR 10" SCH.10/S SEAMLESS	M230630
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
320	2	NR	RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	1018SA019
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	

raccortubi

00004695

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator
Colaulo Stefano

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	Q.ta' *Q.ty*	U.M.	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
330	1	NR	RID. CONC. 4"x3" SCH.10/S SEAMLESS	ECC26
340	14	NR	RID. CONC. 1"x1/2" SCH.40/S SEAMLESS	MR230847
350	15	NR	RID. CONC. 1"x3/4" SCH.40/S SEAMLESS	MR230609
380	1	NR	RID. CONC. 4"x2" SCH.10/S SEAMLESS	J0043-1
390	12	NR	RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS	1163621
410	1	NR	RID. CONC. 2"x1.1/4" SCH.10/S SEAMLESS	MR211002
430	1	NR	RID. ECC. 6"x4" SCH.10/S SEAMLESS	HTA077-04-103ER
440	5	NR	RID. ECC. 4"x2" SCH.10/S SEAMLESS	MR230757
440	1	NR	RID. ECC. 4"x2" SCH.10/S SEAMLESS	YX1906-526
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
450	4	NR	TEE UG. 1.1/2" SCH.40/S SEAMLESS	1157SA019
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	

raccortubi

00004695

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
460		3 NR	TEE UG. 2" SCH.10/S SEAMLESS	MT220055
470		6 NR	TEE UG. 4" SCH.10/S SEAMLESS	LN008-1
480		30 NR	TEE UG. 1" SCH.40/S SEAMLESS	66A-SWJ011
490		10 NR	TEE UG. 1.1/2" SCH.40/S SEAMLESS	66HSWJ128
500		2 NR	TEE UG. 10" SCH.10/S SEAMLESS	INA004-03-103T
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
510		5 NR	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	1181SA05
520		7 NR	TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1005SA022
530		1 NR	TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS	1101SA02
			RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
540		6 NR	TEE RID. 6"x4" SCH.10/S SEAMLESS	LN011-1
550		6 NR	TEE RID. 4"x3" SCH.10/S SEAMLESS	MN036-1

raccortubi

00004695

27/05/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
610	5	NR	TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	12B258
630	5	NR	CURVE 45° LR 3/4" SCH.40/S SEAMLESS	LD230511-04
650	1	NR	RID. CONC. 3/4"x1/2" SCH.40/S SEAMLESS	LD230511-04

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1.00

Customer: ROSETTI MARINO S.p.A.

Description: CAPS 1.1/2" SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/

Ordine N. OF06523 del 27/11/2018
P.O.N./C.N.

Pos. N. 8 **Q.tà** 450
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1016SA019 **Data:** 25-01-2019
Material Marking e Cert. N. Date:

Descrizione CAPS 1.1/2" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM A/815M-14e1
Specification ASME SA/815M ed.17 UNS S32760
Spécification DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: OUTO KUMPU Cert. No.: 2414740
Raw material - manufacturer/Materiel du depart - fabriquant:
OUTO KUMPU Cert. No.: 2414740

Test produzione Production test/Coupon de production	Colata N. Heat N. Coulée N.	N. prova Specimen N. Echantil. N.	Snervamento Yield strength Limite d'elasticité N/mm2	Rottura Tensile Resistance à la traction N/mm2	Allungam. % Elongation Allongement 2"	Durezza Hardness as per NACE MRO1-75	Durezza Hardnes Dureté	Resilienza Impact energy Resilience Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	564630	041/19	614	818	32.0	HRC<28	HRC 23	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Co	N	W		PRE	FERRITE
564630	0,015	0,28	0,70	0,027	0,001	25,41	6,73	3,47	0,56	0,56	0,275	0,61		41.3	47.5

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:1786/19
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes, batch n. 0911

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: CAPS 1.1/2" SCH.40/S

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1,00

Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Mechanical and Chemical Laboratory Non Destructive Tests
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RAPPORTO DI PROVA/TEST REPORT

PM 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth	Ø / Width	ØPipe	Lo/ Lo	Posizione di prelievo/ Test position	Temp./ Temp.	Snervamento/ Yield strength			Rottura/ Tensile strength Rm		Allungamento/ Elongation		Strizione/ Area Reduction	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
			mm					℃	Mpa			Mpa		Mpa		A (%)		Z (%)		
8155	ASTM A 370-17a (Tension Test)	RTX_D53 Rev.7	3,91	12,55		50,00	B T FT	23	(≥550)	Rp0.2%	**614**			(750÷895)	**818**	(≥25)	**32,0**			30/01/2019

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

Firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1016SA019 - Qty:1.00

Customer: ROSETTI MARINO S.p.A.

Description: CAPS 1.1/2" SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

A923C 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²
8163	ASTM A 923-14 (Met. C)	RTX_D53 Rev.7	B L FT	Meccanica/ Mechanical	49,67	23,74	3,8	29,16

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum specimen preparation (°C) 49,22

Temperatura Massima Rilevata (°C)/ Maximum specimen preparation (°C) 50,58

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso iniziale/ Initial weight (g) 35,1066

Peso finale (g)/ Final weight (g) 35,1053

Perdita di peso (g)/ Weigth loss (g) 0,0013

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **4,5**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10,0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: CAPS 1.1/2" SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERQ202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

A923A 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

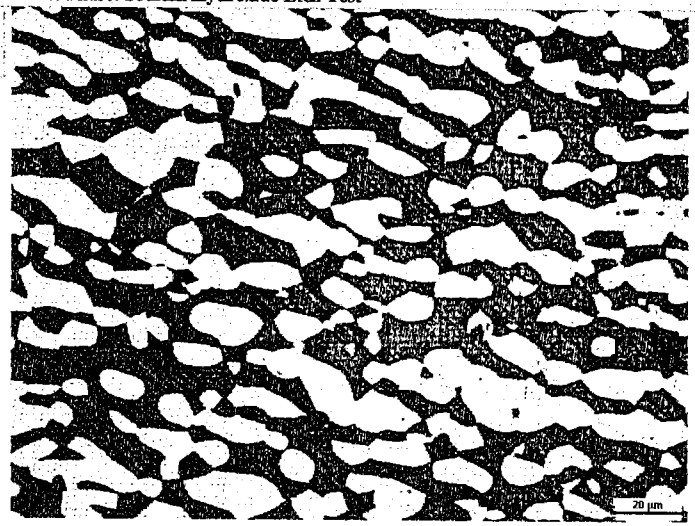
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8164	ASTM A 923-14 (Met. A)	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Materiale base / Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amani Paolo

Ispettori/Inspector

Cliente/Customer
ROSETTI MARINO
Supply Management Dept
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

raccortubi Heat num. or Pos. marking: 1016SA019 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: CAPS 1.1/2" SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
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RAPPORTO DI PROVA/TEST REPORT

MIC 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	**1**		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8159	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Materiale base / Base Material

4.0 x 20.0 = 80.0 mm²

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

20 µm

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness: [T]-trasv.

raccortubi Heat num. or Pos. marking: 1016SA019 - Qty:1.00
Customer: ROSETTI MARINO S.p.A.
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Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
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RAPPORTO DI PROVA/TEST REPORT

MIC 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

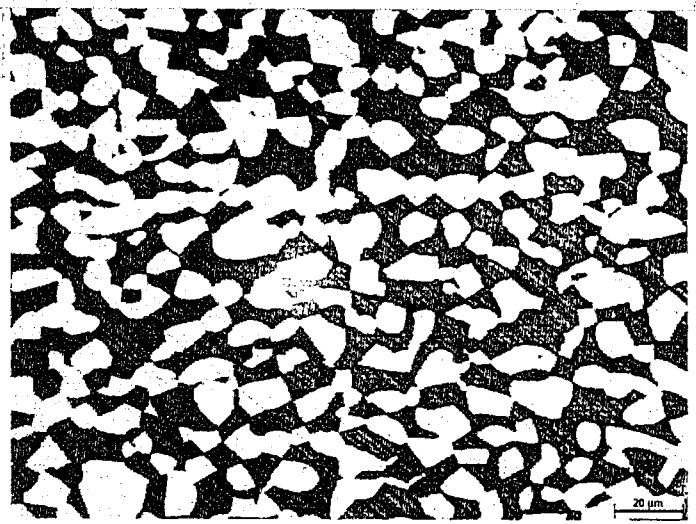
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8160	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Materiale base / Base Material
		4.0 x 20.0 = 80.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1.00
Customer: ROSETTI MARINO S.p.A.
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RAPPORTO DI PROVA/TEST REPORT

DUR 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

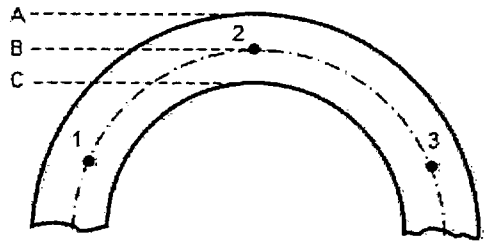
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)/ HBW hardness test (Indentation measuring device Type A)

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Durezza/ Hardness	Data esecuzione/ Date of Testing
8157	ASTM E 10-17	RTX_D53 Rev.7	B	T	HBW 2.5/187.5	29/01/2019

(B1) - Base Material **MAX 270**

1 241 2 243 3 245



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	StdDev
(B1) - Base Material	243	2

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Morresi Davide

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amani Paolo

Ispettori/Inspector

Cliente/Customer
ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [SZ]-along the thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1,00

Customer: ROSETTI MARINO S.p.A.

Description: CAPS 1.1/2" SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDER TEST Srl
Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it
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RAPPORTO DI PROVA/TEST REPORT

ANL 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **OF06523**

Commessa/Job: **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO/ Atomic emission vacuum Spectrometric analysis

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Data esecuzione/ Date of Testing
8165	ASTM E 1086-14	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B UP	20	7237	29/01/19

			%	Min.	Max.				%	Min.	Max.				%	Min.	Max.
C	**0,015**	**± 0,001**	97,5		0,030	**Nb**						**Fe**					
Si	**0,32**	**± 0,01**	97,5		1,00	**Ti**						**Ca**					
Mn	**0,73**	**± 0,02**	97,5		1,00	**W**	**0,66**	**± 0,07**	95,0	0,50	1,00	**Ta**					
P	**0,025**	**± 0,003**	97,5		0,030	**Pb**						**Sb**					
S	**0,002**	**± 0,001**	97,5		0,010	**Sn**						**H**					
Cr	**25,4**	**± 0,4**	95,0	24,0	26,0	**As**						**Cd**					
V						**B**						**Se**					
Mo	**3,5**	**± 0,1**	95,0	3,0	4,0	**N**	**0,28**	**± 0,02**	95,0	0,20	0,30	**Bi**					
Ni	**6,8**	**± 0,1**	95,0	6,0	8,0	**La**						**Hg**					
Cu	**0,57**	**± 0,02**	95,0	0,50	1,00	**Mg**											
Ce						**Zr**											
Al						**Zn**											
Co						**O**											

FORMULAS			%	Min.	Max.
PREN	**41,4**	**± 0,4**	97,5	40,0	

Decision rule:
the result is "Compliant to Specification" when:
- *Result ≥ Lower Limit (confidence interval CI=50+97,5 %)*
- *Result ≤ Upper Limit (confidence interval CI=50+97,5 %)*
- *Lower Limit ≤ Result ≤ Upper Limit (confidence interval CI=47,5+95%)*

When the result falls within the uncertainty range at the limit value, the result can be Probably Compliant or Probably Not Compliant

Expanded uncertainty below reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Note/ Remarks

Esito/ Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival: **28/01/2019**

Data Rapporto di prova/ Test Report Date: **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Test Position Legend: : [B]-Specimen in Base Material: [UP]-external sup.

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: CAPS 1.1/2" SCH.40/S
Heat num. or Pcs. marking: 1016SA019 - Qty:1,00
Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
8158	ASTM E 562-11	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B	T	FT	20% NaOH	500 X	40 mm x 40 mm 5 x 5 = 25 Points	31/01/2019

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction)	47.5 ± 1.2	**40**	**55**
% Errore (RA)/ % Error (RA)	2,61		
Deviazione Standard/ Standard Deviation	3,3		
Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle	30 / 4 x 20 mm / 1 x 3.0 mm / 45°		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**50**	2	**46**	3	**44**	4	**42**	5	**50**
6	**52**	7	**50**	8	**48**	9	**52**	10	**42**
11	**46**	12	**44**	13	**46**	14	**42**	15	**50**
16	**50**	17	**50**	18	**50**	19	**46**	20	**52**
21	**42**	22	**44**	23	**52**	24	**48**	25	**48**
26	**44**	27	**50**	28	**46**	29	**48**	30	**50**

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amani Paolo

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1016SA019 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: CAPS 1.1/2" SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

G48ACE 1786 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1969**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2"	1		**041/19**	**564630**	**ASTM A 815-17 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²	
8162	ASTM G 48-11(2015) - Met. A	RTX_D53 Rev.7	B L FT	Meccanica/ Mechanical	50.02	25,26	3,83	31,04	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C) 50

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 · 6H2O 10% WATER SOLUTION

Peso iniziale/ Initial weight (g)	36,6662		
Peso finale (g)/ Final weight (g)	36,6659		
Perdita di peso (g)/ Weigth loss (g)	0,0003		
Perdita di massa/ Specimen mass loss		0,0967	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max		**4,0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 25,27 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept
☐ Witness ☒ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 51856 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.
Description: CAPS 10" SCH.10/S

Order: 1724000839 - 22.04.24 - Item n.: 180 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240000489S * CERTIFIED TRUE COPY
* Issued 20-05-2024

CTCERT20240000322 1.1.0001

tecninox

Stabilimento/ Plant: Via Don Spagnoli 5 –29010 SARMATO (PC)
Tel. (+39) 0523.887452-887991 – fax (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. – V.le De Gasperi 194
20010 Marcallo con Casone (MI) - ITALIA
Tel. (+39) 02.976300.1 - fax (+39) 02.90376337 –
info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificateType: EN 10204 3.1
Certificate de Réception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. OS00168
P.O.N./Commande N.

Pos. N. 2 **Q.tà** 9
Item/Poste *Q.ty/Q.té*

(*) Marcatura e cert. N. **51856** **Data:** 29/04/2024
Material Marking e. Cert. N. *Date:*
Marquage du Materiel

Descrizione CAPS 10" SCH.10/S
Description
Description

Specifica FITTINGS TO ASTM SA/A 403/403M-23
Specification ASME SA403/SA403-22b WP316/316L
Specification DIMS/ENDS ANSI ASME B16.9-ed.2018

Materiale base/*Raw material/Materiel du depart*
Fabbricante/*Manufacturer/Fabriquant : MARCEGAGLIA* Cert. No. : 10723195093

Specifica *Specification/Specification*	**Caratteristiche meccaniche** *Mechanical Properties/Caracteristiques Mechaniques*							
	Colata N. *Heat N. Coulée N.*	**N. prova** *Specimen N. Echantill. N.*	**Snervamento** *Yeld Strength Limite d'elasticité* **N/mm²**	**Rottura** *Tensile Strength Resistance à la traction* **N/mm²**	**Allungam.%** *Elongation Allongement*	**Durezza** *Hardness as per NACE MR01-75*	**Durezza** *Hardness Dureté* **HRB**	**Resilienza** *Impact energy Resilience* **Joules**
PLATE TO ASTM A240-20 TP316/316L DIMS TO ANSI B36.19	51856		301	632	54.3	HRC<22	83	

Analisi Chimica %
Chemical composition/Composition chimique

Colata N. *Heat N. Coulée N.*	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**N**						
51856	0,022	0,530	0,910	0,0340	0,002	17,20	10,00	0,045						

Prove/*Tests/Tests*

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In Conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o del laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the test.
L'analyse chimique et les caracteristiques mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a executé les tests.

Responsabile controllo Qualità
Quality Control Manager

Note/*Remarks/Notes*

MATERIAL CONFORMS TO NACE MR01.75/ISO 15156 & MR0103 CURRENT EDITION
Certified acc.to PED 2014/68/EU

ALL FITTING HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione/*Manufacture/Méthode de fabrication*

Formato a freddo *Cold formed* *Formés a froid*
Senza saldatura *Seamless* *Sans soudure*

Ispezione/*Inspection/Inspéction*

– **Esame visivo dimensionale: Buono**
Visual and dimensional test: Good
Examen visuel et dimensionel
– **Identificazione materiale:Buono**
Positive Material Identification :Satisfactory
Analyse de controle de produit :Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique

Solubilizzazione a 1050 °C
Solution Annealing at 1050 °C, Water quenching
Hypertrempés à 1050°C

Guaranted characteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C ≤ 0.25% **Rm ≤ 760 N/mm²**
S ≤ 0.05% **Rm(A-2) ≤ 10500 N/mm²**
P ≤ 0.05% **A% sur 5.65 √So ≥ 16**

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel à eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore/Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.
'ness Review

Customer: ROSETTI MARINO S.p.A.
Description: CAPS 1" SCH.40/S

raccortubi Heat num. or Pcs. marking: 519724 - Qty:4,00

Order: 1724000839 - 22.04.24 - Item n.: 190 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

CTCERT202200002329.1

tecninox

Stabilimento/ Plant: Via Don Spagnoli 5 - 29010 SARMATO (PC)
Tel. (+39) 0523.887452-887991 - fax (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - V.le De Gasperi 194
20010 Marcallo con Casone (MI) - ITALIA
Tel. (+39) 02.976300.1 - fax (+39) 02.90376337 -
info@raccortubi.it

Certificato di collaudo d officina tipo: EN 10204 3.1
Product test certificateType: EN 10204 3.1
Certificate de R¶ception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. OS00073
P.O.N./Commande N.

Pos. N. 17 Q.t 50
Item/Poste Q.ty/Q.t¶

(*) Marcatura e cert. N. 519724 Data: 21/04/2022
Material Marking e. Cert. N. Date:
Marquage du Materi· l

Descrizione CAPS 1_SCH.40/S
Description
Description

Specifica FITTINGS TO ASTM A403/403M
Specification ASME SA403/SA403M latest edition
Specification WP316/316L, DIMS/ENDS ANSI B16.9-2018

Materiale base/Raw material/Materiel du depart
Fabbricante/Manufacturer/Fabriquant: MARCEGAGLIA Cert. No. :10718413394

Specifica Specification/Specification	Colata N. Heat N. Coul¶e N.	N. prova Specimen N. Echantill. N.	Snervamento Yeld Strength Limite d elasticit¶ N/mmД	Rottura Tensile Strength Resistance la traction N/mm²	Allungam.% Elongation Allongement	Durezza Hardness as per NACE MR01-75	Durezza Hardness Duret¶ HRB	Resilienza Impact energy Resilience Joules
PLATE TO ASTM A 240/15 TP316/316L DIMS TO ANSI B36.19	519724		308	610	55,1	HRC<22	82	

Analisi Chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coul¶e N.	C	Si	Mn	P	S	Cr	Ni	N	Mo					
519724	0,013	0,570	1,480	0,0245	0,001	16,65	10,03	0,0375	2,009					

Prove/Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In Conformity
Essais de corrosion A262 Prat. E: En Conformit¶

I dati dell analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o del laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the test.
L analyse chimique et les caracteristiques m¶caniques sont en conformit¶ au certificat ¶mis par le producteur du materiel de base et/ou par le laboratoire qui a execut¶ les tests.

Responsabile controllo Qualit
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR01.75/ISO 15156 & MR0103 CURRENT EDITION
Certified acc.to PED 2014/68/UE

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione/Manufacture/M¶thode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Form¶s a froid	Sans soudure

Ispezione/Inspection/Insp¶ction

- Esame visivo dimensionale: Buono
  Visual and dimensional test: Satisfactory
  Examen visuel et dimensionel: Satisfaisant
- Identificazione materiale: Buono
  Positive Material Identification :Satisfactory
  Analyse de controle de produit :Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1050 éC
Solution Annealing at 1050éC, Water quenching
Hypertremp¶s - 1050éC

Guaranted characteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C ≤0.25%	Rm ≥760 N/mmД
S ≤0.05%	Rm(A-2) ≥10500 N/mmД
P ≤0.05%	A% sur 5.65 √So ≥ 16

Il materiale · stato fornito in conformit ai requisiti dell ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel - et¶ trouv¶ conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore/Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: CAPS 1.1/2" SCH.40/S

Heat num. or Pos. marking: 1014684 - Qty:10,00

Order: 1724000839 - 22.04.24 - Item n.: 200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202300003889.1.0001

tecninox

Stabilimento/ Plant: Via Don Spagnoli 5 –29010 SARMATO (PC)
Tel. (+39) 0523.887452-887991 – fax (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. – V.le De Gasperi 194
20010 Marcallo con Casone (MI) - ITALIA
Tel. (+39) 02.976300.1 - fax (+39) 02.90376337 –
info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificateType: EN 10204 3.1
Certificate de Réception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client
Ordine N. OS000324
P.O.N./Commande N.

Pos. N. 08 **Q.tà** 73
Item/Poste *Q.ty/Q.té*

(*) Marcatura e cert. N. **1014684** **Data:** 09/11/2022
Material Marking e. Cert. N. *Date:*
Marquage du Materiél

Descrizione CAPS 1.1/2" SCH.40/S
Description
Description

Specifica FITTINGS TO ASTM A403/403M-22
Specification ASME SA403/SA403M ed.21
Specification WP316/316L, DIMS/ENDS ANSI B16.9-2018

Materiale base/*Raw material/Materiel du depart*
Fabbricante/*Manufacturer/Fabriquant: MARCEGAGLIA* Cert. No. : 10719226680

Specifica *Specification/Specification*	**Caratteristiche meccaniche** *Mechanical Properties/Caracteristiques Mechaniques*							
	Colata N. *Heat N. Coulée N.*	**N. prova** *Specimen N. Echantill. N.*	**Snervamento** *Yeld Strength Limite d'elasticité* **N/mm²**	**Rottura** *Tensile Strength Resistance à la traction* **N/mm²**	**Allungam.%** *Elongation Allongement*	**Durezza** *Hardness as per NACE MR01-75*	**Durezza** *Hardness Dureté* **HRB**	**Resilienza** *Impact energy Resilience* **Joules**
PLATE TO ASTM A240-15 TP316/316L DIMS TO ANSI B36.19	1014684		252	571	54,4	HRC<22	74	

Analisi Chimica %
Chemical composition/Composition chimique

Colata N. *Heat N. Coulée N.*	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**N**					
1014684	0,013	0,479	0,926	0,03	0,001	16,87	10,07	2,064	0,028					

Prove/*Tests/Tests*

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In Conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o del laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the test.
L'analyse chimique et les caracteristiques mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a executé les tests.

Responsabile controllo Qualità
Quality Control Manager

Note/*Remarks/Notes*

MATERIAL CONFORMS TO NACE MR01.75/ISO 15156 LATED ED. AND MR0103 ED.12
Certified acc.to PED 2014/68/EC

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione/*Manufacture/Méthode de fabrication*

Formato a freddo *Cold formed* *Formés a froid*
Senza saldatura *Seamless* *Sans soudure*

Ispezione/*Inspection/Inspéction*

– **Esame visivo dimensionale: Buono**
Visual and dimensional test: Good
Examen visuel et dimensionel:Satisfaisant
– **Identificazione materiale:Buono**
Positive Material Identification :Satisfactory
Analyse de controle de produit :Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1050 °C
Solution Annealing at 1050 °C, Water quenching
Hypertrempés à 1050 °C

Guaranted characteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C ≤ 0.25%	**Rm ≤ 760 N/mm²**
S ≤ 0.05%	**Rm(A-2) ≤ 10500 N/mm²**
P ≤ 0.05%	**A% sur 5.65 √So ≥ 16**

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel à eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore/Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 45° LR 2" SCH.10/S SEAMLESS

Heat num. or Pcs. marking: M230405 - Qty:3,00

Order: 1724000839 - 22.04.24 - Item n.: 210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202300004627.1.0001

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC001
(注文番号) 00000016 S dtd 26-01-2023

INSPECTION CERTIFICATE
EN 10204 : 3.1
S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2310-00002-20

Invoice No : SP/FIT23-103

Date (日付) : 26/09/2023

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL 45 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	2" X 10S	60.33	2.77	M230405	100	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	221010BE03	1.8	35.1	105	37	1	1005	1626	202		Longitudinal	253	593	51		PASSED	PASSED		80
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. The material is manufactured in SPI and melting country of raw material are in Malaysia or China or Taiwan origin (attached)
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

ROSETTI MARINO
Supply Management Dep
☐ Witness ☑ Revie

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

NSF Certified to NSF/ANSI 61 — LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47098

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00005390	E000005892	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN008-1	4" SCH 10s 45° Lr ELBOW	100	WP316/316L-S	PASSED	NY220918AT17

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
LN008-1	0.012	0.45	1.02	0.030	0.001	16.23	10.17	2.08	< 0.01		242	578	58	66	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, (GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 45° LR 4" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: LN008-1 - Qty:1,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

ISO 9001:2000 AD 2000-Merkblatt W0 PED 97/23/EC CE Certificate TS Manufacture License of Special Equipment China National Petroleum Corporation Supplier

Zhejiang Yuli Pipeline Industry Co Ltd

Mill Test Certificate

BAJA INDUSTRIAL ZONE SHACHEN TOWN, LONGWAN DISTRICT, WENZHOU, ZHEJIANG, CHINA

Certificate: EN10204/3.1	Certificate-NO: MC-TYF-6-20080627118	Page 118 of 200

L/C NO.:32390CI003798/08

Customer:	[redacted]
Order No.:	YL 006
Description:	Seamless stainless steel BW fittings
Specification:	ANSI/ASTM B16.9, B16.25
Material:	ASTM A403/ASME SA403-WPS-316/316L(2005)
Workmanship	Cold forming
Heat Treatment:	Solution annealing and quenched

Marking:
- Manufacture's Mark
- Dimension & Schedule
- Material S(Seamless)orW(Welded)
- Heat Number & Standard

Extend of material delivery:

Item No.	Description	Dimension	Quantity	Heat No.	Base Cert.No.	Remarks
1	ELB 45L/R	1 " SCH40S	100	E62123	200805087276003	
2						
3						
4						
5						

Inspection Results (The requirements are fulfilled as listed in Annex):

A、Chemical Analysis:

Heat No.		C%	Mn%	Si%	S%	P%	Cr%	Ni%	Mo%	Cu%	Ti%
1	E62123	0.021	1.42	0.63	0.003	0.026	16.51	11.13	2.23		
2											
3											
4											
5											

B、Mechanical Properties & Tensile Inspection :

Heat No.		Yield Strength		Tensile Strength	Elongation	Hardness	Charpy Impact			
		0.2%	1%							
1	E62123	282		623	57	74				
2										
3										
4										
5										

C、Inspection and Related Data Verify:

Dimensional check	OK	Hydrostatic pressure test	/
Surface quality inspection	OK	Radiography Examination	/
Penetration examination	OK	IC to ASTM A262 "E"	OK
PMI	OK	HT to NACE MR-0175	OK

D、Remarks:

Work inspector: 梅陈印春

Date: Jun.27.2008

ZHEJIANG YULI PIPELINE INDUSTRY CO.,LTD 检验专用章

ROSETTI MARINO
Supply Management Dept.
Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 45° LR 1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: E62123 - Qty:5,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

raccortubi

Heat num. or Pcs. marking: 1035SA022 - Qty:18,00

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. Master plan Maggio 2022/2

Pos. N. Item/Poste 28 **Q.tà** Q.ty/Q.té 361

(*) Marcatura e cert. N. Material Marking e Cert. N. 1035SA022

Created on: 30-06-2022

Descrizione Description Description ELBOWS 90° LR 1" SCH.40/S SEAMLESS

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-2021
ASME SA/815-21 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: SCHOELLER BLECKMANN Cert. No.: 726276
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
SCHOELLER BLECKMANN Cert. No.: 726276

Test produzione Production test/Coupon de production	Colata N. Heat N. Coulée N.	N. prova Specimen N. Echantil. N.	Snervamento Yield strength Limite d'elasticité N/mm2	Rottura Tensile Resistance à la traction N/mm2	Allungam. % Elongation Allongement 2"	Durezza Hardness as per NACE MR01-75	Durezza Hardnes Dureté	Resilienza Impact energy Resilience Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	57472	141/22	662	867	30.3	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	W	Co	N		PRE	FERRITE
57472	0,011	0,26	0,70	0,022	0,0005	25,62	6,87	3,66	0,72	0,590	0,049	0,253		41.746	47.7

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 14833/22
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0146

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1035SA022 - Qty:18,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004685 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell'Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

G48ACE 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		**141/22**	**57472**	**ASTM A 815-20 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension Lunghezza/ Length	Larghezza/ Width	mm Spessore/ Thickness	Area/ Area cm²	
76481	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	51,03	25,63	3,17	31,02	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C)	50	Peso iniziale/ Initial weight (g)	33,8941	
Tempo di esposizione (ore)/ Exposure time (hours)	24	Peso finale (g)/ Final weight (g)	33,8936	
Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time	Perdita di peso (g)/ Weigth loss (g)	0,0005	
05/07/2022 09:42:47	06/07/2022 09:42:47	Perdita di massa/ Specimen mass loss	0.2	g/m²
Soluzione/ Solution FeCl3 6% SOLUTION		**Limite perdita di massa max/ Limit Specimen mass loss max**	**1.0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 26,16 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022**

Firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector — Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pos. marking: 1035SA022 - Qty:18,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

E562 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	**ASTM A 815-20 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
76477	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B	T	FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	05/07/2022

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction)	47.7	**40**	**55**
s 3,9 95% C.I. 1,5	%RA 3,04		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**46**	3	**54**	4	**46**	5	**50**
6	**42**	7	**46**	8	**42**	9	**54**	10	**46**
11	**54**	12	**48**	13	**54**	14	**52**	15	**50**
16	**50**	17	**44**	18	**48**	19	**46**	20	**44**
21	**42**	22	**48**	23	**50**	24	**46**	25	**54**
26	**46**	27	**44**	28	**46**	29	**50**	30	**42**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.00 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival: **01/07/2022**

Data Rapporto di prova/ Test Report Date: **07/07/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

raccortubi Heat num. or Pos. marking: 1035SA022 - Qty:18,00

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

ANL 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	**ASTM A 815-20 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
76484	ASTM E1086 – 14	RTX_D53 Rev.9	B / UP	20 °C	5023	% by weight	05/07/2022

			Min.	Max.				Min.	Max.		Min.	Max.
C	0,012	±0,002		0.030	**Nb**					**Fe**		
Si	0,30	±0,02		1.00	**Ti**					**Ca**		
Mn	0,71	±0,04		1.00	***W**	0,62	±0,05	0.50	1.00	**Ta**		
P	0,023	±0,002		0.030	**Pb**					**Sb**		
***S**	0,003	±0,001		0.010	**Sn**					**H**		
***Cr**	25,7	±0,3	24,0	26,0	**As**					**Cd**		
V					**B**					**Se**		
***Mo**	3,7	±0,2	3,0	4.0	***N**	0,26	±0,02	0.20	0,30	**Bi**		
***Ni**	6,9	±0,4	6,0	8.0	**La**					**Hg**		
***Cu**	0,75	±0,04	0,50	1.00	**Mg**							
Ce					**Zr**							
Al					**Zn**							
Co					**O**							

FORMULAS			Min.	Max.
***PREN**	42,07	±0,71	40,00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [/]-/: [B]-Specimen in Base Material; [UP]-external sup.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pos. marking: 1035SA022 - Qty:18,00

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240000695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

DUR 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

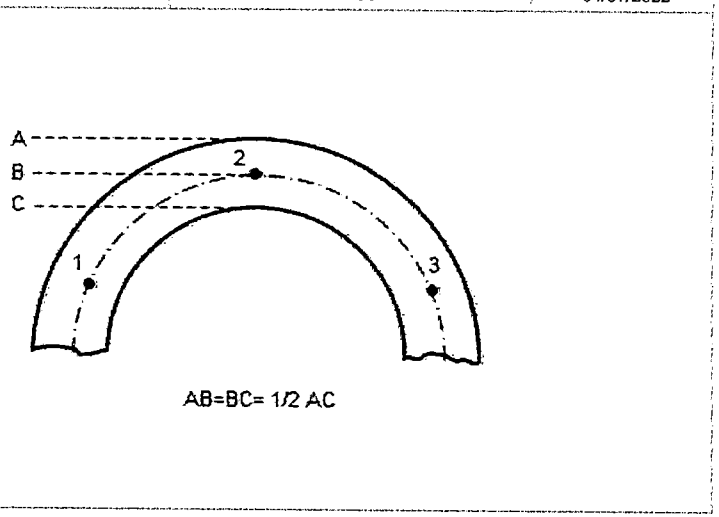
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		**141/22**	**57472**	**ASTM A 815-20 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
76476	ASTM E 92 – 17 (only Vickers)	RTX_D53 Rev.9	B	T	20 °C	HV10	04/07/2022

(B1) - Base Material — **MAX 286**

HV10	1	248	2	242	3	244



Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	
(B1) - Base Material	245	HV10

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO Supply Management Dept. Witness Review

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1035SA022 - Qty:18,00

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400020010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
76478	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	05/07/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Specimen in Base Material
		3.0 x 20.0 = 60.0 mm²

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

20 µm

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness: [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1" SCH.40/S SEAMLESS
Heat num. or Pos. marking: 1035SA022 - Qty:18,00
Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 14833 / 22

Rif. Lab SIM (FCP): **4546 / 22 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Data esecuzione/ Date of Testing
			B	T	FT	
76479	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0				05/07/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Specimen in Base Material 3.0 x 20.0 = 60.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	01/07/2022
Data Rapporto di prova/ Test Report Date	07/07/2022

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness: [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1035SA022 - Qty:18.00
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell'Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

A923A 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

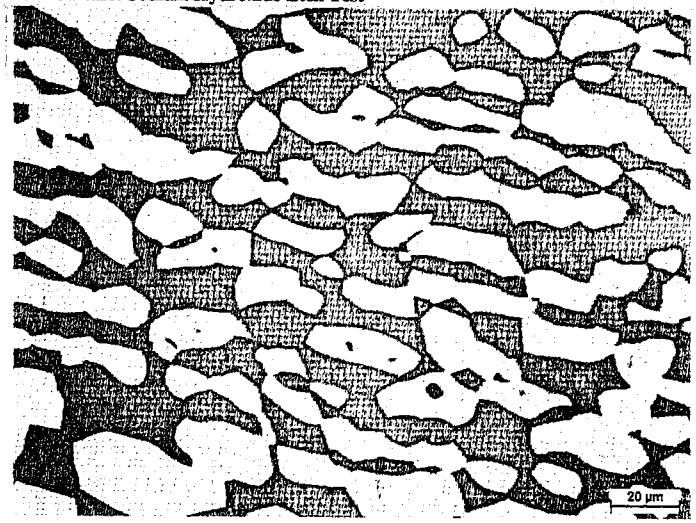
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	ASTM A 815-20 UNS S32760

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
76483	ASTM A923 – 14 Method A	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	05/07/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO *Supply Management Dept.* ☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1035SA022 - Qty:18,00

Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

A923C 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm			Area/ Area cm²
							Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	
76482	ASTM A923 – 14 Method C	RTX_D53 Rev.9	B	L	FT	Meccanica/ Mechanical	51,3	25.8	3,18	31,37

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum temperature observed (°C) 49,55

Temperatura Massima Rilevata (°C)/ Maximum temperature observed (°C) 50,69

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
05/07/2022 10:02:55	06/07/2022 10:02:55

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso iniziale/ Initial weight (g) 33,5864

Peso finale (g)/ Final weight (g) 33,5856

Perdita di peso (g)/ Weigth loss (g) 0,0008

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X /
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **2,5**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1035SA022 - Qty:18,00
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

PM 14833 / 22

Rif. Lab SIM (FCP) : **4546 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN MAGGIO 2022/2**

Commessa/Job **31005/22 22/0231**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1" W.T. 3.38 mm	1		141/22	57472	ASTM A 815-20 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength MPa		Snervamento/ Yield strength MPa		Rottura/ Tensile strength Rm MPa		Allungamento/ Elongation A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
76474	ASTM A370 - 21 §6÷14, § A1.3, § A2.2 and § A3.2	RTX_D53 Rev.9	3,58	12,50		50,00	B L FT	23	(≥550)	Rp0,2% 662			(≥750)	867	(≥25)	30,3			06/07/2022

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **01/07/2022**

Data Rapporto di prova/ Test Report Date **07/07/2022**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pos. marking: 1023SA024 - Qty:22,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer	RACCORTUBI S.p.A.
Ordine N. P.O.N./C.	Master plan Marzo 2024/2
Pos. N. Item/Poste	14
Q.tà Q.ty/Q.té	158

(*) Marcatura e cert. N. 1023SA024 — Created on: 12-03-2024
Material Marking e Cert. N.

Descrizione Description Description	ELBOWS 90° LR 1.1/2" SCH.40/S SEAMLESS
Specifica Specification Spécification	BW FITTINGS TO ASME II Part.A SA/815M Ed.2023 ASTM A/815M-2023 UNS S32760 DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 715498
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 715498

Test produzione Production test/Coupon de production	Colata N. Heat N. Coulée N.	N. prova Specimen N. Echantil. N.	Snervamento Yield strength Limite d'elasticité N/mm2	Rottura Tensile Resistance à la traction N/mm2	Allungam. % Elongation Allongement 2"	Durezza Hardness as per NACE MR01-75	Durezza Hardnes Dureté	Resilienza Impact energy Resilience Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	57031	22/24	716	902	31.1	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Nb	W	Co	N	PRE	FERRITE
57031	0,011	0,230	0,52	0,019	0,0004	25,60	6,90	3,65	0,69	0,004	0,63	0,045	0,251	41.661	49.9

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 6215/24
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0236

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:22,00

Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description **SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm**

Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
1		22/24	57031	ASTM A 815-23 UNS S32760

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
32963	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	54,11	23,53	3,46	30,84	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Lavorato/ Machined
Temperatura di prova/ Test temperature (°C)	50
Tempo di esposizione (ore)/ Exposure time (hours)	24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
18/03/2024 11:16:50	19/03/2024 11:16:50

Soluzione/ Solution FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	32,5083		
Peso finale/ Final weight (g)	32,508		
Perdita di peso/ Weigth loss (g)	0,0003		
Perdita di massa/ Specimen mass loss		0.1	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max		**1.0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 25,46 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

		Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Ingresso Materiale/ Date of Material Arrival	13/03/2024				
Data Rapporto di prova/ Test Report Date	19/03/2024 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implied Uncertainty)
- Qn — Quantitative (Non Implied Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi
Heat num. or Pcs. marking: 1023SA024 - Qty:22,00
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

SIDERTEST
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Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

E562 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	ASTM A 815-23 UNS S32760

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
32959	ASTM E562 – 19e1	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	19/03/2024

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv (% Volume Fraction) 49.9	40	55

s 3.4 95% C.I. 1.3 %RA 2.53

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	46	2	48	3	48	4	54	5	50
6	52	7	48	8	54	9	54	10	48
11	50	12	50	13	46	14	46	15	54
16	42	17	46	18	48	19	54	20	48
21	52	22	46	23	54	24	50	25	54
26	52	27	54	28	48	29	48	30	54

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.50 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **13/03/2024**
Data Rapporto di prova/ Test Report Date: **19/03/2024** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer: ROSETTI MARINO Supply Management Dept. ☐ Witness ☐ Review

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qt → Quantitative (Non implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

raccortubi Heat num. or Pos. marking: 1023SA024 - Qty:22,00

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests

Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

ANL 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova/ Test temperature (°C)	ID Gruppo/ Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
32966	PO 04-145 RC R13:2024	RTX_D53 Rev.9	B / UP	20	10324	% by weight	18/03/2024

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,012	±0,003		0.030	Nb					Fe				
Si	0,26	±0,02		1.00	Ti					Ca				
Mn	0,53	±0,03		2.00	W	0,65	±0,05	0.50	1.00	Ta				
P	0,020	±0,002		0,030	Pb					Sb				
S	0,004	±0,001		0.010	Sn					H				
Cr	25,8	±0,2	24.0	26.0	As					Cd				
V					B					Se				
Mo	3,7	±0,2	3.0	4.0	N	0,27	±0,02	0.20	0.30	Bi				
Ni	7,0	±0,4	6.0	8,0	La					Hg				
Cu	0,72	±0,06	0.50	1.00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	42,33	±0,71	40.00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **13/03/2024**

Data Rapporto di prova/ Test Report Date **19/03/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer: ROSETTI MARINO Supply Management Dept.

☐ Witness ☑ Review

DECISION RULE:
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- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qn — Quantitative (Non implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [/]-/; [B]-Specimen in Base Material; [UP]-external sup.

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:22,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

DUR 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

Campione fornito da cliente/ Sample supplied by customer :

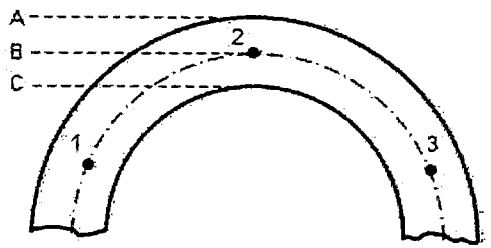
Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
32958	ASTM E92 – 23 (only Vickers)	RTX_D53 Rev.9	B	T	20 °C	HV10	19/03/2024

(B1) - Base Material — **MAX 286**

HV10	1	267	2	269	3	261



AB=BC= 1/2 AC

Position	Average	
(B1) - Base Material	266	HV10

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Provn" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Chants are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Provn" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **13/03/2024**

Data Rapporto di prova/ Test Report Date **19/03/2024**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

DECISION RULE:
- Qt — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qx — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:22,00
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

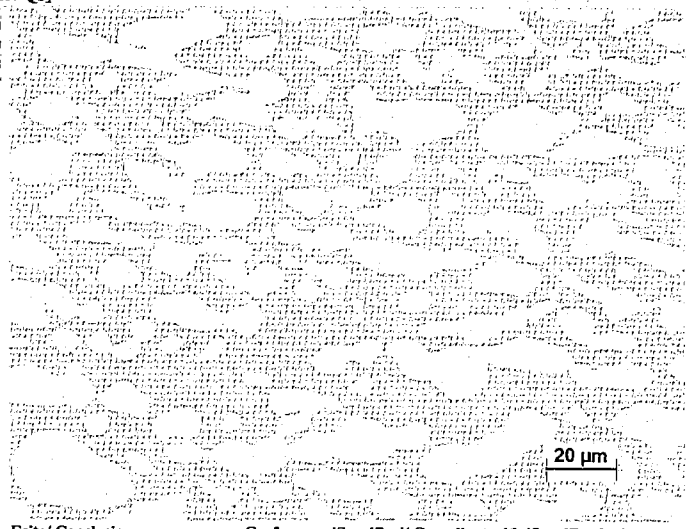
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32960	ASTM E3 - 11(R2017) / ASTM E407 - 23	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	10% Oxalic	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
13/03/2024				
Data Rapporto di prova/ Test Report Date: 19/03/2024 (firmato elettronicamente/electronically signed)	Antonielli Stefano	Amani Paolo		

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
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The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:22,00
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERG202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 6215 / 24

Rif. Lab SIM (FCP) : **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN MARZO 2024/2

Commessa/ Job
31003/24 23/1495

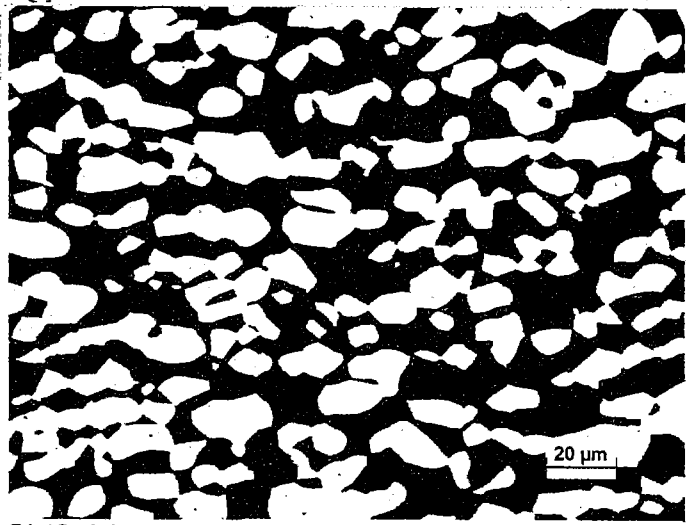
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32961	ASTM E3 - 11(R2017) / ASTM E407 – 23	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	20% NaOH	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
13/03/2024				
Data Rapporto di prova/ Test Report Date 19/03/2024 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		

DECISION RULE:
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- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qx — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☐ Review

raccortubi Heat num. or Pos. marking: 1023SA024 - Qty:22,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000010

Protocol: CTCERC20240000695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

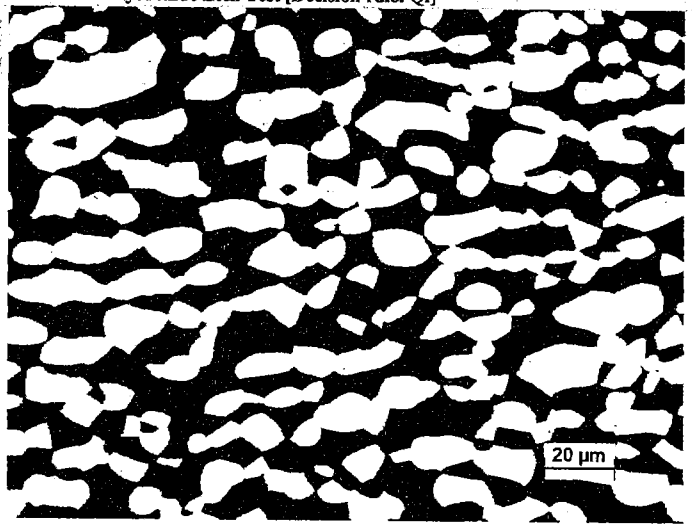
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
32965	ASTM A923 – 22 Method A	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	19/03/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possano influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **13/03/2024**

Data Rapporto di prova/ Test Report Date: **19/03/2024**

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Firmato elettronicamente/electronically signed

Ispettori/ Inspector

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
Witness ☑ Review

DECISION RULE:
- QI → Qualitative
- QS → Semi-quantitative
- QN → Quantitative (Implicit Uncertainty)
- QI → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1023SA024 - Qty:22,00
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923C 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
32964	ASTM A923 – 22 Method C	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	54,34	23,55	3,47	31

Condizioni superficiali/ Surface condition: Lavorato/ Machined

Temperatura di prova/ Test temperature (°C): 50

Temperatura Minima Rilevata/ Minimum temperature observed (°C): 49,73

Temperatura Massima Rilevata/ Maximum temperature observed (°C): 50,41

Tempo di esposizione (ore)/ Exposure time (hours): 24

Data inizio/ Initial date	Data fine/ End date
18/03/2024 13:28:14	19/03/2024 13:28:14

Soluzione/ Solution: FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	32,3744	
Peso finale/ Final weight (g)	32,3739	
Perdita di peso/ Weigth loss (g)	0.0005	
Perdita di massa/ Specimen mass loss	0.2	(g/m²)

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed	(mg/(dm²*d))	1,6
Limite velocità di corrosione (mg/(dm²*d)) max/ Corrosion rate limit (mg/(dm²*d)) max		**10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
13/03/2024				
Data Rapporto di prova/ Test Report Date: 19/03/2024 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		ROSETTI MARINO Supply Management Dept. Witness Review

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Not Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi
Heat num. or Pos. marking: 1023SA024 - Qty:22,00
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024
Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PM 6215 / 24

Rif. Lab SIM (FCP): **2023 / 24 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN MARZO 2024/2**

Commessa/ Job **31003/24 23/1495**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		22/24	57031	**ASTM A 815-23 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength (≥550) MPa	Rp0.2% MPa	Rottura/ Tensile strength Rm (≥750) MPa		Allungamento/ Elongation after fracture (≥25) A (%)	Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
32956	ASTM A370 – 23 §6÷14, § A1.3, § A2.2 and § A3.2	**Material Standard**	3,70	12,40		50,00	B L FT	23,0		716		902		31,1		19/03/2024

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Labantory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **13/03/2024**

Data Rapporto di prova/ Test Report Date **19/03/2024** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

DECISION RULE:
- Qt — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qt — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Cert. to EN 10204 / 3.1

INSPECTION CERTIFICATE

S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Page (頁) : 1

Date (日付) : JANUARY 31, 2024

Certificate No. : 24-01-0126
(書類番号)

LRQA CERTIFIED ISO 9001
Approval No:ISO9001-0068009
PED Cert No:0848/PED/MALM/2018009/3

Order No. : 23SAN007
(注文番号)

LA SOCIETE S.P. UNITED INDUSTRY SDN. BHD. GARANTIT QUE LES PRODUITS OBJET DU PRESENT CERTIFICAT, RESPECTENT EN LEUR TOTALITE LES PRESCRIPTIONS DE L'ARTICLE 15 DE L'ARRETE MINISTERIEL DU 24 MARS 1978, MODIFIE.
C ≤ 0.25%, P ≤ 0.05%, S ≤ 0.05%, R ≤ 800 N/MM², E ≤ 0.9 X R%,
A%(LO=5.65√SO) MIN. 16%, EN LONG, R(A-2) ≥10500 N/MM²

P.O. No. : 806739

Product (形状)	Product Specification (規格)	Specification for Raw Material (材料規格)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 (ASME SEC II PART A) ASME B16.9-2018 / MSS SP-43-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size (寸法)	Dimension in mm (寸法)		Lot No. (製造番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I. Code No.	Manufacturing Method
		Outside Dia (外径)	Thickness (厚さ)						
1	FBBLR-S316L- 1½"x10S	48.26	2.77	M230731	300	GOOD	GOOD	24311500	COLD FORMED
2	FBBLR-S316L- 2"x10S	60.33	2.77	M230234-1	1000	GOOD	GOOD	24312000	COLD FORMED
3	FBBLR-S316L- 5"x10S	141.30	3.40	M230820	15	GOOD	GOOD	24315000	COLD FORMED
4	FBBLR-S316L- 5"x10S	141.30	3.40	M220523	2	GOOD	GOOD	24315000	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

Chemical Composition of Raw Material % (化学成分) (材料)

*	Raw Pipe Heat No. (溶解番号)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100	
1	230628AS08	1.9	45.1	89	34	1	1001	1649	201	
2	220729AT15	1.7	36.2	86	35	1	1005	1625	203	
3	230628AS08	1.9	45.1	89	34	1	1001	1649	201	
4	220406AS09	1.7	36	96.5	30	1	1008	1627	202	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300	

Mechanical Properties of Raw Material (機械的性質)

Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
	253	593	52		GOOD	GOOD	78	
	255	591	54		GOOD	GOOD	82	
	253	595	54		GOOD	GOOD	79	
	254	597	54		GOOD	GOOD	81	
	MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015
ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION
We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は、当該規格及び、で注文の要求事項に適合するてとを証明します。)

Head of QA/QC Dept.
品質/品質管理課長

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 2" SCH.10/S SEAMLESS
raccortubi Heat num. or Pcs. marking: M230234-1 - Qty:14.00
Order: 1724000839 - 22.04.24 - Item n.: 260 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024
CTCERT202400002971.1.0001

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 2" SCH.10/S SEAMLESS

Heat num. or Pos. marking: 1482623 - Qty:15,00

Order: 1724000839 - 22.04.24 - Item n.: 260 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCER202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

raccortubi Group

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: Master plan Novembre 2023/2

Pos. N. / Item/Poste: 8 — **Q.tà** / Q.ty/Q.té: 450

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1482623

Created on: 25-10-2023

Descrizione / Description / Description: ELBOWS 90° LR 2" SCH.10/S SEAMLESS

Specifica / Specification / Spécification: FITTINGS TO ASTM A403/403M-22b
ASME SA403/SA403-21 WP 316/316L
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 741839
Raw material - manufacturer/Materiel du depart - fabriquant:
TUBACEX Cert. No.: 741839

Specifica Specification/Specification	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	59564	P23200629	348	578	50	HRC<22	HRC 5	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	Nb	Co	N	PRE	FERRITE
59564	0,015	0,56	1,39	0,034	0,0010	16,85	11,25	2,17	0,29	0,003	0,032	0,100	0,0680		

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication
Formato a freddo / Cold formed / Formés à froid — **Senza saldatura** / Seamless / Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 90° LR 1" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: M230689 - Qty:175,00
Order: 1724000839 - 22.04.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10
Protocol: CTCERC2024000046 95 * CERTIFIED TRUE COPY * Issued 20-05-2024
CTCERT2024000018 94.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC005
(注文番号) 00000218 S dtd 30-08-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-52

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	1" X 40S	33.4	3.38	M230689	500	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230216AT17	1.4	35.1	99.8	35	2	1005	1629	201		Longitudinal	253	592	53		PASSED	-		79
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

ROSETTI MARINO
Supply Management Dept.
Witness ☑ Review

raccortubi

Heat num. or Pos. marking: 1519623 - Qty:45,00

Description: CURVE 90° LR 1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer	RACCORTUBI S.p.A.
Ordine N. P.O.N./C.	Master plan Dicembre 2023/2
Pos. N. Item/Poste	6
Q.tà Q.ty/Q.té	979

(*) Marcatura e cert. N. 1519623 — Created on: 20-11-2023
Material Marking e Cert. N.

Descrizione Description Description	ELBOWS 90° LR 1" SCH.40/S SEAMLESS
Specifica Specification Spécification	FITTINGS TO ASTM A403/403M-22b ASME SA403/SA403-21 WP 316/316L DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: ALLEIMA Cert. No.: A/22-123648 Rev 00
Raw material - manufacturer/Materiel du depart - fabriquant:
ALLEIMA Cert. No.: A/22-123648 Rev 00

Specifica Specification/Specification	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement	**Durezza** Hardness as per NACE MR01-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	565957	50173	300	622	52	HRC<22	HRC 8	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Co	Cu	N			PRE	FERRITE
565957	0,011	0,43	1,71	0,029	0,008	16,78	11,22	2,03	0,11	0,28	0,074				

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° L.R 4" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: M230735 - Qty:56,00

Order: 1724000839 - 22.04.24 - Item n.: 290 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202400001932.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC003
(注文番号) 00000164 S dtd 27-06-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-19

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	4" X 10S	114.3	3.05	M230735	324	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230216AT17	1.4	35.1	99.8	35	2	1005	1629	201		Longitudinal	251	591	51		PASSED	-		79
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

NSF Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47143

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000165 S	E000005894	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN010-1	6"	SCH 10s	90° LR ELBOW	181	WP316/316L-S	PASSED	NY220903AS05
MN041-1	6"	SCH 10s	90° LR ELBOW	70	WP316/316L-S	PASSED	NY230412AV04
GTA070-01-103LR	6"	SCH 10s	90° LR ELBOW	49	WP316/316L-S	PASSED	D170725

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS	TS	E		
Max											(KSI / MPa)		(%)	(HRB)	
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
LN010-1	0.017	0.44	0.89	0.031	0.001	16.60	10.01	2.08	< 0.01		260	585	57	70	PASSED
MN041-1	0.021	0.37	0.88	0.033	0.001	16.26	10.20	2.02	< 0.01		306	618	57	76	PASSED
GTA070-01-103LR	0.021	0.39	1.09	0.036	0.001	16.75	11.08	2.05	< 0.01		225	550	48	72	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER, AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD. SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION. GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD + VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156-2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dep.
Buyer's Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 300 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 6" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: GTA070-01-103LR - Qty:24,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

raccortubi Heat num. or Pcs. marking: M230630 - Qty:12,00

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 10" SCH.10/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 310 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT20230004631.1.0001

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC001
(注文番号) 00000016 S dtd 26-01-2023

INSPECTION CERTIFICATE
EN 10204 : 3.1
S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2310-00002-18

Invoice No : SP/FIT23-103

Date (日付) : 26/09/2023

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	10" X 10S	273.05	4.19	M230630	30	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

Chemical Composition of Pipe (Raw Material) %											Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230216AT17	1.4	35.1	99.8	35	2	1005	1629	201		Longitudinal	250	591	52		PASSED	PASSED		79
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. The material is manufactured in SPI and melting country of raw material are in Malaysia or China or Taiwan origin (attached)
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

ROSETTI MARINO
Supply Management Dept.
Review

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2.00

Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. OF06523 del 27/11/2018

Pos. N. Item/Poste 21 **Q.tà** Q.ty/Q.té 429

(*) Marcatura e cert. N. Material Marking e Cert. N. 1018SA019 **Data:** Date: 25-01-2019

Descrizione Description Description CONC.REDS 2"x1.1/2" SCH.10S/40S

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-14e1
ASME SA/815M ed.17 UNS S32760
DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: SALZGITTER MANNESMANN STAINLESS TUBES Cert. No.: 3-17-00488-rev.01
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
SALZGITTER MANNESMANN STAINLESS TUBES Cert. No.: 3-17-00488-rev.01

Test produzione / Production test/Coupon de production	Caratteristiche meccaniche / Mechanical Properties/Caracteristiques Mechaniques							
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	A14581	848/18	584	804	30.5	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	C	Si	Mn	P	S	Cr	Ni	Mo	N	Cu	W			PRE	FERRITE
A14581	0,023	0,33	0,46	0,025	0,0004	25,74	7,09	3,67	0,250	0,61	0,55			41.85	47.6

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:1787/19
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0912

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.
Witness Review

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
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RAPPORTO DI PROVA/TEST REPORT

G48ACE 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²	
8173	ASTM G 48-11(2015) - Met. A	RTX_D53 Rev.7	B L FT	Meccanica/ Mechanical	49,05	24,52	3,69	29,48	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C) 50

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 - 6H2O 10% WATER SOLUTION

Peso iniziale/ Initial weight (g)	35,6960	
Peso finale (g)/ Final weight (g)	35,6951	
Perdita di peso (g)/ Weigth loss (g)	0,0009	
Perdita di massa/ Specimen mass loss	0,3053	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max	**4,0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 24,05 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 10185A019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
8169	ASTM E 562-11	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B	T	FT	20% NaOH	500 X	40 mm x 40 mm 5 x 5 = 25 Points	31/01/2019

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction)	47.6 ± 1.2	**40**	**55**
% Errore (RA)/ % Error (RA)	2,52		
Deviazione Standard/ Standard Deviation	3,2		
Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle	30 / 5 x 20 mm / 1 x 3.0 mm / 45°		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**50**	2	**46**	3	**50**	4	**42**	5	**48**
6	**48**	7	**52**	8	**42**	9	**50**	10	**44**
11	**50**	12	**48**	13	**48**	14	**44**	15	**46**
16	**48**	17	**52**	18	**44**	19	**52**	20	**46**
21	**48**	22	**48**	23	**52**	24	**52**	25	**48**
26	**42**	27	**50**	28	**42**	29	**48**	30	**48**

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy

Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

Amani Paolo

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen In Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
Process Review

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RAPPORTO DI PROVA/TEST REPORT

ANL 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO/ Atomic emission vacuum Spectrometric analysis

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Data esecuzione/ Date of Testing
8176	ASTM E 1086-14	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B UP	20	7237	29/01/19

			%	Min.	Max.				%	Min.	Max.				%	Min.	Max.
C	**0,025**	**± 0,002**	97,5		0,030	**Nb**						**Fe**					
Si	**0,35**	**± 0,01**	97,5		1,00	**Ti**						**Ca**					
Mn	**0,47**	**± 0,02**	97,5		1,00	**W**	**0,59**	**± 0,06**	95,0	0,50	1,00	**Ta**					
P	**0,027**	**± 0,003**	97,5		0,030	**Pb**						**Sb**					
S	**0,002**	**± 0,001**	97,5		0,010	**Sn**						**H**					
Cr	**25,6**	**± 0,4**	95,0	24,0	26,0	**As**						**Cd**					
V						**B**						**Se**					
Mo	**3,5**	**± 0,1**	95,0	3,0	4,0	**N**	**0,25**	**± 0,04**	95,0	0,20	0,30	**Bi**					
Ni	**7,2**	**± 0,1**	95,0	6,0	8,0	**La**						**Hg**					
Cu	**0,63**	**± 0,02**	95,0	0,50	1,00	**Mg**											
Ce						**Zr**											
Al						**Zn**											
Co						**O**											

FORMULAS			%	Min.	Max.
PREN	**41,2**	**± 0,4**	97,5	40,0	

Decision rule:
the result is "Compliant to Specification" when:
- *Result ≥ Lower Limit (confidence interval CI=50÷97,5 %)*
- *Result ≤ Upper Limit (confidence interval CI=50÷97,5 %)*
- *Lower Limit ≤ Result ≤ Upper Limit (confidence interval CI=47,5÷95%)*

When the result falls within the uncertainty range at the limit value, the result can be Probably Compliant or Probably Not Compliant

Expanded uncertainty below reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Note/ Remarks

Esito/ Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: : [B]-Specimen in Base Material: [UP]-External sup.

ROSETTI MARINO
Supply Management Dept.
Witness Review

raccortubi
Heat num. or Pcs. marking: 1018SA019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

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RAPPORTO DI PROVA/TEST REPORT

DUR 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

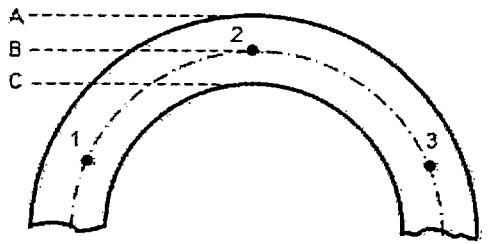
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)/ HBW hardness test (Indentation measuring device Type A)

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Durezza/ Hardness	Data esecuzione/ Date of Testing
8168	ASTM E 10-17	RTX_D53 Rev.7	B	T	HBW 2.5/187.5	29/01/2019

(B1) - Base Material **MAX 270**

1 249 2 241 3 247



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	StdDev
(B1) - Base Material	245,6	4.1

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
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RAPPORTO DI PROVA/TEST REPORT

MIC 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

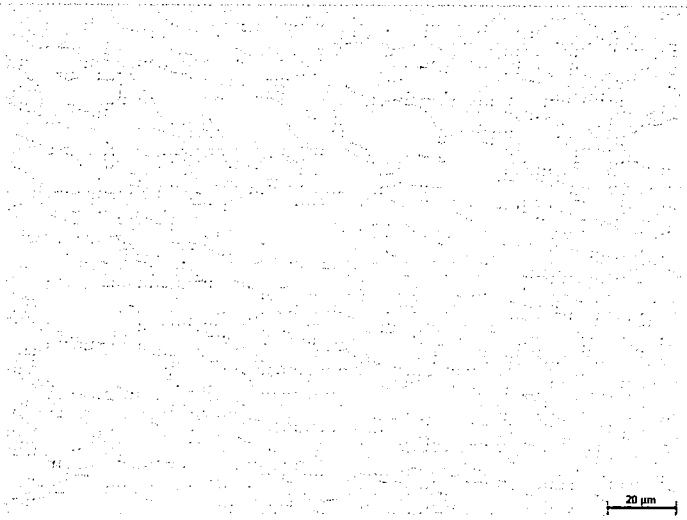
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8170	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Materiale base / Base Material
		5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
28/01/2019	*Antonielli Stefano*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date **31/01/2019**	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2,00
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RAPPORTO DI PROVA/TEST REPORT

MIC 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

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Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

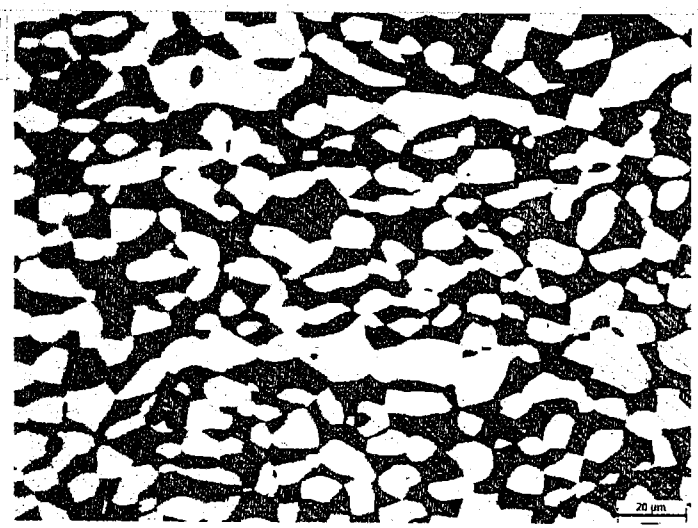
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Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Data esecuzione/ Date of Testing
8171	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B	T	FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Materiale base / Base Material
		5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST Srl
Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it
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RAPPORTO DI PROVA/TEST REPORT

A923A 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

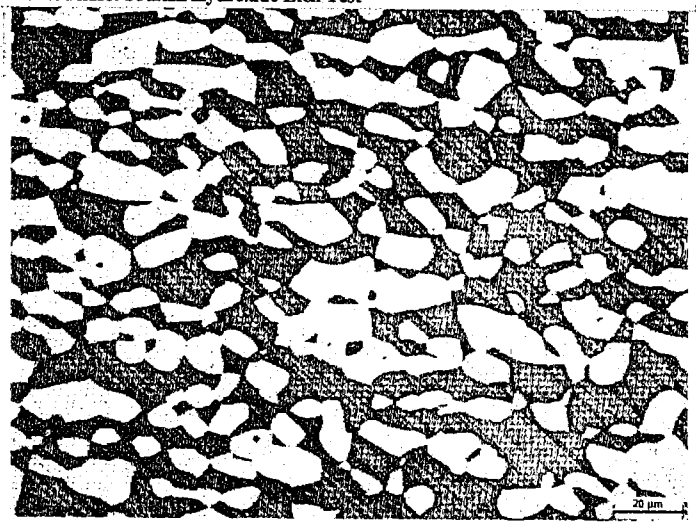
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8175	ASTM A 923-14 (Met. A)	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Materiale base / Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

Firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pos. marking: 1018SA019 - Qty:2,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDER TEST Srl

Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
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RAPPORTO DI PROVA/TEST REPORT

A923C 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²
8174	ASTM A 923-14 (Met. C)	RTX_053 Rev.7	B L FT	Meccanica/ Mechanical	51,36	24,11	3,9	30,65

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum specimen preparation (°C) 49,22

Temperatura Massima Rilevata (°C)/ Maximum specimen preparation (°C) 50,58

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso iniziale/ Initial weight (g) 38,6505

Peso finale (g)/ Final weight (g) 38,6494

Perdita di peso (g)/ Weigth loss (g) 0,0011

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **3,6**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10,0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

ROSETTI MARINO
Suoply Management Dept.
Witness Review

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:2.00
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 320 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

PM 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo/ Lo	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength Mpa		Rottura/ Tensile strength Rm Mpa		Allungamento/ Elongation A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
8166	ASTM A 370-17a (Tension Test)	RTX_D53 Rev.7	4,08	12,45		50,00	B T FT	23	(≥550)	Rp0.2% **584**	(750÷895)	**804**	(≥25)	**30,5**			30/01/2019

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

erne fittings gmbh
A-6824 Schlins
Hauptstrasse 48
Austria/Europe
Telefon +43/5524 501-0
Telefax +43/5524 501-930

Reg.-No. 12 100 3054

Abnahmeprüfzeugnis
Inspection Certificate
EN 10204 - 3.1

Zeugnis Nr. *[cert. no.]* 053193/14-HG | **Rev.** | **Datum** *[date]* 15/12/2014

Code-Nr. *[code no.]* ECC26 | **Ident Nr.** *[ident no.]*

Unsere Auftrags.Nr./Art.Nr. *[our order no./item no.]* 168081RT-0230 / 108099

Ihre Bestell Nr. *[your order no.]* LS100/SR40046

Menge *[quantity]* 49

Kunde *[customer]* [redacted]

Artikelbezeichnung *[designation]*
reducers
KO-S-WP316/316L-4"/3"-S10S

Anforderungen der Bestellung *[requirements of the order]*
ASME B16.9-2012, material:WP 316/316L-S, TR-fitting:ASTM A 403/A 403M-13a, ASME SA-403/SA-403M-13, TR-addit fitting:NACE MR0175/ISO15156-3:2009, A.1.5 und A.2 NACE MR0103-2012, 2.5 und 4, certificate:EN 10204/3.1 +BC, surface quality:Pickled, PMI:100% spectral, execution:Seamless

Vormaterial *[base material]*: Rohrzeugnisnr. *[tube work's cert.no.]* 591471

Hersteller *[manufacturer]*: SBS

Dichtheitsprüfung *[leakage test]*: Bar 55

Analyse *[analysis]* | Schmelze Nr. [heat code] | Erschmelzungsart *[melting process]*: EF+AOD | 1 = Schmelzanalyse *[heat analysis]*

J-Faktor *[J-Factor]*: (Si + Mn)* (P + Sn) * 10000
CEQ *[CEQ]*: C + (Mn / 6) + (Cr + Mo + V) / 5 + (Cu + Ni) / 15

Index		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Nb	B	N
1	47504	0.016	0.45	1.41	0.028	0.001	17.00	2.16	11.20	0.30	0.016	0.0013	0.0625

Mech.-technologische Prüfung *[mech. technological test]*

Proben Nr. *[test no.]*	Zugversuch *[tensile test]*						Kerbschlagbiegeversuch *[notched bar impact test]* Form:				Härteprüfung *[hardness test]*
	Pr.-Lage *[pos. of sample]*	Temp.	Dehngr. *[yield str.]* Rp 0,2	Dehngr. *[yield str.]* Rp 1,0	Zugfestigkeit [tensile str.] Rm (MPa)	Dehnung *[elongation]* 2" (%)	PR-Lage *[pos. of sample]*	Temp.	Querschnitt *[cross sec.]* (mm²)	Kerbschlagarbeit *[impact values]* (J)	
224531	L	+20 °C	264	297	547	53					140-145 HB

Einsatzrohr *[basematerial]*

Wärmebehandlung *[heat treatment]*
solution annealed
temperature 1050 °C
Cooling in water

Kennzeichnung *[marking]*: CE (OS) AUSTRIA / WP316/316L-S / ECC26 / 4"/3" / S10S

Besichtigung und Ausmessung *[visual inspection and dimensional check]*: o.B./o.K.

Bemerkungen *[remarks]*
cold formed
Intergranular corrosion test acc. ASTM A262/E: o.k., PMI 100% spectral: o.k.

Zusatzmarkierung *[add. mark.]*

Die gelieferten Produkte erfüllen die in der Bestellung festgelegten Anforderungen.
[The products supplied are in compliance with the requirements of the order].
The products were manufactured, sampled, tested and inspected in accordance with the specifications and were found to meet the requirements.

Abnahmebeauftragter *[inspection representative]*
15/12/14 Grabherr Harald ☎ - 321

Dieses Dokument wurde elektronisch erstellt und ist ohne Unterschrift gültig. *[The certificate is issued by the computerized system and is valid without signature.]*

Zertifiziert nach DGRL 97/23/EG Anhang I - Absatz 4.3 durch TÜV SÜD Industrie Service, Benannte Stelle 0036,Zertifikat Nr. 129/2002/MUC *[Certified acc. to PED 97/23/EG Annex I, Paragraph 4.3 by TÜV SÜD Industrie Service, Notified Body 0036. Certificate No. 129/2002/MUC]*

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 4"x3" SCH.10/S SEAMLESS

Heat num. or Pos. marking: ECC26 - Qty:1,00

Order: 1724000839 - 22.04.24 - Item n.: 330 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 1"x1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: MR230847 - Qty:14.00

Order: 1724000839 - 22.04.24 - Item n.: 340 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202400001954.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC004
(注文番号) 00000211 S dtd 04-08-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-46

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL CONCENTRIC REDUCER (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 / MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	1" x ½" X 40S	33.40 X 21.34	3.38 X 2.77	MR230847	50	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

		Chemical Composition of Pipe (Raw Material) %									Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL=50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230216AT17	1.4	35.1	99.8	35	2	1005	1629	201		Longitudinal	253	592	53		PASSED	-		79
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC. 1"x3/4" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 350 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pcs. marking: MR230609 - Qty:15,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202400001912.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC002
(注文番号) 00000126 S dtd 11-05-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-16

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL CONCENTRIC REDUCER (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 / MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	1" x ¾" X 40S	33.40 X 26.67	3.38 X 2.87	MR230609	25	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	230103AT04	1.2	38.4	89.1	35	1	1004	1630	204		Longitudinal	257	597	57		PASSED	-		81
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:	DESCRIPTION :
N/A	N/A

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

NSF Certified to NSF/ANSI 61 — LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX I, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-38860

Date : 26 May 2022

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000103 S	E000004754	ASTM A403/A403M - 20 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 20 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
JO043-1	4" X 2" SCH 10s CON-REDUCER	100	WP316/316L-S	PASSED	19AL138

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	Inter-granular corrosion test
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
JO043-1	0.027	0.36	1.09	0.028	0.002	16.35	11.05	2.04	< 0.01		256	605	58	80	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-12a STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 380 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 4"x2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: J0043-1 - Qty:1,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

raccortubi

Heat num. or Pcs. marking: 1163621 - Qty:12,00

Description: RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 390 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. Master plan Aprile 2021/1

Pos. N. Item/Poste 30 **Q.tà** Q.ty/Q.té 190

(*) Marcatura e cert. N. Material Marking e Cert. N. 1163621

Created on: 15-03-2021

Descrizione Description Description CONC.REDS 1.1/2"x1" SCH.40/S SEAMLESS

Specifica Specification Spécification FITTINGS TO ASTM A403/403M-20
ASME SA403/SA403Sect. II Part.A ed.19 WP 316/316L
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 720001
Raw material - manufacturer/Materiel du depart - fabriquant:
TUBACEX Cert. No.: 720001

Specifica Specification/Specification	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement	**Durezza** Hardness as per NACE MR01-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	57370	P2002864	325	596	46	HRC<22	HRC 7	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	Co	N		PRE	FERRITE
57370	0,021	0,310	1,51	0,026	0,0010	16,85	11,55	2,14	0,26	0,003	0,065	0,066			

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

CTCERT20220005377.1

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 2"x1.1/4" SCH.10/S SEAMLESS
Heat num. or Pcs. marking: MR211002 - Qty:1,00
Order: 1724000839 - 22.04.24 - Item n.: 410 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

INSPECTION CERTIFICATE

Cert. to RACCORTUBI S.P.A

Order No. : 22TEC001 (注文番号)

P.O. No. : 00000065 S

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Date (日付) : SEPTEMBER 29, 2022

Certificate No. : 22-09-1078 (書類番号)

LRQA CERTIFIED ISO 9001

Approval No:ISO9001-0048008
PED Cert No:0343/PED/MUM/101009/1

Product (形状)	Product Specification (規格)	Specification for Pipe (Raw Material) (材料規格)
STAINLESS STEEL CONCENTRIC REDUCER (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size (寸法)	Dimension in mm (寸法) Outside Dia (外径)	Thickness (厚さ)	Heat No. (溶解番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I. Code No.	Manufacturing Method
1	2"x1¼"x10S	60.33x42.16	2.77x2.77	MR211002	25	GOOD	GOOD	34312012	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

Chemical Composition of Pipe (Raw Material) % (化学成分) (材料)

*	Raw Pipe Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100	
1	D210725	1.5	32	94	29	0.9	1005	1657	203	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300	

Mechanical Properties of Pipe (Raw Material) (機械的性質)

Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
	230	530	55		GOOD	GOOD	78	
	MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, MR0103:2015
INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. ISO 9001 / EN 10204-3.1 PED 2014/68/EU ANNEX I SECTION 4.3
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER WITHIN 1 MINUTES TO BELOW 40°C.
MATERIAL WAS MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH INDICATED SPECIFICATIONS AND WAS FOUND TO MEET THE REQUIREMENTS. NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR.
MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は,当該規格及び,で注文の要求事項に適合するてとを証明します.)

Head of QA/QC Dept.
質量/品質管理課長

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47152

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000165 S	E000005894	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN011-1	6" X 4"	SCH 10s	ECC-REDUCER	15	WP316/316L-S	PASSED	NY220903AV08
HTA077-04-103ER	6" X 4"	SCH 10s	ECC-REDUCER	21	WP316/316L-S	PASSED	D180405
ITA082-06-103ER	6" X 4"	SCH 10s	ECC-REDUCER	1	WP316/316L-S	PASSED	D181020
ITA087-02-103ER	6" X 4"	SCH 10s	ECC-REDUCER	3	WP316/316L-S	PASSED	D190210

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
LN011-1	0.015	0.34	0.88	0.033	0.001	16.52	10.01	2.09	< 0.01		240	545	60	65	PASSED
HTA077-04-103ER	0.022	0.32	0.91	0.038	0.002	16.95	11.09	2.06	< 0.01		235	550	51	67	PASSED
ITA082-06-103ER	0.021	0.41	0.85	0.037	0.003	16.76	11.12	2.08	< 0.01		225	540	62	75	PASSED
ITA087-02-103ER	0.021	0.35	1.10	0.033	0.005	16.75	11.12	2.15	< 0.01		230	530	53	75	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : ADD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156-2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Description: RID. ECC. 6"x4" SCH.10/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 430 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pcs. marking: HTA077-04-103ER - Qty:1,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

raccortubi
Heat num. or Pcs. marking: YX1906-526 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. ECC. 4"x2" SCH.10/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 440 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024
CTCERT202300004353.1.0001

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.

高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL: 886-7-6970588 FAX: 886-7-6970599

ISO-9001 LRQA
Certificate No.: 10303342
PED 2014/68/EU
Approval Certificate No.:00014950

EN10204-3.1

JIS B2313
Certificate No.: JWTW 13002
JIS B2309
Certificate No.: JWTW 13001

頁次 PAGE: 1
日期 DATE: 2023/8/17
證書號碼 CERTIFI. NO.: 23080827

本證書請妥善保存遺失恕不補發
Please keep this certificate properly.
If it is lost, it will not be reissued.

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
56	ER 4" X 2" SCH10S WP316/316L-S	25	YX1906-526	23040006	00000083 S	23080513	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份 C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	PHYSICAL 物理性質 YS 降伏點 Mpa	TS 抗拉強度 Mpa	E 延伸率 %	HARD,HRB 硬度
	STANDARD	MIN.							10.000	16.000	2.000			170	485	28	
		MAX.	0.030	1.000	2.000	0.045	0.030		14.000	18.000	3.000			0	0	0	
56			0.022	0.410	1.120	0.033	0.002		10.050	16.230	2.040			275	558	54	85.91

HEAT TREATMENT 熱處理 1060°C ±10° W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
茲證明上述材料按照規範進行製造，取樣，檢測和檢驗，符合上述規範和採購訂單的要求。

備註：
1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water.
6. No Russian materials were used during the whole production cycle.

良豐不銹鋼管件有限公司 品檢專用章 Quality Inspection Stamp Liang Feng Stainless Steel Fitting Co., Ltd.
歐劭軒
MANAGER OF Q. A. DEPT. 品管課經理

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

Customer:

Description:

raccortubi

Heat num. or Pcs. marking: MR230757 - Qty:5,00

ROSETTI MARINO S.p.A.

RID: ECC. 4"x2" SCH.10/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 440 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY

* Issued 20-05-2024

CTCERT202400001915.1.0001

INSPECTION CERTIFICATE

EN 10204 : 3.1

Cert. to RACCORTUBI S.P.A

Order No. : 23TEC002
(注文番号) 00000126 S dtd 11-05-2023

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Certification No. : MCP2401-00015-17

Invoice No : SP/FIT24-002

Date (日付) : 04/01/2024

LRQA CERTIFIED ISO 9001

Product	Specification	Specification for Pipe (Raw Material)
STAINLESS STEEL ECCENTRIC REDUCER (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 / MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size	Dimension in mm		Lot No.	Quantity	Surface Inspection	Dimension Inspection	Manufacturing Method	Item Reference No.
		Outside Dia	Thickness						
1	4" x 2" X 10S	114.30 X 60.33	3.05 X 2.77	MR230757	25	PASSED	PASSED	COLD FORMED	N/A

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

	Chemical Composition of Pipe (Raw Material) %										Mechanical Properties of Pipe (Raw Material)								
*	Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen	YS Mpa	TS Mpa	EL% (GL:50mm)		Flattening Test	HT Mpa		Hardness Test HRB
1	221230AS17	1.8	38.8	88.5	35	2	1006	1624	203		Longitudinal	253	593	53		PASSED	-		82
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

* Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015. ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings, HS Code 730723), is produced by S.P. United Industry SDN. BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine.

OTHERS:
N/A

DESCRIPTION :
N/A

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.

Head of QA/QC Dept.

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pcs. marking: 1157SA019 - Qty:4.00

Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000201

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/

Ordine N. OF005236 del 19/02/19
P.O.N./C.N.

Pos. N. 23 **Q.tà** 58
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1157SA019 Created on: 30-08-2019
Material Marking e Cert. N.

Descrizione EQ. TEES 1.1/2" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM A/815M-14e1
Specification ASME SA/815M ed.17 UNS S32760
Spécification DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 648100
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 648100

Test produzione Production test/Coupon de production	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	49329	495/19	642	881	35.3	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**W**	**N**			**PRE**	**FERRITE**
49329	0,014	0,460	0,69	0,020	0,0004	25,55	6,95	3,62	0,66	0,62	0,268			41.784	47.3

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:19752/19
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/Inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes, batch n.0313

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it
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RAPPORTO DI PROVA/TEST REPORT

G48ACE 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²	
105408	ASTM G 48-11(2015) - Met. A	**RTX_D53 Rev.7**	B L FT	Meccanica/ Mechanical	50,77	25,49	5,09	33,65	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C) 50

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
03/09/2019 09:00:00	04/09/2019 09:00:00

Soluzione/ Solution FeCl3 · 6H2O 10% WATER SOLUTION

Peso iniziale/ Initial weight (g)	48,0673		
Peso finale (g)/ Final weight (g)	48,0670		
Perdita di peso (g)/ Weigth loss (g)	0,0003		
Perdita di massa/ Specimen mass loss		0,0892	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max		**4,0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 25,88 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amani Paolo

Ispettori/Inspector Cliente/Customer
ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi
Heat num. or Pcs. marking: 1157SA019 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		495/19	49329	**ASTM A 815-18 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
105404	ASTM E 562-11	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	40 mm x 40 mm 5 x 5 = 25 Points	04/09/2019

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction) 47.3	**40**	**55**

s 3,7 95% C.I. 1,4 %RA 2,95

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**52**	3	**42**	4	**48**	5	**50**
6	**50**	7	**44**	8	**46**	9	**48**	10	**44**
11	**44**	12	**44**	13	**52**	14	**54**	15	**48**
16	**46**	17	**42**	18	**52**	19	**44**	20	**46**
21	**46**	22	**42**	23	**54**	24	**46**	25	**52**
26	**52**	27	**44**	28	**44**	29	**50**	30	**44**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle 30 / 11 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

Firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pos. marking: 1157SA019 - Qty:4,00

Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

ANL 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO/ Atomic emission vacuum Spectrometric analysis

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Data esecuzione/ Date of Testing
105411	PO 04-145 RC R08. 2018	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B UP	20	7995	04/09/19

			%	Min.	Max.				%	Min.	Max.				%	Min.	Max.
C	0,016	± 0,003	97.5		0,030	**Nb**						**Fe**					
Si	0,50	± 0,02	97.5		1,00	**Ti**						**Ca**					
Mn	0,72	± 0,02	97.5		1,00	**W**	0,63	± 0,02	95.0	0,50	1,00	**Ta**					
P	0,021	± 0,003	97.5		0.030	**Pb**						**Sb**					
S	0,005	± 0,005	97,5		0.010	**Sn**						**H**					
Cr	25,6	± 0,3	95.0	24,0	26.0	**As**						**Cd**					
V						**B**						**Se**					
Mo	3,6	± 0,1	95.0	3,0	4,0	**N**	0,28	± 0,02	95,0	0,20	0,30	**Bi**					
Ni	7,0	± 0,1	95.0	6.0	8,0	**La**						**Hg**					
Cu	0,67	± 0,03	95.0	0,50	1,00	**Mg**											
Ce						**Zr**											
Al						**Zn**											
Co						**O**											

FORMULAS			%	Min.	Max.
PREN	**42,0**	**± 0,3**	97.5	40,0	

Decision rule:
the result is "Compliant to Specification" when:
- *Result ≥ Lower Limit (confidence interval CI=50÷97,5 %)*
- *Result ≤ Upper Limit (confidence interval CI=50÷97,5 %)*
- *Lower Limit ≤ Result ≤ Upper Limit (confidence interval CI=47,5÷95%)*

When the result falls within the uncertainty range at the limit value, the result can be Probably Compliant or Probably Not Compliant

Expanded uncertainty below reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Note/ Remarks

Esito/ Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: : [B]-Specimen in Base Material: [UP]-external sup.

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

DUR 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

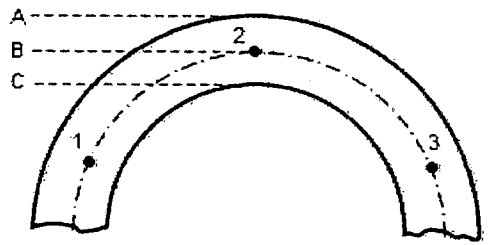
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)/ HBW hardness test (Indentation measuring device Type A)

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Durezza/ Hardness	Data esecuzione/ Date of Testing
105403	ASTM E 10-18 except par. 5.7 Portable Hardness Testing Machines	RTX_D53 Rev.7	B	T	HBW 2,5/187.5	03/09/2019

(B1) - Base Material **MAX 270**

1 249 2 242 3 247



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	StdDev
(B1) - Base Material	246	3.6

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:4,00
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

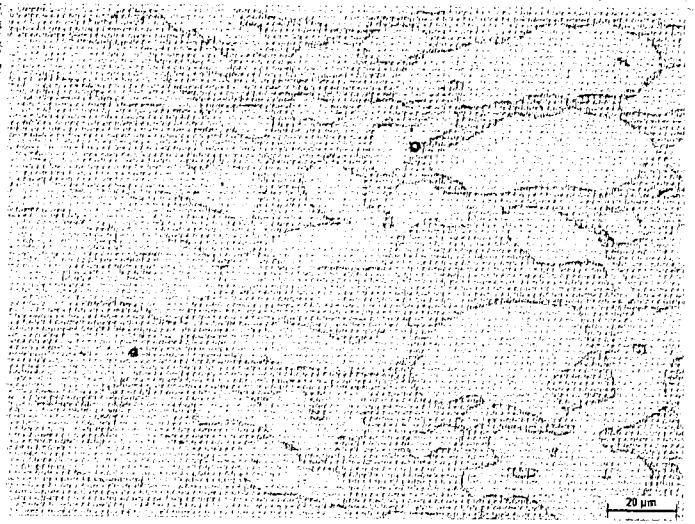
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105405	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Materiale base / Base Material 5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1157SA019 - Qty:4,00
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

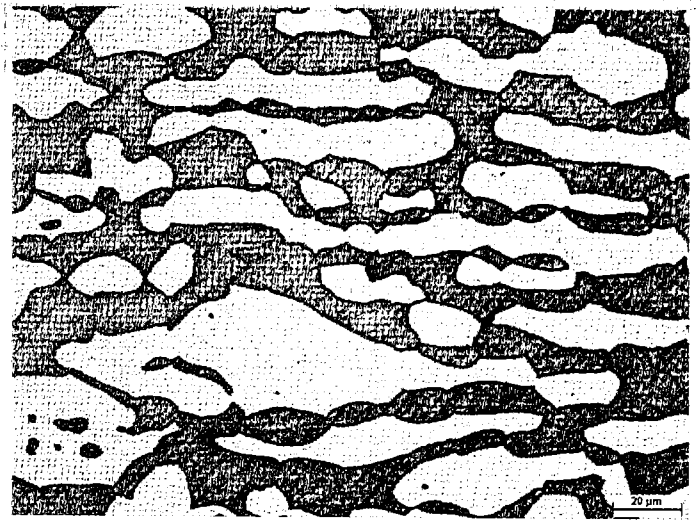
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		495/19	49329	**ASTM A 815-18 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105406	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Materiale base / Base Material 5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1157SA019 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240000469S * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

A923A 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

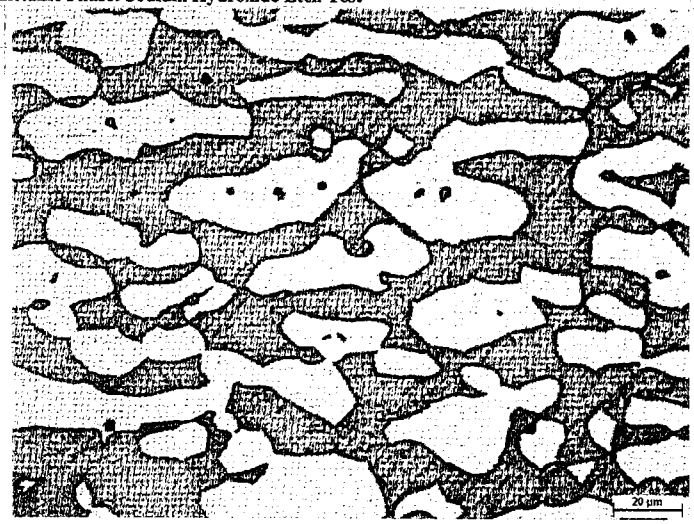
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105410	ASTM A 923-14 (Met. A)	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Materiale base / Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019				
Data Rapporto di prova/ Test Report Date: 04/09/2019 (firmato elettronicamente/electronically signed)	*Antonielli Stefano*	*Amani Paolo*		

Test Position Legend: [B]-Specimen In Base Material: [FT]-full thickness: [T]-trasv.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pos. marking: 1157SA019 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

A923C 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²
105409	ASTM A 923-14 (Met. C)	RTX_D53 Rev.7	B L FT	Meccanica/ Mechanical	23,06	48,96	5	29,78

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum specimen preparation (°C) 49,7

Temperatura Massima Rilevata (°C)/ Maximum specimen preparation (°C) 50,2

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
03/09/2019 09:00:00	04/09/2019 09:00:00

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso Iniziale/ Initial weight (g) 44,3776

Peso finale (g)/ Final weight (g) 44,3766

Perdita di peso (g)/ Weigth loss (g) 0,0010

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X /
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) 3,4

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10,0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [L]-long.

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pos. marking: 1157SA019 - Qty:4,00

Order: 1724000839 - 22.04.24 - Item n.: 450 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

PM 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		495/19	49329	ASTM A 815-18 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth Ø / Width ØPipe mm	Lo/ Lo	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength Mpa	Mpa	Rottura/ Tensile strength Rm Mpa	Allungamento/ Elongation A (%)	Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
105401	ASTM A 370-18 (Tension Test)	RTX_D53 Rev.7	5,21 12,50	50,00	B L FT	23	(≥550) Rp0.2% **642**		(750÷895) **881**	(≥25) **35,3**			03/09/2019

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [L]-long.

Customer: ROSETTI MARINO S.p.A.
Description: TEE UG. 2" SCH.10/S SEAMLESS
raccortubi Heat num. or Pcs. marking: MT220055 - Qty:3,00
Order: 1724000839 - 22.04.24 - Item n.: 460 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024
CTCERT202200005353.1

INSPECTION CERTIFICATE

Cert. to RACCORTUBI S.P.A

Order No. : 22TEC001
(注文番号)

P.O. No. : 00000065S

S.P. UNITED INDUSTRY SDN. BHD.
(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Date : SEPTEMBER 29, 2022
(日付)

Certificate No. : 22-09-0585
(番頭番号)

LRQA CERTIFIED ISO 9001
Approval No:ISO9001-0068008
PED Cert.No:0343/PED/MUM/LD1009/1

Product (形状)	Product Specification (規格)	Specification for Pipe (Raw Material) (材料規格)
STAINLESS STEEL STRAIGHT TEE (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 / ASME B16.9-2018 MSS SP-43-2019 / ASME BPVC II PART A-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*	Size (寸法)	Dimension in mm (寸法)		Heat No. (溶解番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I. Code No.	Manufacturing Method
		Outside Dia (外径)	Thickness (厚さ)						
1	2"x10S	60.33	2.77	MT220055	200	GOOD	GOOD	54312000	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

Chemical Composition of Pipe (Raw Material) % (化学成分) (材料)

*	Raw Pipe Heat No.	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100	
1	D211120	1.3	33.4	104	26	0.9	1004	1630	202	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300	

Mechanical Properties of Pipe (Raw Material) (機械的性質)

Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
	235	535	55		GOOD	GOOD	75	
	MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, MR0103:2015
INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD. ISO 9001 / EN 10204-3.1 PED 2014/68/EU ANNEX I SECTION 4.3
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER WITHIN 1 MINUTES TO BELOW 40°C.
MATERIAL WAS MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH INDICATED SPECIFICATIONS AND WAS FOUND TO MEET THE REQUIREMENTS. NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR.
MATERIAL IS FREE OF MERCURY CONTAMINATION AND RADIOACTIVITY.

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は,当該規格及び,で注文の要求事項に適合するてとを証明します.)

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Head of QA/QC Dept.
質量/品質管理部長

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO.: 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47104

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00005390	E000005892	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN008-1	4" SCH 10s TEE	100	WP316/316L-S	PASSED	NY220918AT17

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
LN008-1	0.012	0.45	1.02	0.030	0.001	16.23	10.17	2.08	< 0.01		242	578	58	66	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : ADD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT. SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept
Witness Revie

Form :FQA-030b R.6: 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 470 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE UG. 4" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: LN008-1 - Qty:6,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: TEE UG. 1" SCH.40/S SEAMLESS

Heat num. or Pcs. marking: 66A-SWJ011 - Qty:30.00

Order: 1724000839 - 22.04.24 - Item n.: 480 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010

Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT20230000188O.1

MATERIAL INSPECTION CERTIFICATE

To EN10204 3.1/ISO 10474 3.1B

THAI BENKAN CO.,LTD. BENKAN
58 Moo 13 Soi Suksawat 70, Bangkru Phrapadaeng, Samutprakarn 10130. THAILAND
Telephone : 66 (0) 2463 0074. 66 (0) 463 6235-7

Purchaser Name : RACCORTUBI S.p.A.

TBC PO No. : WS-390 **Customer PO No. :** 00000261 S

Benkan No. : **JOB No. :**

D/M/Y 16/01/2023 **Certificate No. : T202318000110 Rev. No. : 0**

Specification for Product	ASTM A403/A403M-22/ASME SA403/SA403M-21		**MFG No.**	66ASWJ011	**Seamless or Weld**	SEAMLESS	**Pipe/Plate** PIPE
	NACE MR0175/ISO 15156-3 : 2015 & MR0103-2015		**Product Description**	T WP316S/316LS 1 S40S			**Quantity** 100
			Customer Item No.	11			
Specification for Inspection	ASME B16.9-2018						
Starting Material	**Heat No.** 6Q684	**Forming Method**	COLD FORMED				
		Heat treatment	SOLUTION ANNEALING : 1060 C X 30 MINUTES W.Q.				

% Chemical content	C x100	Si x100	Mn x100	P x1000	S x1000	Ni x100	Cr x100	Mo x100
Required Maximum	3.0	100	200	45	30	1400	1800	300
Required Minimum						1000	1600	200
Heat Analysis	1.6	43	160	30	1	1107	1671	214

ORIGINAL

Tension test Gauge length 50 mm.

TP Direction : Longitudinal

MPa	Req.Min.	Req.Max.	Actual results
Yield Strength	205		270
Tensile Strength	515		577
% Elongation	28		57

Hardness test

HBW	Min	Max
	Req Max.	237
Fitting	124	127

ASTM A262 Practice E Good

Visual Examination	Good
Dimensional Inspection	Good
100.00 % PMI :	Good

Supplementary Note :

Material comply to the spec. RTX_A403 R.3

The fittings are in accordance with the PED 2014/68/EU

Pickled & passivated acc.to ASTM A380

We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned and also with the purchaser's requirements and that the test results shown herein are correct.

Akemitsu Kondo

Quality Assurance Manager
Thai Benkan Co.,Ltd.

ROSETTI MARINO
Supply Management D
Witness

Customer: ROSETTI MARINO S.p.A.

Description: TEE UG. 1.1/2" SCH.40/S SEAMLESS

Heat num. or Pos. marking: 66HSWJ128 - Qty:10,00

Order: 1724000839 - 22.04.24 - Item n.: 490 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

CTCERT202400000632.1.0001

MATERIAL INSPECTION CERTIFICATE

To EN10204 3.1/ISO 10474 3.1B

THAI BENKAN CO.,LTD.

58 Moo 13 Soi Suksawat 70, Bangkru Phrapadaeng, Samutprakarn 10130. THAILAND

Telephone : 66 (0) 2463 0074. 66 (0) 463 6235-7

Purchaser Name : RACCORTUBI S.p.A.

TBC PO No. : WS-490 **Customer PO No. :** 00000084 S

Benkan No. : **JOB No. :**

D/M/Y 26/10/2023 **Certificate No. : T202318004128** **Rev. No. : 0**

Specification for Product	ASTM A403/A403M-22b/ASME SA403/SA403M-23		**MFG No.**	66HSWJ128	**Seamless or Weld**	SEAMLESS	**Pipe/Plate**	PIPE
	NACE MR0175-2021/ISO 15156-3 : 2020 & MR0103-2015(R2023)		**Product Description**	T WP316S/316LS 11/2 S40S			**Quantity**	100
			Customer Item No.	19				
Specification for Inspection	ASME B16.9-2018							
Starting Material	**Heat No.**	12D441	**Forming Method**	COLD FORMED				
			Heat treatment	SOLUTION ANNEALING : 1060 C X 30 MINUTES W.Q.				

% Chemical content	C x100	Si x100	Mn x100	P x1000	S x1000	Ni x100	Cr x100	Mo x100
Required Maximum	3.0	100	200	45	30	1400	1800	300
Required Minimum						1000	1600	200
Heat Analysis	1.8	37	160	33	1	1106	1681	208

ORIGINAL

Tension test Gauge length 50 mm.

TP Direction : Longitudinal

MPa	Req.Min.	Req.Max.	Actual results
Yield Strength	205		271
Tensile Strength	515		578
% Elongation	28		59

Hardness test

HBW	Min	Max
	Req Max.	237
Fitting	122	124

ASTM A262 Practice E : Good

Visual Examination	Good
Dimensional Inspection	Good
100 % PMI :	Good

Supplementary Note :

Material comply to the spec. RTX_A403 R.3

The fittings are in accordance with the PED 2014/68/EU

Pickled & passivated acc.to ASTM A380

No Russian materials were used during the whole production cycle.

We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned and also with the purchaser's requirements and that the test results shown herein are correct.

Akemitsu Kondo

Quality Assurance Manager

Thai Benkan Co.,Ltd.

Form No. TZ-6ZV/0

ROSETTI MARINO

Supply Management Dept.

☐ Witness ☑ Review

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

NSF Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-42478

Date : 10 Jan 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000296 S	E000005360	ASTM A403/A403M - 20 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 20 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
INA004-03-103T	10" SCH 10s TEE	7	WP316/316L-S	PASSED	11W558
JNA006-01-103T	10" SCH 10s TEE	8	WP316/316L-S	PASSED	HD1908-046

Specification	Chemical Composition (%)									Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb	YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max														
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-	-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-	205	515	28	-	
INA004-03-103T	0.015	0.37	1.16	0.038	0.003	16.40	11.33	2.15	< 0.01	227	530	67	71	PASSED
JNA006-01-103T	0.018	0.36	0.80	0.023	0.001	16.91	11.01	2.06	< 0.01	236	550	58	74	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-12a STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 500 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE UG. 10" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: INA004-03-103T - Qty:2,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0

Protocol: CTCERQ2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. Master plan Dicembre 2015/1
P.O.N./Commande N.

Pos. N. 28 **Q.tà** 44
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1181SA05 **Data:** 02-12-2015
Material Marking e Cert. N. Date:

Descrizione RED.TEES 1.1/2"x3/4" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM A/815M-14
Specification ASME SA/815M ed.13 UNS S32760
Spécification DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: TUBACEX Cert. No.: 574619
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 574619

Test produzione / Production test/Coupon de production	Colata N. / Heat N. / Coulée N.	N. prova / Specimen N. / Echantil. N.	Snervamento / Yield strength / Limite d'elasticité N/mm2	Rottura / Tensile / Resistance à la traction N/mm2	Allungam. % / Elongation / Allongement 2"	Durezza / Hardness as per NACE MRO1-75	Durezza / Hardnes / Dureté	Resilienza / Impact energy / Resilience / Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	45687	1052/15	634	881	30.9	HRC<28	HRC 22	

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Analisi chimica %
Chemical composition/Composition chimique

Colata N. / Heat N. / Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	W	N		PRE	FERRITE
45687	0,013	0,450	0,70	0,023	0,0004	25,65	6,85	3,61	0,68	0,600	0,2425		41.443	49.6

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.12
CERTIFIED ACC.TO PED 97/23/EC
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:28802/15
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes, batch n. 0937

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65√ So >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
G48ACE 28802 / 15 Page 1 of 1
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**			Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Prova di "pitting" in ferro-cloruro **Ferric chloride pitting test** **Specifica: Specification: RTX_D53 Rev.7**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Note / Remarks
1052/15	140052	ASTM G 48-11 - Met. A	B L FT	

Dimensioni / Dimensions

Lunghezza - L (mm): 49,70 / Length - L (mm):
Larghezza - W (mm): 24,30 / Width - W (mm):
Spessore - T (mm): 6,90 / Thickness - T (mm):
Area (cm²): [(LxWx2) + (WxTx2) + (LxTx2)] / 100 / Area (cm²): 34,37

Provino in Materiale Base / Specimen in Base Material

Preparazione provino / Specimen preparation: Meccanica ☑ Mechanical / Chimica ☐ Chemical

Temperatura di prova (°C) / Test temperature (°C): 50
Soluzione / Solution: FeCl3 · 6H2O 10% WATER SOLUTION

Tempo di esposizione (ore) / Exposure time (hours): 24

Data e ora inizio / Initial date and time: 04/12/2015 08:00:00
Data e ora fine / End date and time: 05/12/2015 08:00:00

Peso iniziale (g) / Initial weight (g): 62,0546
Peso finale (g) / Final weight (g): 62,0544
Perdita totale di peso (g) / Weight total loss(g): 0,0002

Perdita di massa g/m² / Specimen mass loss: **0,0 ± 0,3**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X
NOT PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata (cm²) / Examined area (cm²): (LxWx2)/100: 24,15

Media della profondità dei pit (µm) / Average of pits depth (µm): 0,00

No. Pit lato A(superficie) / Nr. Pit side A (surface): 0,00
No. Pit lato B / Nr. Pit side B: 0,00
Pit per cm²: 0,00

Massima profondità dei pit (µm) / Maximum pit depth (µm): 0,00

Limite perdita di massa g/m² max.: 4,0
Limit Specimen mass loss max.

Esito delle prove / Result of tests: Conforme a 'Specifica' / Compliant with 'Specification'

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta b) We declare that this test report cannot be partially reproduced without our written approval.
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Il campionamento dei provini viene eseguito dal Cliente. d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

R_Rpt_G48ACE dL 11/09/2015

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is considered criminal and therefore the Laboratory may take legal action.*

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERQ2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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Mechanical and Chemical Laboratory Non Destructive Test
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http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

E562 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**		Commessa / Job	**30012/15 15/1149**
Descrizione / Description **RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity **46**	Posizione / Item **28**	Prova Nr. / Test. Nr. **1052/15**	Colata / Heat **45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**			

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti **Determining volume fraction by systematic manual point count** **Specifica: Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Note / Remarks	Data esecuzione / Date of Testing
1052/15	140048	ASTM E 562-11	B	T	FT		09/12/2015

FORMULE USATE
(Formulas used)

Percentuale media di punti (Pp): / Average Percentage of Points (Pp):
$$Pp = 1/n \times \sum_{i=1}^{n} Pp(i)$$

Deviazione Standard (s): / Standard Deviation (s):
$$s = \left[\frac{1}{n-1} \sum_{i=1}^{n} (Pp(i) - Pp)^2 \right]^{1/2}$$

95% Intervallo di scarto (95% CI): / 95% Confidence Interval (95%CI):
$$95\%CI = \frac{2.0 \times s}{(n-1)^{1/2}}$$

Errore (%): / Error (%):
$$\frac{95\%CI \times 100}{Pp}$$

Frazione di Volume (Vv%): / Volume Fraction (Vv %):
$$Vv = Pp \pm 95\%CI$$

RISULTATI (Min. 40%, Max. 55%)
Results (Min. 40%, Max. 55%)

Vv (% Frazione di volume della Ferrite) / Vv (% Volume fraction of the constituent):	49,6 ± 1,5
% Errore (RA): / % Error (RA):	3,0
Nr. di campi per provino/sezione/spaziatura/angolo: / Nr. of fields for specimens/section/spacing/angle:	30 / 6 x 20 mm / 1 x 3 mm / 45°
Preparazione del provino: / Sample preparation:	20% NaOH
Ingrandimento: / Magnification:	500 X
Misura del reticolo: / Grid size:	40 mm x 40 mm 5 x 5 = 25 Points

% Frazione di volume della Ferrite per ciascun campo esaminato
% Volume fraction of the costituent for each metallographic section

1	42
2	44
3	50
4	48
5	52
6	54
7	48
8	42
9	52
10	54
11	52
12	52
13	52
14	52
15	52
16	48
17	44
18	46
19	54
20	52
21	46
22	52
23	42
24	54
25	54
26	46
27	54
28	50
29	48
30	52

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/a (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

R_Rpt_E562 dt. 22/09/2015

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and for this the Laboratory may take legal action.*

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pos. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
ANL 28802 / 15 Page 1 of 1
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**		Commessa / Job	**30012/15** / **15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO **Atomic emission vacuum Spectrometric analysis** **Specifica: Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Temp. / Temp. (°C)	Note / Remarks	Data esecuzione / Date of Testing
1052/15	140055	PO 04-145 RC R00	B UP	20		05/12/15

		Min.	Max.			Min.	Max.		Min.	Max.
C %	0,017		0,030	Al %				Zr %		
Si %	0,50		1,00	Co %				Zn %		
Mn %	0,72		1,00	Nb %				O %		
P %	0,025		0,030	Ti %				Fe %		
S %	0,005		0,010	* W %	0,62	0,50	1,00	Ca %		
Cr %	25,8	24,0	26,0	Pb %				Ta %		
V %				Sn %				Sb %		
Mo %	3,7	3,0	4,0	As %				H %		
Ni %	6,9	6,0	8,0	B %				Cd %		
Cu %	0,68	0,50	1,00	N %	0,26	0,20	0,30	Se %		
Ce %				La %				Bi %		
				Mg %				Hg %		

FORMULE / FORMULAS	Min.	Max.
PREN	42,2	40,0	

ID Gruppo / Group ID: 1893

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente l'elemento indica una prova non accreditata da ACCREDIA
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) The * symbol before the element indicates that the test is not accredited by ACCREDIA.
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) Th(Through Thickness)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/a (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

R_Rpt_ANL dt. 07/01/2015

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and the laboratory may take legal action.*

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5.00
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000010
Protocol: CTCERC20240000695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

DUR 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**				Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer /											
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

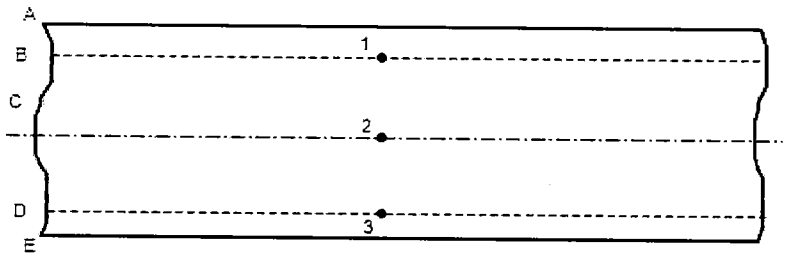
Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)
HBW hardness test (Indentation measuring device Type A)

Specifica: Specification: RTX_D53 Rev.7

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Posizione di prelievo / Test position		Durezza / Hardness	Note / Note	Data esecuzione / Date of Testing
1052/15	140047	ASTM E 10-12	B	T	HBW 2,5/187,5		04/12/2015

Minimo richiesto / Min. Request: Rich. Ord. / Ord. Reqs ☐
Massimo richiesto / Max. Request: Rich. Ord. / Ord. Reqs ☐ **270**



Valori ottenuti / Hardness Numbers

1	2	3
265	**267**	**267**

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**			ROSETTI MARINO Supply Management Dept.		**Davide Morresi**	**Paolo Amani**
R_Rpt_DUR1 dt. 13/03/2012				☐ Witness	☑ Review	firmato elettronicamente - electronically signed	

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA
TEST REPORT
MIC 28802 / 15 Page 1 of 2
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**		Commessa / Job	**30012/15** / **15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**
Materiale / Material	**ASTM A 815-14 UNS S32760**								

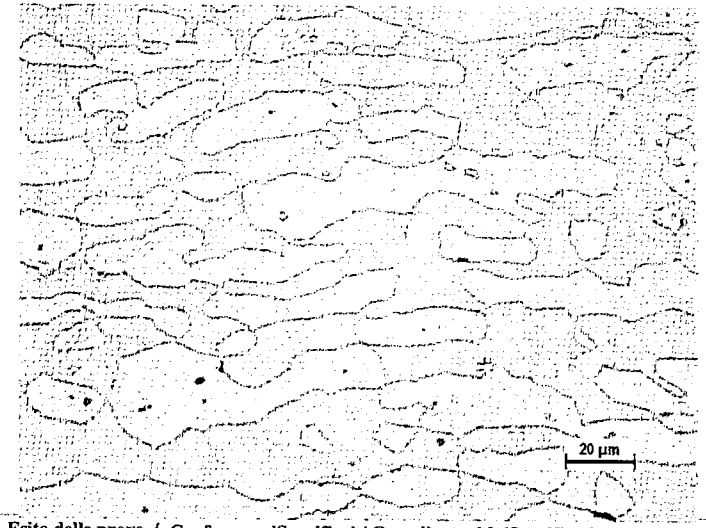
Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

ESAME MICROGRAFICO
Micrographic examination

Specifica Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Data esecuzione / Date of Testing
1052/15	140049	ASTM E 3-11+ASTM E 407-07e1	B	T	FT	09/12/2015

Attacco / Etching: 10% Oxalic
Ingrandimento / Enlargement: 500 X
Area esaminata / Area examined: Materiale base / Base Material 10.0 x 20.0 = 200.0 mm²



Note / Remarks: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

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Legenda / Legend:
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T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/o (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**			ROSETTI MARINO Supply Management Witness	**Stefano Antonielli**	**Paolo Amani**

R_Rpt_MIC dt. 05/05/2015

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'Industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
MIC 28802 / 15 Page 2 of 2
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / Order: **MASTER PLAN DICEMBRE 2015/1**
Commessa / Job: **30012/15** **15/1149**

ESAME MICROGRAFICO
Micrographic examination

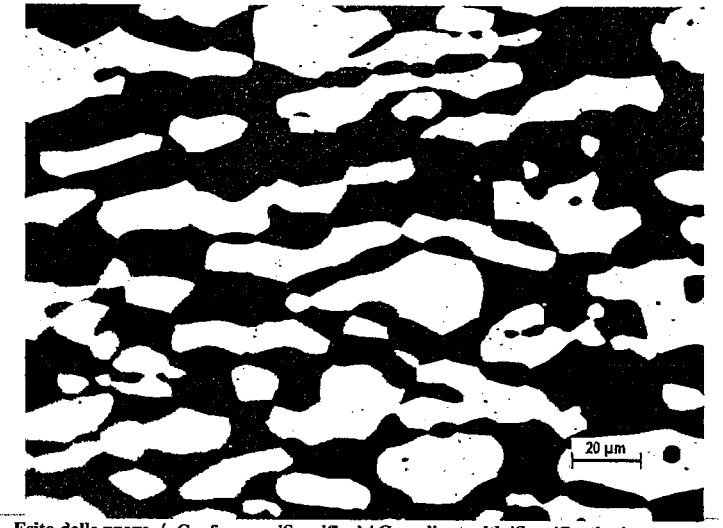
Specifica Specification: **RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Data esecuzione / Date of Testing
1052/15	140050	ASTM E 3-11+ASTM E 407-07e1	B	T	FT	09/12/2015

Attacco: 20% NaOH
Etching:

Ingrandimento: 500 X
Enlargement:

Area esaminata: Materiale base / Base Material 10,0 x 20,0 = 200,0 mm²
Area examined:



Note: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.
Remarks:

Esito delle prove / Conformе a 'Specifica' / Compliant with 'Specification'
Conclusion:

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth) Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	10/12/2015				ROSETTI MARINO Supply Management Dept	Stefano Antonielli	Paolo Amani

R_Rpt_MIC dt. 05/05/2015

Witness Review

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERO2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST S.r.l
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Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
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RAPPORTO DI PROVA
TEST REPORT

A923A 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**			Commessa / Job	**30012/15 15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio
Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

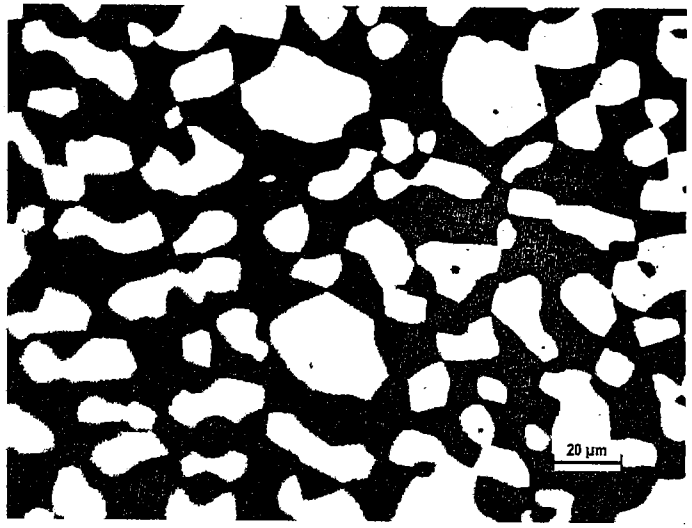
Specifica Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Temp. / Temp. (°C)	Data esecuzione / Date of Testing
1052/15	140054	ASTM A 923-14 (Met. A)	B	T	FT	20	09/12/2015

Attacco / Etching: 20% NaOH

Ingrandimento / Enlargement: 500 X

Area esaminata / Area examined: Materiale base / Base Material



Note / Remarks: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.
Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/a (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**			ROSETTI MARINO Supply Management Dept Witness	Revie	**Stefano Antonielli**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_A923A dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010
Protocol: CTCERQ2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
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RAPPORTO DI PROVA
TEST REPORT
A923C 28802 / 15 Page 1 of 1
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**								Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**	Commessa / Job	**30012/15 15/1149**
Subcliente/Subcustomer /											
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico **Specifica: Specification: RTX_D53 Rev.7**
Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Note / Remarks
1052/15	140053	ASTM A 923-14 (Met. C)	B L FT	No pitting at 20X.

Dimensioni / Dimensions

Lunghezza (mm): 48,87 / Length (mm):
Larghezza (mm): 25,11 / Width (mm):
Spessore (mm): 6,80 / Thickness (mm):

Area (cm²): 34,60 / Area (cm²):

Provino in Materiale Base / Specimen in Base Material

Preparazione provino: Meccanica ☑ Chimica ☐ / Specimen preparation: Mechanical Chemical

Temperatura di prova (°C): 50 / Specimen preparation (°C):

Tempo esposizione (ore): 24 / Specimen preparation (hours):

Soluzione: FeCl3 · 6H2O 10% water solution / Solution:

Peso iniziale (g): 65,6918 / Initial weight (g):

Peso finale (g): 65,6909 / Final weight (g):

Perdita di peso (g): 0,0009 / Weight loss (g):

Perdita della massa (g/m²): 0,3 / Specimen mass loss

Velocità di corrosione (mg/(dm²*d)) 2,6 ± 2,0 / Corrosion rate (mg/(dm²*d)):

Data inizio: 04/12/2015 08:00:00 / Initial date
Data fine: 05/12/2015 08:00:00 / End date

Limite velocità di corrosione (mg/(dm²*d)) max.: 10,0
Corrosion rate limit (mg/(dm²*d)) max.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/a (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**			ROSETTI MARINO Supply Management Dept	☑ Review	**Stefano Antonielli**	**Paolo Amani**
						firmato elettronicamente - electronically signed	

R_Rpt_A923C dt. 29/07/2015

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 510 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O
Protocol: CTCERC2024000469S * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
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RAPPORTO DI PROVA
TEST REPORT
PM 28802 / 15 Page 1 of 1
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**			Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer /									
Descrizione / Description **RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity **46**	Posizione / Item **28**	Prova Nr. / Test. Nr. **1052/15**	Colata / Heat **45687**	Materiale / Material **ASTM A 815-14 UNS S32760**				

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

PROVA DI TRAZIONE — **Tensile test**

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Dimensioni Wth Ø / Width ØPipe (mm)		Lo Lo	Posizione di prelievo Test position	Temp. Temp. (°C)	Snervamento Yield strength (MPa)			Rottura Tensile strength Rm (MPa)	Allungamento Elongation A (%)	Strizione Area Reduction Z (%)	S/R Ratio Yield strength / Tensile strength	Data esecuzione Date of Testing
1052/15	140046	ASTM A 370-13 (Tension Test)	3,82	12,53	50.00	B L FT	23	(≥ 550)	Rp0,2%	**634**	(750÷895) **881**	(≥ 25,0) **30,9**			09/12/2015

Specifica / Specification: RTX_D53 Rev.7 **Note /Remarks:** **Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA.
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) Th(Through Thickness)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**			ROSETTI MARINO *Supply Management Dept.* ☐ Witness ☑ Review		**Davide Morresi**	**Paolo Amani**

R_Rpt_TRP dt. 27/09/2013

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi

Heat num. or Pos. marking: 1005SA022 - Qty:7,00

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. Master plan Febbraio 2022/1

Pos. N. Item/Poste 28 **Q.tà** Q.ty/Q.té 45

(*) Marcatura e cert. N. Material Marking e Cert. N. 1005SA022

Created on: 23-02-2022

Descrizione Description Description RED.TEES 1.1/2"x1" SCH.40/S SEAMLESS

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-2020
ASME SA/815 Latest edition UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 705701
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 705701

Test produzione
Production test/Coupon de production

Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Colata N. Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
56144	412/21	619	866	27.8	HRC<28	HRC 25	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**Nb**	**Co**	**N**	**W**	**PRE**	**FERRITE**
56144	0,013	0,260	0,67	0,020	0,0004	25,55	6,95	3,65	0,62	0,002	0,045	0,2540	0,63	41.659	48.7

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 4211/22
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0849

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:7,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Stradu della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

G48ACE 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		**412/21**	**56144**	**ASTM A 815-20 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
22327	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B	L	FT	Meccanica/ Mechanical	49,84	21,43	3,61	26,51	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C)	50	Peso iniziale/ Initial weight (g)	30,6412
Tempo di esposizione (ore)/ Exposure time (hours)	24	Peso finale (g)/ Final weight (g)	30,6405
Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time	Perdita di peso (g)/ Weigth loss (g)	0,0007
28/02/2022 11:11:02	01/03/2022 11:11:02	Perdita di massa/ Specimen mass loss	0.3 g/m²
Soluzione/ Solution FeCl3 6% SOLUTION		**Limite perdita di massa max/ Limit Specimen mass loss max**	**1.0 g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 21.36 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival: **24/02/2022**

Data Rapporto di prova/ Test Report Date: **01/03/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO *Supply Management Dept.* ☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:7.00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERQ202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
22323	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	25/02/2022

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction) 48.7	**40**	**55**
s 3.9 95% C.I. 1,4 %RA 2,97		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**54**	3	**50**	4	**46**	5	**44**
6	**44**	7	**42**	8	**44**	9	**50**	10	**54**
11	**48**	12	**44**	13	**50**	14	**54**	15	**52**
16	**42**	17	**48**	18	**50**	19	**50**	20	**46**
21	**52**	22	**48**	23	**52**	24	**46**	25	**52**
26	**52**	27	**44**	28	**54**	29	**54**	30	**46**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 4.00 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival: **24/02/2022**

Data Rapporto di prova/ Test Report Date: **01/03/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1005SA022 - Qty:7,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

ANL 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
22330	PO 04-145 RC R12:2021	RTX_D53 Rev.9	B / UP	20 °C	3813	% by weight	28/02/2022

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,016	±0,003		0,030	Nb					Fe				
Si	0,30	±0,02		1.00	Ti					Ca				
Mn	0,70	±0,04		1.00	W	0,64	±0,06	0.50	1,00	Ta				
P	0,025	±0,004		0.030	Pb					Sb				
S	0,002	±0,001		0.010	Sn					H				
Cr	25,6	±0,4	24.0	26.0	As					Cd				
V					B					Se				
Mo	3,7	±0,2	3.0	4,0	N	0,26	±0,04	0.20	0,30	Bi				
Ni	7,1	±0,4	6.0	8,0	La					Hg				
Cu	0,64	±0,04	0,50	1,00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	41,97	±0,74	40.00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<2,5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival: 24/02/2022

Data Rapporto di prova/ Test Report Date: 01/03/2022

Responsabile di Reparto o sostituto/ Department Manager or Deputy: Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: Amani Paola

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

Test Position Legend: [/]-/; [B]-Specimen in Base Material: [UP]-external sup.

raccortubi Heat num. or Pos. marking: 100SA022 - Qty:7,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O

Protocol: CTCERC2024000469S * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

DUR 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer	Ordine/Order	Commessa/Job
Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC	**MASTER PLAN FEBBRAIO 2022/1**	**30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

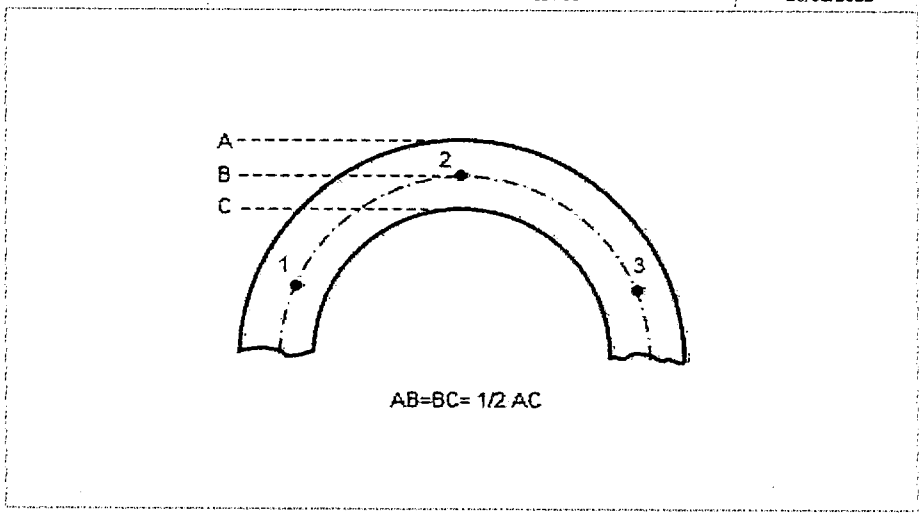
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
22322	ASTM E 92 – 17 (only Vickers)	RTX_D53 Rev.9	B T	20 °C	HV10	28/02/2022

(B1) - Base Material **MAX 286**

HV10	1	255	2	253	3	257



Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position		Average
(B1) - Base Material	255	HV10

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	24/02/2022	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
Data Rapporto di prova/ Test Report Date	01/03/2022 firmato elettronicamente/electronically signed	Morresi Davide	Amani Paola		ROSETTI MARINO Supply Management Dept. ☐ Witness ☒ Review

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:7,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERG202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 4211 / 22

Rif. Lab SIM (FCP) : 1274 / 22 (A / A)

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO LAB N° 0864 L

Cliente/Customer: Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC

Ordine/Order: MASTER PLAN FEBBRAIO 2022/1

Commessa/Job: 30002/22 21/1404

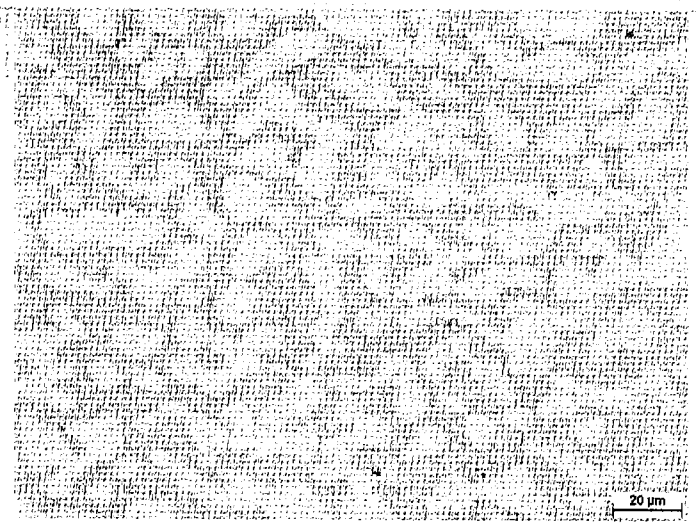
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	ASTM A 815-20 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22324	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Specimen in Base Material 4.0 x 20.0 = 80.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	24/02/2022
Data Rapporto di prova/ Test Report Date	01/03/2022 firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: Amani Paolo

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO Supply Management Dept. fitness Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1005SA022 - Qty:7,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

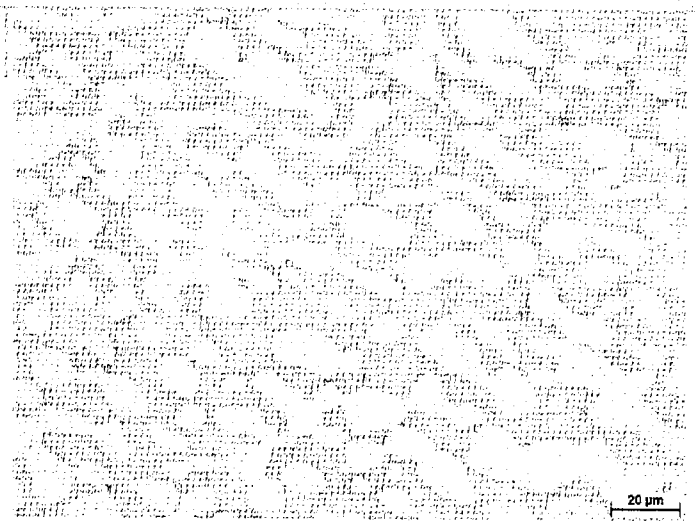
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22325	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Specimen in Base Material 4.0 x 20.0 = 80.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	**24/02/2022**	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
Data Rapporto di prova/ Test Report Date	**01/03/2022**	*Antonielli Stefano*	*Amani Paola*		ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

firmato elettronicamente/electronically signed

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:7,00

Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Stradu della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

A923A 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

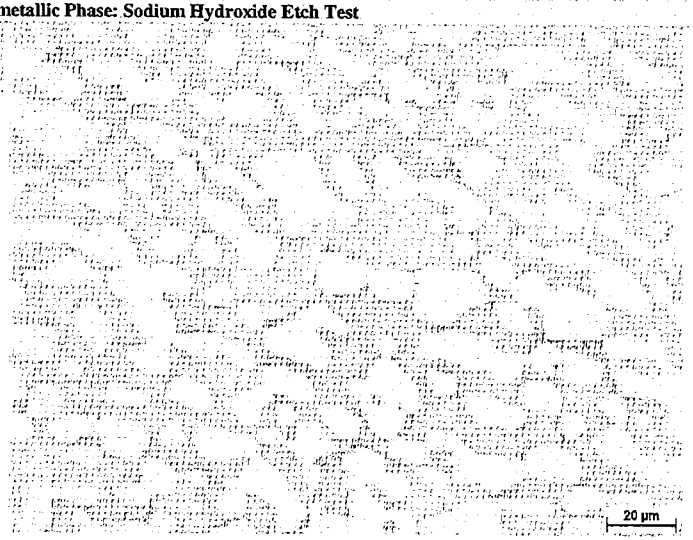
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22329	ASTM A923 – 14 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
24/02/2022				
Data Rapporto di prova/ Test Report Date: 01/03/2022 (firmato elettronicamente/electronically signed)	Antonielli Stefano	Amani Paola		ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi
Heat num. or Pos. marking: 1005SA022 - Qty:7,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

A923C 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
22328	ASTM A923 – 14 Method C	RTX_D53 Rev.9	B	L	FT	Meccanica/ Mechanical	50.05	21,45	3,62	26.65

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum temperature observed (°C) 49,68

Temperatura Massima Rilevata (°C)/ Maximum temperature observed (°C) 50,55

Peso iniziale/ Initial weight (g) 30,5151

Peso finale (g)/ Final weight (g) 30,5141

Perdita di peso (g)/ Weigth loss (g) 0,0010

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
28/02/2022 11:27:24	01/03/2022 11:27:24

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X /
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **3,8**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **24/02/2022**

Data Rapporto di prova/ Test Report Date **01/03/2022**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paola*

Ispettori/Inspector

Cliente/Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:7.00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 520 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

PM 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	ASTM A 815-20 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth	Ø / Width	ØPipe	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp.	Snervamento/ Yield strength		Rottura/ Tensile strength Rm	Allungamento/ Elongation	Strizione/ Area Reduction	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
			mm					°C	MPa	MPa	MPa	A (%)	Z (%)		
22320	ASTM A370 – 21 §6+14, § A1.3, § A2.2 and § A3.2	RTX_D53 Rev.9	3,72	12,53		50,00	B L FT	23	(≥550) Rp0.2% 619		(≥750) 866	(≥25) 27,8			01/03/2022

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival: **24/02/2022**

Data Rapporto di prova/ Test Report Date: **01/03/2022** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer: ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1101SA02 - Qty:1,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY

* Issued 20-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. OS000097 S DEL 08/05/2012
P.O.N./Commande N.

Pos. N. 1 **Q.tà** 109
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1101SA02 **Data:** 07-06-2012
Material Marking e Cert. N. Date:

Descrizione RED.TEES 4"x1.1/2" SCH.10S/40S
Description
Description

Specifica BW FITTINGS TO ASTM/ASME
Specification SA/A815-10a UNS S32760
Spécification DIMS/ENDS B16.9-2007

Materiale base - Fabbricante: TUBACEX Cert. No.: 543964
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760 - TUBACEX Cert. No.: 543964

Test produzione Production test/Coupon de production	Colata N. Heat N. Coulée N.	N. prova Specimen N. Echantil. N.	Snervamento Yield strength Limite d'elasticité N/mm2	Rottura Tensile Resistance à la traction N/mm2	Allungam. % Elongation Allongement 2"	Durezza Hardness as per NACE MRO1-75	Durezza Hardnes Dureté	Resilienza Impact energy Resilience Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.1 Specimens location drawing as per relevant QTR	45292	981/12	623	805	37.4	HRC<28	HRC 24	SEE SIDER TEST CERTIFICATE 10076/12

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	W	N		PRE	FERRITE
45292	0,018	0,480	0,71	0,024	0,0004	25,55	7,00	3,62	0,66	0,570	0,2570		41.608	46.80

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.10
CERTIFIED ACC.TO PED 97/23/EG
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:10076/12
- MATERIAL AND TESTS ACCORDING TO M-650 REV.4 - MDS D53 REV.4
- HEAT TREATMENT LOT:0173
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).
- POSITIVE MATERIAL IDENTIFICATION ON 100% OF THE PIECES : SATISFACTORY

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Buono
Identificazione materiale: Buono

Visual and dimensional test: Satisfactory
Positive Material Identification: Satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65√ So >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☒ Review

raccortubi Heat num. or Pos. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Tests
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni
Tel.+39 0523 881.900 Fax. +39 0523 842.903
http://www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
TRP 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order*: **OS000097 S**
Commessa / *Job*: **120/12 12/1293**

Descrizione / *Description*: **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**
Quantità / *Quantity*: **110** Posizione / *Item*: **1** Prova Nr. / *Test. Nr.*: **981/12** Colata / *Heat*: **45292** Materiale / *Material*: **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

PROVA DI TRAZIONE — ***Tensile test***

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Dimensioni / *Wth Ø / Width ØPipe (mm)*		Lo / *Lo*	Posizione di prelievo / *Test position*			Temp. / *Temp. (°C)*	Snervamento / *Yield strength (MPa)*		Rottura / *Tensile strength Rm (MPa)*	Allungamento / *Elongation A (%)*	Strizione / *Area Reduction Z (%)*	S/R / *Ratio Yield strength / Tensile strength*	Data esecuzione / *Date of Testing*
981/12	45178	ASTM A 370-11a	9,56	12,5	50	B	L	FT	23	(≥ 550)	Rp0.2% **623**	(750/895) **805**	(≥ 25) **37,4**			15/06/2012

Specifica / *Specification:* **RTX_D53 Rev.4** **Note /*Remarks:*** **Esito delle prove / *Conclusion:*** **Conforme a 'Specifica' / Compliant with 'Specification'**

PROVA DI RESILIENZA — ***Notched-bar impact test***

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Dimensioni / *Dimension Size Width Length*	Posizione di prelievo / *Test position*			Tipo / *Type*	Temp. / *Temp. (°C)*	Valore / *Absorbed energy*					Area di taglio / *Shear area*		Espansione laterale / *Lateral expansion*			Data esecuzione / *Date of Testing*
									Single				*Average*	*Single (%)*	*Average (%)*	*Single (mm)*			*Average (mm)*	
981/12	45179	ASTM A 370-11a	7,5 x 10 x 55	B	L	1/2	KV	-51	J (≥ 51)	**188**	**187**	**186**	(≥ 60) **187**			(≥ 0,38) **2,55**	**2,47**	**2,44**	**2,49**	14/06/2012

Specifica / *Specification:* **RTX_D53 Rev.4** **Note /*Remarks:*** **Esito delle prove / *Conclusion:*** **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
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c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. *c) Compliance with documents in "Specification" refers only to the tests described on this test report.*
d) Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. *d) The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.*

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / *Date of Material Arrival*	Data Rapporto di prova / *Test Report Date*	Ispettore / *Inspector*	Ispettore / *Inspector*	Cliente / *Customer*	Cliente / *Inspector*	Responsabile di Reparto / *Department Manager*	Responsabile Laboratorio / *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO Supply Management Dept.		***Marco Borile***	***Paolo Amani***

R_Rpt_TRP_A_BIS dt. 13/03/2012

☐ Witness ☐ Review

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi
Heat num. or Pcs. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020I0
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

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Tel.+39 0523 881.900 Fax. +39 0523 842.903
http://www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
MIC 10076 / 12 Page 1 of 2
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine *Order*	**OS000097 S**	Commessa *Job*	**120/12 12/1293**
Subcliente/Subcustomer /							
Descrizione *Description* **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**	Quantità *Quantity* **110**	Posizione *Item* **1**	Prova Nr. *Test. Nr.* **981/12**	Colata *Heat* **45292**	Materiale *Material*	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

ESAME MICROGRAFICO
Micrographic examination

Specifica ***Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**

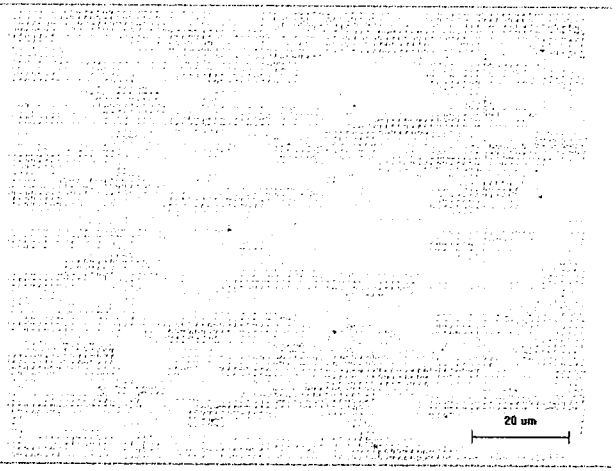
No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
981/12	45182	ASTM E3-11 + ASTM E407-07	B T FT	20	18/06/2012

Attacco: *Etching:* 10% Oxalic

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Struttura libera da nitruri. / Structure free from nitrides.
Remarks:

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO Supply Management Dept.		***Stefano Antonielli***	***Paolo Amani***
				Witness	Review	*firmato elettronicamente - electronically signed*	

R_Rpt_MIC_B_BIS_PDF dt. 13/03/2012

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raccortubi Heat num. or Pos. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA
TEST REPORT
MIC 10076 / 12 Page 2 of 2
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order* **OS000097 S**
Commessa / *Job* **120/12 12/1293**

ESAME MICROGRAFICO
Micrographic examination

Specifica ***Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**

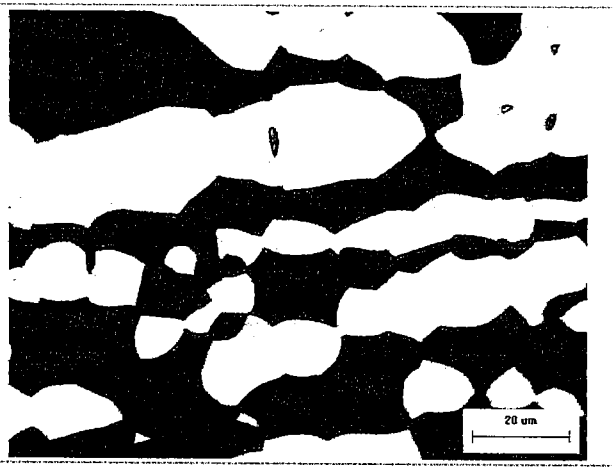
No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
981/12	45183	ASTM E3-11 + ASTM E407-07	B T FT	20	18/06/2012

Attacco: *Etching:* 20% NaOH

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Struttura libera da precipitazioni a bordo grano e fasi intermetalliche / Structure free from grain boundary carbides and intermetallic phases.
Remarks:

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO Supply Management Dept.		***Stefano Antonielli***	***Paolo Amani***
R_Rpt_MIC_B_BIS_PDF dt. 13/03/2012				☐ Witness	☑ Review	*firmato elettronicamente - electronically signed*	

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raccortubi Heat num. or Pos. marking: 1101SA02 - Qty:1.00
Customer:
Description: TEE RID. 4"X1.1/2" SCH.10S/40S SEAMLESS
ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240000469S * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA
TEST REPORT
G48ACE 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order*: **OS000097 S**
Commessa / *Job*: **120/12 12/1293**

Descrizione / *Description*: **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**
Quantità / *Quantity*: **110** Posizione / *Item*: **1** Prova Nr. / *Test. Nr.*: **981/12** Colata / *Heat*: **45292** Materiale / *Material*: **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Prova di "pitting" in ferro-cloruro — ***Ferric chloride pitting test*** — **Specifica: *Specification:* RTX_D53 Rev.4**

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Direzione e Posizione / *Location*	Note / *Remarks*
981/12 - 1	45185	ASTM G48-11 - Met. A	B L FT	

Dimensioni / *Dimensions*

Lunghezza - L (mm): 50,00 — *Length - L (mm):*
Larghezza - W (mm): 24,66 — *Width - W (mm):*
Spessore - T (mm): 8,30 — *Thickness - T (mm):*

Area (cm²): [(LxWx2) + (WxTx2) + (LxTx2)] / 100 — *Area (cm²):* 37.05

Provino in Materiale Base
Specimen in Base Material

Preparazione provino / *Specimen preparation:* Meccanica ☑ *Mechanical* Chimica ☐ *Chemical*

Temperatura di prova (°C): 50 — *Test temperature (°C):*
Soluzione: FeCl3 - 6H2O 10% WATER SOLUTION — *Solution:*

Tempo di esposizione (ore): 24 — *Exposure time (hours):*

Data e ora inizio: 14/06/2012 16.00.00 — *Initial date and time:*
Data e ora fine: 15/06/2012 16.00.00 — *End date and time:*

Peso iniziale (g): 78,8311 — *Initial weight (g):*
Peso finale (g): 78,8306 — *Final weight (g):*
Perdita totale di peso (g): 0.0005 — *Weight total loss(g):*

Perdita di massa g/m² 0,1349 — *Specimen mass loss*

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X
NOT PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata (cm²): (LxWx2)/100: 24,66 — *Examined area (cm²):*

Media della profondità dei pit (µm): 0,00 — *Average of pits depth (µm):*

No. Pit lato A(superficie): 0,00 — *Nr. Pit side A (surface):*
No. Pit lato B: 0,00 — *Nr. Pit side B:*
Pit per cm²: 0.00

Massima profondità dei pit (µm): 0,00 — *Maximum pit depth (µm):*

Limite perdita di massa g/m² max.: 4,000
Limit Specimen mass loss max.

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / *Date of Material Arrival*	Data Rapporto di prova / *Test Report Date*	Ispettore / *Inspector*	Ispettore / *Inspector*	Cliente / *Customer*	Responsabile di Reparto / *Department Manager*	Responsabile Laboratorio / *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO Supply Management Dept. Witness Review	***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_G48ACE_A_BIS dt. 13/03/2012

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raccortubi Heat num. or Pcs. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

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RAPPORTO DI PROVA
TEST REPORT
E562 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli. 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order*: **OS000097 S**
Commessa / *Job*: **120/12 12/1293**

Descrizione / *Description*: **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**
Quantità / *Quantity*: **110** Posizione / *Item*: **1** Prova Nr. / *Test. Nr.*: **981/12** Colata / *Heat*: **45292** Materiale / *Material*: **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti ***Determining volume fraction by systematic manual point count*** **Specifica: *Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Note *Remarks*	Data esecuzione *Date of Testing*
981/12	45181	ASTM E562-11	B T FT		18/06/2012

FORMULE USATE
(Formulas used)

Percentuale media di punti (Pp): / *Average Percentage of Points (Pp):* $Pp = 1/n \times \sum_{i=1}^{n} Pp(i)$

Deviazione Standard (s): / *Standard Deviation (s):* $s = \left[\frac{1}{n-1} \sum_{i=1}^{n} (Pp(i) - Pp)^2 \right]^{1/2}$

95% Intervallo di scarto (95% CI): / *95% Confidence Interval (95%CI):* $95\%CI = \frac{2.0 \times s}{(n-1)^{1/2}}$

Errore (%): / *Error (%):* $\frac{95\%CI \times 100}{Pp}$

Frazione di Volume (Vv%): / *Volume Fraction (Vv %):* $Vv = Pp \pm 95\%CI$

RISULTATI (Min. 40%, Max. 55%)
Results (Min. 40%, Max. 55%)

Vv (% Frazione di volume della Ferrite) / *Vv (% Volume fraction of the constituent):*	46.80 ± 1,57
% Errore (RA): / *% Error (RA):*	3,35
Nr. di campi per provino/sezione/spaziatura/angolo: / *Nr. of fields for specimens/section/spacing/angle:*	30 / 10 x 20 mm / 1 x 3 mm / 45°
Preparazione del provino: / *Sample preparation:*	NaOH + Electrolytic
Ingrandimento: / *Magnification:*	400 X
Misura del reticolo: / *Grid size:*	40 mm x 40 mm 5 x 5 = 25 Points

% Frazione di volume della Ferrite per ciascun campo esaminato
% Volume fraction of the costituent for each metallographic section

1	42
2	42
3	46
4	50
5	54
6	50
7	48
8	50
9	42
10	42
11	52
12	44
13	46
14	46
15	54
16	48
17	44
18	42
19	54
20	52
21	44
22	52
23	42
24	42
25	44
26	50
27	46
28	50
29	42
30	44

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*
08/06/2012	**19/06/2012**			☐ Witness	☑ Review

ROSETTI MARINO *Supply Management Dept.*

Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
Stefano Antonielli	***Paolo Amani***
firmato elettronicamente - electronically signed	

R_Rpt_E562_A_BIS dt. 13/03/2012

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raccortubi Heat num. or Pcs. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
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RAPPORTO DI PROVA
TEST REPORT
A923A 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine *Order*	**OS000097 S**			Commessa *Job*	**120/12 12/1293**
Subcliente/Subcustomer /									
Descrizione *Description*	**RED. TEES 4" x 1.1/2" SCH. 10S / 40S**	Quantità *Quantity*	**110**	Posizione *Item*	**1**	Prova Nr. *Test. Nr.*	**981/12**	Colata *Heat*	**45292**
Materiale *Material*	**ASTM A 815-10a UNS S32760**								

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio **Specifica** ***Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**
Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
981/12	45187	ASTM A923-08 (Met. A)	B T FT	20	18/06/2012

Attacco: *Etching:* NaOH + Electrolytic

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Classificazione struttura attaccata: Struttura inalterata. / Classification of etch structure: Unaffected structure.
Remarks:

Esito delle prove / *Conclusion:* **Non applicabile / Not applicable**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta *b) We declare that this test report cannot be partially reproduced without our written approval.*
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. *c) Compliance with documents in "Specification" refers only to the tests described on this test report.*

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
08/06/2012	**19/06/2012**			***Stefano Antonielli***	***Paolo Amani***

Witness ROSETTI MARINO Customer Supply Management Dept Review

firmato elettronicamente - electronically signed

R_Rpt_A923A_A_BIS dt. 13/03/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1101SA02 - Qty:1.00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 17240000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240000695 * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Tests
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni
Tel.+39 0523 881.900 Fax. +39 0523 842.903
http://www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
A923C 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order*: **OS000097 S**
Commessa / *Job*: **120/12 12/1293**

Descrizione / *Description*: **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**
Quantità / *Quantity*: **110** Posizione / *Item*: **1** Prova Nr. / *Test. Nr.*: **981/12** Colata / *Heat*: **45292** Materiale / *Material*: **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico **Specifica: *Specification:* RTX_D53 Rev.4**
Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Note *Remarks*
981/12	45186	ASTM A923-08 (Met. C)	B L FT	

Dimensioni / *Dimensions*

Lunghezza (mm): 51,0 *Length (mm):*
Larghezza (mm): 23,5 *Width (mm):*
Spessore (mm): 9,4 *Thickness (mm):*

Area (cm²): 37,98 *Area (cm²):*

Provino in Materiale Base *Specimen in Base Material*

Preparazione provino: *Specimen preparation:* Meccanica ☑ *Mechanical* Chimica ☐ *Chemical*

Temperatura di prova (°C): *Specimen preparation (°C):* 40

Tempo esposizione (ore): *Specimen preparation (hours):* 24

Soluzione: *Solution:* FeCl3 · 6H2O 10% water solution

Peso iniziale (g): *Initial weight (g):* 88,7119

Peso finale (g): *Final weight (g):* 88,7119

Perdita di peso (g): *Weight loss (g):* 0,0000

Perdita della massa (g/m²): *Specimen mass loss* 0,000

Velocità di corrosione (mg/(dm²*d)) *Corrosion rate (mg/(dm²*d)):* 0,0

Data inizio: *Initial date* 14/06/2012 16.30.00 Data fine: *End date* 15/06/2012 16.30.00

Limite velocità di corrosione (mg/(dm²*d)) max.: 10,0
Corrosion rate limit (mg/(dm²*d)) max.

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta *b) We declare that this test report cannot be partially reproduced without our written approval.*
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. *c) Compliance with documents in "Specification" refers only to the tests described on this test report.*

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO *Supply Management Dept.* ☐ Witness	☑ Review	***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_A923C_A_BIS dt. 13/03/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1101SA02 - Qty:1.00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O

Protocol: CTCERC2024000469S * CERTIFIED TRUE COPY * Issued 20-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Tests

RAPPORTO DI PROVA
TEST REPORT
ANL 10076 / 12 Page 1 of 1
S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni
Tel.+39 0523 881.900 Fax. +39 0523 842.903
http://www.sidertest.it sidertest@sidertest.it

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**
Subcliente/Subcustomer /

Ordine / *Order*: **OS000097 S**

Commessa / *Job*: **120/12 12/1293**

Descrizione / *Description*: **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**

Quantità / *Quantity*: **110** Posizione / *Item*: **1** Prova Nr. / *Test. Nr.*: **981/12** Colata / *Heat*: **45292** Materiale / *Material*: **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO ***Atomic emission vacuum Spectrometric analysis***

Specifica: ***Specification:*** **RTX_D53 Rev.4**

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Direzione e Posizione / *Location*	Temp. / *Temp. (°C)*	Note / *Remarks*	Data esecuzione / *Date of Testing*
981/12	45188	ASTM E1086-08	B UP	20		18/06/12

C %	0,019	*Al %*		*Zr %*		**FORMULE**	***FORMULAS***
Si %	0,503	*Co %*		*Zn %*			
Mn %	0,686	*Nb %*		*O %*			
P %	0,022	*Ti %*		*Fe %*			
S %	0,004	*W %*	0,542	*Ca %*			
Cr %	25,437	*Pb %*		*Ta %*			
V %		*Sn %*		*Sb %*			
Mo %	3,555	*As %*				***PREN***	**41,50**
Ni %	7,05	*B %*					
Cu %	0,62	*N %*	0,271				

ID Gruppo / *Group ID:*

Esito delle prove / ***Conclusion:*** **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / *Date of Material Arrival*	Data Rapporto di prova / *Test Report Date*	Ispettore / *Inspector*	Ispettore / *Inspector*		Responsabile di Reparto / *Department Manager*	Responsabile Laboratorio / *Laboratory Manager*
08/06/2012	**19/06/2012**			ROSETTI MARINO Customer Supply Management Dep. Customer Witness Review	***Stefano Antonielli***	***Paolo Amani***

R_Rpt_ANL_A_BIS dt. 13/03/2012

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1101SA02 - Qty:1,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 4"x1.1/2" SCH.10S/40S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 530 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000201O
Protocol: CTCERC2024000469S * CERTIFIED TRUE COPY
* Issued 20-05-2024

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RAPPORTO DI PROVA
TEST REPORT
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S.I.M. No.: 2789 / 12 F.C.P. No.: 2789 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / *Order*	**OS000097 S**			Commessa / *Job*	**120/12 12/1293**
Subcliente/Subcustomer /									
Descrizione / *Description* **RED. TEES 4" x 1.1/2" SCH. 10S / 40S**	Quantità / *Quantity* **110**	Posizione / *Item* **1**	Prova Nr. / *Test. Nr.* **981/12**	Colata / *Heat* **45292**	Materiale / *Material* **ASTM A 815-10a UNS S32760**				

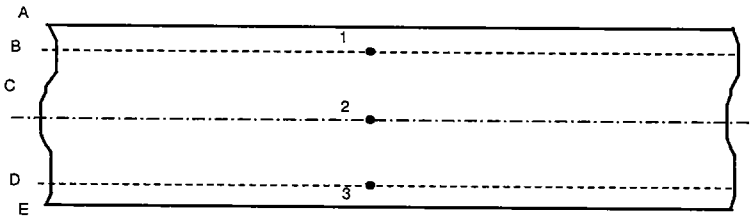
Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

PROVA DI DUREZZA HBW (Strumento di *HBW hardness test (Indentation meas* **Specifica: *Specification:* RTX_D53 Rev.4**

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Posizione di prelievo / *Test position*		Durezza / *Hardness*	Note / *Note*	Data esecuzione / *Date of Testing*
981/12	45180	ASTM E10-10	B	T	HB 2,5/187,5		15/06/2012

Minimo richiesto / *Min. Request* Rich. Ord. / *Ord. Reqs* ☐

Massimo richiesto / *Max. Request* Rich. Ord. / *Ord. Reqs* ☐
270



AB=DE= 3 mm AC= 1/2 AE

Valori ottenuti / *Hardness Numbers*

1	2	3
261	**266**	**260**

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

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UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / *Date of Material Arrival*	Data Rapporto di prova / *Test Report Date*	Ispettore / *Inspector*	Ispettore / *Inspector*	Cliente / *Customer*	Cliente / *Customer*	Responsabile di Reparto / *Department Manager*	Responsabile Laboratorio / *Laboratory Manager*
08/06/2012	**19/06/2012**			☐ Witness	☒ Review	***Marco Borile***	***Paolo Amani***

ROSETTI MARINO Supply Management Dept.

firmato elettronicamente - electronically signed

R_Rpt_DUR1_A_BIS dt. 13/03/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47111

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00005390	E000005892	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
LN011-1	6" X 4" SCH 10s REDUCING TEE	25	WP316/316L-S	PASSED	NY220903AV08

Specification	Chemical Composition (%)									Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb	YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-	-	-	-	90	
Min	-	-	-	-	-	16.00	10.00	2.00	-	205	515	28	-	
Heat No.														
LN011-1	0.015	0.34	0.88	0.033	0.001	16.52	10.01	2.09	< 0.01	240	545	60	65	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER, AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : ADD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 540 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 6"x4" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: LN011-1 - Qty:6,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY * Issued 20-05-2024

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61

LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047485

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO.: 0343/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Raccortubi S.p.A

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-47169

Date : 2 Oct 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
00000210 S	E000005910	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

Heat No.	Product & Size	Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
MN034-1	4" X 3" SCH 10s REDUCING TEE	3	WP316/316L-S	PASSED	NY220918AT17
MN036-1	4" X 3" SCH 10s REDUCING TEE	22	WP316/316L-S	PASSED	NY221009AT08

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS	TS	E		
Max											(KSI / MPa)		(%)	(HRB)	
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
MN034-1	0.013	0.43	0.98	0.032	0.001	16.46	10.01	2.07	< 0.01		242	578	58	66	PASSED
MN036-1	0.013	0.39	1.02	0.032	0.001	16.35	10.09	2.07	< 0.01		246	564	60	76	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER, AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD. SPECIMEN GAUGE WIDTH 19.2MM. FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION. GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
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81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. QAQC MANAGER HASSANUDDIN

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Form :FQA-030b R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 550 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 4"x3" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: MN036-1 - Qty:6,00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

Customer:
Description: TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

raccortubi
Heat num. or Pcs. marking: 12B258 - Qty:5.00

Protocol: CTCERC202400004695 * CERTIFIED TRUE COPY
* Issued 20-05-2024

ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 610 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

CTCERT202300004338.1.0001

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.

高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL : 886-7-6970588 FAX : 886-7-6970599

ISO-9001 LRQA
Certificate No.: 10303342
PED 2014/68/EU
Approval Certificate No.:00014950

JIS B2313
Certificate No.: JWTW 13002
JIS B2309
Certificate No.: JWTW 13001

EN10204-3.1

頁次 PAGE: 1
日期 DATE: 2023/6/13
證書號碼 CERTIFI. NO.: 23060561

本證書請妥善保存遺失恕不補發
Please keep this certificate properly.
If it is lost, it will not be reissued.

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
41	R TEE 1-1/2" X 3/4" SCH40S WP316/316L-S	25	12B258	23040006	00000083 S	23060277	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份 C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	PHYSICAL 物理性質 YS 降伏點 Mpa	TS 抗拉強度 Mpa	E 延伸率 %	HARD,HRB 硬度
	STANDARD	MIN.							10.00	16.00	2.00			170	485	28	
		MAX.	0.030	1.00	2.00	0.045	0.030		14.00	18.00	3.00			0	0	0	
41			0.022	0.38	1.39	0.034	0.001		10.04	16.15	2.09			295	595	59	88.47

HEAT TREATMENT 熱處理 1060°C ±10° W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
茲證明上述材料按照規範進行製造，取樣，檢測和檢驗，符合上述規範和採購訂單的要求。

備註：
1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water. 6. No Russian materials were used during the whole production cycle.

良豐不銹鋼管件有限公司 品檢專用章 Quality Inspection Stamp Liang Feng Stainless Steel Fitting Co.

歐勁軒
MANAGER OF Q. A. DEPT. 品管課經理

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.
Description: CURVE 45° LR 3/4" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: LD230511-04 - Qty:5.00
Order: 1724000839 - 22.04.24 - Item n.: 630 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10
Protocol: CTCERC2024000004695 * CERTIFIED TRUE COPY * Issued 20-05-2024
CTCERT2024000000351.1.0001

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.

高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL: 886-7-6970588 FAX: 886-7-6970599

ISO-9001 LRQA Certificate No.: 10303342
PED 2014/68/EU Approval Certificate No.:00014950

JIS B2313 Certificate No.: JWTW 13002
JIS B2309 Certificate No.: JWTW 13001

EN10204-3.1

頁次 PAGE: 1
日期 DATE: 2023/9/21
證書號碼 CERTIFI. NO.: 23090873

本證書請妥善保存遺失恕不補發
Please keep this certificate properly. If it is lost, it will not be reissued.

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
26	45 LR 3/4" SCH40S WP316/316L-S	20	LD230511-04	23070004	00000166 S	23090222	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份 C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	PHYSICAL 物理性質 YS 降伏點	TS 抗拉強度	E 延伸率	HARD, HRB 硬度
														Mpa	Mpa	%	
	STANDARD	MIN.							10.000	16.000	2.000			170	485	28	
		MAX.	0.030	1.000	2.000	0.045	0.030		14.000	18.000	3.000			0	0	0	
26			0.027	0.530	1.280	0.030	0.012	0	10.250	16.720	2.650			250	535	48	84.06

HEAT TREATMENT 熱處理 1060°C ±10° W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
茲證明上述材料按照規範進行製造，取樣，檢測和檢驗，符合上述規範和採購訂單的要求。

備註： 1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water.
6. No Russian materials were used during the whole production cycle.

良豐不銹鋼管件有限公司 品檢專用章 Quality Inspection Stamp

MANAGER OF Q. A. DEPT.
品管課經理

ROSETTI MARINO
Supply Management Dept
Witness Review

S0152001-3*
S0152001-3*

Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 3/4"x1/2" SCH.40/S SEAMLESS
Order: 1724000839 - 22.04.24 - Item n.: 650 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
raccortubi Heat num. or Pos. marking: LD230511-04 - Qty:1.00
Protocol: CTCERC20240000695 • CERTIFIED TRUE COPY • Issued 20-05-2024
CTCERT20240000356.1.0001

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.
高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL : 886-7-6970588 FAX : 886-7-6970599

ISO-9001 LRQA Certificate No.: 10303342
PED 2014/68/EU Approval Certificate No.:00014950
JIS B2313 Certificate No.: JWTW 13002
JIS B2309 Certificate No.: JWTW 13001

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

EN10204-3.1

本證書請妥善保存遺失恕不補發
Please keep this certificate properly. If it is lost, it will not be reissued.

頁次 PAGE: 1
日期 DATE: 2023/9/21
證書號碼 CERTIFI. NO.: 23090884

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
36	CR 3/4" X 1/2" SCH40S WP316/316L-S	15	LD230511-04	23070004	00000166 S	23090223	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份 C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	PHYSICAL 物理性質 YS 降伏點	TS 抗拉強度	E 延伸率	HARD,HRB 硬度
														Mpa	Mpa	%	
	STANDARD	MIN.							10.000	16.000	2.000			170	485	28	
		MAX.	0.030	1.000	2.000	0.045	0.030		14.000	18.000	3.000			0	0	0	
36			0.027	0.530	1.280	0.030	0.012	0	10.250	16.720	2.650			250	535	48	84.06

HEAT TREATMENT 熱處理 1060℃ ±10℃ W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
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備註： 1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water. 6. No Russian materials were used during the whole production cycle.

良豐不銹鋼管件有限公司 品管專用章 Quality Inspection Stamp

MANAGER OF Q. A. DEPT.
品管課經理

ROSETTI MARINO
Quality Management Dept.

S0152001-3*
S0152001-3*

raccortubi

00004849

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
280	NR	40	0,00	CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS	M230941
360	NR	8	0,00	RID. CONC. 3"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S	1074624
370	NR	3	0,00	RID. CONC. 2"x1" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S	1168624
400	NR	6	0,00	RID. CONC. 6"x4" SCH.40S/10S SEAMLESS ALESATE DA SCH.40/S	MO070-1
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
420	NR	2	0,00	RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S	1127SA03
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	

raccortubi

00004849

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
560	NR	10	0,00	TEE RID. 1"x3/4" SCH.40/S SEAMLESS	EF6171
560	NR	15	0,00	TEE RID. 1"x3/4" SCH.40/S SEAMLESS	1067621
580	NR	4	0,00	TEE RID. 2"x3/4" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S	221008AS16
590	NR	2	0,00	TEE RID. 2"x1" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S	N220713AT01
600	NR	2	0,00	TEE RID. 10"x6" SCH.10/S SEAMLESS	N180725AV11
600	NR	4	0,00	TEE RID. 10"x6" SCH.10/S SEAMLESS	EF1761
600	NR	1	0,00	TEE RID. 10"x6" SCH.10/S SEAMLESS	MN078-1
620	NR	6	0,00	TEE RID. 6"x4" SCH.40S/10S SEAMLESS	151863

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

ITALTEST NDT
CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT TEST REPORT

50 dal 1965
CERT. ISO 9001 LRC0100763/QMS

N° 4.130 / 2024

PAGINA Page 1 of 2 DI PAGINE Pages

CLIENTE Customer: RACCORTUBI S.p.A.	ORDINE Order: 1724000839 - 22.04.2024	COMMESSA Job: 00002010

OGGETTO Object: SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	**MATERIALE Material**	**DISEGNO Drawing / FIG. Fig.**	**% CONTROLLATA Extent %**
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged	FUSO As Cast
				X	

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA Precleaning Method: SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting	X	FLUORESCENTE Fluorescent	
	ILLUMINAZIONE White Light Intensity	1200 lx	ILLUMINAZIONE Black Light Intensity	

METODO DI ISPEZIONE Liquid Penetrant Inspection Method							
MARCA Brand: N.D.T.			PENETRANTE Penetrant	SPRAY Spray	X	LOTTO Batch: 210115Ps	SCADENZA Expiry: 02/2025
TIPO Type	LAVABILE IN ACQUA Water Washable	X		PENNELLO Brush		LOTTO Batch	SCADENZA Expiry
	POST EMULSIONABILE Post Emulsifiable		RIVELATORE Developer	SECCO Dry		LOTTO Batch	SCADENZA Expiry
	RIMOVIBILE CON SOLVENTE Solvent Removable			UMIDO Wet	X	LOTTO Batch: 230206W150s	SCADENZA Expiry: 01/2027

TEMPO DI PENETRAZIONE Dwell Time	20 MINUTE	METODO DI PULIZIA Cleaning Method	WATER AND PAPER
TEMPO DI SVILUPPO Developing Time	10 MINUTE	METODO DI PULIZIA Cleaning Method	WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects
X		

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification	X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE Notes:

PROVA EFFETTUATA PRESSO Test Carried Out At: WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT	ROSETTI MARINO Supply Management Dept.	
DATA Date: 28 / 05 / 2024	DATA ☐ Witness ☒ Review Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.130 / 2024 PAGINA DI PAGINE Page 2 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
280	40	ELBOWS 90° LR 1 ½" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M230941
360	8	CONC. REDS. 3"x 1 ½" SCH.10S/40S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1074624
370	3	CONC. REDS. 2"x 1" SCH.10S/40S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1168624
400	6	CONC. REDS. 6"x 4" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	M0070-1
560	10	RED. TEES 1"x ¾" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	EF6171
560	15	RED. TEES 1"x ¾" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1067621
580	4	RED. TEES 2"x ¾" SCH.10S/40S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	221008AS16
590	2	RED. TEES 2"x 1" SCH.10S/40S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	N220713AT01
600	4	RED. TEES 10"x 6" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	EF1761
600	1	RED. TEE 10"x 6" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	MN078-1
600	2	RED. TEES 10"x 6" SCH.10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	N180725AV11
620	6	RED. TEES 6"x 4" SCH.40S/10S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	151863
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 27 / 05 / 2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☐ Review DATA Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.131 / 2024 PAGINA DI PAGINE Page 1 of 1 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

OGGETTO
Object NR. 2 ECC. REDS. 4" x 1 ½" SCH.10S/40S SEAMLESS - ANSI B16.9/B16.25 – HEAT 1127SA03 – ITEM 420

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	MATERIALE Material ASTM /ASME SA/A-815 UNS S32760	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent % 100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method	MARCA Brand N.D.T.		PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
	TIPO Type	LAVABILE IN ACQUA Water Washable X		PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
		POST EMULSIONABILE Post Emulsifiable	RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
		RIMOVIBILE CON SOLVENTE Solvent Removable		UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 DATA Date 28 / 05 / 2024 RT	ROSETTI MARINO Supply Management Dept. DATA Date ☐ Witness ☐ Review	DATA Date

raccortubi Heat num. or Pcs. marking: M230941 - Qty:32.00

Customer:

Description: CURVE 90° LR 1.1/2" SCH40/S SEAMLESS

ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 280 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

CTCERT2024000034791.0001

Cert. to EN 10204 / 3.1

INSPECTION CERTIFICATE

S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Page (頁) : 1

Date (日付) : JANUARY 31, 2024

Certificate No. : 24-01-0127
(番頭番号)

LRQA CERTIFIED ISO 9001
Approval No:ISO9001-0065909
PED Cert No:CE-43/PED/MUM/101005/1

Order No.: 23SAN007
(注文番号)

LA SOCIETE S.P. UNITED INDUSTRY SDN. BHD. GARANTIT QUE LES PRODUITS OBJET DU PRESENT CERTIFICAT, RESPECTENT EN LEUR TOTALITE LES PRESCRIPTIONS DE L'ARTICLE 15 DE L'ARRETE MINISTERIEL DU 24 MARS 1978, MODIFIE.
C ≤ 0.25%, P ≤ 0.05%, S ≤ 0.05%, R ≤ 800 N/MM², E ≤ 0.9 X R%,
A%(LO=5.65√SO) MIN. 16%, EN LONG, R(A-2) ≥10500 N/MM²

P.O. No. : 806739

Product (形状)	Product Specification (規格)	Specification for Raw Material (材料規格)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 (ASME SEC II PART A) ASME B16.9-2018 / MSS SP-43-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*		Size (寸法)	Dimension in mm (寸法) Outside Dia (外径)	Thickness (厚さ)	Lot No. (製造番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I Code No.	Manufacturing Method
X	1	FBBLR-S316L- 1½"x40S	48.26	3.68	M230941	300	GOOD	GOOD	24341500	COLD FORMED
	2	FBBLR-S316L- 2"x40S	60.33	3.91	M230884	196	GOOD	GOOD	24342000	COLD FORMED
	3	FBBLR-S316L- 2"x40S	60.33	3.91	M230809	4	GOOD	GOOD	24342000	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

		Chemical Composition of Raw Material % (化学成分) (材料)									Mechanical Properties of Raw Material (機械的性質)							
*	Raw Pipe Heat No. (溶解番号)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
1	NY230828AW12	2.0	33.2	101	35	1	1002	1642	202			259	599	55		GOOD	GOOD	79	
2	NY230828AW12	2.0	33.2	101	35	1	1002	1642	202			257	596	55		GOOD	GOOD	78	
3	230628AS08	1.9	45.1	89	34	1	1001	1649	201			254	594	56.5		GOOD	GOOD	79	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015
ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION
We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings. HS Code 730723), is produced by S.P. United Industry SDN BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は、当販規格及び、で注文の要求事項に適合するてとを証明します。)

ROSETTI MARINO
Suoply Management Dept.
☐ Witness ☑ Review

Head of QA/QC Dept.
質量/品質管理課長

Customer: ROSETTI MARINO S.p.A.

Description: CURVE 90° LR 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: M230941 - Qty:8,00

Order: 1724000839 - 22.04.24 - Item n.: 280 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

CTCERT202400003479.1.0001

Cert. to EN 10204 / 3.1

INSPECTION CERTIFICATE

S.P. UNITED INDUSTRY SDN. BHD.

(COMPANY NO. 368524 W)
P.T. 741/745, KAWASAN PERUSAHAAN NILAI,
71800 NILAI, NEGERI SEMBILAN DARUL KHUSUS, MALAYSIA.
TEL: 606-7993577, 7993676, 7993677 FAX: 606-7994366
E-mail: contactus@spunited.com.my

Page (頁) : 1

Date (日付) : JANUARY 31, 2024

Certificate No. : 24-01-0127 (書類番号)

LRQA CERTIFIED ISO 9001

Approval No:ISO9001-0045008
PED Cert No:CE-48/PED/MUNK/101003/1

Order No. : 23SAN007 (注文番号)

LA SOCIETE S.P. UNITED INDUSTRY SDN. BHD. GARANTIT QUE LES PRODUITS OBJET DU PRESENT CERTIFICAT, RESPECTENT EN LEUR TOTALITE LES PRESCRIPTIONS DE L'ARTICLE 15 DE L'ARRETE MINISTERIEL DU 24 MARS 1978, MODIFIE.
C ≤ 0.25%, P ≤ 0.05%, S ≤ 0.05%, R ≤ 800 N/MM², E ≤ 0.9 X R%,
A%(LO=5.65√SO) MIN. 16%, EN LONG, R(A-2) ≥10500 N/MM²

P.O. No. : 806739

Product (形状)	Product Specification (規格)	Specification for Raw Material (材料規格)
STAINLESS STEEL 90 DEG LONG RADIUS ELBOW (SEAMLESS)	ASTM A403-2022 / ASME SA403-2019 (ASME SEC II PART A) ASME B16.9-2018 / MSS SP-43-2019 WP-S 316/316L	ASTM A312 TP 316/316L

*		Size (寸法)	Dimension in mm (寸法) Outside Dia (外径)	Thickness (厚さ)	Lot No. (製造番号)	Quantity (数量)	Surface Inspection (外観検査)	Dimension Inspection (寸法検査)	S. P. I. Code No.	Manufacturing Method
X	1	FBBLR-S316L- 1½"x40S	48.26	3.68	M230941	300	GOOD	GOOD	24341500	COLD FORMED
	2	FBBLR-S316L- 2"x40S	60.33	3.91	M230884	196	GOOD	GOOD	24342000	COLD FORMED
	3	FBBLR-S316L- 2"x40S	60.33	3.91	M230809	4	GOOD	GOOD	24342000	COLD FORMED

YS=Yield Strength (0.2%), EL=Elongation, H=Hardness Test
TS= Tensile Strength, GL=Gauge Length, HT=Hydrostatic Test

		Chemical Composition of Raw Material % (化学成分) (材料)									Mechanical Properties of Raw Material (機械的性質)								
*	Raw Pipe Heat No. (溶解番号)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100		Type of Specimen (試験片)	YS Mpa (耐力)	TS Mpa (引張強さ)	EL% (伸び) (GL:50mm)	EL% (伸び) Standard (規格値)	Flattening Test (へん平試験)	HT Mpa (水圧試験)	Hardness Test HRB	
1	NY230828AW12	2.0	33.2	101	35	1	1002	1642	202			259	599	55		GOOD	GOOD	79	
2	NY230828AW12	2.0	33.2	101	35	1	1002	1642	202			257	596	55		GOOD	GOOD	78	
3	230628AS08	1.9	45.1	89	34	1	1001	1649	201			254	594	56.5		GOOD	GOOD	79	
Specification		MAX 3.0	MAX 100	MAX 200	MAX 45	MAX 30	1000 1400	1600 1800	200 300			MIN 205	MIN 515	MIN 28					

Remarks * Hardness acc. to NACE MR0175 / ISO 15156-3: 2015, NACE MR0103:2015
ISO 9001-2015/EN 10204-3.1. PED 2014/68/EU ANNEX I SECTION 4.3 INTERGRANULAR CORROSION TEST (ASTM A262/E) - OK. PMI CHECK GOOD.
HEAT TREATMENT 1050 DEGREE CELCIUS QUENCHED IN WATER. PICKLED AND PASSIVATED.
NO WELD REPAIR WAS PERFORMED AND ALL ITEMS SUPPLIED ARE FREE OF WELD REPAIR. MATERIAL IS FREE OF MERCURY CONTAMINATION
We certify that the above material has been inspected and tested and complies with the order/contract. This Material (BW Fittings. HS Code 730723), is produced by S.P. United Industry SDN BHD.
Material here certified does not contain any steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No COUNCIL REGULATION (EU) 2023/1214 of 23 June 2023 and amending Regulation (EU) No 833/2014

We herewith certify that the above products meet the requirements of the relevant standard and of the customer order.
(上記の製品は、当該規格及び、で注文の要求事項に適合するてとを証明します。)

Head of QA/QC Dept.
質量/品質管理課長

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

raccortubi

Heat num. or Pos. marking: 1074624 - Qty:8,00

Description: RID. CONC. 3"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 360 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: Master plan Febbraio 2024/1

Pos. N. / Item/Poste: 36 — **Q.tà** / Q.ty/Q.té: 128

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1074624

Created on: 23-02-2024

Descrizione / Description / Description: CONC.REDS 3"x1.1/2" SCH.40/S SEAMLESS

Specifica / Specification / Spécification: FITTINGS TO ASME II Part.A SA403/403M Ed.2023
ASTM A403/403M-22b WP 316/316L
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: MANNESMANN STAINLESS TUBES Cert. No.: 3-23-03546-rev.01
Raw material - manufacturer/Materiel du depart - fabriquant:
MANNESMANN STAINLESS TUBES Cert. No.: 3-23-03546-rev.01

Specifica / Specification/Spécification	Colata N. / Heat N. / Coulée N.	N. prova / Specimen N. / Echantil. N.	Snervamento / Yield strength / Limite d'elasticité N/mm2	Rottura / Tensile / Resistance à la traction N/mm2	Allungam. % / Elongation / Allongement	Durezza / Hardness as per NACE MRO1-75	Durezza / Hardnes / Dureté	Resilienza / Impact energy / Resilience / Joules
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	376396	QL30179468	241	565	56	HRC<22	HRC 7	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. / Heat N. / Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	N	Co				PRE	FERRITE
376396	0,017	0,43	1,59	0,022	0,0010	16,8	11,2	2,0	0,07	0,17					

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur
ROSETTI MARINO
Supply Management Dept.

☐ Witness ☒ Review

raccortubi

Heat num. or Pos. marking: 1168624 - Qty:3,00

Description: RID. CONC. 2"x1" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 370 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020

Protocol: CTCERC2024000049

* CERTIFIED TRUE COPY
* Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer

Ordine N. Master plan Aprile 2024/1
P.O.N./C.

Pos. N. 9 **Q.tà** 214
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1168624
Material Marking e Cert. N.

Created on: 03-05-2024

Descrizione CONC.REDS 2"x1" SCH.40/S SEAMLESS
Description
Description

Specifica FITTINGS TO ASME II Part.A SA403/403M Ed.2023
Specification ASTM A403/403M-22b WP 316/316L
Spécification DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: ALLEIMA Cert. No.: A/23-173128 Rev 00
Raw material - manufacturer/Materiel du depart - fabriquant:
ALLEIMA Cert. No.: A/23-173128 Rev 00

Specifica Specification/Specification	Colata N. Heat N. Coulée N.	N. prova Specimen N. Echantil. N.	Snervamento Yield strength Limite d'elasticité N/mm2	Rottura Tensile Resistance à la traction N/mm2	Allungam. % Elongation Allongement	Durezza Hardness as per NACE MRO1-75	Durezza Hardnes Dureté	Resilienza Impact energy Resilience Joules
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	569195	16020	278	607	52	HRC<22	HRC 8	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	Co	Cu	N			PRE	FERRITE
569195	0,009	0,41	1,60	0,030	0,009	16,67	11,22	2,04	0,12	0,30	0,062				

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	Senza saldatura
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction

Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique

Solubilizzazione a 1045°C, raffreddamento in acqua

Solution Annealing at 1045°C water quenching

Hypertrempés à 1045°C, trempe à l'eau

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☐ Review

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

307-2518888 Fax: +607-2519999 Website: www.pantechsalloy.com

http // www.pantech-group.com

Certificato Fornitore

342 095 072 662

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Certified to NSF/ANSI 61

Approval No : ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX I, PARA A.3
PED CERTIFICATE NO : 0343/PED/MUM/1110006/1

Customer:

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-46698

Date : 30 Dec 2023

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
806800 & 806740 & 806779 & 806820	E000006115	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 21 / ASME SECTION II PART A-2021	Solution Treated, Pickled-Passivated

	Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
X	MO070-1	6" X 4"	SCH 40s	CON-REDUCER	60	WP316/316L-S	PASSED	N230129AW16
	MN076-1	8" X 6"	SCH 10s	CON-REDUCER	10	WP316/316L-S	PASSED	230204BE05-01
	MN077-1	2 1/2" X 2"	SCH 10s	ECC-REDUCER	60	WP316/316L-S	PASSED	230308BE10-01
	LN008-1	3" X 2"	SCH 10s	ECC-REDUCER	20	WP316/316L-S	PASSED	NY220918AT17
	MN073-1	3" X 2"	SCH 40s	ECC-REDUCER	60	WP316/316L-S	PASSED	221113AE04-02
	MN094-1	4" X 3"	SCH 10s	ECC-REDUCER	20	WP316/316L-S	PASSED	NY230412AT09
	LN011-1	4" X 3"	SCH 40s	ECC-REDUCER	10	WP316/316L-S	PASSED	NY220903AV08
	MB161-1	2"	SCH 10s	CAP	100	WP316/316L-S	PASSED	C00082
	MB320-1	3"	SCH 10s	CAP	100	WP316/316L-S	PASSED	C00082
	MB016-1	3"	SCH 40s	CAP	50	WP316/316L-S	PASSED	E10141

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
Max	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Min	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
Heat No.															
MO070-1	0.018	0.35	0.85	0.032	0.001	16.25	10.01	2.01	< 0.01		256	594	54	81	PASSED
MN076-1	0.014	0.39	0.94	0.035	0.001	16.39	10.06	2.00	< 0.01		225	569	65	77	PASSED
MN077-1	0.013	0.29	1.06	0.035	0.001	16.44	10.04	2.03	< 0.01		280	556	55	64	PASSED
LN008-1	0.012	0.45	1.02	0.030	0.001	16.23	10.17	2.09	< 0.01		271	587	51	74	PASSED
MN073-1	0.012	0.26	0.99	0.036	0.001	16.18	10.03	2.01	< 0.01		228	560	60	67	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		246	588	58	71	PASSED
LN011-1	0.015	0.34	0.88	0.033	0.001	16.52	10.01	2.06	< 0.01		246	573	60	76	PASSED
MB161-1	0.025	0.42	1.37	0.025	0.002	16.60	10.10	2.02	< 0.01		377	640	47	86	PASSED
MB320-1	0.025	0.42	1.37	0.025	0.002	16.60	10.10	2.02	< 0.01		377	640	47	88	PASSED
MB016-1	0.022	0.46	1.33	0.030	0.002	16.80	10.00	2.04	< 0.01		314	626	45	83	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 1" BELOW BONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MARKING PROCESS : ADD / VOD

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO MACE-MR0175-2015 / ISO 15156-2015 & MACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1010°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1. YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

MATERIAL CONFORMS TO THE SPECIFICATION - STANDARD SHOWN

MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor,
Tel: +607-251 8888 Faxt: +607-251 9999

Head of Quality Assurance Department

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

Form :FQA-0306 R.6; 04-03-2022

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 400 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 6"x4" SCH.40S/10S SEAMLESS ALESATE DA SCH.40/S

raccortubi Heat num. or Pcs. marking: MO070-1 - Qty:6,00

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY
* Issued 30-05-2024

raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2.00

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. OS000071 S DEL 20/03/2013
P.O.N./Commande N.

Pos. N. 2 **Q.tà** 28
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1127SA03 **Data:** 18-09-2013
Material Marking e Cert. N. Date:

Descrizione ECC. REDS 4"x1.1/2" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM A/815M-10a
Specification ASME SA/815M ed.13 UNS S32760
Spécification DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: TUBACEX Cert. No.: 570424
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760 - TUBACEX Cert. No.: 570424

Test produzione Production test/Coupon de production	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.1 Specimens location drawing as per relevant QTR	46589	1841/13	700	891	36.4	HRC<28	HRC 24	SEE SIDER TEST CERTIFICATE 16387/13

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**W**	**N**		**PRE**	**FERRITE**
46589	0,012	0,490	0,67	0,024	0,0005	25,55	6,90	3,63	0,69	0,62	0,2485		41.505	45,00

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.10
CERTIFIED ACC.TO PED 97/23/EC
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:16387/13
- MATERIAL AND TESTS ACCORDING TO M-650 REV.4 - MDS D53 REV.4
- HEAT TREATMENT LOT:0142
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).
- POSITIVE MATERIAL IDENTIFICATION ON 100% OF THE PIECES : SATISFACTORY

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/Inspéction
Esame visivo e dimensionale: Buono
Identificazione materiale: Buono

Visual and dimensional test: Satisfactory
Positive Material Identification: Satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65√So >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
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http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

PM 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**OS000071 S**	Commessa / Job	**49/13 13/0510**
Subcliente/Subcustomer /							
Descrizione / Description **E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity **38**	Posizione / Item **2**	Prova Nr. / Test. Nr. **1841/13**	Colata / Heat **46589**	Materiale / Material	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

PROVA DI TRAZIONE — Tensile test

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Dimensioni Wth Ø / Width ØPipe (mm)		Lo Lo	Posizione di prelievo Test position			Temp. Temp. (°C)	Snervamento Yield strength (MPa)			Rottura Tensile strength Rm (MPa)		Allungamento Elongation A (%)		Strizione Area Reduction Z (%)	S/R Ratio Yield strength / Tensile strength	Data esecuzione Date of Testing
1841/13	73556	ASTM A 370-12	5,07	6,2	25	B	L	FT	23	(≥ 550)	Rp0.2%	**700**	(750/895)	**891**	(≥ 25)	**36,4**			25/09/2013

Specifica / Specification: RTX_D53 Rev.5 — **Note /Remarks:** — **Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'**

PROVA DI RESILIENZA — Notched-bar impact test

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Dimensioni Dimension Size Width Length	Posizione di prelievo Test position		Tipo Type	Temp Temp. (°C)	Energia assorbita / Absorbed energy Valore singolo Single Value			Media Average	Area di taglio / Shear area Valore singolo (%) Single Value (%)	Media (%) Average (%)	Espansione laterale / Lateral expansion Valore singolo (mm) Single Value (mm)				Media (mm) Average (mm)	Data esecuzione Date of Testing
1841/13	73557	ASTM A 370-12	5 x 10 x 55	B	L	1/2	KV	-51	**J** (≥ 42)	**93**	**98**	**96**	(≥ 49) **96**			(≥ 0,38)	**1,96**	**2,00**	**1,98**	**1,98**	25/09/2013

Specifica / Specification: RTX_D53 Rev.5 — **Note /Remarks:** — **Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA.
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) Th(Through Thickness)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept ☐ Witness	☐ Review	**Marco Borile**	**Paolo Amani**

R_Rpt_TRP dt. 05/09/2012

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY
* Issued 30-05-2024

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RAPPORTO DI PROVA
TEST REPORT

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S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**OS000071 S**			Commessa / Job	**49/13 13/0510**
Subcliente/Subcustomer /									
Descrizione / Description **E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity **38**	Posizione / Item **2**	Prova Nr. / Test. Nr. **1841/13**	Colata / Heat **46589**	Materiale / Material **ASTM A 815-10a UNS S32760**				

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti Determining volume fraction by systematic manual point count **Specifica: Specification: RTX_D53 Rev.5 + STATOIL -2010080 Rev.0**

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Direzione e Posizione Location			Note Remarks	Data esecuzione Date of Testing
1841/13	73559	ASTM E 562-11	B	T	FT		25/09/2013

FORMULE USATE (Formulas used)

Percentuale media di punti (Pp): / Average Percentage of Points (Pp): $Pp = 1/n \times \sum_{i=1}^{n} Pp(i)$

Deviazione Standard (s): / Standard Deviation (s): $s = \left[\frac{1}{n-1} \sum_{i=1}^{n} (Pp(i) - Pp)^2 \right]^{1/2}$

95% Intervallo di scarto (95% CI): / 95% Confidence Interval (95%CI): $95\%CI = \frac{2.0 \times s}{(n-1)^{1/2}}$

Errore (%): / Error (%): $\frac{95\%CI \times 100}{Pp}$

Frazione di Volume (Vv%): / Volume Fraction (Vv %): $Vv = Pp \pm 95\%CI$

RISULTATI (Min. 40%, Max. 55%) / Results (Min. 40%, Max. 55%)

Vv (% Frazione di volume della Ferrite) / Vv (% Volume fraction of the constituent):	45.00 ± 2.04
% Errore (RA): / % Error (RA):	4,53
Nr. di campi per provino/sezione/spaziatura/angolo: / Nr. of fields for specimens/section/spacing/angle:	30 / 8 x 20 mm / 1 x 3 mm / 45°
Preparazione del provino: / Sample preparation:	NaOH + Electrolytic
Ingrandimento: / Magnification:	500 X
Misura del reticolo: / Grid size:	40 mm x 40 mm 5 x 5 = 25 Points

% Frazione di volume della Ferrite per ciascun campo esaminato
% Volume fraction of the costituent for each metallographic section

1	40
2	40
3	48
4	44
5	46
6	54
7	48
8	38
9	44
10	50
11	38
12	46
13	38
14	54
15	52
16	40
17	38
18	38
19	44
20	36
21	48
22	44
23	54
24	50
25	40
26	50
27	52
28	46
29	46
30	44

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal). Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept.		**Stefano Antonielli**	**Paolo Amani**
				☐ Witness	☐ Review	firmato elettronicamente - electronically signed	

R_Rpt_E562 dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1127SA03 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
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RAPPORTO DI PROVA
TEST REPORT

MIC 16387 / 13 Page 1 of 2

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**OS000071 S**		Commessa / Job	**49/13 13/0510**
Descrizione / Description **E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity **38**	Posizione / Item **2**	Prova Nr. / Test. Nr. **1841/13**	Colata / Heat **46589**	Materiale / Material **ASTM A 815-10a UNS S32760**				

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

ESAME MICROGRAFICO
Micrographic examination

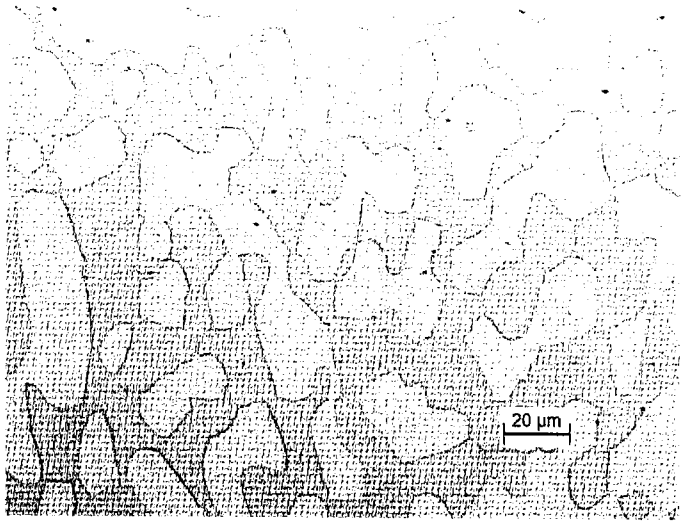
Specifica Specification: RTX_D53 Rev.5 + STATOIL -2010080 Rev.0

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Temp. / Temp. (°C)	Data esecuzione / Date of Testing
1841/13	73560	ASTM E 3-11+ASTM E 407-07e1	B	T	FT	20	25/09/2013

Attacco: / Etching: 10% Oxalic

Ingrandimento: / Enlargement: 500 X

Area esaminata: / Area examined: Materiale base / Base Material



Note: / Remarks: Struttura libera da nitruri. / Structure free from nitrides.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

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c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Ispettore Customer	Ispettore Customer
20/09/2013	**26/09/2013**				

ROSETTI MARINO Suoply Management Dept. Fitness Review

Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
Stefano Antonielli	**Paolo Amani**
firmato elettronicamente - electronically signed	

R_Rpt_MIC dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1127SA03 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010
Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
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Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
MIC 16387 / 13 Page 2 of 2
S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order	**OS000071 S**	Commessa / Job **49/13** **13/0510**
Subcliente/Subcustomer /			

ESAME MICROGRAFICO
Micrographic examination

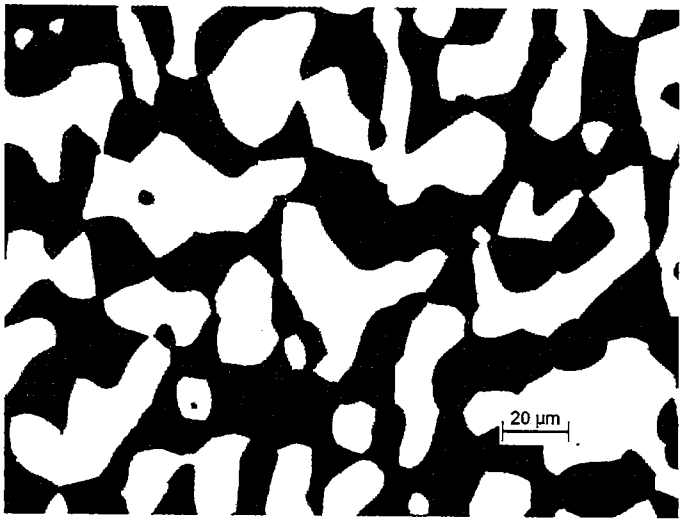
Specifica Specification: **RTX_D53 Rev.5 + STATOIL -2010080 Rev.0**

No. Prova **Specimen**	ID Prova **ID Specimen**	Metodo di prova **Test method**	Direzione e Posizione **Location**	Temp. **Temp. (°C)**	Data esecuzione **Date of Testing**
1841/13	73561	ASTM E 3-11+ASTM E 407-07e1	B T FT	20	25/09/2013

Attacco / Etching: 20% NaOH

Ingrandimento / Enlargement: 500 X

Area esaminata / Area examined: Materiale base / Base Material



Note / Remarks: Struttura libera da precipitazioni a bordo grano e fasi intermetalliche./Structure free from grain boundary carbides and intermetallic phases.

Esito delle prove / Conclusion: **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review		**Stefano Antonielli**	**Paolo Amani**

R_Rpl_MIC dt. 05/09/2012

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2,00

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
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http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

G48ACE 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC	Ordine / Order	OS000071 S			Commessa / Job	49/13 13/0510
Subcliente/Subcustomer	/						

Descrizione / Description	E.R. 4" x 1.1/2" SCH. 40S / 40S	Quantità / Quantity	38	Posizione / Item	2	Prova Nr. / Test. Nr.	1841/13	Colata / Heat	46589	Materiale / Material	ASTM A 815-10a UNS S32760

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

Prova di "pitting" in ferro-cloruro **Ferric chloride pitting test** **Specifica: Specification: RTX_D53 Rev.5**

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Direzione e Posizione Location	Note Remarks
1841/13 - 1	73563	ASTM G 48-11 - Met. A	B L FT	

Dimensioni / Dimensions

Lunghezza - L (mm): 48,40 — Length - L (mm):
Larghezza - W (mm): 24,80 — Width - W (mm):
Spessore - T (mm): 5,80 — Thickness - T (mm):

Area (cm²): [(LxWx2) + (WxTx2) + (LxTx2)] / 100 — Area (cm²): 32,50

Provino in Materiale Base
Specimen in Base Material

Preparazione provino: Meccanica ☑ Chimica ☐
Specimen preparation: Mechanical Chemical

Temperatura di prova (°C): 50 — Test temperature (°C):
Soluzione: FeCl3 · 6H2O 10% WATER SOLUTION — Solution:

Tempo di esposizione (ore): 24 — Exposure time (hours):

Data e ora inizio: 25/09/2013 13:45:00 — Initial date and time:
Data e ora fine: 26/09/2013 13:45:00 — End date and time:

Peso iniziale (g): 54,2155 — Initial weight (g):
Peso finale (g): 54,2152 — Final weight (g):
Perdita totale di peso (g): 0,0003 — Weight total loss(g):

Perdita di massa g/m² 0,0923 — Specimen mass loss

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X
NOT PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata (cm²): (LxWx2)/100: 24,01 — Examined area (cm²):

Media della profondità dei pit (µm): 0.00 — Average of pits depth (µm):

No. Pit lato A(superficie): 0,00 — Nr. Pit side A (surface):
No. Pit lato B: 0,00 — Nr. Pit side B:
Pit per cm²: 0.00

Massima profondità dei pit (µm): 0,00 — Maximum pit depth (µm):

Limite perdita di massa g/m² max.: 4,000
Limit Specimen mass loss max.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta b) We declare that this test report cannot be partially reproduced without our written approval.
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Rnn) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	26/09/2013			ROSETTI MARINO Supply Management Dept.		Stefano Antonielli	Paolo Amani

R_Rpt_G48ACE dt. 05/09/2012

☐ Witness ☑ Review

firmato elettronicamente - electronically signed

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raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2,00

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020 10

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
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RAPPORTO DI PROVA
TEST REPORT

ANL 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC			Ordine / Order	OS000071 S			Commessa / Job	49/13 13/0510
Subcliente/Subcustomer	/								
Descrizione / Description	E.R. 4" x 1.1/2" SCH. 40S / 40S	Quantità / Quantity	38	Posizione / Item	2	Prova Nr. / Test. Nr.	1841/13	Colata / Heat	46589
Materiale / Material	ASTM A 815-10a UNS S32760								

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO **Atomic emission vacuum Spectrometric analysis** **Specifica: Specification: RTX_D53 Rev.5**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Temp. / Temp. (°C)	Note / Remarks	Data esecuzione / Date of Testing
1841/13	73566	ASTM E 1086-08	B UP	20		25/09/13

C %	0,014	Al %		Zr %		FORMULE	FORMULAS
Si %	0,53	Co %		Zn %			
Mn %	0,653	Nb %		O %			
P %	0,022	Ti %		Fe %			
S %	0,004	W %	0,6	Ca %			
Cr %	25,433	Pb %		Ta %			
V %		Sn %		Sb %			
Mo %	3,626	As %				PREN	41,51
Ni %	6,912	B %					
Cu %	0,652	N %	0,257				

ID Gruppo / Group ID:

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	26/09/2013			ROSETTI MARINO Supply Management Dept.	Stefano Antonielli	Paolo Amani

R_Rpt_ANL dt. 05/09/2012

☐ Witness ☑ Review

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1127SA03 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

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RAPPORTO DI PROVA
TEST REPORT

DUR 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	**Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order	**OS000071 S**					Commessa / Job	**49/13 13/0510**
Subcliente/Subcustomer	/								
Descrizione / Description	**E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity	**38**	Posizione / Item	**2**	Prova Nr. / Test. Nr.	**1841/13**	Colata / Heat	**46589**
Materiale / Material	**ASTM A 815-10a UNS S32760**								

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

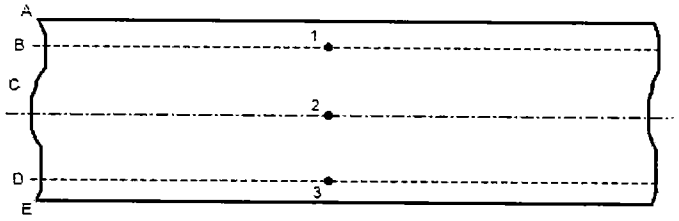
PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)
HBW hardness test (Indentation measuring device Type A)

Specifica: Specification: RTX_D53 Rev.5

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Posizione di prelievo / Test position		Durezza / Hardness	Note / Note	Data esecuzione / Date of Testing
1841/13	73558	ASTM E 10-12	B	T	HB 2,5/187,5		25/09/2013

Minimo richiesto / Min. Request — Rich. Ord. / Ord. Reqs ☐

Massimo richiesto / Max. Request — **270** — Rich. Ord. / Ord. Reqs ☐



AB=DE= 2 mm AC= 1/2 AE

Valori ottenuti / Hardness Numbers

1	2	3
250	**256**	**260**

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal) Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter) D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept.		**Marco Borile**	**Paolo Amani**
R_Rpt_DUR1 dt. 13/03/2012				☐ Witness	☑ Review	firmato elettronicamente - electronically signed	

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1127SA03 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC20240000484 9 * CERTIFIED TRUE COPY * Issued 30-05-2024

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RAPPORTO DI PROVA
TEST REPORT

A923A 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	**Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**OS000071 S**		Commessa / Job	**49/13 13/0510**
Subcliente/Subcustomer	/								
Descrizione / Description	**E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity	**38**	Posizione / Item	**2**	Prova Nr. / Test. Nr.	**1841/13**	Colata / Heat	**46589**	Materiale / Material	**ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio
Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

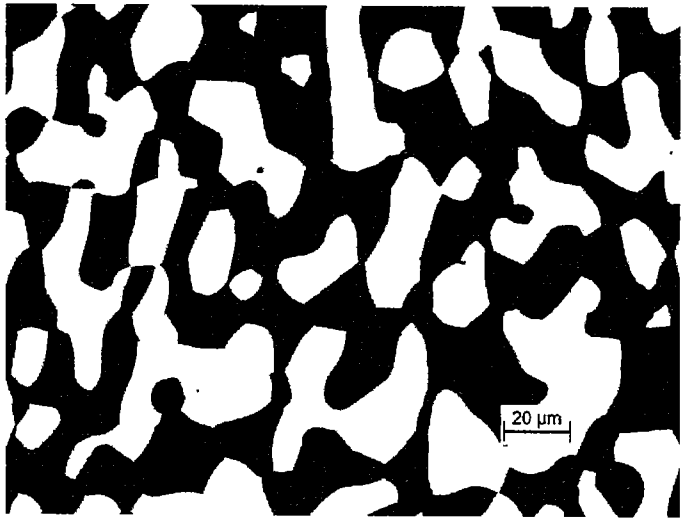
Specifica Specification: RTX_D53 Rev.5 + STATOIL -2010080 Rev.0

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Temp. / Temp. (°C)	Data esecuzione / Date of Testing
1841/13	73565	ASTM A 923-08 (Met. A)	B T FT	20	25/09/2013

Attacco / Etching: NaOH + Electrolytic

Ingrandimento / Enlargement: 500 X

Area esaminata / Area examined: Materiale base / Base Material



Note / Remarks: Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure. Struttura libera da precipitazioni a bordo grano e fasi intermetalliche./Structure free from grain boundary carbides and intermetallic phases.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Rtm) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept.		**Stefano Antonielli**	**Paolo Amani**
R_Rpt_A923A dt. 05/09/2012				☐ Witness	☑ Review	firmato elettronicamente - electronically signed	

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1127SA03 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: RID. ECC. 4"x1.1/2" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S

Order: 1724000839 - 22.04.24 - Item n.: 420 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000020010

Protocol: CTCERO2024000004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'Industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http://www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

A923C 16387 / 13 Page 1 of 1

S.I.M. No.: 5037 / 13 F.C.P. No.: 5037 / 13 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	**Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**			Ordine / Order	**OS000071 S**			Commessa / Job	**49/13 13/0510**
Subcliente/Subcustomer	/								
Descrizione / Description	**E.R. 4" x 1.1/2" SCH. 40S / 40S**	Quantità / Quantity	**38**	Posizione / Item	**2**	Prova Nr. / Test. Nr.	**1841/13**	Colata / Heat	**46589**
Materiale / Material	**ASTM A 815-10a UNS S32760**								

Campione fornito dal Cliente / Sample supplied by the Customer: parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico **Specifica: Specification: RTX_D53 Rev.5**
Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Direzione e Posizione Location	Note Remarks
1841/13	73564	ASTM A 923-08 (Met. C)	B L FT	

Dimensioni / Dimensions

Lunghezza (mm): 52,1 Length (mm):
Larghezza (mm): 25,1 Width (mm):
Spessore (mm): 7,1 Thickness (mm):
Area (cm²): 37,12 Area (cm²):

Provino in Materiale Base
Specimen in Base Material

Preparazione provino: Meccanica ☑ Chimica ☐
Specimen preparation: Mechanical Chemical

Temperatura di prova (°C): 40
Specimen preparation (°C):

Tempo esposizione (ore): 24
Specimen preparation (hours):

Soluzione: FeCl3 · 6H2O 10% water solution
Solution:

Peso iniziale (g): 73,3490
Initial weight (g):

Peso finale (g): 73,3488
Final weight (g):

Perdita di peso (g): 0,0002
Weight loss (g):

Perdita della massa (g/m²): 0,054
Specimen mass loss

Velocità di corrosione (mg/(dm²*d)) 0,5
Corrosion rate (mg/(dm²*d)):

Data inizio: 25/09/2013 13:45:00 Initial date
Data fine: 26/09/2013 13:45:00 End date

Limite velocità di corrosione (mg/(dm²*d)) max.: 10,0
Corrosion rate limit (mg/(dm²*d)) max.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
20/09/2013	**26/09/2013**			ROSETTI MARINO Supply Management Dept.		**Stefano Antonielli**	**Paolo Amani**

R_Rpt_A923C dt. 05/09/2012

☐ Witness ☑ Review

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

CTCERT202400003502.1.0001

JNDIA®

浙 江 志 达 管 业 有 限 公 司

Zhejiang Jndia Pipeline Industry Co.,Ltd

电话tel: +86-577-85826161 传真fax: +86-577-85826565 电子信箱Email: sales@jndia.com.cn

中国浙江省温州经济技术开发区金海园区滨海六道366号

No.366,Avenue 6,Binhai, Jinhai Industrial Park, Economy& Technology Developing Zone, Wenzhou, 325025, Zhejiang Province, China

产品质量证明书

Mill Test Certificate

压力管道元件 TS Cert. No.:TS2733G94-2024

ISO 9001:2015: 50095-2009-AQ-RGC-RvA

PED 2014/68/EU Cer: 07/202/9030/WZ/2456/20

AD 2000-Merkblatt W0 Cert. No.:07/202/9030/WP/2456/20

编号No.:JNDIA/R08-29

证书 Certificate: EN10204 3.1 证书号 Certificate No.: JNDIA2023-GW1177-01 页次 Page 1 of 1

客 户

订单号PO No.:806771

产品描述 Description:STAINLESS STEEL PIPE FITTING

材质 Material:ASTM A403-22/ASME SA403-21 WP316/316L

交货状态 Delivery Condition: 固溶Solution annealed

生产标准 Manufacturing Standard:ASME B16.9-2018

产品交货情况 Product Delivery:

序号 NO.	品名Description	规格Specification	材质 Material	数量 Quantity(PCS)	炉号 Heat No.	备注Remarks
0285	Red Tee	1" x 3/4" sch40s	WP316/316L-S	10	EF6171	

检测结果（标准要求已符合，见如下表格)Inspection Results(The Requirements are fulfilled as listed in Annex)

A.化学成分 Chemical Composition: [%]

炉号Heat No.		C ≤0.030	Si ≤1.00	Mn ≤2.00	P ≤0.045	S ≤0.030	Cr 16.0-18.0	Ni 10.0-14.0	Nb	N	Ti	Mo 2.0-3.0
0285	EF6171	0.023	0.49	1.06	0.028	0.001	16.64	10.08				2.09

B.机械性能 Mechanical Property:

炉号 Heat No.		屈服强度Yield Strength(MPa) ≥205	拉伸强度 Tensile Strength(MPa) ≥515	延伸率 Elongation(%) ≥28	硬度 Hardness (HRC) ≤22	断面收缩率 Reduction of Area(Z%)	冲击试验 Charpy Impact(AK)
		$R_P0.2$	R_m	A50			
0285	EF6171	306	614	52	<20<20<20	/	/

C.检测及相关数据验证 Inspection and Related Data Verify

尺寸检查 Dimensional Check	ACC	晶间腐蚀 Corrosion Test ASTM A262 Practice E	ACC
表面检查 Surface Visual Inspection	ACC		
光谱分析 100%PMI	ACC		

D.备注Remarks:

ASME Code Sec II Part A2017 .NACE MR1075 resp. MR0103 ISO 15156 we hereby confirm that material is free of radioactivity contamination.La société Jndia garantit que tous les produits, objet du certificat susdit, respectent dans leur totalité les spécifications de l'article 15 de l'Arreté,ministeriel du 24 Mars 1978, c'est à dire C≤0.25% - P<0.05% S<0.05% - Rm<800 N/mm2 - Rm(A-2)10500 min. A% sur 5.65 V So.min 16% - E<0.8R; Melting Process: AOD, Cold forming

This Material (BW Fittings, HS Code 730723), is produced/melted by Zhejiang Jndia Pipeline Industry Co. Ltd. Steel Mill China and is of 100% Chinese Origin.Because mentioned HS Code is listed in EU Regulation 833/2014 Annex XVII and further amendment, we additionnally confirm that no material of Russian Origin has been used in the production of this product.

制单人：黄林飞 审 核： 日期： 2024-01-09 质检专检验部门(章)!

Prepared by: Huang Linfei Reviewed by Date Stamp

ROSETTI MARINO

Supply Management D...

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 560 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 1"x3/4" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: EF6171 - Qty:10,00 Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY

* Issued 30-05-2024

raccortubi Heat num. or Pcs. marking: 1067621 - Qty:15.00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1"x3/4" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 560 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. OS0000200 S DEL 09-12-2020

Pos. N. Item/Poste 2 **Q.tà** Q.ty/Q.té 132

(*) Marcatura e cert. N. Material Marking e Cert. N. 1067621

Created on: 04-02-2021

Descrizione Description Description RED.TEES 1"x3/4" SCH.40/S

Specifica Specification Spécification FITTINGS TO ASTM A403/403M-20
ASME SA403/SA403Sect. II Part.A ed.19 WP 316/316L
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: SeAH CSS Cert. No.: 200514-S090
Raw material - manufacturer/Materiel du depart - fabriquant:
SeAH CSS Cert. No.: 200514-S090

Specifica Specification/Specification	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	N20887	B04P018600	225	525	58	HRC<22	HRC 6	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**N**					**PRE**	**FERRITE**
N20887	0,019	0,439	1,010	0,0279	0,0074	16,714	12,087	2,041	0,0068						

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication
Formato a freddo Cold formed Formés à froid — **Senza saldatura** Seamless Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

ROSETTI MARINO
Supply Management Dept.
Ispettore
Inspector/Inspecteur

☐ Witness ☑ Review

raccortubi
Heat num. or Pcs. marking: 221008AS16 - Qty:4,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 2"X3/4" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S
Order: 1724000839 - 22.04.24 - Item n.: 580 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002010
Protocol: CTCERC20240000849 * CERTIFIED TRUE COPY
* Issued 30-05-2024

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.
高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL: 886-7-6970588 FAX: 886-7-6970599

ISO-9001 LRQA
Certificate No.: 10303342
PED 2014/68/EU
Approval Certificate No.:00014950

JIS B2313
Certificate No.: JWTW 13002
JIS B2309
Certificate No.: JWTW 13001

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

EN10204-3.1

本證書請妥善保存遺失恕不補發
Please keep this certificate properly.
If it is lost, it will not be reissued.

頁次 PAGE: 1
日期 DATE: 2023/4/26
證書號碼 CERTIFI. NO.: 23041040

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
11	R TEE 2" X 3/4" SCH40S WP316/316L-S	20	221008AS16	23020006	00000022 S	23040721	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份 C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	PHYSICAL 物理性質 YS 降伏點 Mpa	TS 抗拉強度 Mpa	E 延伸率 %	HARD,HRB 硬度
	STANDARD	MIN.							10.00	16.00	2.00			170	485	28	
		MAX.	0.030	1.00	2.00	0.045	0.030		14.00	18.00	3.00			0	0	0	
11			0.023	0.33	0.98	0.034	0.001		10.05	16.17	2.14			265	611	69.0	72

HEAT TREATMENT 熱處理 1060°C ±10° W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
茲證明上述材料按照規範進行製造，取樣，檢測和檢驗，符合上述規範和採購訂單的要求。

備註： 1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water.

良豐不銹鋼管件有限公司 品檢專用章 Quality Inspection Stamp Liang Feng Stainless Steel Fitting Co., Ltd.

歐勁軒
MANAGER OF Q. A. DEPT. 品管課經理

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

CTCERT20230000277.1.0001

Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 2"x1" SCH.10S/40S SEAMLESS ALESATE DA SCH.40/S
raccortubi Heat num. or Pcs. marking: N220713AT01 - Qty:2,00
Order: 1724000839 - 22.04.24 - Item n.: 590 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010
Protocol: CTCERC20240000849 * CERTIFIED TRUE COPY * Issued 30-05-2024
CTCERT20230000504 4.1.0001

良豐不銹鋼管件有限公司
LIANG FENG STAINLESS STEEL FITTING CO., LTD.
高雄市路竹區中山南路74號
NO. 74, Zhongshan S. Rd., Luzhu District, Kaohsiung City 821, Taiwan R.O.C.
TEL：886-7-6970588 FAX：886-7-6970599

ISO-9001 LRQA Certificate No.: 10303342
PED 2014/68/EU Approval Certificate No.:00014950
JIS B2313 Certificate No.: JWTW 13002
JIS B2309 Certificate No.: JWTW 13001

EN10204-3.1

客戶 PURCHASER: Raccortubi S.p.A.
規範 PRODUCT SPEC.: ASTM A403/403M-22 ASME SA403-21
原料 RAW MATERIAL: ASTM A312-2019/ASME SA312-2021
檢驗規範 INSP. SPEC.: ASME B16.9-18

檢驗證明書
INSPECTION CERTIFICATE

本證書請妥善保存遺失恕不補發 Please keep this certificate properly. If it is lost, it will not be reissued.

頁次 PAGE: 1
日期 DATE: 2023/9/21
證書號碼 CERTIFI. NO.: 23090878

ITEM NO. 項次	PRODUCT & SIZE 產品品名&尺寸	QUANTITY PCS 數量	MATERIAL HEAT NO. 爐號	MANUFACTURING NO. 製造工令	CUSTOMER'S ORDER NO. 客戶訂單號碼	P. I. N.O. 銷貨編號	REMARKS 備註
31	R TEE 2" X 1" SCH40S WP316/316L-S	20	N220713AT01	23070001	00000166 S	23090223	cold formed,seamless execution

ITEM NO. 項次	SPECIFICATION 說明		CHEMICAL COMPOSITION % 化學成份										PHYSICAL 物理性質			
			C碳	Si矽	Mn錳	P磷	S硫	Cu銅	Ni鎳	Cr鉻	Mo鉬	V釩	Nb鈮	YS 降伏點	TS 抗拉強度	E 延伸率	HARD,HRB 硬度
														Mpa	Mpa	%	
	STANDARD	MIN.							10.000	16.000	2.000			170	485	28	
		MAX.	0.030	1.000	2.000	0.045	0.030		14.000	18.000	3.000			0	0	0	
31			0.021	0.350	1.080	0.033	0.001		10.150	16.230	2.110			289	589	56	88.06

HEAT TREATMENT 熱處理 1060°C ±10° W.Q.	DIMENTIONAL INSPECTION 尺寸檢查	VISUAL INSPECTION 外觀檢查	NONDESTRUCTIVE EXAMINATION (PT. UT. RT.) 非破壞檢測
Solution Annealing, Good	GOOD	GOOD	

WE HEREBY CERTIFIED THAT THE ABOVE MATERIAL HAD BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND WAS FOUND TO MEET THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASER'S ORDER.
茲證明上述材料按照規範進行製造，取樣，檢測和檢驗，符合上述規範和採購訂單的要求。

備註： 1. 100% P.M.I.: Satisfactory. 2. Material conforms to NACE MR0175/ISO 15156(2021) & MR0103(2015). 3. Corrosion test acc. ASTM A262 Practice E: Satisfactory. 4. Fittings in pickled and passivated condition. 5. Heat Treatment soaking time 25~28min, and rapidly cold with water. 6. No Russian materials were used during the whole production cycle.

良豐不銹鋼管件有限公司 品檢專用章 Quality Inspection Stamp LIANG FENG STAINLESS Steel Fitting Co., Ltd.

MANAGER OF Q. A. DEPT.
品管課經理

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

S0152001-3*

CTCERT202400003499.1.0001

JNDIA®

浙 江 志 达 管 业 有 限 公 司

Zhejiang Jndia Pipeline Industry Co.,Ltd

电话tel: +86-577-85826161 传真fax: +86-577-85826565 电子信箱Email: sales@jndia.com.cn

中国浙江省温州经济技术开发区金海园区滨海六道366号

No.366,Avenue 6,Binhai, Jinhai Industrial Park, Economy& Technology Developing Zone, Wenzhou, 325025, Zhejiang Province, China

产品质量证明书

Mill Test Certificate

压力管道元件 TS Cert. No.:TS2733G94-2024

ISO 9001:2015: 50095-2009-AQ-RGC-RvA

PED 2014/68/EU Cer: 07/202/9030/WZ/2456/20

AD 2000-Merkblatt W0 Cert. No.:07/202/9030/WP/2456/20

编号No.:JNDIA/R08-29

证书 Certificate: EN10204 3.1 证书号 Certificate No.: JNDIA2023-GW1282-01 页次 Page 1 of 1

客 户 Client

订单号PO No.:806798

产品描述 Description:STAINLESS STEEL PIPE FITTING

材质 Material:ASTM A403-22/ASME SA403-21 WP316/316L

交货状态 Delivery Condition: 固溶Solution annealed

生产标准 Manufacturing Standard:ASME B16.9-2018

产品交货情况 Product Delivery:

序号 NO.	品名Description	规格Specification	材质 Material	数量 Quantity(PCS)	炉号 Heat No.	备注Remarks
0064	Red Tee	10" x 6" sch10s	WP316/316L-S	10	EF1761	

检测结果（标准要求已符合，见如下表格)Inspection Results(The Requirements are fulfilled as listed in Annex)

A.化学成分 Chemical Composition: [%]

炉号Heat No.		C ≤0.030	Si ≤1.00	Mn ≤2.00	P ≤0.045	S ≤0.030	Cr 16.0-18.0	Ni 10.0-14.0	Nb	N	Ti	Mo 2.0-3.0
0064	EF1761	0.015	0.41	0.95	0.029	0.004	16.53	10.1				2.14

B.机械性能 Mechanical Property:

炉号 Heat No.		屈服强度Yield Strength(MPa) ≥205	拉伸强度 Tensile Strength(MPa) ≥515	延伸率 Elongation(%) ≥28	硬度 Hardness (HRC) ≤22	断面收缩率 Reduction of Area(Z%)	冲击试验 Charpy Impact(AK)
		$R_p0.2$	R_m	A50			
0064	EF1761	289	627	53	<20<20<20	/	/

C.检测及相关数据验证 Inspection and Related Data Verify

尺寸检查 Dimensional Check	ACC	晶间腐蚀 Corrosion Test ASTM A262 Practice E	ACC
表面检查 Surface Visual Inspection	ACC		
光谱分析 100%PMI	ACC		

D.备注Remarks:

ASME Code Sec II Part A2017 .NACE MR1075 resp. MR0103 ISO 15156 we hereby confirm that material is free of radioactivity contamination.La société Jndia garantit que tous les produits, objet du certificat susdit, respectent dans leur totalité les spécifications de l'article 15 de l'Arrelé.ministeriel du 24 Mars 1978, c'est à dire C<0.25% - P<0.05% S<0.05% - Rm<800 N/mm2 - Rm(A-2)10500 min. A% sur 5.65 V So.min 16% - E<0.9R; Melting Process：AOD， Cold forming

This Material (BW Fittings, HS Code 730723), is produced/molted by Zhejiang Jndia Pipeline Industry Co. Ltd. Steel Mill China and is of 100% Chinese Origin. Because mentioned HS Code is listed in EU Regulation 833/2014 Annex XVII and further amendment, we additionnally confirm that no material of Russian Origin has been used in the production of this product.

制单人：黄林飞 审 核： 日期： 2024-01-10 质检专用检验部门(章):

Prepared by: Huang Linfei Reviewed by Date Stamp

ROSETTI MARINO

Supply Management Dept.

☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 600 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 10"x6" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: EF1761 - Qty:4,00

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY

* Issued 30-05-2024

MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

PTD 204334,JALAN PLATINUM UTAMA,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 Website: www.pantechssalloy.com

http:// www.pantech-group.com

Certified to NSF/ANSI 61 — LRQA CERTIFIED ISO 9001 Approval No.: ISO9001-0047465

MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO. : 0343/PED/MUM/1110006/I

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Product: Seamless Austenitic Stainless Steel Fitting

Certificate No : PSA3-FT-48583

Date : 29 Feb 2024

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition
806897	E000006235	ASTM A403/A403M - 22 / ASME SA 403/SA403M - 23	ASME B16.9 - 18 / ASTM A960/A960M - 23 / ASME SA 960/SA960M - 23 / ASME SECTION II PART A-2023	Solution Treated, Pickled-Passivated

Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
MN074-1	5"	SCH 10s	TEE	30	WP316/316L-S	PASSED	230204AE07-01
MN043-1	2" X 1"	SCH 10s	REDUCING TEE	150	WP316/316L-S	PASSED	221227AE05-01
MN094-1	4" X 2 1/2"	SCH 10s	REDUCING TEE	15	WP316/316L-S	PASSED	NY230412AT09
MN094-1	4" X 3"	SCH 10s	REDUCING TEE	50	WP316/316L-S	PASSED	NY230412AT09
MO070-1	6" X 3"	SCH 40s	REDUCING TEE	15	WP316/316L-S	PASSED	N230129AW16
X MN078-1	10" X 6"	SCH 10s	REDUCING TEE	10	WP316/316L-S	PASSED	221220BE13-01
MN081-1	2" X 1 1/4"	SCH 10s	CON-REDUCER	50	WP316/316L-S	PASSED	230310CE01-01
MN081-1	2" X 1 1/2"	SCH 10s	CON-REDUCER	300	WP316/316L-S	PASSED	230310CE01-01
JO030-1	2 1/2" X 1"	SCH 10s	CON-REDUCER	20	WP316/316L-S	PASSED	11Y467
INA002-01-103CR	3" X 1"	SCH 40s	CON-REDUCER	10	WP316/316L-S	PASSED	11W561

Specification	Chemical Composition (%)										Tensile Test *1			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS	E (%)	(HRB)	
Max															
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
MN074-1	0.011	0.20	0.96	0.039	0.001	16.37	10.07	2.04	< 0.01		232	557	60	77	PASSED
MN043-1	0.013	0.23	0.97	0.037	0.001	16.24	10.11	2.04	< 0.01		251	551	50	69	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		246	588	58	71	PASSED
MN094-1	0.013	0.47	0.80	0.037	0.003	16.62	10.20	2.01	< 0.01		246	588	58	71	PASSED
MO070-1	0.018	0.35	0.85	0.032	0.001	16.25	10.01	2.01	< 0.01		255	595	57	79	PASSED
MN078-1	0.011	0.24	0.96	0.036	0.001	16.50	10.04	2.00	< 0.01		220	535	56	76	PASSED
MN081-1	0.013	0.23	0.94	0.037	0.001	16.40	10.01	2.07	< 0.01		322	648	57	67	PASSED
MN081-1	0.013	0.23	0.94	0.037	0.001	16.40	10.01	2.07	< 0.01		322	648	57	67	PASSED
JO030-1	0.025	0.35	1.12	0.029	0.002	16.42	11.08	2.06	< 0.01		256	604	57	80	PASSED
INA002-01-103CR	0.017	0.36	1.19	0.034	0.002	16.44	11.14	2.14	< 0.01		252	555	55	75	PASSED

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER; AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-22 STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS : AOD / VOD

PIPE RAW MATERIAL - WELDED BY ELECTRIC FUSION WELDING PROCESS WITH NO FILLER METAL

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-15 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

Pantech Stainless & Alloy Industries Sdn. Bhd.
200601013677 (733428-W)
PTD 204334, Jalan Platinum Utama,
Kawasan Perindustrian Pasir Gudang, Zon 12B,
81700 Pasir Gudang, Johor.
Tel: +607-251 8888 Fax: +607-251 9999

GENERAL MARKING FORMAT : NSF®-61 PANTECH S.A. [PRODUCT TYPE FOR LR/SR ONLY] [SIZE]" [THICKNESS] A/SA403 [GRADE] HEAT NO. [HEAT NO.] MALAYSIA

MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN AND ASME SECTION II PART A - 2021 MATERIAL DOES NOT CONTAIN STEEL PRODUCTS ORIGINATING IN RUSSIA MENTIONED IN ANNEX XVII TO THE (EU) REGULATION NO 833/2014 AND FURTHER AMENDMENT

LA SOCIÉTÉ PANTECH STAINLESS STEEL & ALLOY GARANTIT QUE TOUS LES PRODUITS, OBJET DU CERTIFICAT SUSDIT, RESPECTENT DANS LEUR TOTALITÉ LES SPÉCIFICATIONS DE L'ARTICLE 15 DE L'ARRETÉ MINISTERIEL DU 24 MARS 1978,

C'EST À DIRE C<0.25% - P<0.05% S<0.05% - RM<800 N/MM2 - RM(A-2) 10500 MIN. A% SUR 5.65 V SO MIN 16% - E<0.9R;

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

Head of Quality Assurance Department

Form :FQA-030b R.7; 30-01-2024

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 600 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 10"x6" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: MN078-1 - Qty:1,00

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY
* Issued 30-05-2024

ORIGINAL

PIPES & FITTINGS

TSS PIPES & FITTINGS INDUSTRY SDN. BHD.

No 5, Lorong IKS, Simpang Empat k,Taman IKS Simpang Empat, 14100 Simpang Ampat, Penang, Malaysia.

ISO 9001:2015 Cert. No.: 01 100 1733605 (1234978-K)
Directive 2014/68/EU Cert. No.: 01 202 CHN/Q-17 0606
AD 2000-Merkblatt WC Cert. No.: 01 202 CHN/Q-17 0606

CERTIFICATE OF CHEMICAL ANALYSIS ACC TO EN10204 3.1

L/C number : 0383018CD00001

Customer / Client								Certificate No.		20190316 -14			
Contract Nr.		TSS20181122			3532			Delivery Conditions		Solution Annealed, pickled and passivated			
Description		STAINLESS STEEL COLD FORMED BUTT WELD FITTINGS						Specification(s)		ASTM A403-18a/ ASME SA403-17 ASME B16.9-2012			
Item	Quantity	Size		Product Name				Grade		Heat No.	Heat treatment	Quenching	
18	20	3"X1 1/2"	SCH10S	Reducing Tees				WP304/304L-S		160508V07	1050°C	RWQ	
19	10	2"X3/4"	SCH40S	Eccentric Reducers				WP304/304L-S		161004S09	1050°C	RWQ	
20	20	10"X6"	SCH10S	Reducing Tees				WP316/316L-S		N180725AV11	1050°C	RWQ	
21	10	10"X8"	SCH10S	Reducing Tees				WP304/304L-S		160809W07	1050°C	RWQ	
22	150	3/4"	SCH10S	90 Degree Elbows Long Radius				WP304/304L-S		151122V05	1050°C	RWQ	

Chemical Composition (%)

Heat No.	C	Mn	P	S	Si	Cr	Ni	Mo				
160508V07	0.020	1.35	0.031	0.002	0.40	18.16	8.01					
161004S09	0.016	1.32	0.027	0.002	0.40	18.16	8.03					
N180725AV11	0.017	0.96	0.037	0.001	0.39	16.24	10.04	2.04				
160809W07	0.014	1.34	0.032	0.001	0.36	18.16	8.06					
151122V05	0.015	1.37	0.033	0.004	0.37	18.22	8.05					

Mechanical Properties

Heat No.	TS(MPa)	YS Rp0.2%(MPa)	EL(%)	Hardness	NACE MR0175	IC Test ASTM A262E	Impact Test	Non-destructive Test RT	100% PMI	Visual	Dimensional
160508V07	590	261	58	HRB≤90	OK	OK	N/A	N/A	OK	OK	OK
161004S09	575	250	52	HRB≤90	OK	OK	N/A	N/A	OK	OK	OK
N180725AV11	575	242	53	HRB≤90	OK	OK	N/A	N/A	OK	OK	OK
160809W07	590	261	58	HRB≤90	OK	OK	N/A	N/A	OK	OK	OK
151122V05	585	254	56	HRB≤90	OK	OK	N/A	N/A	OK	OK	OK

Product Marking:TSS SPECIFICATION CODE(ELBOW ONLY) GRADE NPS SCH HEAT NO. ***

1. Materials have been manufactured in complete accordance with the purchasers order
2. Free of weld repair as per ASTM A 960 Supplementary Requirement S66
3. Free of mercury
4. Free of radiation
5. 100% PMI test
6. Complies with NACE MR0103, NACE MR0175, ISO 15156

Signed: Q.A.Manager

TSS PIPES & FITTINGS INDUSTRY SDN. BHD. QA Department

Date: 16-Mar-19

ROSETTI MARINO
Supply Management Dept.
Business Review

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 10"x6" SCH.10/S SEAMLESS

raccortubi Heat num. or Pos. marking: N180725AV11 - Qty:2,00

Order: 1724000839 - 22.04.24 - Item n.: 600 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002010

Protocol: CTCERC2024000004849 * CERTIFIED TRUE COPY
* Issued 30-05-2024

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 6"x4" SCH.40S/10S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 620 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

raccortubi Heat num. or Pos. marking: 151863 - Qty:6,00

Protocol: CTCERC202400004849 * CERTIFIED TRUE COPY * Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452-887991 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System Certified

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Réception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. Master plan Ottobre 2013
P.O.N./Commande N.

Pos. N. 35 **Q.tà** 24
Item/Poste *Q.ty/Q.té*

(*) Marcatura e cert. N. 151863 **Data:** 07/10/13
Material Marking e Cert. N. *Date:*
Marquage du materiel

Descrizione RED.TEES 6"x4" SCH.40/S
Description
Description

Specifica FITTINGS TO ASTM A403/403M-12
Specification ASME SA403/SA403M ed.13 WP 316/316L
Spécification DIMS/ENDS ANSI ASME B16.9 ed.2012

Materiale base/*Raw material/Materiel du depart*
Fabbricante/*Manufacturer/Fabriquant:* TUBACEX Cert. No.: 578287

Specifica Specification/Specification	Caratteristiche meccaniche *Mechanical Properties/Caracteristiques Mechaniques*							
	Colata N. *Heat N.* *Coulée N.*	N. prova *Specimen N.* *Echantil. N.*	Snervamento *Yield strength* *Limite d'elasticité* N/mm²	Rottura *Tensile strength* *Resistance à la traction* N/mm²	Allungam. % *Elongation* *Allongement*	Durezza *Hardness as per NACE MRO1-75*	Durezza *Hardness* *Dureté*	Resilienza *Impact energy* *Resilience* Joules
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	47224	200100236	374	606	48	HRC<22		

Analisi chimica %/*Chemical composition/Composition chimique*

Colata N. *Heat N.* *Coulée N.*	C	Si	Mn	P	S	Cr	Ni	Mo	N					
47224	0,016	0,350	1,43	0,027	0,0010	16,85	11,25	2,16	0,0570					

Prove/*Tests/Tests*

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/*Remarks/Notes*

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.10
CERTIFIED ACC.TO PED 97/23/EC

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione/*Manufacture/Méthode de fabrication*

Formato a freddo *Cold formed* *Formés à froid*
Senza saldatura *Seamless* *Sans soudure*

Ispezione/*Inspection/inspéction*

— **Esame visivo e dimensionale: Buono**
Visual and dimensional test: Satisfactory
Examen visuel et dimensionel: Satisfaisant

— **Identificazione materiale: Buono**
Positive Material Identification: Satisfactory
Analyse de controle du produit: Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C
Solution Annealing at 1045°C, water quenching
Hypertrempés à 1045°C

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C 0.25%	Rm 760 N/mm²
S 0.05%	Rm(A-2) 10500 N/mm²
P 0.05%	A% sur 5,65 So 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore/*Inspector/Inspecteur*

ROSETTI MARINO
Supply Management Dept.
Witness Review

raccortubi

00004902

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE IN ACCIAIO CALMATO ASTM A-350 GRADO LF2	
1160	NR	4	0,00	Flange Blind diam.3/4" 150LB RF ASTM/ASME A/SA350 Gr.LF2	22/76572
1170	NR	12	0,00	Flange Blind diam.1" 150LB RF ASTM/ASME A/SA350 Gr.LF2	21/74246
1180	NR	4	0,00	Flange WN diam.2" Thk.5.54mm 300LB RF ASTM/ASME A/SA350 Gr.LF2	22/78189
1190	NR	6	0,00	Flange WN diam.2" Thk.5.54mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70486
1200	NR	4	0,00	Flange WN diam.1/2" Thk.3.73mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	22/75635
1210	NR	12	0,00	Flange WN diam.3/4" Thk.3.91mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335
1220	NR	55	0,00	Flange WN diam.1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335
1230	NR	12	0,00	Flange WN diam.1.1/2" Thk.5.08mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	22/76569
1240	NR	4	0,00	Flange WN diam.1" Thk.4.55mm 300LB RF ASTM/ASME A/SA350 Gr.LF2	22/76569

raccortubi

00004902

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
1250	NR	5	0,00	Flange WN diam.1" Thk.4,55mm 150LB FF ASTM/ASME A/SA350 Gr.LF2	23/70335

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01243 — Data / Dated 20.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale De Gasperi, 194 20010 MARCALLO CON CASONE MI IT	**Ordine / PO**	5826 A07
	Item	001 A07
	DDT / Delivery note	2024-3E301-0001221 A10
	Packing List	2024-3E401-0001229 A11
	Fattura / Invoice	2024-3E401-0001229 A12
	Ns. rif. / Our ref.	2024-3E201-0000800-0001 A08

Dest. RACCORTUBI SPA A08
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	22/76572	4,00	BLIND 150 RF 3/4" LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,210	1,020	0,009	0,015	0,120	0,060	0,020	0,022	0,150	0,003	0,001	0,010
PRODUCT ANALYSIS	0,183	0,211	1,023	0,010	0,014	0,122	0,063	0,022	0,023	0,151	0,004	0,002	0,012
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,028								0,393	0,350	0,353	0,140	--
PRODUCT ANALYSIS	0,030								0,397	0,354	0,362	0,144	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen Sez/Sect mm2	Gauge L.mm	Forma C10 Shape 1=O - 2=□	°C C03	Snervamento>0,2% C11 Yield Strength>0,2% MPa	Snervamento>1,0% C11 Yield Strength>1,0% MPa	Rottura C12 Tensile MPa	Allungamento C13 Elongation %	Contrazione C14 Reduction of area %
126,60	50,80	1	20	329,0	--	524,0	31,4	59,8

DUREZZA / HARDNESS C30

HBW C31	Tipo/Type C40	RESILIENZA / IMPACT TEST Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
155,0 ; 159,0	KV	10x10x55 mm	-46	61	58	64	61,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B08 Marking in acc. to	ANSI/MSS SP-25-2018	D01 Vis. & Dim.	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
Witness Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange Blind diam.3/4" 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/76572 - Qty:4,00 Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6	Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept
Fitness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange Blind diam.3/4" 150LB RF ASTM/ASME A/SA350 Gr.LF2

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarlaly.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange Blind diam.3/4" 150LB RF ASTM/ASME A/SA350 Gr.LF2

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01243 — Data / Dated 20.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale De Gasperi, 194 20010 MARCALLO CON CASONE MI IT	**Ordine / PO**	5826 A07
	Item	002 A07
	DDT / Delivery note	2024-3E301-0001221 A10
	Packing List	2024-3E401-0001229 A11
	Fattura / Invoice	2024-3E401-0001229 A12
	Ns. rif. / Our ref.	2024-3E201-0000800-0002 A08

Dest. RACCORTUBI SPA A08
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	21/74246	12,00	BLIND 150 RF 1" LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03
FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,190	0,200	1,050	0,005	0,008	0,100	0,070	0,010	0,018	0,140	0,002	0,001	0,009
PRODUCT ANALYSIS	0,192	0,197	1,045	0,007	0,006	0,103	0,074	0,012	0,019	0,143	0,002	0,002	0,009

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026	0,401	0,365	0,322	0,110	–
PRODUCT ANALYSIS	0,030	0,404	0,366	0,334	0,115	–

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen Sez/Sect mm2	Gauge L.mm	Forma C15 Shape 1=O - 2=□	°C C03	Snervamento>0,2% C11 Yield Strength>0,2% MPa	Snervamento>1,0% C11 Yield Strength>1,0% MPa	Rottura C12 Tensile MPa	Allungamento C13 Elongation %	Contrazione C14 Reduction of area %
126,60	50,80	1	20	411,0	--	561,0	26,9	62,9

DUREZZA / HARDNESS C30

HBW C31	Tipo/Type C40	RESILIENZA / IMPACT TEST Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
166,0 ; 169,0	KV	10x10x55 mm	-46	35	37	45	39,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.

☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarlab.com	Customer Inspector	ROSETTI MARINO Supply Management Dept ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange Blind diam.1" 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 21/74246 - Qty:12,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01243 — Data / Dated 20.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale De Gasperi, 194 20010 MARCALLO CON CASONE MI IT	**Ordine / PO**	5826	A07
	Item	003	A07
	DDT / Delivery note	2024-3E301-0001221	A10
	Packing List	2024-3E401-0001229	A11
	Fattura / Invoice	2024-3E401-0001229	A12
	Ns. rif. / Our ref.	2024-3E201-0000800-0003	A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	22/78189	4,00	W/N 300 RF 2" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,190	1,060	0,010	0,011	0,120	0,060	0,020	0,018	0,160	0,002	0,002	0,010
PRODUCT ANALYSIS	0,183	0,195	1,068	0,007	0,007	0,111	0,072	0,023	0,020	0,166	0,001	0,003	0,007

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026	0,400	0,357	0,362	0,140	--
PRODUCT ANALYSIS	0,034	0,404	0,361	0,373	0,134	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen Sez/Sect mm2	Gauge L.mm	Forma C10 Shape 1=O - 2=□	°C C03	Snervamento>0,2% C11 Yield Strength>0,2% MPa	Snervamento>1,0% C11 Yield Strength>1,0% MPa	Rottura C12 Tensile MPa	Allungamento C13 Elongation %	Contrazione C14 Reduction of area %
126,60	50,80	1	20	324,0	--	510,0	36,4	65,3

DUREZZA / HARDNESS C30 HBW C31	RESILIENZA / IMPACT TEST Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
149,0 ; 151,0	KV	10X10X55 mm	-46	58	67	61	62,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	D01 Vis. & Dim.	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1180 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.2" Thk.5.54mm 300LB RF ASTM/ASME A/SA350 Gr.LF2

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfaritaly.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1180 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.2" Thk.5.54mm 300LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/78189 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	004 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0004 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	23/70486	6,00	W/N 150 RF 2" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,200	0,190	1,000	0,005	0,009	0,100	0,070	0,010	0,018	0,200	0,002	0,001	0,010
PRODUCT ANALYSIS	0,197	0,195	1,018	0,007	0,011	0,106	0,067	0,012	0,016	0,197	0,003	0,002	0,010
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,025								0,407	0,367	0,382	0,110	--
PRODUCT ANALYSIS	0,027								0,408	0,367	0,385	0,118	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen		Forma C10 Shape	°C C03	Snervamento>0,2% C11 Yield Strength>0,2%	Snervamento>1,0% C11 Yield Strength>1,0%	Rottura C12 Tensile	Allungamento C13 Elongation	Contrazione C14 Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	390,0	--	548,0	31,3	72,4

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
166,0 ; 173,0	KV	10x10x55 mm	-46	125	126	140	130,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	D01 Vis. & Dim.	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6	Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1190 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.2" Thk.5.54mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarltaly.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1190 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.2" Thk.5.54mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70486 - Qty:6,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	005 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0005 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	22/75635	4,00	W/N 150 RF 1/2" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,210	1,010	0,010	0,013	0,180	0,080	0,020	0,023	0,200	0,002	0,001	0,009
PRODUCT ANALYSIS	0,183	0,216	1,002	0,007	0,009	0,186	0,071	0,018	0,021	0,193	0,003	0,003	0,006
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,029								0,407	0,348	0,482	0,200	–
PRODUCT ANALYSIS	0,034								0,409	0,350	0,471	0,204	–

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen		Forma C10 Shape	°C C03	Snervamento>0,2% C11 Yield Strength>0,2%	Snervamento>1,0% C11 Yield Strength>1,0%	Rottura C12 Tensile	Allungamento C13 Elongation	Contrazione C14 Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	339,0	–	536,0	28,4	62,8

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
153,0 ; 157,0	KV	10x10x55 mm	-46	38	42	53	44,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D.Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1/2" Thk.3.73mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6	Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarlab.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1/2" Thk.3.73mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	006 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0006 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70335	12,00	W/N 150 RF 3/4" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,230	1,000	0,009	0,012	0,140	0,110	0,020	0,019	0,200	0,002	0,002	0,010
PRODUCT ANALYSIS	0,182	0,235	1,002	0,010	0,009	0,144	0,106	0,018	0,020	0,196	0,003	0,002	0,011
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,400	0,347	0,472	0,160	--
PRODUCT ANALYSIS	0,025								0,402	0,349	0,467	0,162	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	350,0	--	545,0	30,3	65,4

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 163,0	KV	10x10x55 mm	-46	52	35	72	53,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		Vis. & Dim. D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018		SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.3/4" Thk.3.91mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:12,00 Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY * Issued 24-05-2024

CTCERT202400003460.2.0001

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6	Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.3/4" Thk.3.91mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:12,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfaritaly.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☒ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.3/4" Thk.3.91mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:12,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 656441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	007 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0007 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	23/70335	55,00	W/N 150 RF 1" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,230	1,000	0,009	0,012	0,140	0,110	0,020	0,019	0,200	0,002	0,002	0,010
PRODUCT ANALYSIS	0,182	0,235	1,002	0,010	0,009	0,144	0,106	0,018	0,020	0,196	0,003	0,002	0,011
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,400	0,347	0,472	0,160	–
PRODUCT ANALYSIS	0,025								0,402	0,349	0,467	0,162	–

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen		Forma C10 Shape	°C C03	Snervamento>0,2% C11 Yield Strength>0,2%	Snervamento>1,0% C11 Yield Strength>1,0%	Rottura C12 Tensile	Allungamento C13 Elongation	Contrazione C14 Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	350,0	–	545,0	30,3	65,4

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 163,0	KV	10x10x55 mm	-46	52	35	72	53,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:55,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:55,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarlab.com	Customer Inspector	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:55,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	008 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0008 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	22/76569	12,00	W/N 150 RF 1.1/2" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,210	1,040	0,009	0,014	0,120	0,060	0,020	0,021	0,160	0,002	0,001	0,010
PRODUCT ANALYSIS	0,181	0,214	1,043	0,008	0,015	0,123	0,058	0,023	0,025	0,159	0,004	0,003	0,013
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,025								0,396	0,353	0,362	0,140	--
PRODUCT ANALYSIS	0,026								0,399	0,355	0,367	0,146	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	328,0	--	515,0	30,8	58,5

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
153,0 ; 157,0	KV	10x10x55 mm	-46	55	59	54	56,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine / Origin of Steel B16	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Suoply Management Dept.
Witness ☒ Review

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D.Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1.1/2" Thk.5.08mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/76569 - Qty:12,00 Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY * Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galluri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1.1/2" Thk.5.08mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarltaly.com	Customer Inspector	ROSETTI MARINO Supply Management Dept ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1.1/2" Thk.5.08mm 150LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/76569 - Qty:12,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01243 — **Data / Dated** 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	009 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0009 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata B07 Heat Code	Nr. colata B07 Heat Nr	Quantità B08 Quantity	Descrizione B01 - (B09 - B11) Description
	22/76569	4,00	W/N 300 RF 1" XS LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,210	1,040	0,009	0,014	0,120	0,060	0,020	0,021	0,160	0,002	0,001	0,010
PRODUCT ANALYSIS	0,181	0,214	1,043	0,008	0,015	0,123	0,058	0,023	0,025	0,159	0,004	0,003	0,013
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,025								0,396	0,353	0,362	0,140	–
PRODUCT ANALYSIS	0,026								0,399	0,355	0,367	0,146	–

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 Test specimen		Forma C10 Shape	°C C03	Snervamento>0,2% C11 Yield Strength>0,2%	Snervamento>1,0% C11 Yield Strength>1,0%	Rottura C12 Tensile	Allungamento C13 Elongation	Contrazione C14 Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	328,0	–	515,0	30,8	58,5

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
153,0 ; 157,0	KV	10x10x55 mm	-46	55	59	54	56,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 Marking in acc. to	ANSI/MSS SP-25-2018	D01 Vis. & Dim.	SATISFACTORY	Origine B16 Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' A05 QUALITY CONTROL DEPARTMENT	ENTE UFFICIALE DI COLLAUDO Z03 INSPECTION AUTHORITY	MARCHIO PRODUZIONE A04 MANUFACTURER'S SYMBOL
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4.55mm 300LB RF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 22/76569 - Qty:4,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Gaffuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

A FARINA COMPANY	**CERTIFICATO ESAME MAGNETICO**	MIM22800 REV.00 27/02/2023 QAM Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarlab.com	Customer Inspector	ROSETTI MARINO Supply Management Dept ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4.55mm 300LB RF ASTM/ASME A/SA350 Gr.LF2

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01243 — Data / Dated 20.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5826 A07
Viale De Gasperi, 194		**Item**	010 A07
20010 MARCALLO CON CASONE MI IT		**DDT / Delivery note**	2024-3E301-0001221 A10
		Packing List	2024-3E401-0001229 A11
		Fattura / Invoice	2024-3E401-0001229 A12
		Ns. rif. / Our ref.	2024-3E201-0000800-0010 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70335	5,00	WN 150 FF 1" XS LF2 CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 030/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,230	1,000	0,009	0,012	0,140	0,110	0,020	0,019	0,200	0,002	0,002	0,010
PRODUCT ANALYSIS	0,182	0,235	1,002	0,010	0,009	0,144	0,106	0,018	0,020	0,196	0,003	0,002	0,011
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,400	0,347	0,472	0,160	--
PRODUCT ANALYSIS	0,025								0,402	0,349	0,467	0,162	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 / Test specimen		Forma C10 / Shape	°C C03	Snervamento>0,2% C11 / Yield Strength>0,2%	Snervamento>1,0% C11 / Yield Strength>1,0%	Rottura C12 / Tensile	Allungamento C13 / Elongation	Contrazione C14 / Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	350,0	--	545,0	30,3	65,4

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 163,0	KV	10x10x55 mm	-46	52	35	72	53,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2017		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; FF FINISHING 125-250 µin AARH		

Marcatura in acc. B06 / Marking in acc. to	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine B16 / Origin of Steel	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 1250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4,55mm 150LB FF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:5,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	030/2024	Date	16/05/2024	Customer	RACCORTUBI S.P.A.	Order no.	5826
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Galfuri Dario	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	15°C

Yoke Type				Type and Trade Equipment						Magnetic Particles Type	
C.C.		C.A.	X	Silver Yoke NDT Italiana Serial no. 1822		Y-2 Yoke Magnaflux Serial no. E3313	X	Y-8 Yoke Magnaflux Serial no. 2440		Wet Fluorescent Magnetic Particles	Illumination Type
										NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note											

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined 100%	Results		Note
							C[1]	NC[1]	
	001	BL 150 RF 3/4"	22/76572	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	002	BL 150 RF 1"	21/74246	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	003	WN 300 RF 2" XS	22/78189	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	004	WN 150 RF 2" XS	23/70486	6	WHOLE ACCESSIBLE SURFACE	6	X		No indications detected
	005	WN 150 RF 1/2" XS	22/75635	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	006	WN 150 RF 3/4" XS	23/70335	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	007	WN 150 RF 1" XS	23/70335	55	WHOLE ACCESSIBLE SURFACE	55	X		No indications detected
	008	WN 150 RF 1" 1/2 XS	22/76569	12	WHOLE ACCESSIBLE SURFACE	12	X		No indications detected
	009	WN 300 RF 1" XS	22/76569	4	WHOLE ACCESSIBLE SURFACE	4	X		No indications detected
	010	WN 150 FF 1" XS	23/70335	5	WHOLE ACCESSIBLE SURFACE	5	X		No indications detected

ROSETTI MARINO
Supply Management Dept.
Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4,55mm 150LB FF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:5,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Image / Photo	
Note	Flanges bores and other surfaces were inspected in both directions, axial & circumeferential in accordance with ASTM E709.

Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarbrindisi.com	Customer Inspector	ROSETTI MARINO Supply Management Dept ☐ Witness ☑ Review

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 1250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: Flange WN diam.1" Thk.4,55mm 150LB FF ASTM/ASME A/SA350 Gr.LF2

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:5,00

Protocol: CTCERC202400004902 * CERTIFIED TRUE COPY
* Issued 24-05-2024

raccortubi

00004992

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASME/ASTM SA/A-403 WP.316/316L, DIM/SMUSSI ANSI B16.9, B16.25	
570	NR	19	0,00	TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	EF6171
570	NR	5	0,00	TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1149624
640	NR	5	0,00	CURVE 90° LR 1/2" SCH.40/S SEAMLESS	E71218

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	50 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.132 / 2024 PAGINA DI PAGINE Page 1 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

OGGETTO
Object SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	**MATERIALE** Material	**DISEGNO FIG.** Drawing Fig.	**% CONTROLLATA** Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method	MARCA Brand N.D.T.		PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
	TIPO Type	LAVABILE IN ACQUA Water Washable X		PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
		POST EMULSIONABILE Post Emulsifiable	RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
		RIMOVIBILE CON SOLVENTE Solvent Removable		UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 29 / 05 / 2024	ROSETTI MARINO Supply Management Dept. DATA ☐ Witness ☑ Review Date	DATA Date

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.132 / 2024 PAGINA DI PAGINE Page 2 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724000839 - 22.04.2024	COMMESSA Job 00002010

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
570	19	RED.TEES 1 ½"x 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	EF6171
570	5	RED.TEES 1 ½"x 1" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	1149624
640	5	ELBOWS 90° LR ½" SCH.40/S SEAMLESS	ASME/ASTM SA/A-403WP.316/316L DIM/SMUSSI ANSI B16.9/16./25	E71218
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 29 / 05 / 2024	ROSETTI MARINO Supply Management Dept. DATA Date ☐ Witness ☑ Review	DATA Date

raccortubi Heat num. or Pcs. marking: EF6171 - Qty:19,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 1.1/2"X1" SCH.40/S SEAMLESS

Order: 1724000839 - 22.04.24 - Item n.: 570 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004992 * CERTIFIED TRUE COPY * Issued 30-05-2024

MILL TEST CERTIFICATE

According to
EN 10204 3.1

ZHEJIANG JNDIA PIPELINE INDUSTRY CO., LTD.
No.366,Avenue 6,Binhai, Jinhai Industrial Park, Economy& Technology Developing Zone, Wenzhou, 325025, Zhejiang Province, China.
Tel: +86-577-85826161 Fax: +86-577-85826565
Email: Sales@jndia.com.cn

MTC NO.	JNDIA2023-GW1211-11
Date of issue	06/Dec/23
Material Specification	ASTM A403-22
Material	WP316/316L
Dimensional Specification	ASME B16.9-2018
Melting Process	Electric Furnace

Order No.:1798
ISO 9001:2015: 50095-2009-AQ-RGC-RvA
PED 2014/68/EU Cer: 0045/202/WZ/2456/23
AD 2000-Merkblatt W0 Cert. No.: TN/AD2000-W0/2456/23

Chemical Analysis

Item No.	Item Description	Heat No.	Qty(PCS)	%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Cu	%N	%Mo	
				≤0.030	≤1.00	≤2.00	≤0.045	≤0.030	16.0-18.0	10.0-14.0			2.0-3.0	
16	CURVE 90 SR 2" SCH.80S	EF6171	50	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
29	RID ECC 11/2"X11/4" SCH.80S	EF6171	5	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
39	TEE RID 11/4"X3/4" SCH.10S	EF6171	15	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
40	TEE RID.SS 2.1/2" X 1" SCH.10S WP316/L+	EF6171	50	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
41	TEE RID 11/2"X1" SCH.40S	EF6171	20	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
43	TEE RID 11/2" X 3/4" SCH.10S	EF6171	20	0.023	0.49	1.06	0.028	0.001	16.54	10.08			2.09	
			160											

Mechanical Properties

Item No.	Item Description	Sample Specification	Lab Temperature	Tensile	Yield (MPa)	Elong	Red.Area	Hardness	Corrosion Test	PMI	RT	HT	Visual &
		12.5*50	20℃	MPa	Rp 0.2	%	%	HRC	ASTM A262 Practice E	Test	Test	Test	Dimension
				≥515	≥205	≥28	-	≤22	-	-	-	-	-
16	CURVE 90 SR 2" SCH.80S	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
29	RID ECC 11/2"X11/4" SCH.80S	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
39	TEE RID 11/4"X3/4" SCH.10S	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
40	TEE RID.SS 2.1/2" X 1" SCH.10S WP316/L+	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
41	TEE RID 11/2"X1" SCH.40S	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC
43	TEE RID 11/2" X 3/4" SCH.10S	-	-	614	306	52	-	<20/<20/<20	ACC	ACC	-	-	ACC

HEAT TREATMENT: SOLUTION TREATED AT 1050℃, WATER QUENCHED
WE CERTIFY THIS MATERIAL HAS BEEN MANUFACTURED AND EXAMINED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE SPECIFICATION(S) AND THE RESULTS OF ALL EXAMINATIONS ARE ACCEPTABLE
NACE MR0175/ISO 15156-1 2020.IGC-262
WE CERTIFY ALL PRODUCTS LISTED ON OUR CERTIFICATES DO NOT CONTAIN ANY RAW MATERIALS ORIGINATING IN RUSSIA.

CHIEF INSPECTOR:

质检专用章 QUALITY INSPECTION SPECIAL SEAL

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

raccortubi

Heat num. or Pcs. marking: 1149624 - Qty:5,00

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 570 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Protocol: CTCERC202400004992 * CERTIFIED TRUE COPY * Issued 30-05-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: OS000039 del 30-01-2024

Pos. N. / Item/Poste: 1 — **Q.tà** / Q.ty/Q.té: 120

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1149624

Created on: 04-04-2024

Descrizione / Description / Description: RED.TEES 1.1/2"x1" SCH.40/S SEAMLESS

Specifica / Specification / Spécification: FITTINGS TO ASME II Part.A SA403/403M Ed.2023
ASTM A403/403M-22b WP 316/316L
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: MANNESMANN STAINLESS TUBES Cert. No.: 3-23-0568-rev.01
Raw material - manufacturer/Materiel du depart - fabriquant:
MANNESMANN STAINLESS TUBES Cert. No.: 3-23-0568-rev.01

Specifica / Specification/Specification	Colata N. / Heat N. / Coulée N.	N. prova / Specimen N. / Echantil. N.	Snervamento / Yield strength / Limite d'elasticité N/mm2	Rottura / Tensile / Resistance à la traction N/mm2	Allungam. % / Elongation / Allongement	Durezza / Hardness as per NACE MRO1-75	Durezza / Hardnes / Dureté	Resilienza / Impact energy / Resilience / Joules
SMLS PIPES TO ASME/ASTM SA/A 312TP 316/316L, DIMS TO ANSI B36.19	RL584	QL30182200	263	580	45	HRC<22	HRC 9	

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Analisi chimica %
Chemical composition/Composition chimique

Colata N. / Heat N. / Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	N	Co				PRE	FERRITE
RL584	0,012	0,30	1,83	0,025	0,0070	16,8	11,1	2,1	0,07	0,12					

Prove
Tests/Tests

Prova di corrosione A262 Prat. E: Conforme
Corrosion Test A262 Pract. E: In conformity
Essais de corrosion A262 Prat. E: En Conformité

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3

Materials comply with MESC 76/110 & 76/202.

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication
Formato a freddo / Cold formed / Formés à froid
Senza saldatura / Seamless / Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1045°C

Solution Annealing at 1045°C , water quenching

Hypertrempés à 1045°C

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

CTCERT202400003629.1.0001

JNDIA®

浙 江 志 达 管 业 有 限 公 司

Zhejiang Jndia Pipeline Industry Co.,Ltd

电话tel: +86-577-85826161 传真fax: +86-577-85826565 电子信箱Email: Sales@jndia.com.cn

中国浙江省温州经济技术开发区金海园区滨海六道366号

No.366,Avenue 6,Binhai, Jinhai Industrial Park, Economy& Technology Developing Zone, Wenzhou, 325025, Zhejiang Province, China

产品质量证明书

Mill Test Certificate

压力管道元件 TS Cert. No.:TS2733G94-2024

ISO 9001:2015: 50095-2009-AQ-RGC-RvA

PED 2014/68/EU Cer: 07/202/9030/WZ/2456/20

AD 2000-Merkblatt W0 Cert. No.:07/202/9030/WP/2456/20

编号No.:JNDIA/R08-29

证书 Certificate: EN10204 3.1 证书号 Certificate No.: JNDIA2023-GW132-23

客 户

产品描述 Description: STAINLESS STEEL PIPE FITTING/Cold forming

热处理Heat Treatment:Solution annealed&water quenched(1050℃)/20Min

订单号PO No.:PUR-IOX01298FF

材质 Material:ASTM A403-2022,ASME SA403-2021 WP316/316L; ASME Section II Part A-2019 and specification FS-ASTM Rev.6

生产标准 Manufacturing Standard:ASME B16.9-2018

产品交货情况 Product Delivery:

序号 NO.	品名Description	规格Specification	材质 Material	数量 Quantity(PCS)	炉号 Heat No.	备注Remarks
8	ELBOW 90 LR	3/8" SCH10S	WP316/316L-S	100	E71218	
9	ELBOW 90 LR	1/2" SCH40S	WP316/316L-S	475	E71218	
10	ELBOW 90 LR	1/2" SCH80S	WP316/316L-S	250	E71218	
12	ELBOW 90 LR	3/4" SCH10S	WP316/316L-S	1200	E71218	
14	ELBOW 90 LR	1" SCH40S	WP316/316L-S	430	E71218	

检测结果（标准要求已符合，见如下表格)Inspection Results(The Requirements are fulfilled as listed in Below)

A.化学成分 Chemical Composition: [%]

炉号Heat No.		C ≤0.030	Si ≤1.00	Mn ≤2.00	P ≤0.045	S ≤0.030	Cr 16.0-18.0	Ni 10.0-14.0	Nb	N	Ti	Mo 2.0-3.0
8	E71218	0.019	0.48	1.06	0.032	0.001	16.53	10.29				2.06
9	E71218	0.019	0.48	1.06	0.032	0.001	16.53	10.29				2.06
10	E71218	0.019	0.48	1.06	0.032	0.001	16.53	10.29				2.06
12	E71218	0.019	0.48	1.06	0.032	0.001	16.53	10.29				2.06
14	E71218	0.019	0.48	1.06	0.032	0.001	16.53	10.29				2.06

B.机械性能 Mechanical Property:

炉号 Heat No.		屈服强度Yield Strength(MPa) ≥205	拉伸强度 Tensile Strength(MPa) W:12.5mm ≥515	延伸率 (L) Elongation A50(%) ≥28	硬度 Hardness (HRC) ≤22	断面收缩率 Reduction of Area(Z%)	冲击试验 Charpy Impact(AK)
		$R_{p0.2}$	R_m	A50			
8	E71218	305	611	53	<20/<20/<20	/	/
9	E71218	305	611	53	<20/<20/<20	/	/
10	E71218	305	611	53	<20/<20/<20	/	/
12	E71218	305	611	53	<20/<20/<20	/	/
14	E71218	305	611	53	<20/<20/<20	/	/

C.检测及相关数据验证 Inspection and Related Data Verify

尺寸检查 Dimensional Check	ACC	晶间腐蚀 Corrosion Test ASTM A262 Practice E	ACC
表面检查 Surface Visual Inspection	ACC		
光谱分析 100%PMI	ACC		

D.备注Remarks:

Melting process of the base material mentioned :AOD.

NACE MR 0103/ISO 17945:2015/NACE MR 0175/ISO 15156-3:2015.

We hereby certify that the material has been made and tested in accordance with the above specification and the requirement called for on the order. Material free from mercury and radiation contamination.

ZHEJIANG JNDIA PIPELINE INDUSTRY CO., LTD. 浙江志达管业有限公司 QUALITY INSPECTION SPECIAL SEAL 质检专用章

制单人：湛红艳 审 核： 日期： 2023-04-17 检验部门(章):

Prepared by: Zhan HY Reviewed by Date Stamp

ROSETTI MARINO

Supply Management Dept.

Witness Review

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 640 - Proj. 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: E71218 - Qty:5,00

Protocol: CTCERC202400004992 * CERTIFIED TRUE COPY

* Issued 30-05-2024

raccortubi

00004994

28/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI SEC. ASME/ASTM SA/A 420 GR.WPL6, DIM./SMUSSI ANSI B16.9, B16.25	
660	NR	2	0,00	CAPS 1" XS	15353
670	NR	14	0,00	CURVE 90° LR 2" XS SEAMLESS	774
680	NR	4	0,00	CURVE 90° LR 1/2" XS SEAMLESS	16J
690	NR	110	0,00	CURVE 90° LR 1" XS SEAMLESS	402212
700	NR	8	0,00	CURVE 90° LR 1.1/2" XS SEAMLESS	413640
710	NR	1	0,00	RID. CONC. 2"x1" XS SEAMLESS	433876
720	NR	1	0,00	RID. CONC. 3/4"x1/2" XS SEAMLESS	0F
730	NR	5	0,00	RID. CONC. 1"x3/4" XS SEAMLESS	56
740	NR	2	0,00	RID. CONC. 1.1/2"x1" XS SEAMLESS	32
750	NR	1	0,00	RID. ECC. 4"x2" STD/XS SEAMLESS	14G5207
760	NR	2	0,00	RID. ECC. 2"x1" XS SEAMLESS	J3K5342
770	NR	1	0,00	RID. ECC. 4"x1.1/2" STD/XS SEAMLESS	513131
780	NR	24	0,00	TEE UG. 1" XS SEAMLESS	02

raccortubi

00004994

28/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002010
Ordine N. P.O. number: 1724000839 - 22.04.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
790	NR	1	0,00	TEE RID. 4"x1.1/2" STD/XS SEAMLESS	623918
800	NR	5	0,00	TEE RID. 1"x3/4" XS SEAMLESS	02

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☐ Review

CTCERT202400003528.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P1	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
1	CAP 1" XS WPL6	2,00	15353

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PLATE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%	B%
0,170	0,970	0,230	0,011	0,017	0,030	0,020	0,002	0,020	0,003	0,032	0,0040	0,0030	0,0020	0,0006

CE_{IIW} 0,34

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	348	530	32

Impact Test

Direction L Test Temperature -46 °C Test Type ISO-V

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	44	43	41	43

Hardness Test

Base Metal Avg 127 HBW

ROSETTI MARINO
Supply Management Dept
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A. Order: 1724000839 - 22.04.24 - Item n.: 660 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CAPS 1" XS

raccortubi Heat num. or Pcs. marking: 15353 - Qty:2,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 660 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CAPS 1" XS

raccortubi Heat num. or Pcs. marking: 15353 - Qty:2,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003529.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
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Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P2	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
2	ELBOW 2" XS 90° LR WPL6	14,00	774

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	Ti%	Nb%
0,160	0,940	0,250	0,013	0,005	0,010	0,040	0,008	0,020	0,003	0,024	0,0010	0,0010

CE_{IIW} 0,33

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	341	505	34

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	57	66	71	65

Hardness Test

Base Metal **Avg** 139 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 670 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 774 - Qty:14,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 670 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 774 - Qty:14,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003530.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guameri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P3	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
3	ELBOW 1/2" XS 90° LR WPL6	4,00	16J-16J0110

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,110	1,250	0,220	0,007	0,003	0,020	0,120	0,010	0,010	0	0

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	375	500	31

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	35	41	37	38

Hardness Test

Base Metal Avg 114 HBW

ROSETTI MARINO
Supply Management Dept
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 680 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 16J - Qty:4,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 680 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 16J - Qty:4,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P4	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
4	ELBOW 1" XS 90° LR WPL6	110,00	402212

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,180	0,560	0,250	0,012	0,016	0,021	0,027	0,009	0,036	0,007	0,0150
	CE_{IIW} 0,29									

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	311	526	32

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	38	42	43	41

Hardness Test

Base Metal Avg 133 HBW

ROSETTI MARINO
Supply Management Dep.
☐ Witness ☑ Revie

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 690 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 402212 - Qty:110,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	NAME ROSETTI MARINO
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	Supply Management Dept.
SIGNED	SIGNED	SIGNED ☐ Witness ☑ Review
DATE 22/05/2024	22/05/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 690 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 402212 - Qty:110,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003532.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guamen del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

IRC SPA
FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P5	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
5	ELBOW 1.1/2" XS 90° LR WPL6	8,00	413640

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,150	0,580	0,210	0,018	0,013	0,042	0,045	0,018	0,078	0,008	0,0020

CE_{IIW} 0,27

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	295	503	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	67	54	62	61

Hardness Test

Base Metal Avg 135 HBW

ROSETTI MARINO
Supply Management Dept
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 700 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 413640 - Qty:8,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 700 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: CURVE 90° LR 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 413640 - Qty:8,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003533.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P6	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
6	R.C. 2" x 1" XS WPL6	1,00	433876

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,220	0,620	0,260	0,025	0,016	0,046	0,044	0,015	0,070	0,016	0,0020

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	298	523	36

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	87	91	79	86

Hardness Test

Base Metal **Avg** 140 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 710 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 433876 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	NAME ROSETTI MARINO
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	Supply Management Dept.
SIGNED	SIGNED	SIGNED ☐ Witness ☒ Review
DATE 22/05/2024	22/05/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 710 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 433876 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003534.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy
STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

IRC SPA
FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no. 4527-P7 23/05/2024
Purchaser 030206018013 - RACCORTUBI SPA
Order 00005824

	Item	Quantity	Heat Id.
7	R.C. 3/4" x 1/2" XS WPL6	1,00	0F-0F2350

Specification ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6

Heat Treatment NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR

Manufacture standard ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%
0,110	1,280	0,260	0,010	0,003	0,020	0,110	0,020	0,010	0,001	0	0	0	0

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction T

Unit	Y.S.	T.S.	Elongation %
MPA	275	451	31

Impact Test

Direction T **Test Temperature** -46 °C **Test Type** KV

Impact Value (J)			
(1)	(2)	(3)	Avg
32	30	33	32

Hardness Test

Base Metal Avg 142 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 720 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 3/4"x1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 0F - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 720 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 3/4"x1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 0F - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003535.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

IRC SPA
FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P8	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
8	R.C. 1" x 3/4" XS WPL6	5,00	56-123056

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	Nb%
0,127	1,090	0,220	0,012	0,002	0,071	0,072	0,026	0,189	0,001	0,035	0,0015

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	325	537	31

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	35	38	35	36

Hardness Test

Base Metal Avg 119 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 730 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 1"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 56 - Qty:5,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME
SIGNED	SIGNED	SIGNED ROSETTI MARINO Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 730 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 1"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 56 - Qty:5,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

I.R.C. S.p.A.
SEDE LEGALE:
Via Guameri del Gesù, 3 - I-26100 Cremona (CR) - Italy
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Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P9	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
9	R.C. 1.1/2" x 1" XS WPL6	2,00	32-J9K6232

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,260	0,290	0,012	0,001	0,020	0,110	0,010	0,010	0	0,0100	0	0,0001

CE_{IIW} 0,35

Legenda: CE_{IW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	357	529	32

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	42	39	45	42

Hardness Test

Base Metal Avg 131 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin.

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 740 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 1.1/2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 32 - Qty:2,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	NAME ROSETTI MARINO
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	SIGNED Supply Management Dept
SIGNED	SIGNED	Witness Review
DATE 22/05/2024	22/05/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 740 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. CONC. 1.1/2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 32 - Qty:2,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy
STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE. IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P10	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
10	R.E. 4" x 2" XS WPL6	1,00	14G5207

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%
0,120	1,300	0,250	0,013	0,002	0,020	0,120	0,010	0,020	0,010	0	0	0	0,0010

CE_{IIW} 0,37

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	313	470	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
7.5 X 10	0,6	Base Mat.	263	266	270	266

Hardness Test

Base Metal Avg 138 HBW

ROSETTI MARINO

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 750 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. ECC. 4"x2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 14G5207 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 750 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. ECC. 4"x2" STD/XS SEAMLESS

CTCERT202400003538.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy
STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P11	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
11	R.E. 2" x 1" XS WPL6	2,00	J3K5342

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,120	1,310	0,270	0,010	0,001	0,020	0,120	0,010	0,020	0	0

CE_{IIW} 0,37

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	299	526	31

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	40	42	39	40

Hardness Test

Base Metal Avg 139 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin
Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 760 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Description: RID. ECC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: J3K5342 - Qty:2,00
Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 760 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. ECC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: J3K5342 - Qty:2,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003539.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guameri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

IRC SPA
FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P12	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
12	R.E. 4" x 1.1/2" XS WPL6	1,00	513131

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,160	0,610	0,220	0,026	0,012	0,018	0,012	0,005	0,021	0,002	0,0020

CE_{IIW} 0,27

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	298	515	34

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
7.5 X 10	0,6	Base Mat.	119	126	128	124

Hardness Test

Base Metal Avg 140 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 770 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. ECC. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pos. marking: 513131 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept.
DATE 22/05/2024	22/05/2024	☐ Witness ☒ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 770 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: RID. ECC. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 513131 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003540.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guameri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P13	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
13	TEE 1" XS WPL6	24,00	02-J6L8102

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,300	0,240	0,015	0,002	0,030	0,120	0,020	0,010	0	0,0100	0	0,0002

CE_{IIW} 0,36

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	337	487	43

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	43	51	56	50

Hardness Test

Base Metal Avg 138 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 780 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE UG. 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 02 - Qty:24,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED Supply Management Dept
DATE 22/05/2024	22/05/2024	Witness Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 780 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE UG. 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 02 - Qty:24,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003541.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P14	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
14	TEE 4" x 1.1/2" XS WPL6	1,00	623918

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	COLD FORMED
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,150	0,980	0,230	0,013	0,004	0,130	0,140	0,050	0,150	0,020	0,0100

CE_{IIW} 0,37

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	311	527	30

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
7.5 X 10	0,6	Base Mat.	68	75	61	68

Hardness Test

Base Metal Avg 147 HBW

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 790 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 623918 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME
SIGNED	SIGNED	SIGNED
DATE 22/05/2024	22/05/2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☑ Review

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 790 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 623918 - Qty:1,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

CTCERT202400003542.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4527-P15	23/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005824	

	Item	Quantity	Heat Id.
15	TEE 1" x 3/4" XS WPL6	5,00	02-J6L8102

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,300	0,240	0,015	0,002	0,030	0,120	0,020	0,010	0	0,0100	0	0,0002

CE_{IIW} 0,36

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	351	488	45

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	42	44	44	43

Hardness Test

Base Metal Avg 128 HBW

ROSETTI MARINO
Supply Management Dept.
Witness Review

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724000839 - 22.04.24 - Item n.: 800 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 1"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 02 - Qty:5,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

ALFACND	MAGNETIC PARTICLE REPORT	REPORT No. MPI 23052024
		DATE 22/05/2024

Mod. 7.6.1 Rev. 0	LOCATION / WORKSITE	MATERIAL
CLIENT	CORTEMAGGIORE	/
I.R.C. S.p.a.	ALFACND JOB NUMBER 2024/002-005/A	DIAMETER /
	ALFACND PROCEDURE IL 7.6.1 Rev. IRC_5	SURFACE CONDITION SAND BLASTED
CLIENT JOB NUMBER 4527/2024	CASTING NUMBER /	MATERIAL /

MAGNETIC PARTICLE INSPECTION

EQUIPMENT	COIL MAGISCOPE 6000 SN 10128
METHOD	DIRECT MAGNETIC FLOW
INK / POWDER	DRY YELLOW MAGNETIC POWDER
CURRENT / VOLTAGE	1000 A/TURNS
CONTRAST PAINT	/
CODE NO.	ASME V art. 7, art. 25, SE 709
ACC. CRITERIA	ASME VIII div.1 appendix 6
SURFACE LIGHT INTENSITY	>1000 LUX

RESULTS

Identification	Quantity	Area Examinated	Side	Casting Nr	Serial number/Item	Result
CAP 1" XS WPL6	2	100%	EXTERNAL	15353	A829-4	ACCEPTABLE
ELBOW 2" XS 90° LR WPL6	14	100%	EXTERNAL	774	A830-4	ACCEPTABLE
CURVA 1/2" XS 90° LR WPL6	4	100%	EXTERNAL	16J-16J0110	A831-4	ACCEPTABLE
CURVA 1" XS 90° LR WPL6	110	100%	EXTERNAL	402212	A832-4	ACCEPTABLE
CURVA 1.1/2" XS 90° LR WPL6	8	100%	EXTERNAL	413640	A833-4	ACCEPTABLE
R.C. 2" X 1" XS WPL6	1	100%	EXTERNAL	433876	A834-4	ACCEPTABLE
R.C. 3/4" 1/2" XS WPL6	1	100%	EXTERNAL	0F-0F2350	A835-4	ACCEPTABLE
R.C. 1" X 3/4" XS WPL6	5	100%	EXTERNAL	56-123056	A836-4	ACCEPTABLE
R.C. 1.1/2" X 1" XS WPL6	2	100%	EXTERNAL	32-J9K6232	A837-4	ACCEPTABLE
R.E. 4" X 2" XS WPL6	1	100%	EXTERNAL	14G5207	A838-4	ACCEPTABLE
R.E. 2" X1" XS WPL6	2	100%	EXTERNAL	J3K5342	A839-4	ACCEPTABLE
R.E. 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	513131	A840-4	ACCEPTABLE
TEE 1" XS WPL6	24	100%	EXTERNAL	02-J6L8102	A841-4	ACCEPTABLE
TEE 4" X 1.1/2" XS WPL6	1	100%	EXTERNAL	623918	A842-4	ACCEPTABLE
TEE 1" X 3/4" XS WPL6	5	100%	EXTERNAL	02J6L8102	A843-4	ACCEPTABLE

ALFACND	ALFACND	CLIENT
NDT Tech. 3° Lev. RT ISO 9712 2° Lev. ISO9712 SNT TC1A UT-MT-PT-RT-VT	NDT Resp. 3° Lev. ISO9712 UT (pa-tofd) RT-MT-PT-VT SNT TC1A UT-RT-MT-PT-VT 2° Lev. ISO9712 GT	
NAME GARBAZZA FABIO	NAME BARDI ALESSANDRO	NAME ROSETTI MARINO
SIGNED	SIGNED	SIGNED ☐ Witness ☑ Review
DATE 22/05/2024	22/05/2024	Supply Management Dept.

Customer: ROSETTI MARINO S.p.A.

Order: 1724000839 - 22.04.24 - Item n.: 800 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010

Description: TEE RID. 1"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 02 - Qty:5,00

Protocol: CTCERC202400004994 * CERTIFIED TRUE COPY
* Issued 28-05-2024

raccortubi

00005042

30/05/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002010

Ordine N. P.O. number: 1724000839 - 22.04.24

123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TUBI ELETTROUNITI SEC. ASME/ASTM SA/A-312 TP.316/316L, DIM. SEC. ANSI B36.19	
100	M	12,00	2,00	273.00x4.19 WELDED - RX 100%	AUN070583

ROSETTI MARINO
Supply Management Dept.
☑ Witness ☑ Review

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: 273.00x4.19 WELDED - RX 100%
Heat num. or Pcs. marking: AUN070583 - Qty:12,00
Order: 1724000839 - 22.04.24 - Item n.: 100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002010
Protocol: CTCERC202400005042 * CERTIFIED TRUE COPY * Issued 30-05-2024
CTCERT202400003442.1.0001

Certificate No.	F240206006
Date:	FEB 05,2024

檢 驗 證 明 書
MILL'S TEST CERTIFICATE
EN 10204/3.1

彰源企業股份有限公司
FROCH ENTERPRISE CO., LTD.
NO.122 INDUSTRIAL ROAD, TOU-LIU CITY
YUN-LIN 640, TAIWAN
TEL:+886-5-5571669 FAX:+886-5-5571339
Website: www.froch.com

Customer :

Invoice No.	Contract No.	L / C No.
FEX20231815	PUR-IOX07319MA	T/T

規 範 Specification: ASTM A312-2021, ASME SA 312-2021/ASTM A999, ASME SA530, ANSI/ASME B36.19-ASME Section II part A, Edition 2021

產品名稱 Description	項目 Item No.	產品尺寸 Size	鋼種 Type	爐號 Heat No.	數量 QTY(M)	重量 Weight(Kg)	熱處理 (℃) Heat Treatment Water Quenched	表面處理 Finish	水壓試驗 Hydrostatic Test (Mpa)	Coil No.
STAINLESS STEEL WELDED PIPE CUT IN THE LENGTH OF 6.0M.	42	10" X SCH 10S	TP 316/TP 316L	AUN070583	150.000	—	1065	PICKLED	4.00	6X253403 027.602

化 學 成 份 Chemical Composition (%)

項目 Item No.	碳 C	矽 Si	錳 Mn	磷 P	硫 S	鉻 Cr	鎳 Ni	鉬 Mo	氮 N		抗拉強度 Tensile (N/mm^2)	降伏強度 0.2% Yield (N/mm^2)	伸長率 % Elongation
Min.						16.00	10.00	2.00					
Max.	0.035	1.000	2.00	0.045	0.030	18.00	14.00	3.00			515	205	35
42	0.016	0.360	1.35	0.032	0.002	16.62	10.04	2.04	—	—	642	292	57

機 械 試 驗 Mechanical Test

Direction	Width of specimen	Gauge Length	硬度試驗 Hardness HRB	壓扁試驗 Flattening Test	彎曲試驗 Bend	擴口試驗 Flaring Test
L.T	mm	mm				
			99.50	No Crack	No Crack	No Crack
Transverse	38	50.00	86.00	—	GOOD	—

NOTES:
1.The material described herein is certified for no radiation contamination by original Material Manufacturer.
2.The tolerance of chemical composition is according to ASTM A480
3.Heat treatment:Solution annealed and quenched in water.
4.1Ksi = 1000Psi, 1Mpa = 1 N/mm^2 = 0.145038 Ksi.
5.Visual Inspection(Surface) and Dimension Check: Acceptable
6.We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.

"ACCORDING TO EN10204/3.1 TO EVIDENCE: MATERIAL: ACCORDING TO EN10204/3.1 TO EVIDENCE ASTM A312/ ASME SA312/ASTM A999/ ANSI B36.10/B36.19 CORROSION TEST ACC. TO ASTM A 262 PRACTICE E - OK. HARDNESS TO NACE MR0175/ISO15156-3-MR0103-2015 POSITIVE MATERIAL INDENTIFICATION FLATTENING UP TILL OD 8 INCH,ABOVE OD 8 INCH BENDING TEST 100 PERCENT EDDY CURRENT ACC. TO ASTM E426 - OK. 100 PERCENT HYDROSTATIC TEST - OK. THE MATERIAL DESCRIBED HEREIN IS CERTIFIED FOR NO RADIATION CONTAMINATION BY ORIGINAL MATERIAL MANUFACTURER.
"DIMENSIONAL AND VISUAL EXAMINATION NO OBJECTION.
POSITIVE MATERIAL IDENTIFICATION RESULT IS SATISFIED.
"MARKING:
FROCH<<I.Y.>>-NORM-GRADE-SIZE-WLD-HEAT NO.-ISO 9001/14001 SYSTEM APPROVAL - ET
"Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.
"The Republic of China (Taiwan) government has also joined the international economic sanctions against Russia since February 25, 2022.
"The pipes/tubes are manufactured in Taiwan.
"HS CODE 7306.40

APPROVED CERTIFICATES:
1.QMS according ISO 9001(TUV Cert No:01 100 126922)
2.EMS according ISO 14001(LR Cert No:0069466)
3.PED (TUV Cert No: 01 202 TWN/Q-06 0145)

Lai Yu Lin
QA Manager / Work Inspector.

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☑ Review

Q-Y-Q-33-10-A

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/
Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1037 / 24

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
547	**100**	**Mt. 12,00**	**AUN070583**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Doc. Cliente/ Client's doc.	*Doc. Sider Test/ Sider Test doc.*	*Norma Esecuzione/ Execution Standard*	*Accettabilità/ Acceptance Std*
	PO 04-005 RT Rev. 22 - IL 04-005-001 RT Rev. 08	**ASME BPVC.V-2023 Art. 2**	**ASME BPVC.VIII.1-2023 UW-51**

Area Esame/ Area Tested **100% Sald. e Z.T.A./ 100% Weld and HAZ** Superficie/ Surface **Come Saldato/ As Welded** Marcatura/ Marking **Stamping**

Tecnica/ Technique: Direzionale - Parete Doppia - Immagine singola - F/ Directional - Double wall - Single wall viewing

Raggi X/ X-Ray Classe EN/ EN Class Strumento/ Equipment **115/RT - MHF 300-D (Gilardoni Spa)** Macchina Focale/ Focal spot (mm) **3**

Parametri/ Details

Spessore/ Thickness (mm) **4.19** Sovrametallo/ Weld Reinforcement (mm) **1** Energia/ Energy **270 kV 3 mA** Tempo di esposizione/ Exposure time **1'**

Distanze/ Distances

Distanza sorgente-oggetto lato sorgente/ Source to source-side-object distance (mm) **1000** Distanza oggetto lato sorgente-film/ Source-side-object to film distance (mm) **5,19**

Films/ IQI

Sviluppo/ Film developing	**Automatico/ Automatic**	Tipo film/ Film type	**KODAK MX125**	Posizione penetrametro/ IQI location	**Lato film/ Film side**
Schermo anteriore/ Front screen	**0,05**	Formato pellicola/ Film size	**100 x 480**	Densità richiesta/ Required densty	**1,8 + 4**
Schermo posteriore/ Back screen	**0,1**	N° Film per busta/ Nr of films for case	**1**	Filo richiesto/ Required wire	**No. 4 (3°) - 0,0063 Inches**
Ug: Effetto Penombra/ Geometric unsharpness	**0,02 OK**			IQI	**ASTM 1A**

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles	C - Tarli/ Wormholes	E - Inclusioni allineat/ Slang lines	G - Mancanza di penetrazione/ Lack of penetration	I - Incisione/ Undercutting	**1) Da marker iniziale/ From starting marker**
B - Porosità/ Porosity	D - Inclusioni di scoria/ Slang inclusions	F - Mancanza di fusione/ Lack of fusion	H - Cricca/ Crack	L - Cordone irregolare/ Erratic weld bead	M - Difetto film/ Processing defect
					N - Tungsteno/ Wolfarm
					R - Riparazione/ Repair

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

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Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BIBBATO LEVEL II SNT-TC-1A LEVEL II ISO 9712	**23/05/2024**	**27/05/2024**	**28/05/2024**	ROSETTI MARINO *Supply Management Dept.* ☐ Witness ☒ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A/ISO 9712/RG-11 ISO 9712 N°IT-PND-0011/19-C UT - PT - RT - VT

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

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Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

RT 1037 / 24

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
547	**100**	**Mt. 12,00**	**AUN070583**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59039			1-2	2,2	B	0	0	4	☐
59039			2-3	2,2		0	0	4	☐
59039			3-4	2,2		0	0	4	☐
59039			4-5	2,2		0	0	4	☐
59039			5-6	2,2		0	0	4	☐
59039			6-7	2,2		0	0	4	☐
59039			7-8	2,2		0	0	4	☐
59039			8-9	2,2		0	0	4	☐
59039			9-10	2,2		0	0	4	☐
59039			10-11	2,2		0	0	4	☐
59039			11-12	2,2		0	0	4	☐
59039			12-13	2,2		0	0	4	☐
59039			13-14	2,2		0	0	4	☐
59039			14-15	2,2		0	0	4	☐
59039			15-16	2,2		0	0	4	☐

Tabella di discontinuità/ Table of discontinuites

[1]) Da marker iniziale/ From starting marker

A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

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SIDER TEST S.r.l. SERGIO FABIO BIUBATO LIVELLO II ISO 9712 LEVEL II SNT-TC-1A LEVEL II ISO 9712	23/05/2024	27/05/2024	28/05/2024	ROSETTI MARINO Supply Management Dept. ☐ Witness ☐ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A-11 2016/RG 11 ISO 9712 NDT-PRD-001119-C MT - PT - RT - UT

SIDERTEST
mechanical chemical non destructive tests
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RAPPORTO DI PROVA/ TEST REPORT

RT 1037 / 24

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
547	**100**	**Mt. 12,00**	**AUN070583**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1]		
59039			16-17	2,2		0	0	4	☐
59040			1-2	2,6		0	0	4	☐
59040			2-3	2,6		0	0	4	☐
59040			3-4	2,6		0	0	4	☐
59040			4-5	2,6		0	0	4	☐
59040			5-6	2,6		0	0	4	☐
59040			6-7	2,6		0	0	4	☐
59040			7-8	2,6		0	0	4	☐
59040			8-9	2,6		0	0	4	☐
59040			9-10	2,6		0	0	4	☐
59040			10-11	2,6		0	0	4	☐
59040			11-12	2,6		0	0	4	☐
59040			12-13	2,6		0	0	4	☐
59040			13-14	2,6		0	0	4	☐
59040			14-15	2,6		0	0	4	☐

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Operatore CND Liv. II/ Lev. 2 NDE Operator

SIDER TEST S.r.l.
SERGIO FABIO BUBBATO
LEVEL II SNT-TC-1A
LEVEL II ISO 9712

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date
23/05/2024	**27/05/2024**	**28/05/2024**

Cliente/ Customer

ROSETTI MARINO
Supply Management Dept.
☐ Witness ☒ Review

Ispettori/ Inspector

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

PAOLO AMANI
LEVEL 3
SNT-TC-1A/ISO 9712 UT/RT
ISO 9712 NDT-PND-4011197
UT - RT - MT

SIDERTEST
mechanical chemical non destructive tests
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RAPPORTO DI PROVA/ TEST REPORT

RT 1037 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame radiografico mediante raggi X o raggi Gamma/ Radiographic Testing by means of X-ray or gamma-ray***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00002010**	**1724000839**

Prova Nr./ Test Nr.	Posizione/ Item	Qta/ Qty	Colata/ Heat	Materiale/ Material	Descrizione/ Description
547	**100**	**Mt. 12,00**	**AUN070583**	**ASTM A 312 TP316/316L**	**PIPE Ø 273,00 mm W.T. 4,19 mm**

Film N°	Tipo di Saldatura/ Weld type	Saldatore/ Welder	Posizione Film/ Film location	Densita/ Density	Discontinuità/ Discontinuity (mm)			Filo/ Wire	NC
					Tipo/ Type	Lunghezza/ Length	Distanza/ Distance [1])		
59040			15-16	2,6		0	0	4	☐
59040			16-17	2,6		0	0	4	☐

Tabella di discontinuità/ Table of discontinuites

A - Inclusioni gassose/ Gas bubbles
B - Porosità/ Porosity
C - Tarli/ Wormholes
D - Inclusioni di scoria/ Slang inclusions
E - Inclusioni allineat/ Slang lines
F - Mancanza di fusione/ Lack of fusion
G - Mancanza di penetrazione/ Lack of penetration
H - Cricca/ Crack
I - Incisione/ Undercutting
L - Cordone irregolare/ Erratic weld bead
M - Difetto film/ Processing defect
N - Tungsteno/ Wolfarm
R - Riparazione/ Repair

[1]) Da marker iniziale/ From starting marker

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptace Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. SERGIO FABIO BIMBATO Liv. 2 ISO 9712 LEVEL II SNT-TC-1A LEVEL II ISO 9712	**23/05/2024**	**27/05/2024**	**28/05/2024**	ROSETTI MARINO *Supply Management Dept.* ☐ Witness ☒ Review		PAOLO AMANI LEVEL 3 SNT-TC-1A/ 1012/RG-11 ISO 9712 N° IS-ENID-001119-C RT - UT - MT

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724000994	123A90A	Q012400405

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

06.06.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 03/06/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00005104
Packing list	PLPLIS202400005074
Ns. Rif.	00002207
Vs. Rif.	1724000994 - 16.05.24

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00005104

03/06/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002207
Ordine N. P.O. number: 1724000994 - 16.05.24

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
1	1	CAPS 12" SCH.20	633449 CTCERT202400003466_1.0001.TIF
2	6	CURVE 90° LR 4" STD SEAMLESS	X98Z CTCERT202400003470_1.0001.TIF
3	40	CURVE 90° LR 3" STD SEAMLESS	130896 CTCERT202400003572_1.0001.TIF
6	1	Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 8"	20/45664 CTCERT202400003593_1.0001.TIF
7	2	Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"	22/76507 CTCERT202400003594_1.0001.TIF
8	1	Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 10"	23/39601 CTCERT202400003595_1.0001.TIF
9	2	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4" thk6,02mm	022203591 CTCERT202400003596_1.0001.TIF
10	1	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 8" thk6,35mm	23/39601 CTCERT202400003597_1.0001.TIF
11	1	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 10" thk6,35mm	22/36388 CTCERT202400003598_1.0001.TIF
12	2	Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 12" thk6,35mm	22/35031 CTCERT202400003599_1.0001.TIF
23	5	TEE RID. 4"x3" STD SEAMLESS	J4KB349 CTCERT202400003795_1.0001.TIF
25	1	TEE RID. 12"x8" SCH.20 SEAMLESS	453686 CTCERT202400003469_1.0001.TIF
26	1	TEE RID. 12"x10" SCH.20 SEAMLESS	948456 CTCERT202400003849_1.0001.TIF

CTCERT202400003466.1.0001

CENA ITALY

VIRGILIO CENA & FIGLI S.p.A.

www.cenafittings.com
Via G. Oberdan, 39 – 25128 – BRESCIA (ITALY)

QMS approved acc.to ISO 9001:2015
LRQA Cert. N° 10082605 according to Annex I, Chapt. 4.3 PED 2014/68/EU

Issued in agreement with TÜV SÜD Industrie Service GmbH (05.1992) and approved according to PED, annex I, para 4.3 by Notified body 0036, cert. n. DGR-QS-W 024/2002/MUC-001

CERTIFICATO DI COLLAUDO EN 10204/3.1
INSPECTION CERTIFICATE EN 10204/3.1

CE22012089_3.1_01

Ordine Cliente *Customer Order*	MT10314/LA0000761	Vostro rifer. 2200

Prodotto/Norme *Article/Specification*	Fondelli senza saldatura \ Seamless caps WPL6 ASTM A420/420M-19, ASME II Part.A-2019 SA420/SA420M, WPB ASTM A234/234M-18A, ASME II Part.A-2019 SA234/SA234M, ASME B16.9-18, NACE MR0175/ISO15156-2015, NACE MR0103/ISO17945-2016 ASME II Part.D-2019 Tab.Y1
Trattamento Termico *Heat Treatment*	Formato a freddo - Normalizzato a 900°C per 1,5'/mm Cold formed - Normalized at 900°C,holding 1,5'/mm
Marcatura *Marking*	Manufacturer - Od xTh- A/SA WPB - A/SA420 WPL6 - Heat Nr

Marchio del produttore / Brand of manufacturer: **CENA**

Descrizione della fornitura / *Extent of material delivered*	Our pos.	Quantità / Quantity	Tipo di prodotto / Article
	OV22000013/10000	NR 2	12" Sch.20

Colata / *Heat*	Codice marcato	Certificato / *Certificate*	Fornitore materia base / *Base material supplier*
633449	633449	73570	

Materiale di partenza / *Raw material*: Hot rolled heavy plate Gr.60 SA-516/SA516M

Risultati analisi chimica % — *Results of chemical analysis %* — *Ceq: C+ (Mn/6) + (Cr +Mo + V)/5 + (Cu + Ni)/15*

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	Al	Ti	Nb	V	N	B	Ceq	Pcm	Jfact.
min.		0,2900	0,1000															
max.	0,3000	1,6500		0,0500	0,0580	0,4000	0,4000	0,4000	0,1500				0,0800					
Ladle	0,0900	1,0200	0,2300	0,0090	0,0070	0,1000	0,0300	0,0700	0,0050	0,0590	0,0010	0,0020	0,0020			0,2800		
Check																		

Prove meccaniche / Mechanical Tests: Sui raccordi / On fittings

Prova Specimen	Posizione Position	Direzione Direction	Temperatura °C Temperature °C	Dimensione mm Dimension mm	Snervamento N/mm² Yield Point N/mm²	Rottura N/mm² Tensile Strength N/mm²	Allungamento % Elongation % 2"	Ys / Ts	Durezza Hardness HB 10% of batch 3 tests min.	Resilienza - Tipo di provetta = KV Impact Test - Specimen = KV: Posizione Position	Direzione Direction	Temperatura °C Temperature °C	Dimensione mm Dimension mm	Energia ottenuta Obtained energy Joule: Valore Values			Media Average	Area duttile Shear Area %: Valore Values			
30632	A	L	20		322	437	38,6	0,74	137	A		-45	10x5	56,0	50,0	53,0	53,0				

I tubi sono stati sottoposti a prova di tenuta. / The pipes are tested on tightness.

Processo di fabbricazione dell'acciaio / Steel making process:

Specimen position: A=neutral axis of base material; W=weld; E=extrados of base material; I=intrados of base material; Z=heat affected zone

Results of visual and dimensional inspection of fittings: SATISFACTORY Supplied products are in compliance with the requirements of the order The values of elongation and impact-test are according to PED 2014/68/UE The steel is fully killed and produced to a fine grain practice. Product is free of weld repair. Product is free of mercury and radiation contamination.
30632: Rp = 46702 psi - Rm = 63381 psi

Data / *Date*: 18/01/22
DTV2200050

Ente Certificatore / *Inspection*

Il Capo Collaudo / *Quality Control Manager*: **BUTTURINI RICCARDO**

QUESTO DOCUMENTO È REDATTO CON L'AUSILIO INFORMATICO ED È VALIDO SENZA FIRMA.
MODIFICHE O USI PER ALTRI PRODOTTI SARANNO PERSEGUITI A TERMINE DI LEGGE QUALI FALSIFICAZIONE DI DOCUMENTI E FRODE.
THIS DOCUMENT HAS BEEN ISSUED WITH THE INFORMATIC HELP AND IT IS VALID WITHOUT A SIGNATURE.
MODIFICATIONS OR ELSE OTHER PRODUCTS USE WILL BE PERSECUTED ACCORDING TO THE LAW AS FALSIFICATION OF DOCUMENTS OR FRAUD.

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 1 - Our ref.: OCVEIT202400002207

Description: CAPS 12" SCH.20

raccortubi Heat num. or Pcs. marking: 633449 - Qty:1,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 20-06-2024

CTCERT202400003470.1.0001

INTERFIT®

GQ-0001T

N° de Cde Usine
Mill Ref 2400051 021
Werks-Nr 2400505

N° Certificat
Certificate Nr
Zeugnis Nr 24-01511

INTERFIT
B.P 10132 59602 MAUBEUGE FRANCE
Tél : 03.27.69.11.01

Raccords sans soudure à Souder
Seamless Bult Welding Fittings
Nahtlose Schweissformstücke

Client :
Consignee
Besteller

INSPECTION CERTIFICATE

EN 10204 3.1(2004)

Cde Client N° : LS-0000008 (WPL6)
Your Order Nr
Bestell-Nr

Spécifications :
Specifications :
Spezifikationen :

Acier et Normes
Steel and Standard
Werkstoff und Norm

Matière de départ
Raw Material / Werkstoff
Tubes sans soudure / Seamless Tube / Nahtlose Rohre
Acier procédé Electrique / Electric Steel / Elektroofenstahl

INTERPIPE
Acier calmé / Killed Steel / beruhigter Stahl

Etat de livraison
Delivery Condition / Lieferzustand

Marquage
Marking / Stempelung
Sur pièces en creux low stress
Low stress hard stamp
Kennzeichnung auf dem Fitting durch kerbfreie Einprägung

If 4" STD WPL6 FR 114 6.3 EN2 P265NL A420 X98Z
FR = FRANCE
If = If

Poste N° *Item Nr Pos Nr*	Nombre *Number Stückzahl*	N° Certificat Matière Raw Material *Rohrzeugnis Nr*	Code *Marking Markierung*	Coulée N° *Heat Nr Schmelze*	Dimensions / *Sizes* / *Abmessungen*
021	1000	24A1733	X98Z	1240440	90° 3D 114.3 X 6.30 / LR 90° 4" STD WPL6 BELGY5P904602000005 CALR 90 4" STD WPL6

CARACTERISTIQUES CHIMIQUES - *CHEMICAL ANALYSIS - SCHMELZENANALYSE*

Product analysis

Coulée N° *Heat Nr Schmelze*		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Al	Sn	Ti	Nb	B
	mini		0.150	0.600								0.020				
	maxi	0.200	0.400	1.350	0.025	0.010	0.300	0.080	0.300	0.300	0.020			0.040	0.020	
1240440		0.09	0.19	1.18	0.010	0.002	0.10	0.05	0.13	0.18	0.001	0.024		0.001	0.001	

Carbone équivalent / *Carbon equivalent / Kohlenstoffäquivalent* (*Maxi : 0.41*)

CF : C + (Mn / 6) = 0,287 LF : C + (Mn / 6) + ((Cr + V + Mo) / 5) + ((Cu + Ni) / 15) = 0,338

CARACTERISTIQUES MECANIQUES
MECHANICAL PROPERTIES - MECHANISCHE EIGENSCHAFTEN

Sur Pièces
On Fittings
am Fittings

Essais de Traction / *Tensile Tests / Zugversuch* *Room temperature* *longitudinal direction*

Limite Elastique *Yield Point / Streckgrenze*	Résistance Rupture *Tensile strength / Zugfestigkeit*	Allongement *Elongation / Dehnung*	Dureté *Hardness test on fittings Härte HBW*
Re ≥ 265 MPa	415 ≤ Rm ≤ 570 MPa	2" A% ≥ 30	
346 MPa	511 MPa	2" 33,1 %	162 161 165 158

Résilience / Impact Test / Kerbschlagarbeit : *Sur pièces / On fittings / am Fittings*

Essai Test Versuch	Test 1	Test 2	Test 3	Moyenne : Unité Mean : Units Mittelwert : Einheit	Type : KV Specimen Muster	Température -50° Celsius or -58°F
Kvc 10x2.5	≥ 7	≥ 7	≥ 7	≥ 10		KV >= 40J (long.) at -40°C
Kvc 10x10	≥ 30	≥ 30	≥ 30	≥ 40		The results at -50°C fulfill the requirements at -40°C
24-00247	27,5	29,4	29	28,6	10 x 2.5 mm	Long / Long / Längs
24-00247	110	117,6	116	114,5	10 x 10 mm	Long / Long / Längs

Date : 19/04/2024
LE RESPONSABLE QUALITE
F. FRIART

WE CERTIFY THAT THE DELIVERED PRODUCTS WERE MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION OF THE ORDER.

INTERFIT GARANTIT QUE LE PRODUIT DU CERTIFICAT,RESPECTE LES PRESCRIPTIONS ART15 DU A.M 24/03/78 MODIFIE:C<=0.25,P<0.05,S<0.05,R<=700N/mm2 ,E<=0.9xR,A%(Lo=5.65VSo)min.16%long.R(A-2)>=10500, A%(Lo=5.65VSo)min.14% en transv.RxA>=10500

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 2 - Our ref.: OCVEIT202400002207

Description: CURVE 90° LR 4" STD SEAMLESS

raccortubi Heat num. or Pcs. marking: X98Z - Qty:6,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT202400003572.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	4724-P10	24/05/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00005889	

	Item	Quantity	Heat id.
10	ELBOW 3" STD 90° LR WPL6	40,00	130896

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED
Heat Treatment	FORMED UNDER NORMALIZING COND. TEMPERATURE 780°C - 980°C / COOLING STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	Ti%	Nb%
0,177	0,890	0,220	0,008	0,003	0,100	0,140	0,050	0,240	0,006	0,035	0,0210	0,0050

CE_{IIW} 0,39

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	323	531	32

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	34	31	30	32

Hardness Test

Base Metal Avg 138 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 3 - Our ref.: OCVEIT202400002207

Description: CURVE 90° LR 3" STD SEAMLESS

raccortubi Heat num. or Pcs. marking: 130896 - Qty:40,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-01283 — Data / Dated 23.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	**Ordine / PO**	5875 A07
	Item	001 A07
	DDT / Delivery note	2024-3E301-0001259 A10
	Packing List	2024-3E401-0001269 A11
	Fattura / Invoice	2024-3E401-0001269 A12
	Ns. rif. / Our ref.	2024-3E201-0000845-0001 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	20/45664	1,00	BLIND 150 RF 8" LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,195	0,230	1,040	0,006	0,006	0,100	0,060	0,020	0,021	0,100	0,002	0,001	0,010
PRODUCT ANALYSIS	0,192	0,238	1,045	0,003	0,008	0,113	0,051	0,011	0,019	0,108	0,003	0,002	0,007

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,032	0,403	0,368	0,282	0,120	--
PRODUCT ANALYSIS	0,027	0,402	0,366	0,286	0,124	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	343,0	--	508,0	36,0	68,0

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
145,0 ; 150,0	KV	10x10 mm	-46	47	61	55	54,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine / Origin of Steel B16	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 6 - Our ref.: OCVEIT202400002207

Description: Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 8"

raccortubi Heat num. or Pcs. marking: 20/45664 - Qty:1,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5875 A07
Viale Lidice 38/40/42		**Item**	002 A07
10095 GRUGLIASCO TO IT		**DDT / Delivery note**	2024-3E301-0001259 A10
		Packing List	2024-3E401-0001269 A11
		Fattura / Invoice	2024-3E401-0001269 A12
		Ns. rif. / Our ref.	2024-3E201-0000845-0002 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	22/76507	2,00	BLIND 150 RF 4" LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,185	0,220	1,040	0,005	0,011	0,080	0,050	0,010	0,015	0,160	0,002	0,002	0,010
PRODUCT ANALYSIS	0,187	0,218	1,035	0,006	0,010	0,078	0,052	0,012	0,013	0,162	0,004	0,003	0,011

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,025	0,391	0,358	0,302	0,090	--
PRODUCT ANALYSIS	0,027	0,393	0,360	0,308	0,090	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	326,0	--	516,0	30,4	62,8

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
154,0 ; 152,0	KV	10x10x55 mm	-46	67	60	63	63,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06	ANSI/MSS SP-25-2018	**Vis. & Dim.** D01	SATISFACTORY	**Origine / Origin of Steel** B16	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 7 - Our ref.: OCVEIT202400002207

Description: Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"

raccortubi Heat num. or Pcs. marking: 22/76507 - Qty:2,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06
Viale Lidice 38/40/42
10095 GRUGLIASCO TO IT

Ordine / PO	5875	A07
Item	003	A07
DDT / Delivery note	2024-3E301-0001259	A10
Packing List	2024-3E401-0001269	A11
Fattura / Invoice	2024-3E401-0001269	A12
Ns. rif. / Our ref.	2024-3E201-0000845-0003	A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/39601	1,00	BLIND 150 RF 10" LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,185	0,250	1,070	0,007	0,011	0,130	0,070	0,020	0,021	0,170	0,001	0,001	0,010
PRODUCT ANALYSIS	0,180	0,221	1,030	0,005	0,012	0,106	0,070	0,018	0,015	0,156	0,003	0,003	0,010

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,030	0,410	0,363	0,391	0,150	--
PRODUCT ANALYSIS	0,035	0,392	0,352	0,353	0,124	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta C10 / Test specimen		Forma C10 / Shape	°C C03	Snervamento>0,2% C11 / Yield Strength>0,2%	Snervamento>1,0% C11 / Yield Strength>1,0%	Rottura C12 / Tensile	Allungamento C13 / Elongation	Contrazione C14 / Reduction of area
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	387,0	--	534,0	32,1	72,9

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
154,0 ; 157,0	KV	10x10x55 mm	-46	55	47	60	54,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR			C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020				
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH				
Marcatura in acc. / Marking in acc. to B06	ANSI/MSS SP-25-2018	**Vis. & Dim.** D01	SATISFACTORY	**Origine / Origin of Steel** B16	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 8 - Our ref.: OCVEIT202400002207

Description: Flange Blind ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 10"

raccortubi Heat num. or Pcs. marking: 23/39601 - Qty:1,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5875 A07
Viale Lidice 38/40/42		**Item**	004 A07
10095 GRUGLIASCO TO IT		**DDT / Delivery note**	2024-3E301-0001259 A10
		Packing List	2024-3E401-0001269 A11
		Fattura / Invoice	2024-3E401-0001269 A12
		Ns. rif. / Our ref.	2024-3E201-0000845-0004 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	022203591	2,00	W/N 150 RF 4" STD LF2CL1

Mat. in acc. a / Mat. in acc. to B02 ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,190	0,220	1,030	0,002	0,009	0,070	0,040	0,010	0,018	0,070	0,004	0,001	0,009
PRODUCT ANALYSIS	0,195	0,226	1,035	0,004	0,010	0,071	0,042	0,011	0,019	0,071	0,005	0,001	0,010
	Al								CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026								0,386	0,362	0,194	0,080	--
PRODUCT ANALYSIS	0,027								0,392	0,368	0,200	0,082	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	356,0	--	535,0	35,0	73,1

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 165,0	KV	10x10x55 mm	-46	94	101	86	93,7

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY	Origine / Origin of Steel B16	ITALY EUROPEAN UNION

Note / Notes Z01-B03 MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A. Order: 1724000994 - 16.05.24 - Item n.: 9 - Our ref.: OCVEIT202400002207

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4" thk6,02mm

raccortubi Heat num. or Pcs. marking: 022203591 - Qty:2,00 Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	**Ordine / PO**	5875	A07
	Item	005	A07
	DDT / Delivery note	2024-3E301-0001259	A10
	Packing List	2024-3E401-0001269	A11
	Fattura / Invoice	2024-3E401-0001269	A12
	Ns. rif. / Our ref.	2024-3E201-0000845-0005	A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/39601	1,00	W/N 150 RF 8" 20 LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,185	0,250	1,070	0,007	0,011	0,130	0,070	0,020	0,021	0,170	0,001	0,001	0,010
PRODUCT ANALYSIS	0,180	0,221	1,030	0,005	0,012	0,106	0,070	0,018	0,015	0,156	0,003	0,003	0,010

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,030	0,410	0,363	0,391	0,150	--
PRODUCT ANALYSIS	0,035	0,392	0,352	0,353	0,124	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	387,0	--	534,0	32,1	72,9

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
154,0 ; 157,0	KV	10x10x55 mm	-46	55	47	60	54,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		Vis. & Dim. D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018		SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 10 - Our ref.: OCVEIT202400002207

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 8" thk6,35mm

raccortubi Heat num. or Pcs. marking: 23/39601 - Qty:1,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06 Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	**Ordine / PO**	5875 A07
	Item	006 A07
	DDT / Delivery note	2024-3E301-0001259 A10
	Packing List	2024-3E401-0001269 A11
	Fattura / Invoice	2024-3E401-0001269 A12
	Ns. rif. / Our ref.	2024-3E201-0000845-0006 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	22/36388	1,00	W/N 150 RF 10" 20 LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,185	0,240	1,040	0,005	0,009	0,090	0,060	0,010	0,017	0,110	0,001	0,000	0,009
PRODUCT ANALYSIS	0,183	0,249	1,048	0,002	0,005	0,099	0,067	0,015	0,020	0,097	0,003	0,001	0,006

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,030	0,390	0,358	0,271	0,100	--
PRODUCT ANALYSIS	0,025	0,392	0,358	0,281	0,114	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	331,0	--	511,0	33,4	61,6

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
144,0 ; 149,0	KV	10x10x55 mm	-46	41	52	47	46,7

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018	Vis. & Dim.	SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 11 - Our ref.: OCVEIT202400002207

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 10" thk6,35mm

raccortubi Heat num. or Pcs. marking: 22/36388 - Qty:1,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001 ■ ISO 14001

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-01283 — **Data / Dated** 23.05.2024 Z02

RACCORTUBI S.P.A. A06		**Ordine / PO**	5875 A07
Viale Lidice 38/40/42		**Item**	007 A07
10095 GRUGLIASCO TO IT		**DDT / Delivery note**	2024-3E301-0001259 A10
		Packing List	2024-3E401-0001269 A11
		Fattura / Invoice	2024-3E401-0001269 A12
		Ns. rif. / Our ref.	2024-3E201-0000845-0007 A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	22/35031	2,00	W/N 150 RF 12" 20 LF2CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -23 ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03 FULLY KILLED STEEL AND FINE GRAIN PRACTICED

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,190	0,250	1,050	0,003	0,011	0,140	0,050	0,010	0,015	0,150	0,003	0,001	0,010
PRODUCT ANALYSIS	0,185	0,238	1,063	0,002	0,008	0,149	0,058	0,013	0,018	0,135	0,005	0,002	0,008

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,025	0,409	0,365	0,353	0,150	--
PRODUCT ANALYSIS	0,031	0,408	0,362	0,360	0,162	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	345,0	--	502,0	33,1	63,3

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
149,0 ; 154,0	KV	10x10x55 mm	-46	45	59	61	55,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2020 ; ASME/ANSI B36.10M -2022		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; RF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06				Origine / Origin of Steel B16	
ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY		ITALY EUROPEAN UNION	

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724000994 - 16.05.24 - Item n.: 12 - Our ref.: OCVEIT202400002207

Description: Flange WN ASME B16.5 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 12" thk6,35mm

raccortubi Heat num. or Pcs. marking: 22/35031 - Qty:2,00

Protocol: CTCERC202400005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024

CTCERT20240000003795.1.0001

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 4"x3" STD SEAMLESS

raccortubi Heat num. or Pcs. marking: J4KB349 - Qty:5,00

Order: 1724000994 - 16.05.24 - Item n.: 23 - Our ref.: OCVEIT20240000220?

Protocol: CTCERC20240000005104 * CERTIFIED TRUE COPY

* Issued 03-06-2024

ALLIED INTERNATIONAL fittings and flanges — TECTUBE RACCORDI S.p.A. — NRF RACCORDI FORGIATI

INSPECTION CERTIFICATE EN 10204 – 2004 ☒ 3.1 ☐ 3.2 ☐ COMPLIANCE

NUMBER 20500799
REVISION 00
DATE 09/02/20

ORDER: LS-0000013 JOB: V0000174 PROJECT

CLIENT ITEM	ITEM	Q.ty	DESCRIPTION	HEAT CODE	MARKING CODE	MATERIAL SPECIFICATION	MATERIAL	STEEL MAKER	CERT.N.	RAW MATERIAL
43	043	1.00	TEE 4"X 3" STD WPL6 ITEM:69	J4KB349	ITEM:69	ASTM A420 Ed.2016 , ASME SA420 Ed.2017	WPL6	NIPPON STEEL	BYYF2079	PIPE

CHEMICAL COMPOSITION ☒ BY LADLE ANALISYS * ☒ BY CHECK ANALYSIS C **

HEAT	**	C	MN	SI	P	S	CR	NI	MO	CU	AL	V	NB	B	TI	N	CA	CE	CE CANADA
min.		0,0000	0,5000	0,1500	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,000	
max.		0,2000	1,3500	0,4000	0,0250	0,0200	0,3000	0,2000	0,1200	0,4000	0,0400	0,0500	0,0250	0,0005	0,0250	0,0120	0,0000	0,390	
J4KB349*	H	0,1100	1,2700	0,2500	0,0120	0,0030	0,1000	0,0200	0,0100	0,0200	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,350	0,240
J4KB349**	P	0,1200	1,2500	0,2400	0,0110	0,0020	0,0900	0,0200	0,0100	0,0200	0,0180	0,0010	0,0020	0,0001	0,0010	0,0010	0,0020	0,350	0,300

The chemical values and tensile properties are a true and correct copy of the certificate issued by the supplier of raw materials or by the laboratory which has determined them.

CE=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15 CE CANADA=C+Fe[Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5B]

MECHANICAL PROPERTIES ☐ ON RAW MATERIAL * ☒ ON FINISHED FITTINGS ** ☐ SUPPLEMENTARY REQ. ***

Tensile Test Temp. °C: R.T. Impact Test Temp. °C: -50°C

Test / Lot		Sense Direct.	Y.S. MPA	U.T.S. MPA	E%	Sense Direct.	Dim. Sample		Shear Area %	Lat.Exp. mm	Hardness HBW	Red. Area %	REMARKS
min.													STEEL IS FULLY KILLED, PRODUCED BY BASIC OXYGEN AND FINE GRAIN.
max.											Max. 200		MECHANICAL TEST CARRIED OUT ACCORDING TO A/SA370 AND A/SA420
273711	L	316	502	30,9	L	10 x 5	87 - 87 - 95				143-156	62,95	FITTINGS ACCORDING TO : ASME II PART A, ASME II PART D TABLEY1 / NACE MR 01.75 / ISO 15156 NACE MR 0103 / PED 97/23/EC PARA 4.3 and PED 2014/68/UE
													THE STEEL IS CALCIUM TREATED FOR MICROINCLUSION SHAPE CONTROL
													THE MATERIAL HAS NOT A RESIDUAL MAGNETISM GREATER THAN 20 GAUSS
													THE MATERIAL IS FREE FROM MERCURY AND RADIOACTIVE CONTAMINATION
													THE MATERIAL IS IN ACCORDANCE TO FRENCH LAW "Article 15 de l'arrete ministeriel du 24 Mars 1973 modifie"
													M.P.E. acc. to ASTM E709 carried out on croch area with satisfactory results
													FITTINGS ACCORDING TO EN 10253-2 ED.2002 , GRADE P265NL TYPE A

ACTIVITIES CERTIFICATE RESULT

Material spec.: ASTM A420 Ed.2016 , ASME SA420 Ed.2017
Construction standard: ASME B16.9 Ed.2016 , ASME B16.25 Ed.17
Type of construction: SEAMLESS PRODUCED BY PIPE
Manufacturing method: COLD FORMED

Heat treatment: NORMALIZED AT 905°C (STILL AIR COOLING) 1min/mm min.

Work Inspector — 09/02/20 DATE — SIGNATURE

Customer inspector — DATE — SIGNATURE

Third part Inspector — DATE — SIGNATURE

We hereby certify that the materials listed on this certificate have been manufactured and tested in compliance with the order requirements and above mentioned code and specification

☒ EU DIRECTIVE 97/23/EC ANNEXE I SECT. 4.3 & 7.5 and 2014/68/EU

Customer: ROSETTI MARINO S.p.A.
Description: TEE RID. 12"x8" SCH.20 SEAMLESS
Heat num. or Pcs. marking: 453686 - Qty:1,00
Order: 1724000994 - 16.05.24 - Item n.: 25 - Our ref.: OCVEIT2024000207
Protocol: CTCERC2024000005104 * CERTIFIED TRUE COPY
* Issued 03-06-2024
CTCERT2024000003469.1.0001

O.M.R. S.p.A. Piazzale del Liberty 8 20121 MILANO
Offices and Plant: Loc. Cà Verde Borgonovo V.T. (PC)

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Issued in agreement with TÜV SÜD Industrie Service GmbH (17/07/2020) QS approved acc. to PED, Annex I, Para. 4.3 by Notified Body 00364 (Certification no. DGR-0036-QS-W 947/2020/MUC-001)

INSPECTION CERTIFICATE

EN 10204: 2004 ☑ 3.1 ☐ 3.2

CERT Nr: 7015/22
REV Nr: 0

CUSTOMER	ORDER NR.	OUR JOB	
	LA-0000391 Rev.2	46066	WE HEREBY CERTIFY THAT THE MATERIALS HAVE BEEN MANUFACTURED IN COMPLIANCE WITH THE STANDARDS AND ORDER SPECIFICATIONS LISTED HERE BELOW. ASTM A420/A420M-20 - ASME Sect.II Part.A Ed.2019 SA-420/SA-420M - ASME B16.9-2012

ITEM	Q.TY	DESCRIPTION	HEAT	HEAT CODE OF THE FTGS	RAW MATERIAL	STEEL MAKER	RAW CERT NR.	CLIENT TAG / CODE	S.M.P.
005	2	Red.Tee 12" x 8" sch 20 WPL6	453686		smls-pipe	ARCELOR MITTAL	B 17321/2		

CHEMICAL COMPOSITION (*)

	C	Mn	Si	P	S	Ni	Cr	Mo	Cu	V	Ti	Nb	Al	B	N	Sn	W	Zr	Sb	Co	Ta	Nb+Ta	Fe	As	Ca	O	H	Ceq LF	C.E. (CSA)	Pcm	PREN	J Factor	X Factor
H	0,13	1,2	0,16	0,01	0,003	0,13	0,11	0,02	0,1	0,066	0,002	0,002																0,38					
P																																	

MECHANICAL PROPERTIES ☐ ON RAW MATERIAL ☑ ON PIECES IN FINISHED CONDITION

TEST Nr.	TENSION TEST										Hardness	IMPACT TEST (CHARPY V)													
	Temp.	Direction	Y.S. 0.2%	U.T.S.	El. (2")	Temp.1	HOT Y.S.	Y.S. 0.2%	EL 5.65	Y.S./U.T.S.		Direction	Dimension	Temp.	Obtained Values (Joules)			Average	Lateral Expansion			Shear Area (%)		
	°C	L/T	MPa	MPa	%	°C		MPa	%		HB Max	L/T	mm	°C	1	2	3	Joules	1 - mm	2 - mm	3 - mm	1	2	3
31.055	RT	L	309	536	38,0					0,58	158	T	10 X 7.5	-50	208	199	208	205						

(*) H = Ladle Analysis, P = Product Analysis C.eq. LF = C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15 C.E. (CSA) = C + F x [Mn/6 + Si/24 + Cu/15 + Ni/30 + (Cr+Mo+V+Nb)/5+5B)]
J Factor = (Si + Mn) x (P + Sn) x 104 Pcm = C + Si/30 + (Cr+Mn+Cu)/20 + Ni/60 + Mo/15 + V/10 + 5B PREN = Cr + 3.3Mo + 16N Unit of measure: %

Diameter, thickness or schedule , Material grade, Heat Number marked on the fitting

Manufacture stamp

REMARKS AND SUPPLEMENTARY INFORMATION

- SEAMLESS FITTINGS
- METHOD OF FABRICATION: COLD FORMING
- HEAT TREATMENT: NORMALIZING AT 920°C WITH COOLING IN STILL AIR; PERMANENCE 1 Hr./1" Wth (30' min. MINIMUM)
- VISUAL AND DIMENSIONAL INSPECTION ON FITTINGS: SATISFACTORY
- MT ON SIDE WALL AREA ON 100% OF THE FITTINGS ACCORDING TO ASTM E709 AND A275, ACCEPTANCE CRITERIA ASME VIII DIV.1 APP.6: SATISFACTORY
- THIS MATERIAL MEETS THE SPECIFICATION NACE MR0175 / ISO15156: 2015 AND NACE MR 0103 / ISO17945: 2016 WHEN USED IN THE SPECIFIC CONDITIONS DETAILED IN THE STANDARDS
- LA SOCIETE' O.M.R. SPA GARANTIT QUE LES PRODUITS OBJECT DU PRESENT CERTIFICAT RESPECTENT EN LEUR TOTALITE' LES PRESCRIPTIONS DE L'ARTICLE 15 DE L'ARRETE MINISTERIEL DU 24 MARS 1978 MODIFIE': C<=0.25 - S<=0.05 - P<=0.05% - Rm<=700 N/mm² - A%(L=5.65VSo)>=16% - Rm(A-2)>=10500 - Rp0.2/Rm<=0.9
- MATERIAL FULLY KILLED AND FINE GRAIN

MANUFACTURER AUTHORIZED INSPECTOR	PURCHASER AUTHORIZED INSPECTOR	OFFICIAL DESIGNATED INSPECTOR
MULAZZI QC DEPT. *(The certificate is issued by computerized system and is valid without signature)* DATE 12/07/2022	DATE	DATE

CTCERT20240000384 9.1.0001

Customer: ROSETTI MARINO S.p.A.

Description: TEE RID. 12"x10" SCH.20 SEAMLESS

Heat num. or Pcs. marking: 948456 - Qty:1,00

Order: 1724000994 - 16.05.24 - Item n.: 26 - Our ref.: OCVEIT20240000220 7

Protocol: CTCERC20240000510 4 * CERTIFIED TRUE COPY * Issued 03-06-2024

raccortubi

ALLIED INTERNATIONAL Fittings and flanges

TECTUBI RACCORDI S.p.A. — NRF RACCORDI FORGIATI

INSPECTION CERTIFICATE EN 10204 – 2004

☒ 3.1 ☐ 3.2 ☐ Compliance

NUMBER 12CL-08628
REVISION 0
DATE 11/05/2012

CLIENT: ALLIED INTERNATIONAL FRANCE s.a.r.l.

ORDER: FR/12F-0099 (CTA FRANCE)

JOB: AL/12C-0603

SPECIFICATION:

CLIENT ITEM	ITEM	Q.ty	DESCRIPTION	HEAT CODE	MARKING CODE	MATERIAL SPECIFICATION	CERT.N.	RAW MATERIAL
18	18	2	RED TEE BW 12"x10" SCH 20/20 ASTM A420 WPL6 SMLS	948456			05/12282	API 5L X52

CHEMICAL COMPOSITION ☒ BY LADLE ANALISYS * ☒ BY CHECK ANALYSIS () **

HEAT	Test	C	Mn	Si	P	S	Cr	Ni	Mo	Ti	Cu	V	Al	Nb	N	Sn	O	W	Ca	B	Ce	X1	X2
min.																							
max.																							
948456*	H	0,120	1,260	0,230	0,016	0,003	0,160	0,120	0,070	0,0000	0,150	0,030	0,000	0,016							0,400	0,046	0,500
948456**	P	0,115	1,256	0,225	0,015	0,003	0,154	0,115	0,066	0,000	0,145	0,026	0,000	0,016							0,391	0,041	0,480

The chimical values and tensile properties are a true and correct copy of the certificate issued by the supplier of raw materials or by the laboratory which has determined them.

X1 = V + Nb + Ti e X2 = Cr + Mo + Ni + Cu

MECHANICAL PROPERTIES ☐ ON RAW MATERIAL * ☒ ON FINISHED FITTINGS ** ☐ SUPPLEMENTARY REQ. ***

HEAT	Test	Temp. °C	Y.S. MPA	U.T.S. MPA	A% mm	Senso Direct.	Dim. Sample	Temp. °C	KCV (Joule)	Shear Area %	Lat.Exp. mm	Hardness HB	Red. Area %
min.													
max.													
(B)948456**	T	439	541	32	T	10X5		-20	143-240-245			154	
									average			max. 197	

ACTIVITIES
CERTIFICATE
RESULT
ACTIVITIES
CERTIFICATE
RESULT

REMARKS

Specification:
ASTM A420-10a / ASME SA 420-10a
Fittings comply with: ASME B16.9-07 / B16.25-07
Manufacturing method: Hot Forming at ends temperatures between 780 and 980 °C still air cooling
Heat Treatment: Normalizing at 920 °C (1 Hr/1" Wth.) still air cooling
Type of construction: Seamless produced by pipe
Fittings comply with NACE 01.75/i.e. (HRC 22 max)
NOUS CERTIFIONS que tous les produits objet du présent certificat, respectent en leur totalité les prescriptions de l'article 15 de l'Arrete Ministériel du 24 mars 1978 modifié:
C<=0,25%, P<0,05%, S<0,05%
R<=700 N/mm2, E<=0,9 x R
&A% (Lo=5,65VSo) min. 16% en long. R (A-2) >=10500
A% (Lo=5,65VSo) min. 14% en transv. R x A >=10500
Trade Mark: TI

Work inspector — ALLIED INTERNATIONAL s.r.l. Fittings and flanges C. CHIVANI Quality Control
DATE 11/05/2012 SIGNATURE

Customer inspector
DATE SIGNATURE

Third part inspector
DATE SIGNATURE

We hereby certify that the materials listed below have been manufactured in compliance with the order and mentioned rules.

☒ EU DIRECTIVE 97/23/EC- ANNEXE I SECT. 4.3 & 7.5

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724002305	123A90A	Q012401090

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emilia **08.01.2025**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 19/12/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00011706
Packing list	PLPLIS202400011610
Ns. Rif.	00005307
Vs. Rif.	1724002305 - 12.11.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00011706

19/12/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00005307

Ordine N. P.O. number: 1724002305 - 12.11.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz. Immagine** *Heat N° or PCS. Marking Image*
10	1	REC0CS22091H01 RID. CONC. 1.1/2"x1" XS SEAMLESS	32-J9K6232 CTCERT202400008040_1.0001.TIF

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	10102-P70	09/12/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006820	

	Item	Quantity	Heat id.
70	R.C. 1.1/2" x 1" XS WPL6	1,00	32-J9K6232

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,260	0,290	0,012	0,001	0,020	0,110	0,010	0,010	0	0,0100	0	0,0001

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	357	529	32

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	42	39	45	42

Hardness Test

Base Metal **Avg** 131 HBW
129-133

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector Quality Department **Official Designated Inspector** | **Purchaser Authorized Inspector**

Luca Alessandrini

This certificate is issued by a computerized system and is valid without stamp and signature This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A. Order: 1724002305 - 12.11.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400005307

Description: REC0CS22091H01 - RID. CONC. 1.1/2"x1" XS SEAMLESS

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

EITI - The Inspection Body.

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24057-2

Date - Data - Vom - date : 17/12/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 107

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic Joke	According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
Particles type	fluorescent	According to	ASTM SA960 SUPPLEMENTARY S53
Joke	AC - Magnafulx	Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Calibration block	ASME 4,5 Kg	Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
		Ple gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER THICKNESS	STANDARD / GRADE	HEAT	No.		NOTE
	16" SCH 20	TEE AME/ASTM SA/A 420 GR. WPL6	561909	1		
	1.1/2" x 1" SCH 160	TEE AME/ASTM SA/A 420 GR. WPL6	321355	1		
	2" x 1" SCH 160	TEE AME/ASTM SA/A 420 GR. WPL6	104129	1		
	2" x 1.1/2" SCH 160	TEE AME/ASTM SA/A 420 GR. WPL6	17319793	1		
	6" x 4" STD	TEE AME/ASTM SA/A 420 GR. WPL6	J1L6145	1		
	2" x 1" XXS	TEE AME/ASTM SA/A 420 GR. WPL6	436129	1		
	2" x 1.1/2" XXS	TEE AME/ASTM SA/A 420 GR. WPL6	104315	1		
	4" x 1.1/2" XXS	TEE AME/ASTM SA/A 420 GR. WPL6	751114	1		
	2" x 3/4" XXS	TEE AME/ASTM SA/A 420 GR. WPL6	104315	1		
	1.1/2" x 1" SCH 160	R.E. AME/ASTM SA/A 420 GR. WPL6	71129	1		
	2" x 1" SCH 160	R.E. AME/ASTM SA/A 420 GR. WPL6	609C043	1		
	2" x 1.1/2" SCH 160	R.E. AME/ASTM SA/A 420 GR. WPL6	V96DA	1		
	1.1/2" x 1" XXS	R.E. AME/ASTM SA/A 420 GR. WPL6	1010418676	1		
	2" x 3/4" SCH 160	R.E. AME/ASTM SA/A 420 GR. WPL6	15760	1		
	2" x 1.1/2" XXS	R.E. AME/ASTM SA/A 420 GR. WPL6	103573	1		
	1" x 1/2" XXS	R.E. AME/ASTM SA/A 420 GR. WPL6	125872	1		
	1.1/2" x 3/4" XXS	R.E. AME/ASTM SA/A 420 GR. WPL6	88323	1		
	3" x 1.1/2" SCH 160	TEE AME/ASTM SA/A 420 GR. WPL6	24462	1		
	4" x 3" XS	TEE AME/ASTM SA/A 420 GR. WPL6	J7L1409	2		
	6" x 3" XS	TEE AME/ASTM SA/A 420 GR. WPL6	J5KC502	1		
	3" x 2" XXS	TEE AME/ASTM SA/A 420 GR. WPL6	725981	1		
	6" x 3" XS	R.E. AME/ASTM SA/A 420 GR. WPL6	J8L3104	1		
	1.1/2" x 1" XS	R.C. AME/ASTM SA/A 420 GR. WPL6	32-J9K6232	1		

issued by

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 CICPND 27058/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

Verified by

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - UT/PT/VT/RT

Customer

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724002197	123A90A	Q012401115

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **10.12.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 14/11/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche

- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:

-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00010298
Packing list	PLPLIS202400010223
Ns. Rif.	00004803
Vs. Rif.	1724002197 - 29.10.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00010298

14/11/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00004803

Ordine N. P.O. number: 1724002197 - 29.10.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
10	1	REC0SD0803021H RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	1018SA019	CT327#2019SA0#1018_001.TIF CT327#2019SA0#1018_002.TIF CT327#2019SA0#1018_003.TIF CT327#2019SA0#1018_004.TIF CT327#2019SA0#1018_005.TIF CT327#2019SA0#1018_006.TIF CT327#2019SA0#1018_007.TIF CT327#2019SA0#1018_008.TIF CT327#2019SA0#1018_009.TIF CT327#2019SA0#1018_010.TIF
20	2	TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1248SA02	CT327#2012SA0#1248_1.TIF CT327#2012SA0#1248_2.TIF CT327#2012SA0#1248_3.TIF CT327#2012SA0#1248_4.TIF CT327#2012SA0#1248_5.TIF CT327#2012SA0#1248_6.TIF CT327#2012SA0#1248_7.TIF CT327#2012SA0#1248_8.TIF CT327#2012SA0#1248_9.TIF CT327#2012SA0#1248_10.TIF
30	1	TER0SD09371H3Q TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	1181SA05	CT327#2015SA0#1181_001.TIF CT327#2015SA0#1181_002.TIF CT327#2015SA0#1181_003.TIF CT327#2015SA0#1181_004.TIF CT327#2015SA0#1181_005.TIF CT327#2015SA0#1181_006.TIF CT327#2015SA0#1181_007.TIF CT327#2015SA0#1181_008.TIF CT327#2015SA0#1181_009.TIF CT327#2015SA0#1181_010.TIF
40	2	TER0SD09381H01 TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1005SA022	CT327#2022SA0#1005_001.TIF CT327#2022SA0#1005_002.TIF CT327#2022SA0#1005_003.TIF CT327#2022SA0#1005_004.TIF CT327#2022SA0#1005_005.TIF CT327#2022SA0#1005_006.TIF CT327#2022SA0#1005_007.TIF CT327#2022SA0#1005_008.TIF CT327#2022SA0#1005_009.TIF CT327#2022SA0#1005_010.TIF

raccortubi

00010298

14/11/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00004803
Ordine N. P.O. number: 1724002197 - 29.10.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 14/11/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
10	NR	1	0.00	REC0SD0803021H RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	1018SA019
20	NR	2	0.00	TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1248SA02
30	NR	1	0.00	TER0SD09371H3Q TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	1181SA05
40	NR	2	0.00	TER0SD09381H01 TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1005SA022

raccortubi

N. 00010298
1 di 1
DATA Date 14/11/2024

PRELIEVO PROVE
Test coupons identification

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00004803
Ordine N. P.O. number: 1724002197 - 29.10.24
123A90A - Base Load Power Hub P

Norme di collaudo	Inspection codes	N.Pratica Ente Collaudo
Mat.le Mat.l.	RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	RINA: LLRR: ABS: ALTRI:

IMBALLO :
MATERIALE DA RENDERSI :
DESTINAZIONE MERCE :
NOTE :

Enti collaudo

Uff. Qualita' Raccortubi
Raccortubi Q.A. Dept

Pos. cl. *Item cl.*	**Q.ta'** *Q.ty*	**Tubi Descrizione** *Tubes Description*	**N. Prova** *Test N.*	**N° Colata o Marcatura Pz.** *Heat N° or PCS. Marking*	**Pr. non distruttiva**	**Pr. distruttiva**
10	1	0.00 REC0SD0803021H RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS	1,286	1018SA019	1.00	0.00
20	2	0.00 TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1,287	1248SA02	2.00	0.00
30	1	0.00 TER0SD09371H3Q TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS	1,288	1181SA05	1.00	0.00
40	2	0.00 TER0SD09381H01 TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS	1,289	1005SA022	2.00	0.00

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI

SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

dal 1965

CERT. ISO 9001 LRC0100763/QMS

N° 4.283 / 2024

PAGINA DI PAGINE
Page 1 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724002197 - 29.10.2024	COMMESSA Job 00004803

OGGETTO
Object SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM SE 165			ASME VIII DIV.1 APP.8

PROCEDURA Procedure	MATERIALE Material	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged	FUSO As Cast
				X	

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting		FLUORESCENTE Fluorescent	
		X		
	ILLUMINAZIONE White Light Intensity	1200 lx	ILLUMINAZIONE Black Light Intensity	

METODO DI ISPEZIONE Liquid Penetrant Inspection Method						
MARCA Brand N.D.T.		PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025	
TIPO Type	LAVABILE IN ACQUA Water Washable X		PENNELLO Brush	LOTTO Batch	SCADENZA Expiry	
	POST EMULSIONABILE Post Emulsifiable	RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry	
	RIMOVIBILE CON SOLVENTE Solvent Removable		UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027	

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects	DIFETTI ACCETTABILI Accettable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects
X		

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification		NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap
		X		

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA Date 22 / 11 / 2024	DATA Date	DATA Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI
SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

50 dal 1965

CERT. ISO 9001 LRC0100763/QMS

N° 4.283 / 2024

PAGINA Page 2 DI PAGINE of 2 Pages

CLIENTE Customer	ORDINE Order	COMMESSA Job
RACCORTUBI S.p.A.	1724002197 - 22.04.2024	00004803

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
10	1	CONC. REDS. 2" x 1.1/ ½" SCH.10S/40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1018SA019
20	2	TEES.UG 1.1/ ½" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1248SA02
30	1	TEES.RID 1.1/ ½"X3/4" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1181SA05
40	2	TEES.RID 1.1/ ½"X1" SCH.40/S SEAMLESS	ASTM /ASME SA/A-815 UNS S32760 DIM. ASME B16.9/16./25	1005SA022
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT DATA Date 22 / 11 / 2024	DATA Date	DATA Date

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Description: REC0SD0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. OF06523 del 27/11/2018

Pos. N. Item/Poste 21 **Q.tà** Q.ty/Q.té 429

(*) Marcatura e cert. N. Material Marking e Cert. N. 1018SA019 **Data:** Date: 25-01-2019

Descrizione Description Description CONC.REDS 2"x1.1/2" SCH.10S/40S

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-14e1
ASME SA/815M ed.17 UNS S32760
DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: SALZGITTER MANNESMANN STAINLESS TUBES Cert. No.: 3-17-00488-rev.01
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
SALZGITTER MANNESMANN STAINLESS TUBES Cert. No.: 3-17-00488-rev.01

Test produzione Production test/Coupon de production	**Caratteristiche meccaniche** Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	A14581	848/18	584	804	30.5	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**N**	**Cu**	**W**			**PRE**	**FERRITE**
A14581	0,023	0,33	0,46	0,025	0,0004	25,74	7,09	3,67	0,250	0,61	0,55			41.85	47.6

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:1787/19
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0912

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

G48ACE 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²	
8173	ASTM G 48-11(2015) - Met. A	**RTX_D53 Rev.7**	B L FT	Meccanica/ Mechanical	49,05	24,52	3,69	29,48	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C) 50

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 · 6H2O 10% WATER SOLUTION

Peso iniziale/ Initial weight (g)	35,6960	
Peso finale (g)/ Final weight (g)	35,6951	
Perdita di peso (g)/ Weigth loss (g)	0,0009	
Perdita di massa/ Specimen mass loss	0,3053	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max	**4,0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 24,05 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: RECOSDD0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pos. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
8169	ASTM E 562-11	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	40 mm x 40 mm 5 x 5 = 25 Points	31/01/2019

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction)	47.6 ± 1.2	**40**	**55**
% Errore (RA)/ % Error (RA)	2,52		
Deviazione Standard/ Standard Deviation	3,2		
Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle	30 / 5 x 20 mm / 1 x 3.0 mm / 45°		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**50**	2	**46**	3	**50**	4	**42**	5	**48**
6	**48**	7	**52**	8	**42**	9	**50**	10	**44**
11	**50**	12	**48**	13	**48**	14	**44**	15	**46**
16	**48**	17	**52**	18	**44**	19	**52**	20	**46**
21	**48**	22	**48**	23	**52**	24	**52**	25	**48**
26	**42**	27	**50**	28	**42**	29	**48**	30	**48**

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Responsabile di Reparto o sostituto/ Department Manager or Deputy

Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy

Amani Paolo

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

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RAPPORTO DI PROVA/TEST REPORT

ANL 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO/ Atomic emission vacuum Spectrometric analysis

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Data esecuzione/ Date of Testing
8176	ASTM E 1086-14	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B UP	20	7237	29/01/19

			%	Min.	Max.				%	Min.	Max.				%	Min.	Max.
C	0,025	± 0,002	97,5		0,030	Nb						Fe					
Si	0,35	± 0,01	97,5		1,00	Ti						Ca					
Mn	0,47	± 0,02	97,5		1,00	W	0,59	± 0,06	95,0	0,50	1,00	Ta					
P	0,027	± 0,003	97,5		0,030	Pb						Sb					
S	0,002	± 0,001	97,5		0,010	Sn						H					
Cr	25,6	± 0,4	95,0	24,0	26,0	As						Cd					
V						B						Se					
Mo	3,5	± 0,1	95,0	3,0	4,0	N	0,25	± 0,04	95,0	0,20	0,30	Bi					
Ni	7,2	± 0,1	95,0	6,0	8,0	La						Hg					
Cu	0,63	± 0,02	95,0	0,50	1,00	Mg											
Ce						Zr											
Al						Zn											
Co						O											

FORMULAS			%	Min.	Max.
PREN	41,2	± 0,4	97,5	40,0	

Decision rule:
the result is "Compliant to Specification" when:
- *Result ≥ Lower Limit (confidence interval CI=50÷97,5 %)*
- *Result ≤ Upper Limit (confidence interval CI=50÷97,5 %)*
- *Lower Limit ≤ Result ≤ Upper Limit (confidence interval CI=47,5÷95%)*

When the result falls within the uncertainty range at the limit value, the result can be Probably Compliant or Probably Not Compliant

Expanded uncertainty below reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Note/ Remarks

Esito/ Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

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Data Rapporto di prova/ Test Report Date **31/01/2019**

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Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: ; [B]-Specimen in Base Material: [UP]-external sup.

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RAPPORTO DI PROVA/TEST REPORT

DUR 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

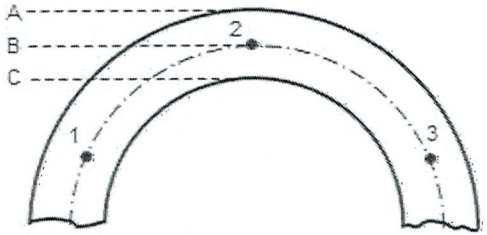
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)/ HBW hardness test (Indentation measuring device Type A)

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Durezza/ Hardness	Data esecuzione/ Date of Testing
8168	ASTM E 10-17	RTX_D53 Rev.7	B	T	HBW 2,5/187,5	29/01/2019

(B1) - Base Material **MAX 270**

1	249	2	241	3	247



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	StdDev
(B1) - Base Material	245,6	4,1

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Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [SZ]-along the thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Description: REC0SD0803021H RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC: 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1.00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEITI20240000004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
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RAPPORTO DI PROVA/TEST REPORT

MIC 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8170	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Materiale base / Base Material

5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

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Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

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RAPPORTO DI PROVA/TEST REPORT

MIC 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

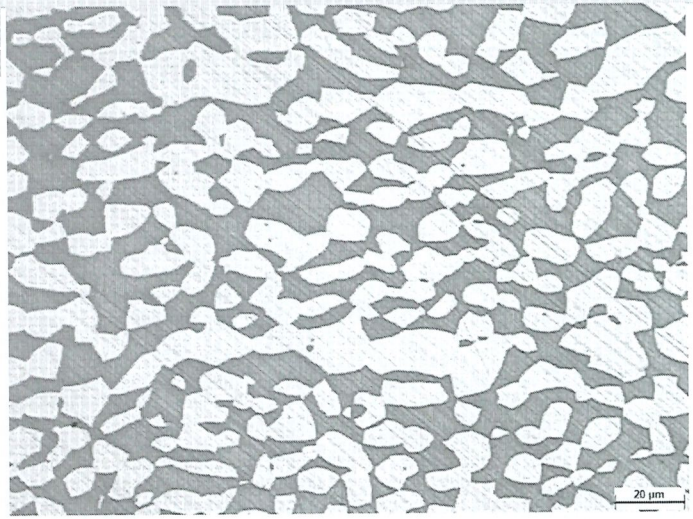
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8171	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Materiale base / Base Material

5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

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firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

A923A 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Customer: ROSETTI MARINO S.p.A.

Description: REC05D0803021H
RID. CONC. 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

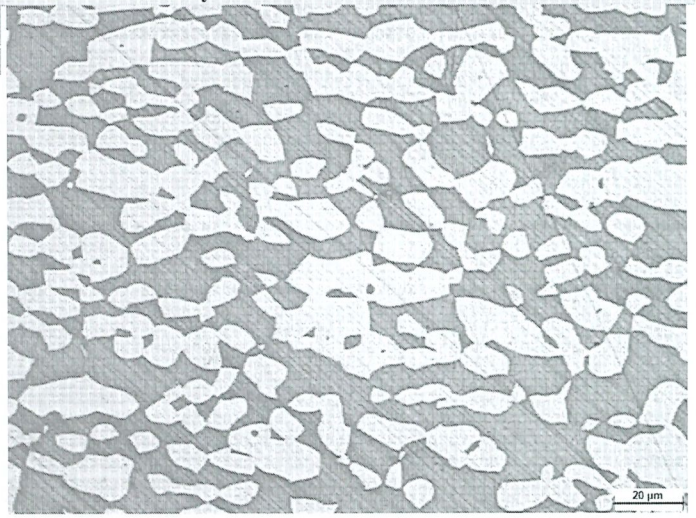
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
8175	ASTM A 923-14 (Met. A)	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	31/01/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Materiale base / Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta /Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval.

Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC: 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

A923C 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		848/18	A14581	ASTM A 815-17 UNS S32760

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²
8174	ASTM A 923-14 (Met. C)	**RTX_D53 Rev.7**	B L FT	Meccanica/ Mechanical	51,36	24,11	3,9	30,65

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum specimen preparation (°C) 49,22

Temperatura Massima Rilevata (°C)/ Maximum specimen preparation (°C) 50,58

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
29/01/2019 13:30:00	30/01/2019 13:30:00

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso iniziale/ Initial weight (g) 38,6505

Peso finale (g)/ Final weight (g) 38,6494

Perdita di peso (g)/ Weigth loss (g) 0,0011

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **3,6**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10,0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

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Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD0803021H
RID. CONC: 2"x1.1/2" SCH.10S/40S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1018SA019 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

PM 1787 / 19

Rif. Lab SIM (FCP) : **565 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF06523**

Commessa/Job **259/18- 18/1963**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 2" W.T. 3.91 mm	1		**848/18**	**A14581**	**ASTM A 815-17 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo/ Lo	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength Mpa		Mpa	Rottura/ Tensile strength Rm Mpa		Allungamento/ Elongation A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
8166	ASTM A 370-17a (Tension Test)	**RTX_D53 Rev.7**	4,08	12,45		50,00	B T FT	23	(≥550)	Rp0,2% **584**		(750÷895)	**804**	(≥25)	**30,5**			30/01/2019

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.

Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta /Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval.

Data Ingresso Materiale/ Date of Material Arrival **28/01/2019**

Data Rapporto di prova/ Test Report Date **31/01/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Morresi Davide

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amani Paolo

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1248SA02 - Qty:2,00

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. OS000034 DEL 16/02/2012
P.O.N./Commande N.

Pos. N. 81 **Q.tà** 119
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1248SA02 **Data:** 14-09-2012
Material Marking e Cert. N. Date:

Descrizione EQ. TEES 1.1/2" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM/ASME
Specification SA/A815-10a UNS S32760
Spécification DIMS/ENDS B16.9-2007

Materiale base - Fabbricante: TUBACEX Cert. No.: 542621
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760 - TUBACEX Cert. No.: 542621

Test produzione Production test/Coupon de production	**Caratteristiche meccaniche** Mechanical Properties/Caracteristiques Mechaniques							
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Coulée N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.1 Specimens location drawing as per relevant QTR	44698	1051/12	607	868	31.5	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Coulée N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**W**	**N**		**PRE**	**FERRITE**
44698	0,017	0,450	0,66	0,026	0,0007	25,40	6,91	3,59	0,66	0,550	0,239		41.071	46.40

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.10
CERTIFIED ACC.TO PED 97/23/EG
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:14714/12
- MATERIAL AND TESTS ACCORDING TO M-650 REV.4 - MDS D53 REV.4
- HEAT TREATMENT LOT:0605
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).
- POSITIVE MATERIAL IDENTIFICATION ON 100% OF THE PIECES : SATISFACTORY

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Buono
Identificazione materiale: Buono

Visual and dimensional test: Satisfactory
Positive Material Identification: Satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: Satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65√ So >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

Customer: ROSETTI MARINO S.p.A.

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pos. marking: 1248SA02 - Qty:2,00

Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Tests
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
TRP 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine *Order*	**OS000034**	Commessa *Job*	**50/12 12/0888**
Subcliente/Subcustomer /							
Descrizione **TEES 1.1/2" SCH. 40S** *Description*	Quantità *Quantity* **125**	Posizione *Item* **81**	Prova Nr. *Test. Nr.* **1051/12**	Colata *Heat* **44698**	Materiale *Material*	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

PROVA DI TRAZIONE ***Tensile test***

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Dimensioni *Wth Ø / Width ØPipe (mm)*	Lo *Lo*	Posizione di prelievo *Test position*	Temp. *Temp. (°C)*	Snervamento *Yield strength (MPa)*		Rottura *Tensile strength Rm (MPa)*	Allungamento *Elongation A (%)*	Strizione *Area Reduction Z (%)*	S/R *Ratio Yield strength / Tensile strength*	Data esecuzione *Date of Testing*
1051/12	70741	ASTM A 370-11a	4 12,63	50	B L FT	23	(≥ 550) Rp0,2% **607**	(MPa)	(750/895) **868**	(≥ 25) **31,5**			24/09/2012

Specifica / *Specification:* RTX_D53 Rev.4 **Note /*Remarks:*** **Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA.
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
*d) The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.*
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Marco Borile***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_TRP_A_BIS dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0S002931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

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Mechanical and Chemical Laboratory Non Destructive Tests
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RAPPORTO DI PROVA
TEST REPORT
E562 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / *Order* **OS000034**	Commessa / *Job* **50/12**	**12/0888**
Subcliente/Subcustomer /			

Descrizione / *Description* **TEES 1.1/2" SCH. 40S**	Quantità / *Quantity* **125**	Posizione / *Item* **81**	Prova Nr. / *Test. Nr.* **1051/12**	Colata / *Heat* **44698**	Materiale / *Material* **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti ***Determining volume fraction by systematic manual point count*** **Specifica: *Specification:* RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**

No. Prova / *Specimen*	ID Prova / *ID Specimen*	Metodo di prova / *Test method*	Direzione e Posizione / *Location*	Note / *Remarks*	Data esecuzione / *Date of Testing*
1051/12	70743	ASTM E562-11	B T FT		25/09/2012

FORMULE USATE
(Formulas used)

Percentuale media di punti (Pp): / *Average Percentage of Points (Pp):*
$$Pp = 1/n \times \sum_{i=1}^{n} Pp(i)$$

Deviazione Standard (s): / *Standard Deviation (s):*
$$s = \left[\frac{1}{n-1} \sum_{i=1}^{n} (Pp(i) - Pp)^2 \right]^{1/2}$$

95% Intervallo di scarto (95% Cl): / *95% Confidence Interval (95%Cl):*
$$95\%Cl = \frac{2.0 \times s}{(n-1)^{1/2}}$$

Errore (%): / *Error (%):*
$$\frac{95\%Cl \times 100}{Pp}$$

Frazione di Volume (Vv%): / *Volume Fraction (Vv %):*
$$Vv = Pp \pm 95\%Cl$$

RISULTATI (Min. 40%, Max. 55%)
Results (Min. 40%, Max. 55%)

Vv (% Frazione di volume della Ferrite) / *Vv (% Volume fraction of the constituent):*	46,40 ± 1,86
% Errore (RA): / *% Error (RA):*	4,01
Nr. di campi per provino/sezione/spaziatura/angolo: / *Nr. of fields for specimens/section/spacing/angle:*	30 / 4 x 20 mm / 1 x 1 mm / 45°
Preparazione del provino: / *Sample preparation:*	NaOH + Electrolytic
Ingrandimento: / *Magnification:*	500 X
Misura del reticolo: / *Grid size:*	40 mm x 40 mm 5 x 5 = 25 Points

% Frazione di volume della Ferrite per ciascun campo esaminato
% Volume fraction of the costituent for each metallographic section

1	40
2	54
3	52
4	40
5	40
6	48
7	44
8	46
9	40
10	52
11	52
12	44
13	40
14	52
15	40
16	48
17	54
18	50
19	48
20	46
21	40
22	40
23	42
24	48
25	42
26	48
27	50
28	54
29	48
30	50

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / *Date of Material Arrival*	Data Rapporto di prova / *Test Report Date*	Ispettore / *Inspector*	Ispettore / *Inspector*	Cliente / *Customer*	Cliente / *Customer*	Responsabile di Reparto / *Department Manager*	Responsabile Laboratorio / *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_E562_A_BIS dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pos. marking: 1248SA02 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
MIC 14714 / 12 Page 1 of 2
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC** Subcliente/Subcustomer /			Ordine *Order*	**OS000034**		Commessa *Job*	**50/12 12/0888**
Descrizione **TEES 1.1/2" SCH. 40S** *Description*	Quantità *Quantity* **125**	Posizione *Item* **81**	Prova Nr. *Test. Nr.* **1051/12**	Colata *Heat* **44698**	Materiale *Material*	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

ESAME MICROGRAFICO **Specifica** ***Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**
Micrographic examination

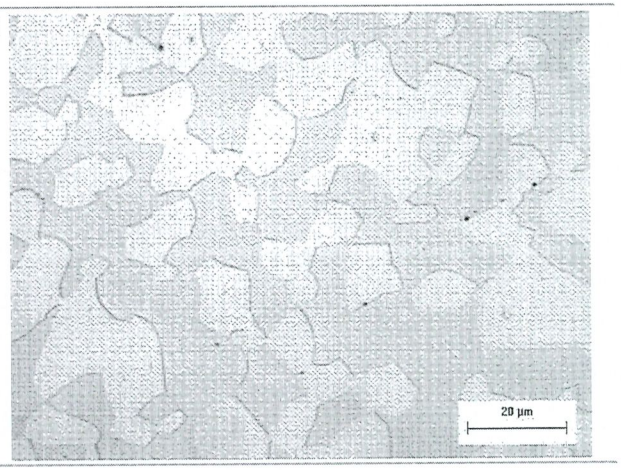
No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
1051/12	70744	ASTM E3-11 + ASTM E407-07	B T FT	20	25/09/2012

Attacco: *Etching:* 10% Oxalic

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Struttura libera da nitruri. / Structure free from nitrides.
Remarks:

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

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d) Clients are in charge of sampling.

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T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_MIC_B_BIS dt. 05/09/2012

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RAPPORTO DI PROVA
TEST REPORT
MIC 14714 / 12 Page 2 of 2
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / *Order* **OS000034**	Commessa / *Job* **50/12 12/0888**
Subcliente/Subcustomer /		

ESAME MICROGRAFICO — **Specifica** *Specification:* **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**
Micrographic examination

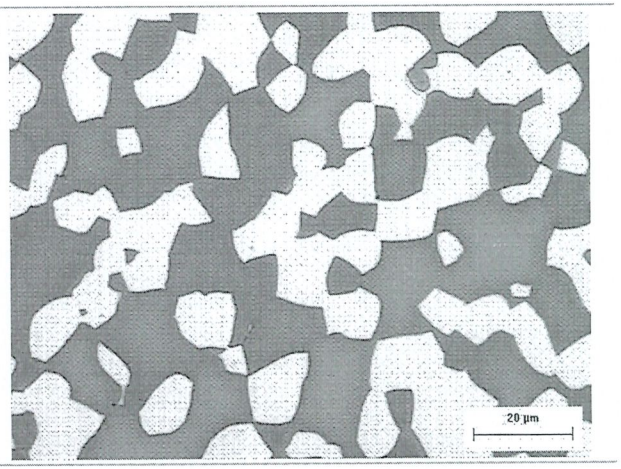
No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
1051/12	70745	ASTM E3-11 + ASTM E407-07	B T FT	20	25/09/2012

Attacco: *Etching:* 20% NaOH

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Struttura libera da precipitazioni a bordo grano e fasi intermetalliche./Structure free from grain boundary carbides and intermetallic phases.
Remarks:

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_MIC_B_BIS dt. 05/09/2012

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raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803
Protocol: CTCER20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
G48ACE 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC** Subcliente/Subcustomer /			Ordine / *Order*	**OS000034**		Commessa / *Job*	**50/12** **12/0888**
Descrizione **TEES 1.1/2" SCH. 40S** *Description*	Quantità / *Quantity* **125**	Posizione / *Item* **81**	Prova Nr. / *Test. Nr.* **1051/12**	Colata / *Heat* **44698**	Materiale / *Material*	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Prova di "pitting" in ferro-cloruro ***Ferric chloride pitting test*** **Specifica:** ***Specification:*** **RTX_D53 Rev.4**

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Note *Remarks*
1051/12 - 1	70747	ASTM G48-11 - Met. A	B L FT	

Dimensioni / *Dimensions*

Lunghezza - L (mm): 50,60 *Length - L (mm):*
Larghezza - W (mm): 24,30 *Width - W (mm):*
Spessore - T (mm): 4,30 *Thickness - T (mm):*

Area (cm²): [(LxWx2) + (WxTx2) + (LxTx2)] / 100 *Area (cm²):* 31,03

Provino in Materiale Base *Specimen in Base Material*

Preparazione provino: *Specimen preparation:* Meccanica ☑ *Mechanical* Chimica ☐ *Chemical*

Temperatura di prova (°C): 50 *Test temperature (°C):*
Soluzione: FeCl3 · 6H2O 10% WATER SOLUTION *Solution:*

Tempo di esposizione (ore): 24 *Exposure time (hours):*

Data e ora inizio: 21/09/2012 13.45.00 *Initial date and time:*
Data e ora fine: 22/09/2012 13.45.00 *End date and time:*

Peso iniziale (g): 39,1135 *Initial weight (g):*
Peso finale (g): 39,1135 *Final weight (g):*
Perdita totale di peso (g): 0,0000 *Weight total loss(g):*

Perdita di massa *g/m²* 0,0000 *Specimen mass loss*

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X
NOT PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata (cm²): (LxWx2)/100: 24,59 *Examined area (cm²):*

Media della profondità dei pit (µm): 0,00 *Average of pits depth (µm):*

No. Pit lato A(superficie): 0,00 *Nr. Pit side A (surface):*
No. Pit lato B: 0,00 *Nr. Pit side B:*
Pit per cm²: 0,00

Massima profondità dei pit (µm): 0,00 *Maximum pit depth (µm):*

Limite perdita di massa g/m² max.: 4,000 ***Limit Specimen mass loss max.***

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente *a) We declare that this test report refers only to the examined sample supplied by the Customer.*
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch) T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_G48ACE_A_BIS dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
A923A 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine *Order* **OS000034**	Commessa *Job*	**50/12 12/0888**
Subcliente/Subcustomer /			

Descrizione *Description* **TEES 1.1/2" SCH. 40S**	Quantità *Quantity* **125**	Posizione *Item* **81**	Prova Nr. *Test. Nr.* **1051/12**	Colata *Heat* **44698**	Materiale *Material* **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio
Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

Specifica ***Specification:*** **RTX_D53 Rev.4 + STATOIL -2010080 Rev.0**

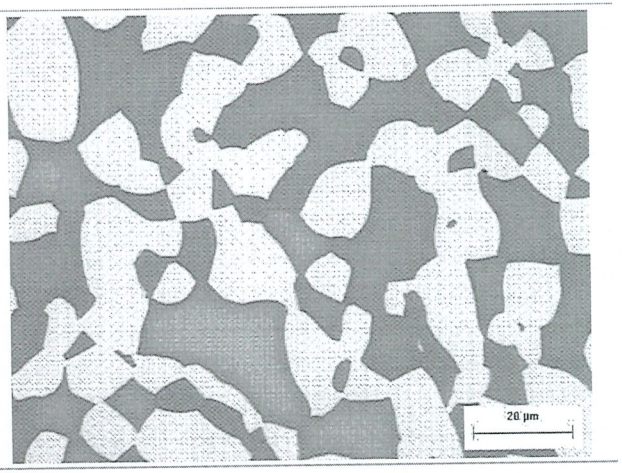
No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Data esecuzione *Date of Testing*
1051/12	70749	ASTM A923-08 (Met. A)	B T FT	20	25/09/2012

Attacco: *Etching:* NaOH + Electrolytic

Ingrandimento: *Enlargement:* 500 X

Area esaminata: *Area examined:* Materiale base / Base Material

Scala 1.5 : 1



Note: Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.
Remarks:

Esito delle prove / *Conclusion:* Non applicabile / Not applicable

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***
						firmato elettronicamente - electronically signed	

R_Rpt_A923A_A_BIS dt. 05/09/2012

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Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
A923C 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC** Subcliente/Subcustomer /			Ordine *Order*	**OS000034**		Commessa *Job*	**50/12** **12/0888**
Descrizione **TEES 1.1/2" SCH. 40S** *Description*	Quantità *Quantity* **125**	Posizione *Item* **81**	Prova Nr. *Test. Nr.* **1051/12**	Colata *Heat* **44698**	Materiale *Material*	**ASTM A 815-10a UNS S32760**	

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico **Specifica:** ***Specification:*** **RTX_D53 Rev.4**
Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Note *Remarks*
1051/12	70748	ASTM A923-08 (Met. C)	B L FT	

Dimensioni / *Dimensions*

Lunghezza (mm): 49,3 *Length (mm):*
Larghezza (mm): 24,9 *Width (mm):*
Spessore (mm): 3,1 *Thickness (mm):*

Area (cm²): 29,15 *Area (cm²):*

Provino in Materiale Base *Specimen in Base Material*

Preparazione provino: *Specimen preparation:* Meccanica ☑ *Mechanical* Chimica ☐ *Chemical*

Temperatura di prova (°C): *Specimen preparation (°C):* 40

Tempo esposizione (ore): *Specimen preparation (hours):* 24

Soluzione: *Solution:* FeCl3 · 6H2O 10% water solution

Peso iniziale (g): *Initial weight (g):* 25,0631

Peso finale (g): *Final weight (g):* 25,0629

Perdita di peso (g): *Weight loss (g):* 0,0002

Perdita della massa (g/m²): *Specimen mass loss* 0,069

Velocità di corrosione (mg/(dm²*d)) *Corrosion rate (mg/(dm²*d)):* 0,7

Data inizio: *Initial date* 21/09/2012 10.00.00 Data fine: *End date* 22/09/2012 10.00.00

Limite velocità di corrosione (mg/(dm²*d)) max.: 10,0
Corrosion rate limit (mg/(dm²*d)) max.

Esito delle prove / *Conclusion:* Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_A923C_A_BIS dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1248SA02 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Tests

RAPPORTO DI PROVA
TEST REPORT
ANL 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC** Subcliente/Subcustomer /			Ordine *Order*	**OS000034**			Commessa *Job*	**50/12** **12/0888**	
Descrizione **TEES 1.1/2" SCH. 40S** *Description*	Quantità *Quantity*	**125**	Posizione *Item*	**81**	Prova Nr. *Test. Nr.*	**1051/12**	Colata *Heat*	**44698**	Materiale *Material* **ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO ***Atomic emission vacuum Spectrometric analysis*** **Specifica:** ***Specification:*** **RTX_D53 Rev.4**

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Direzione e Posizione *Location*	Temp. *Temp. (°C)*	Note *Remarks*	Data esecuzione *Date of Testing*
1051/12	70750	ASTM E1086-08	B UP	20		20/09/12

C %	0,02	*Al %*		*Zr %*	
Si %	0,5	*Co %*		*Zn %*	
Mn %	0,654	*Nb %*		*O %*	
P %	0,022	*Ti %*		*Fe %*	
S %	0,005	*W %*	0,538	*Ca %*	
Cr %	25,262	*Pb %*		*Ta %*	
V %		*Sn %*		*Sb %*	
Mo %	3,563	*As %*			
Ni %	6,937	*B %*			
Cu %	0,61	*N %*	0,254		

FORMULE ***FORMULAS***

PREN **41,08**

ID Gruppo / *Group ID:* **131**

Esito delle prove / ***Conclusion:*** **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
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B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Stefano Antonielli***	***Paolo Amani***

R_Rpt_ANL_A_BIS dt. 05/09/2012

firmato elettronicamente - electronically signed

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raccortubi Heat num. or Pos. marking: 1248SA02 - Qty:2,00
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724002197 - 29.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803
Protocol: CTCERC2024000010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
DUR1 14714 / 12 Page 1 of 1
S.I.M. No.: 4246 / 12 F.C.P. No.: 4246 / 12 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / *Data supplied by the Customer:*

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine *Order* **OS000034**	Commessa *Job* **50/12 12/0888**	
Subcliente/Subcustomer /			

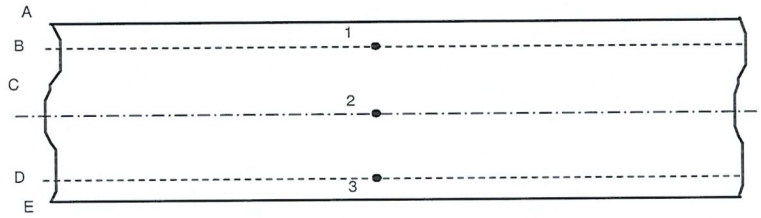
Descrizione *Description*	Quantità *Quantity*	Posizione *Item*	Prova Nr. *Test. Nr.*	Colata *Heat*	Materiale *Material*
TEES 1.1/2" SCH. 40S	**125**	**81**	**1051/12**	**44698**	**ASTM A 815-10a UNS S32760**

Campione fornito dal Cliente / *Sample supplied by the Customer:* parte del prodotto finito / part of finished product

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A) **Specifica:** ***Specification:*** **RTX_D53 Rev.4**
HBW hardness test (Indentation measuring device Type A)

No. Prova *Specimen*	ID Prova *ID Specimen*	Metodo di prova *Test method*	Posizione di prelievo *Test position*	Durezza *Hardness*	Note *Note*	Data esecuzione *Date of Testing*
1051/12	70742	ASTM E10-10	B T	HB 2,5/187,5		21/09/2012

Minimo richiesto Rich. Ord. *Min. Request Ord. Reqs* ☐
Massimo richiesto Rich. Ord. *Max. Request Ord. Reqs* **270** ☐



AB=DE= 3 mm AC= 1/2 AE

Valori ottenuti / *Hardness Numbers*

1	*2*	*3*
248	**252**	**259**

Esito delle prove / *Conclusion:* **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale *Date of Material Arrival*	Data Rapporto di prova *Test Report Date*	Ispettore *Inspector*	Ispettore *Inspector*	Cliente *Customer*	Cliente *Customer*	Responsabile di Reparto *Department Manager*	Responsabile Laboratorio *Laboratory Manager*
18/09/2012	**25/09/2012**					***Marco Borile***	***Paolo Amani***

firmato elettronicamente - electronically signed

R_Rpt_DUR1_A_BIS dt. 05/09/2012

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1.00

Description: TER05D09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCER0202400010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Quality System

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente RACCORTUBI S.p.A.
Customer/Client

Ordine N. Master plan Dicembre 2015/1
P.O.N./Commande N.

Pos. N. 28 **Q.tà** 44
Item/Poste Q.ty/Q.té

(*) Marcatura e cert. N. 1181SA05 **Data:** 02-12-2015
Material Marking e Cert. N. Date:

Descrizione RED.TEES 1.1/2"x3/4" SCH.40/S
Description
Description

Specifica BW FITTINGS TO ASTM A/815M-14
Specification ASME SA/815M ed.13 UNS S32760
Spécification DIMS/ENDS B16.9-2012

Materiale base - Fabbricante: TUBACEX Cert. No.: 574619
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 574619

Test produzione Production test/Coupon de production	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	45687	1052/15	634	881	30.9	HRC<28	HRC 22	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**W**	**N**		**PRE**	**FERRITE**
45687	0,013	0,450	0,70	0,023	0,0004	25,65	6,85	3,61	0,68	0,600	0,2425		41.443	49.6

Prove
Tests/Tests

Altri G-48 MET.A
Others
Autres

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156-1 LAST ED. AND MR 0103-ed.12
CERTIFIED ACC.TO PED 97/23/EC
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:28802/15
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes, batch n. 0937

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65$\sqrt{So}$ >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

raccortubi
Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT
G48ACE 28802 / 15 Page 1 of 1
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order **MASTER PLAN DICEMBRE 2015/1**	Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer /			

Descrizione / Description	Quantità / Quantity	Posizione / Item	Prova Nr. / Test. Nr.	Colata / Heat	Materiale / Material
RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S	**46**	**28**	**1052/15**	**45687**	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Prova di "pitting" in ferro-cloruro **Ferric chloride pitting test** **Specifica: Specification: RTX_D53 Rev.7**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Note / Remarks
1052/15	140052	ASTM G 48-11 - Met. A	B L FT	

Dimensioni / Dimensions

Lunghezza - L (mm): 49,70 Length - L (mm):

Larghezza - W (mm): 24,30 Width - W (mm):

Spessore - T (mm): 6,90 Thickness - T (mm):

Area (cm²): [(LxWx2) + (WxTx2) + (LxTx2)] / 100 Area (cm²): 34,37

Provino in Materiale Base
Specimen in Base Material

Preparazione provino / Specimen preparation: Meccanica ☑ Mechanical Chimica ☐ Chemical

Temperatura di prova (°C) / Test temperature (°C): 50

Soluzione / Solution: FeCl3 · 6H2O 10% WATER SOLUTION

Tempo di esposizione (ore) / Exposure time (hours): 24

Data e ora inizio / Initial date and time: 04/12/2015 08:00:00

Data e ora fine / End date and time: 05/12/2015 08:00:00

Peso iniziale (g) / Initial weight (g): 62,0546

Peso finale (g) / Final weight (g): 62,0544

Perdita totale di peso (g) / Weight total loss(g): 0,0002

Perdita di massa / Specimen mass loss g/m² **0,0 ± 0,3**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X
NOT PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata (cm²) / Examined area (cm²): (LxWx2)/100: 24,15

Media della profondità dei pit (µm) / Average of pits depth (µm): 0,00

No. Pit lato A(superficie) / Nr. Pit side A (surface): 0,00

No. Pit lato B / Nr. Pit side B: 0,00

Pit per cm²: 0,00

Massima profondità dei pit (µm) / Maximum pit depth (µm): 0,00

Limite perdita di massa g/m² max.: 4,0
Limit Specimen mass loss max.

Esito delle prove / Result of tests: Conforme a 'Specifica' / Compliant with 'Specification'

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
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d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_G48ACE dt. 11/09/2015

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Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

E562 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order **MASTER PLAN DICEMBRE 2015/1**	Commessa	**30012/15**
Subcliente/Subcustomer /		Job	**15/1149**

Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti **Determining volume fraction by systematic manual point count** **Specifica: Specification:** **RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location	Note / Remarks	Data esecuzione / Date of Testing
1052/15	140048	ASTM E 562-11	B T FT		09/12/2015

FORMULE USATE
(Formulas used)

Percentuale media di punti (Pp): / Average Percentage of Points (Pp):
$$Pp = 1/n \times \sum_{i=1}^{n} Pp(i)$$

Deviazione Standard (s): / Standard Deviation (s):
$$s = \left[\frac{1}{n-1} \sum_{i=1}^{n} (Pp(i) - Pp)^2 \right]^{1/2}$$

95% Intervallo di scarto (95% Cl): / 95% Confidence Interval (95%Cl):
$$95\%Cl = \frac{2.0 \times s}{(n-1)^{1/2}}$$

Errore (%): / Error (%):
$$\frac{95\%Cl \times 100}{Pp}$$

Frazione di Volume (Vv%): / Volume Fraction (Vv %):
$$Vv = Pp \pm 95\%Cl$$

RISULTATI (Min. 40%, Max. 55%)
Results (Min. 40%, Max. 55%)

Vv (% Frazione di volume della Ferrite) / Vv (% Volume fraction of the constituent):	49,6 ± 1,5
% Errore (RA): / % Error (RA):	3,0
Nr. di campi per provino/sezione/spaziatura/angolo: / Nr. of fields for specimens/section/spacing/angle:	30 / 6 x 20 mm / 1 x 3 mm / 45°
Preparazione del provino: / Sample preparation:	20% NaOH
Ingrandimento: / Magnification:	500 X
Misura del reticolo: / Grid size:	40 mm x 40 mm 5 x 5 = 25 Points

% Frazione di volume della Ferrite per ciascun campo esaminato
% Volume fraction of the costituent for each metallographic section

1	42
2	44
3	50
4	48
5	52
6	54
7	48
8	42
9	52
10	54
11	52
12	52
13	52
14	52
15	52
16	48
17	44
18	46
19	54
20	52
21	46
22	52
23	42
24	54
25	54
26	46
27	54
28	50
29	48
30	52

Esito delle prove / Conclusion: **Conforme a 'Specifica' / Compliant with 'Specification'**

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_E562 dt. 22/09/2015

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC2024000010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
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RAPPORTO DI PROVA
TEST REPORT

ANL 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

LAB N° 0864

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC	Ordine / Order	MASTER PLAN DICEMBRE 2015/1
Subcliente/Subcustomer	/	Commessa / Job	30012/15 / 15/1149

Descrizione / Description	RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S	Quantità / Quantity	46	Posizione / Item	28	Prova Nr. / Test. Nr.	1052/15	Colata / Heat	45687	Materiale / Material	ASTM A 815-14 UNS S32760

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO **Atomic emission vacuum Spectrometric analysis**

Specifica: Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Direzione e Posizione Location	Temp. Temp. (°C)	Note Remarks	Data esecuzione Date of Testing
1052/15	140055	PO 04-145 RC R00	B UP	20		05/12/15

		Min.	Max.			Min.	Max.		Min.	Max.
C %	0,017		0,030	Al %				Zr %		
Si %	0,50		1,00	Co %				Zn %		
Mn %	0,72		1,00	Nb %				O %		
P %	0,025		0,030	Ti %				Fe %		
S %	0,005		0,010	* W %	0,62	0,50	1,00	Ca %		
Cr %	25,8	24,0	26,0	Pb %				Ta %		
V %				Sn %				Sb %		
Mo %	3,7	3,0	4,0	As %				H %		
Ni %	6,9	6,0	8,0	B %				Cd %		
Cu %	0,68	0,50	1,00	N %	0,26	0,20	0,30	Se %		
Ce %				La %				Bi %		
				Mg %				Hg %		

FORMULE	FORMULAS	Min.	Max.
PREN	42,2	40,0	

ID Gruppo / Group ID: 1893

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente l'elemento indica una prova non accreditata da ACCREDIA
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) The * symbol before the element indicates that the test is not accredited by ACCREDIA.
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) Th(Through Thickness)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	10/12/2015					Stefano Antonielli	Paolo Amani

firmato elettronicamente - electronically signed

R_Rpt_ANL dt. 07/01/2015

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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Mechanical and Chemical Laboratory Non Destructive Test
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RAPPORTO DI PROVA
TEST REPORT

DUR 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order: **MASTER PLAN DICEMBRE 2015/1**	Commessa / Job: **30012/15** / **15/1149**	
Subcliente/Subcustomer /			

Descrizione / Description	Quantità / Quantity	Posizione / Item	Prova Nr. / Test. Nr.	Colata / Heat	Materiale / Material
RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S	**46**	**28**	**1052/15**	**45687**	**ASTM A 815-14 UNS S32760**

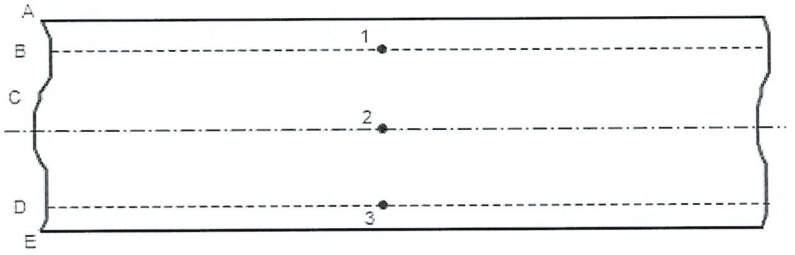
Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)
HBW hardness test (Indentation measuring device Type A)

Specifica: Specification: RTX_D53 Rev.7

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Posizione di prelievo / Test position	Durezza / Hardness	Note / Note	Data esecuzione / Date of Testing
1052/15	140047	ASTM E 10-12	B T	HBW 2,5/187,5		04/12/2015

Minimo richiesto / Min. Request: Rich. Ord. / Ord. Reqs ☐
Massimo richiesto / Max. Request: **270** Rich. Ord. / Ord. Reqs ☐



Valori ottenuti / Hardness Numbers

1	2	3
265	**267**	**267**

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
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c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Davide Morresi**	**Paolo Amani**

R_Rpt_DUR1 dt. 13/03/2012

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

Customer: ROSETTI MARINO S.p.A.
Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000048O3
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT
MIC 28802 / 15 Page 1 of 2
S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**					Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**		Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**
Materiale / Material	**ASTM A 815-14 UNS S32760**								

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

ESAME MICROGRAFICO
Micrographic examination

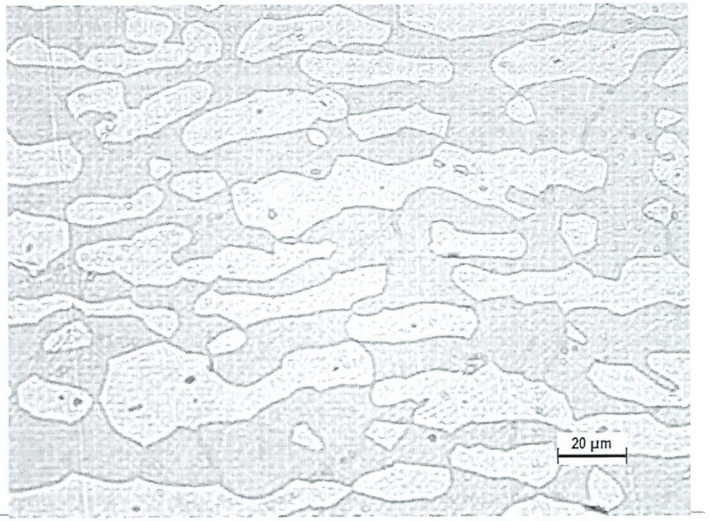
Specifica Specification: **RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Data esecuzione / Date of Testing
1052/15	140049	ASTM E 3-11+ASTM E 407-07e1	B	T	FT	09/12/2015

Attacco: Etching: 10% Oxalic

Ingrandimento: Enlargement: 500 X

Area esaminata: Area examined: Materiale base / Base Material 10,0 x 20,0 = 200,0 mm²



Note: Remarks: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito delle prove / Conclusion: **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
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Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

R_Rpt_MIC dt. 05/05/2015

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

Customer: ROSETTI MARINO S.p.A.
Description: TER0SD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA
TEST REPORT

MIC 28802 / 15 Page 2 of 2

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**	Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**	Commessa / Job **30012/15** **15/1149**
Subcliente/Subcustomer /			

ESAME MICROGRAFICO
Micrographic examination

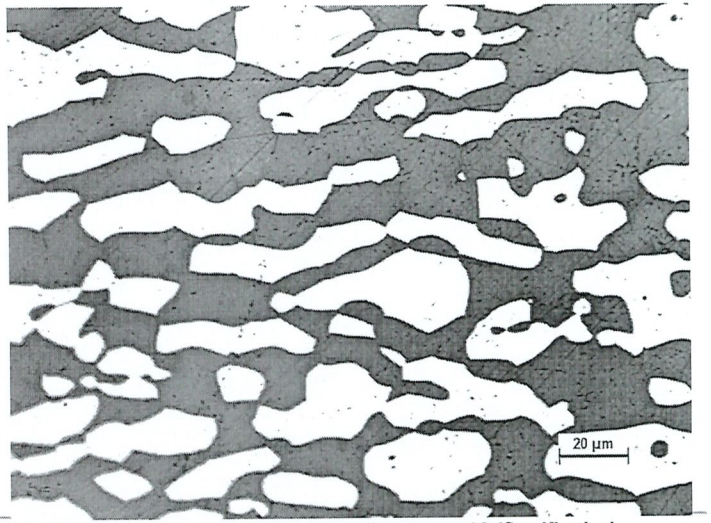
Specifica Specification: **RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Direzione e Posizione / Location			Data esecuzione / Date of Testing
1052/15	140050	ASTM E 3-11+ASTM E 407-07e1	B	T	FT	09/12/2015

Attacco / Etching: 20% NaOH

Ingrandimento / Enlargement: 500 X

Area esaminata / Area examined: Materiale base / Base Material 10,0 x 20,0 = 200,0 mm²



Note / Remarks: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito delle prove / Conclusion: **Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
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T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_MIC dt. 05/05/2015

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

Customer: ROSETTI MARINO S.p.A.

Description: TERGSD09371H3Q
TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00

Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC2024000102 98 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
U.O. Sede B: Viale dell'industria, 25 - I-29015 Castel San Giovanni (PC)
Tel.+39 0523 881.900 Fax+39 0523 842.903
http:\\www.sidertest.it sidertest@sidertest.it

RAPPORTO DI PROVA
TEST REPORT

A923A 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**	Commessa / Job	**30012/15** / **15/1149**
Subcliente/Subcustomer /							
Descrizione / Description **RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity **46**	Posizione / Item **28**	Prova Nr. / Test. Nr. **1052/15**	Colata / Heat **45687**	Materiale / Material **ASTM A 815-14 UNS S32760**		

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio
Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

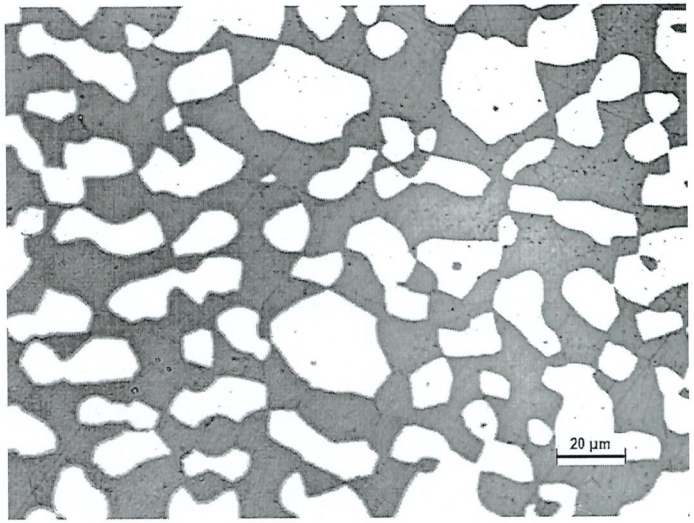
Specifica Specification: RTX_D53 Rev.7 + STATOIL -2010080 Rev.0

No. Prova **Specimen**	ID Prova **ID Specimen**	Metodo di prova **Test method**	Direzione e Posizione **Location**	Temp. **Temp. (°C)**	Data esecuzione **Date of Testing**
1052/15	140054	ASTM A 923-14 (Met. A)	B T FT	20	09/12/2015

Attacco / Etching: 20% NaOH

Ingrandimento / Enlargement: 500 X

Area esaminata / Area examined: Materiale base / Base Material



Note / Remarks: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano, fasi intermetalliche e precipitati./Structure free from grain boundary carbides, intermetallic phases and precipitates.
Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

R_Rpt_A923A dt. 05/09/2012

firmato elettronicamente - electronically signed

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1,00
Description: TER0SD09371H3Q TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
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RAPPORTO DI PROVA
TEST REPORT

A923C 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**				Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**			Commessa / Job	**30012/15 15/1149**
Subcliente/Subcustomer /									
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**
Materiale / Material	**ASTM A 815-14 UNS S32760**								

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico **Specifica: Specification: RTX_D53 Rev.7**

Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

No. Prova Specimen	ID Prova ID Specimen	Metodo di prova Test method	Direzione e Posizione Location			Note Remarks
1052/15	140053	ASTM A 923-14 (Met. C)	B	L	FT	No pitting at 20X.

Dimensioni / Dimensions

Lunghezza (mm) / Length (mm): 48,87
Larghezza (mm) / Width (mm): 25,11
Spessore (mm) / Thickness (mm): 6,80
Area (cm²) / Area (cm²): 34,60

Provino in Materiale Base / Specimen in Base Material

Preparazione provino / Specimen preparation: Meccanica / Mechanical ☑ Chimica / Chemical ☐

Temperatura di prova (°C) / Specimen preparation (°C): 50

Tempo esposizione (ore) / Specimen preparation (hours): 24

Soluzione / Solution: FeCl3 · 6H2O 10% water solution

Peso iniziale (g) / Initial weight (g): 65,6918

Peso finale (g) / Final weight (g): 65,6909

Perdita di peso (g) / Weight loss (g): 0,0009

Perdita della massa (g/m²) / Specimen mass loss: 0,3

Velocità di corrosione (mg/(dm²*d)) / Corrosion rate (mg/(dm²*d)): 2,6 ± 2,0

Data inizio / Initial date: 04/12/2015 08:00:00
Data fine / End date: 05/12/2015 08:00:00

Limite velocità di corrosione (mg/(dm²*d)) max.: 10,0
Corrosion rate limit (mg/(dm²*d)) max.

Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, which for a normal distribution provides a level of confidence of approximately 95% (according to EA-4/16 rev. 00 - 2003).

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Stefano Antonielli**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_A923C dt. 29/07/2015

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

SIDER TEST S.r.l
Laboratorio Prove e Collaudi Controlli Non Distruttivi
Mechanical and Chemical Laboratory Non Destructive Test
Sede legale ed amministrativa:
Strada della Barianella, 1/B - I-29015 Castel San Giovanni (PC)
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RAPPORTO DI PROVA
TEST REPORT

PM 28802 / 15 Page 1 of 1

S.I.M. No.: 9318 / 15 F.C.P. No.: 9318 / 15 A / A

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864

Dati forniti dal Cliente / Data supplied by the Customer:

Cliente/Customer	**Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**			Ordine / Order	**MASTER PLAN DICEMBRE 2015/1**					Commessa / Job	**30012/15** **15/1149**
Subcliente/Subcustomer	/										
Descrizione / Description	**RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S**	Quantità / Quantity	**46**	Posizione / Item	**28**	Prova Nr. / Test. Nr.	**1052/15**	Colata / Heat	**45687**	Materiale / Material	**ASTM A 815-14 UNS S32760**

Campione fornito dal Cliente / Sample supplied by the Customer: RED. TEES 1.1/2" x 3/4" SCH. 40S / 40S

PROVA DI TRAZIONE — **Tensile test**

No. Prova / Specimen	ID Prova / ID Specimen	Metodo di prova / Test method	Dimensioni Wth Ø / Width ØPipe (mm)		Lo / Lo	Posizione di prelievo / Test position			Temp. / Temp. (°C)	Snervamento / Yield strength (MPa)		(MPa)	Rottura / Tensile strength Rm (MPa)	Allungamento / Elongation A (%)	Strizione / Area Reduction Z (%)	S/R Ratio Yield strength / Tensile strength	Data esecuzione / Date of Testing
1052/15	140046	ASTM A 370-13 (Tension Test)	3,82	12,53	50.00	B	L	FT	23	(≥ 550)	Rp0.2%	**634**	(750÷895)	**881**	(≥ 25,0)	**30,9**			09/12/2015

Specifica / Specification: RTX_D53 Rev.7 **Note /Remarks:** **Esito delle prove / Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'**

a) Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente
b) Si dichiara che il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta
c) La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.
d) Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA.
e) Il campionamento dei provini viene eseguito dal Cliente.

a) We declare that this test report refers only to the examined sample supplied by the Customer.
b) We declare that this test report cannot be partially reproduced without our written approval.
c) Compliance with documents in "Specification" refers only to the tests described on this test report.
d) The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
e) Clients are in charge of sampling.

Legenda / Legend:
B(Base) H(Heat Affected Zone) FL(Fusion Line) W(Weld) E(Extrados) I(Intrados) RN(Run) CR(Crotch) BR(Branch)
T(Transversal) L(Longitudinal), Tg(Tangential) Ax(Axial) Rd(Radial) Th(Through Thickness)
UP-mm (Outside Diameter), D-mm (Inside Diameter), FT (Full Thk), R (Root), n/n (Depth Ratio)

Data Ingresso Materiale / Date of Material Arrival	Data Rapporto di prova / Test Report Date	Ispettore / Inspector	Ispettore / Inspector	Cliente / Customer	Cliente / Customer	Responsabile di Reparto / Department Manager	Responsabile Laboratorio / Laboratory Manager
03/12/2015	**10/12/2015**					**Davide Morresi**	**Paolo Amani**

firmato elettronicamente - electronically signed

R_Rpt_TRP dt. 27/09/2013

Dichiarazioni false, fittizie o fraudolente e modifiche del presente Rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. *Any false statement or modification of this test report is a violation of law and therefore the Laboratory may take legal action.*

Customer: ROSETTI MARINO S.p.A.
Description: TERO5D09371H3Q TEE RID. 1.1/2"x3/4" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1181SA05 - Qty:1.00
Order: 1724002197 - 29.10.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803
Protocol: CTCERC2024000010298 * CERTIFIED TRUE COPY * Issued 14-11-2024

raccortubi

Heat num. or Pcs. marking: 1005SA022 - Qty:2,00

Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS TER0SD09381H01

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000004803

Protocol: CTCERC20240001029B * CERTIFIED TRUE COPY

* Issued 14-11-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. Master plan Febbraio 2022/1

Pos. N. Item/Poste 28 **Q.tà** Q.ty/Q.té 45

(*) Marcatura e cert. N. Material Marking e Cert. N. 1005SA022

Created on: 23-02-2022

Descrizione Description Description RED.TEES 1.1/2"x1" SCH.40/S SEAMLESS

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-2020
ASME SA/815 Latest edition UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 705701
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 705701

Test produzione
Production test/Coupon de production

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS

Colata N. Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
56144	412/21	619	866	27.8	HRC<28	HRC 25	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**Nb**	**Co**	**N**	**W**	**PRE**	**FERRITE**
56144	0,013	0,260	0,67	0,020	0,0004	25,55	6,95	3,65	0,62	0,002	0,045	0,2540	0,63	41.659	48.7

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 4211/22
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo Cold formed Formés à froid

Senza saldatura Seamless Sans soudure

Ispezione
Inspection/inspéction

Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique

Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0849

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica Trade Mark

Ispettore
Inspector/Inspecteur

Customer: ROSETTI MARINO S.p.A.
Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2,00
Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

G48ACE 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm			Area/ Area cm²	
					Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness		
22327	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	49,84	21,43	3,61	26,51	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C)	50
Tempo di esposizione (ore)/ Exposure time (hours)	24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
28/02/2022 11:11:02	01/03/2022 11:11:02

Soluzione/ Solution FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	30,6412		
Peso finale (g)/ Final weight (g)	30,6405		
Perdita di peso (g)/ Weigth loss (g)	0,0007		
Perdita di massa/ Specimen mass loss		0.3	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max		**1.0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 21,36 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Complinnce with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

		Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
Data Ingresso Materiale/ Date of Material Arrival	24/02/2022	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date	01/03/2022				

firmato elettronicamente/electronically signed

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2.00

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC2024000010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDERTEST
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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

E562 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
22323	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B	T	FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	25/02/2022

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction) 48.7	**40**	**55**

s 3.9 95% C.I. 1.4 %RA 2.97

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**54**	3	**50**	4	**46**	5	**44**
6	**44**	7	**42**	8	**44**	9	**50**	10	**54**
11	**48**	12	**44**	13	**50**	14	**54**	15	**52**
16	**42**	17	**48**	18	**50**	19	**50**	20	**46**
21	**52**	22	**48**	23	**52**	24	**46**	25	**52**
26	**52**	27	**44**	28	**54**	29	**54**	30	**46**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 4.00 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
24/02/2022	Antonielli Stefano	Amani Paola		
Data Rapporto di prova/ Test Report Date: 01/03/2022	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005A022 - Qty:2,00

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

ANL 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description **SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm**

Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
1		412/21	56144	ASTM A 815-20 UNS S32760

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
22330	PO 04-145 RC R12:2021	RTX_D53 Rev.9	B / UP	20 °C	3813	% by weight	28/02/2022

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,016	±0,003		0,030	Nb					Fe				
Si	0,30	±0,02		1,00	Ti					Ca				
Mn	0,70	±0,04		1,00	W	0,64	±0,06	0,50	1,00	Ta				
P	0,025	±0,004		0,030	Pb					Sb				
S	0,002	±0,001		0,010	Sn					H				
Cr	25,6	±0,4	24,0	26,0	As					Cd				
V					B					Se				
Mo	3,7	±0,2	3,0	4,0	N	0,26	±0,04	0,20	0,30	Bi				
Ni	7,1	±0,4	6,0	8,0	La					Hg				
Cu	0,64	±0,04	0,50	1,00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	41,97	±0,74	40,00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<2,5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.

Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **24/02/2022**

Data Rapporto di prova/ Test Report Date **01/03/2022**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [/]-/: [B]-Specimen in Base Material; [UP]-external sup.

raccortubi Heat num. or Pos. marking: 1005SA022 - Qty:2,00
Description: TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS TEROSD09381H01
Customer: ROSETTI MARINO S.p.A.
Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

DUR 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

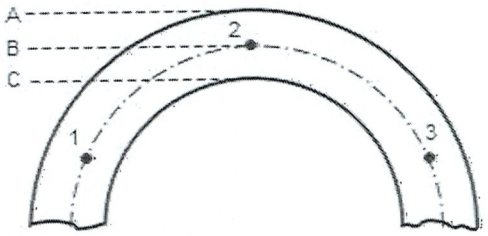
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
22322	ASTM E 92 – 17 (only Vickers)	**RTX_D53 Rev.9**	B T	20 °C	HV10	28/02/2022

(B1) - Base Material MAX 286

HV10	1	255	2	253	3	257



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	
(B1) - Base Material	255	HV10

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **24/02/2022**

Data Rapporto di prova/ Test Report Date **01/03/2022**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2,00

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

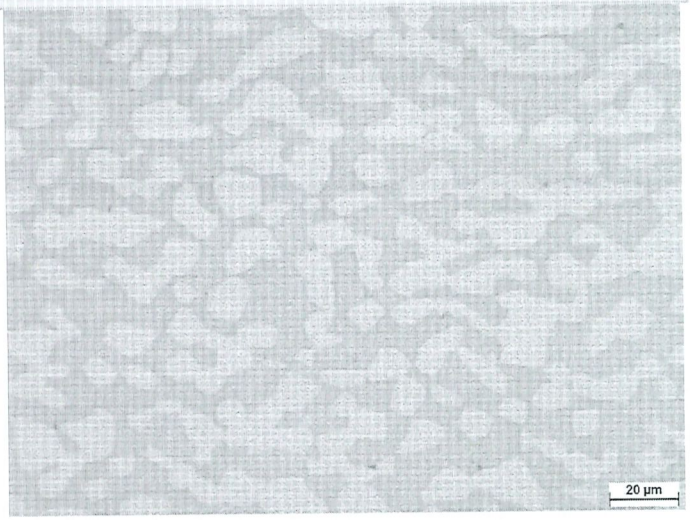
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22324	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Specimen in Base Material 4.0 x 20.0 = 80.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
24/02/2022	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: 01/03/2022	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 100SSA022 - Qty:2.00

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
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RAPPORTO DI PROVA/TEST REPORT

MIC 4211 / 22

Rif. Lab SIM (FCP) : 1274 / 22 (A / A)

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer: Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC

Ordine/Order: MASTER PLAN FEBBRAIO 2022/1

Commessa/Job: 30002/22 21/1404

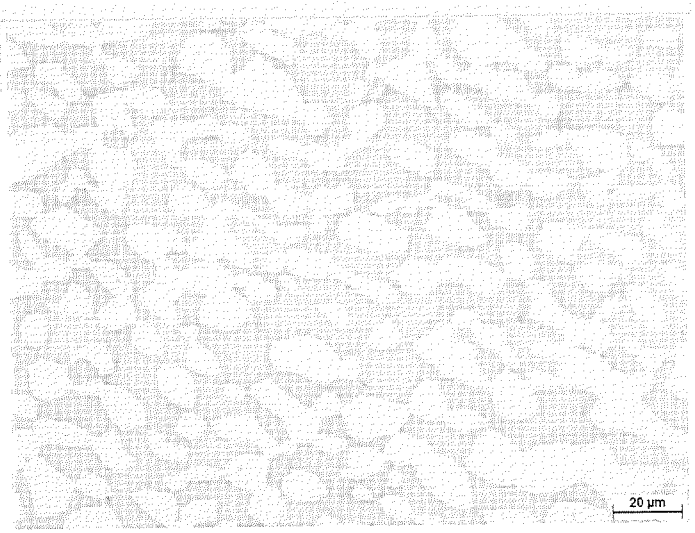
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	ASTM A 815-20 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22325	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	RTX_D53 Rev.9 + STATOIL -2010080 Rev.0	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Specimen in Base Material 4.0 x 20.0 = 80.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano.fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	24/02/2022	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
Data Rapporto di prova/ Test Report Date	01/03/2022 firmato elettronicamente/electronically signed	Antonielli Stefano	Amani Paolo		

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.
Description: TERDSD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2,00
Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803
Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDERTEST
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RAPPORTO DI PROVA/TEST REPORT

A923A 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order: **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job: **30002/22 21/1404**

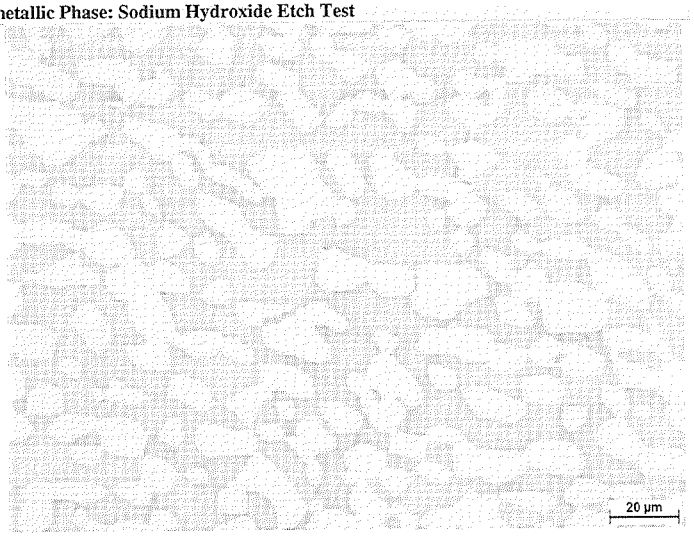
Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
22329	ASTM A923 – 14 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	25/02/2022

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	24/02/2022
Data Rapporto di prova/ Test Report Date	01/03/2022

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2,00

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004803

Protocol: CTCERC202400010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

A923C 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	ASTM A 815-20 UNS S32760

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
22328	ASTM A923 – 14 Method C	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	50,05	21,45	3,62	26,65

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum temperature observed (°C) 49,68

Temperatura Massima Rilevata (°C)/ Maximum temperature observed (°C) 50,55

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
28/02/2022 11:27:24	01/03/2022 11:27:24

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

Peso iniziale/ Initial weight (g) 30,5151

Peso finale (g)/ Final weight (g) 30,5141

Perdita di peso (g)/ Weigth loss (g) 0,0010

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X /
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **3,8**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
24/02/2022	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: 01/03/2022	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: TER0SD09381H01
TEE RID. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1005SA022 - Qty:2,00

Order: 1724002197 - 29.10.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240004803

Protocol: CTCERC20240010298 * CERTIFIED TRUE COPY
* Issued 14-11-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY Tel. +39 0523 881900 Fax. +39 0523 842903
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY sidertest@sidertest.it www.sidertest.it

RAPPORTO DI PROVA/TEST REPORT

PM 4211 / 22

Rif. Lab SIM (FCP) : **1274 / 22 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **MASTER PLAN FEBBRAIO 2022/1**

Commessa/Job **30002/22 21/1404**

Campione fornito da cliente/Sample supplied by customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		412/21	56144	ASTM A 815-20 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth / Ø / Width / ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength MPa	Snervamento/ Yield strength MPa	Rottura/ Tensile strength Rm MPa	Allungamento/ Elongation A (%)	Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
22320	ASTM A370 – 21 §6÷14, § A1.3, § A2.2 and § A3.2	**RTX_D53 Rev.9**	3,72 12,53	50,00	B L FT	23	(≥550) Rp0,2% **619**		(≥750) **866**	(≥25) **27,8**			01/03/2022

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati /This test report refers only to the examined sample as received from the Customer, except in case of hent trentments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result

Data Ingresso Materiale/ Date of Material Arrival **24/02/2022**

Data Rapporto di prova/ Test Report Date **01/03/2022**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector

Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724002052	123A90A	Q012400998

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 15.11.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 13/11/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00010357
Packing list	PLPLIS202400010284
Ns. Rif.	00004536
Vs. Rif.	1724002052 - 11.10.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00010357

13/11/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00004536

Ordine N. P.O. number: 1724002052 - 11.10.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
10	1	E90RCS04991H00 CURVE 90° LR 1.1/2" XS SEAMLESS	413640 CTCERT202400007345_1.0001.TIF
20	1	TEE0CS05251H00 TEE UG. 1.1/2" XS SEAMLESS	0D CTCERT202400007346_1.0001.TIF

EITI - The Inspection Body.

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24042

Date - Data - Vom - date : 12/11/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 93

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

Customer - Cliente - Besteller - Acheteur 2)

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

see table below

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
	1.1/2" sch. 80/S	CURVA 90 ASME/ASTM SA/A 420 WPL6	413640	1		
	1.1/2" sch. 80/S	TEE UG. ASME/ASTM SA/A 420 WPL6	0D	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tucini – NDT Specialist
ISO 9712 CICPND 23046/PND/C Level 2 UT
ISO 9712 CICPND 27058/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI – European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – UT/PT/VT/RT

I.R.C. S.p.A.
SEDE LEGALE:
Via Guameri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-836500 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc/Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	9083-P1	23/10/2024
Purchaser	030206009064 -	
Order	2090	

	Item	Quantity	Heat Id.
1	CURVA 1.1/2" XS 90° LR WPL6	1,00	413640

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,150	0,580	0,210	0,018	0,013	0,042	0,046	0,018	0,078	0,008	0,0020

CE_{IIW} 0,27

Legenda $CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15$ Pcm = $C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B$ J-Factor = $(Si+Mn)*(P+Sn)*10000$ CE = $C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)$

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	295	503	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	67	54	62	61

Hardness Test

Base Metal Avg 136 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724002052 - 11.10.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004536

Description: E90RCS04991H00 - CURVE 90° LR 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 413640 - Qty:1,00

Protocol: CTCERC202400010357 * CERTIFIED TRUE COPY
* Issued 13-11-2024

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 28016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-836500 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	9083-P2
Purchaser	030206009064 -
Order	2090

	Item	Quantity	Heat Id.
2	TEE 1.1/2" XS WPL6	1,00	0D-0D1533

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%
0,110	1,280	0,290	0,009	0,004	0,020	0,120	0,020	0,020	0,001	0,012	0,0020	0,0020	0,0010
	CE_{IIW} 0,35												

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/5+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	325	520	34

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	55	61	58	58

Hardness Test

Base Metal Avg 140 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Official Designated Inspector	Purchaser Authorized Inspector

This certificate is issued by a computerized system and is valid without stamp and signature. This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724002052 - 11.10.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400004536

Description: TEE0CS05251H00 - TEE UG. 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 0D - Qty:1,00

Protocol: CTCERC202400010357 * CERTIFIED TRUE COPY
* Issued 13-11-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400972

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 15.11.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 15/11/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00010482
Packing list	PLPLIS202400010407
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

Certificate

Quality management system for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 I/Q-04 1095

Name and address of the certificate holder:

PRESSBOLT S.r.l.
con unico socio
Via Dell'Artigianato, 12
22078 Turate CO
Italy

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, Par. 4.3, with regard to the materials as listed in the scope of approval.

Test basis: **QM System acc. to EN 764-5, article 4.2 and AD 2000-Merkblatt W0**

Audit report no.: 01 202 I/Q-04 1095

Scope: **Manufacture of stud bolts, valves components, special pieces according to customer's drawings, nuts and bolts for chemical, petrochemical, offshore and energy industries, see annex, 01.07.2022, Rev.: 4, to certificate**

Manufacturing plant: see certificate holder

Validity: **This certificate is valid until 2025-07-27.**

Cologne, 2022-07-18

Dipl.-Ing. (FH) Vera Ruff

TÜV Rheinland 0035 Notified Body

TÜV Rheinland Industrie Service GmbH
Notified Body for Pressure Equipment, ID-No. 0035
Am Grauen Stein, D-51105 Cologne

E-108a

® TÜV, TUEV und TUV sind eingetragene Marken. Eine Nutzung und Verwendung bedarf der vorherigen Zustimmung.

QuickSand disarmed file "CTCERC202400010482_AR.pdf"
QuickSand disarmed file "CTCERC202400010482_LA.pdf"
QuickSand disarmed file "CTCERC202400010482_CONF.pdf"

raccortubi

00010482

15/11/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
140	4	SB20BO00650200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=85	F2329 CTCERT202400007547_1.0001.TIF CTCERT202400007547_1.0002.TIF
150	20	SB20BO00680300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100	F2329 CTCERT202400007548_1.0001.TIF CTCERT202400007548_1.0002.TIF
160	30	SB20BO00940200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=75	F2329 CTCERT202400007549_1.0001.TIF CTCERT202400007549_1.0002.TIF
170	10	SB20BO00980200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80	F2329 CTCERT202400007550_1.0001.TIF CTCERT202400007550_1.0002.TIF
180	20	SB20BO00990300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=110	F2329 CTCERT202400007551_1.0001.TIF CTCERT202400007551_1.0002.TIF
190	80	SB20BO04200300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105	F2329 CTCERT202400007552_1.0001.TIF CTCERT202400007552_1.0002.TIF
200	10	SB20BO32470300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=120	F2329 CTCERT202400007553_1.0001.TIF CTCERT202400007553_1.0002.TIF
210	30	SB20BO34450200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=105	F2329 CTCERT202400007554_1.0001.TIF CTCERT202400007554_1.0002.TIF
220	20	SB2WBO01960200 Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60	F2329 CTCERT202400007555_1.0001.TIF CTCERT202400007555_1.0002.TIF

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00010482

15/11/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 15/11/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TIRANTI FILETTATI CON 2 DADI:	
140	NR	4	0.00	SB20BO00650200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-'' L=85	F2329
150	NR	20	0.00	SB20BO00680300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-'' L=100	F2329
160	NR	30	0.00	SB20BO00940200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-'' L=75	F2329
170	NR	10	0.00	SB20BO00980200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-'' L=80	F2329
180	NR	20	0.00	SB20BO00990300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-'' L=110	F2329
190	NR	80	0.00	SB20BO04200300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-'' L=105	F2329

raccortubi

00010482

15/11/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 15/11/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
200	NR	10	0.00	SB20BO32470300 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=120	F2329
210	NR	30	0.00	SB20BO34450200 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=105	F2329
220	NR	20	0.00	SB2WBO01960200 Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60	F2329

CTCERT202400007547.1.0001

PRESSBOLT

Pressbolt s.r.l. con unico socio
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email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	1	Item	10
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0085 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	4	P1691110	0001259766

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 000003171182 Rev. 000 of 06 November 2024 - Page 1/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 140 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00650200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=85

raccortubi Heat num. or Pcs. marking: F2329 - Qty:4,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	1	Item	20
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	8	P1679106	0001259767

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.45	0.70	0.23	0.012	0.022	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	291;298;310	230;231;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 2/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 140 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00650200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=85

raccortubi Heat num. or Pcs. marking: F2329 - Qty:4,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	2	Item	30
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0100 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	20	P1690060	0001259768

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.77	0.219	0.012	0.0252	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1003	797	23.5	60.3

	Hardness "HB"
Required	max 321
Actual	301;301;301

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00680300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Messrs. RACCORTUBI S.p.A.
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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	2	Item	40
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
554325	40	P1680008	0001259769

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.450	0.740	0.220	0.014	0.029

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	278;297;292	246;234;246

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 4/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 150 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00680300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=100

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	3	Item	50
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0075 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	30	P1691109	0001259770

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 5/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00940200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=75

raccortubi Heat num. or Pcs. marking: F2329 - Qty:30,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	3	Item	60
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	60	P1679106	0001259771

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.45	0.70	0.23	0.012	0.022	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	291;298;310	230;231;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.p.A.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 6/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 160 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00940200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=75

raccortubi Heat num. or Pcs. marking: F2329 - Qty:30,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	4	Item	70
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0080 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	10	P1694104	0001259772

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 7/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00980200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80

raccortubi Heat num. or Pcs. marking: F2329 - Qty:10,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	4	Item	80
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	20	P1679106	0001259773

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	291;298;310	230;231;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 8/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 170 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00980200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=80

raccortubi Heat num. or Pcs. marking: F2329 - Qty:10,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
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CTCERT202400007551.1.0001

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	5	Item	90
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0110 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	20	P1686091	0001259774

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.77	0.219	0.012	0.0252	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1003	797	23.5	60.3

	Hardness "HB"
Required	max 321
Actual	301;301;301

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 9/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 180 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00990300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=110

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	5	Item	100
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
554325	40	P1680008	0001259775

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.450	0.740	0.220	0.014	0.029	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	278;297;292	246;234;246

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 10/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 180 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO00990300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=110

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
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Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	6	Item	110
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0105 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	80	P1694107	0001259776

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.770	0.219	0.012	0.025	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1001	796	23.6	60.3

	Hardness "HB"
Required	max 321
Actual	301;300;299

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 190 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO04200300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105

raccortubi Heat num. or Pcs. marking: F2329 - Qty:80,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	6	Item	120
Job		Shipping ref.	3415931 of 05 November 2024

Standard	
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H	
Item Description HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	Heat Treatment QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
554325	160	P1680008	0001259777

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.450	0.740	0.220	0.014	0.029

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	278;297;292	246;234;246

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 12/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 190 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO04200300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=105

raccortubi Heat num. or Pcs. marking: F2329 - Qty:80,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	7	Item	130
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 5/8"-11 UNCX0120 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
103540	10	P1694108	0001259778

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.412	0.77	0.219	0.012	0.0252	1.047	0.172	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1003	797	23.5	60.3

	Hardness "HB"
Required	max 321
Actual	301;301;301

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 000003171182 Rev. 000 of 06 November 2024 - Page 13/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO32470300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=120

raccortubi Heat num. or Pcs. marking: F2329 - Qty:10,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	7	Item	140
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 5/8"-11 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
554325	20	P1680008	0001259779

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.450	0.740	0.220	0.014	0.029	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	278;297;292	246;234;246

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

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QUALITY DEPARTMENT PRESSBOLT S.r.l.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 200 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO32470300
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 5/8-" L=120

raccortubi Heat num. or Pcs. marking: F2329 - Qty:10,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	8	Item	150
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7

Item Description	Heat Treatment
STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0105 HOT DIP GALVANIZED ASTM A153 / F2329	QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
BC6380	30	P1694105	0001259780

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.430	0.760	0.210	0.008	0.024	1.020	0.170	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	982	803	23.3	61.7

	Hardness "HB"
Required	max 321
Actual	299;307;304

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.R.L.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 15/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO34450200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=105

raccortubi Heat num. or Pcs. marking: F2329 - Qty:30,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	8	Item	160
Job		Shipping ref.	3415931 of 05 November 2024

Standard

ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	60	P1679106	0001259781

Chemical Analysis "%"

	C	Mn	Si	P	S	
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05	
Actual	0.45	0.70	0.23	0.012	0.022	

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	291;298;310	230;231;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.p.A.

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 16/18

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 210 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB20BO34450200
Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=105

raccortubi Heat num. or Pcs. marking: F2329 - Qty:30,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

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Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	9	Item	170
Job		Shipping ref.	3415931 of 05 November 2024

Standard	
ASTM A193(M)-23 / ASME SA193(M) BPVC-IIA-2021 - B7	
Item Description STUDBOLT ASME B16.5 A/SA 193 B7 1/2"-13 UNCX0060 HOT DIP GALVANIZED ASTM A153 / F2329	Heat Treatment QUENCHED Min 830 C AND TEMPERED Min 593 C

Heat	Quantity	Lot	Job PB
111462	20	P1686993	0001259782

Chemical Analysis "%"

	C	Mn	Si	P	S	Cr	Mo	
Required	0.38-0.48	0.75 - 1	0.15-0.35	max 0.035	max 0.04	0.8 - 1.1	0.15-0.25	
Actual	0.42	0.79	0.23	0.01	0.025	1.05	0.17	

Tensile Test

	Rm "Mpa"	Rp02 "Mpa"	A "%"	Z "%"
Required	Min 860	Min 720	min 16	min 50
Actual	1049.7	977.6	22.2	56.5

	Hardness "HB"
Required	max 321
Actual	315;315;315

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

QUALITY DEPARTMENT PRESSBOLT S.p.A.

Davide Feggi
Laboratory manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB2WBO01960200
Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

Pressbolt s.r.l. con unico socio
Partita Iva 03231770136
Via dell'Artigianato, 12 - 22078 - Turate (CO)
Tel. +39 02 96.97.98.50 - Fax +39 02 96.97.98.29
email qualita@pressbolt.com

Messrs. RACCORTUBI S.p.A.
VIALE KENNEDY, 59
20010 - MARCALLO CON CASONE(MI)

Inspection Certificate EN 10204:2004 3.1

Number	Rev.	Date
3171182	0	06 November 2024

Client Reference Order		Reference Order	
Number	00006437 of 16 September 2024	Number	3405096
Reference			
Item	9	Item	180
Job		Shipping ref.	3415931 of 05 November 2024

Standard
ASTM A194(M)-22 / ASME SA194(M) BPVC-IIA-2021 - Gr.2H

Item Description	Heat Treatment
HEAVY HEX NUT H=d ASME B18.2.2. Tab 10 A/SA 194 2H 1/2"-13 UNC HOT DIP GALVANIZED ASTM A153 / F2329 O.S.#2	QUENCHED Min 820 AND TEMPERED Min 455 C

Heat	Quantity	Lot	Job PB
73178	40	P1679106	0001259783

Chemical Analysis "%"

	C	Mn	Si	P	S
Required	Min 0.4	Max 1	max 0.4	max 0.04	max 0.05
Actual	0.45	0.70	0.23	0.012	0.022

	Proof Load	Hardness "HB"	Hardness test after Termical Tr
Required	Positive	248 - 327	Min. 179
Actual	Positive	291;298;310	230;231;257

Mechanical tests are longitudinal performed at t/2 or t/4 as a function of specimen dimension

Macroetch Examination	Positive	Visual and dimensional Test	Positive

PED 2014/68/EU

The material was manufactured, tested and checked in accordance with the specifications and additional requirements of the Purchase Order or the Agreement
No weld repair has been performed on the material

Davide Feggi
Laboratory manager

Pressbolt s.r.l. con unico socio - Certificate N 0000003171182 Rev. 000 of 06 November 2024 - Page 18/18

Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 220 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SB2WBO01960200
Stud Bolt + 2 Heavy Nuts & Washers ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized 1/2-" L=60

raccortubi Heat num. or Pcs. marking: F2329 - Qty:20,00

Protocol: CTCERC202400010482 * CERTIFIED TRUE COPY
* Issued 15-11-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400971

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **15.11.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 08/11/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00009786
Packing list	PLPLIS202400009719
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00009786

08/11/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
90	2	GFL3GK13670H00 Gasket Flat Thk. 3 mm ASME B16.21 150LB FF GSK NITRILE RUBBER 1/2"	6436 CTCERT202400006917_1.0001.TIF CTCERT202400006917_1.0002.TIF
100	1	GSW0GK1130UQ00 Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/4"	6436 CTCERT202400006915_1.0001.TIF CTCERT202400006915_1.0002.TIF CTCERT202400006915_1.0003.TIF CTCERT202400006915_1.0004.TIF
230	1	SPIKNN00570300 Insulation Kit diam.3" 150LB RF	6436 CTCERT202400006916_1.0001.TIF CTCERT202400006916_1.0002.TIF CTCERT202400006916_2.0001.TIF CTCERT202400006916_2.0002.TIF
240	2	SPIKNN01240H00 Insulation Kit diam.1/2" 150LB FF	6436 CTCERT202400006916_1.0001.TIF CTCERT202400006916_1.0002.TIF CTCERT202400006916_2.0001.TIF CTCERT202400006916_2.0002.TIF
250	2	SPIKNN01253Q00 Insulation Kit diam.3/4" 150LB FF	6436 CTCERT202400006916_1.0001.TIF CTCERT202400006916_1.0002.TIF CTCERT202400006916_2.0001.TIF CTCERT202400006916_2.0002.TIF

raccortubi

00009786

08/11/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 08/11/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
90	NR	2	0.00	GFL3GK13670H00 Gasket Flat Thk. 3 mm ASME B16.21 150LB FF GSK NITRILE RUBBER 1/2"	6436
100	NR	1	0.00	GSW0GK1130UQ00 Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/4"	6436
230	NR	1	0.00	SPIKNN00570300 Insulation Kit diam.3" 150LB RF	6436
240	NR	2	0.00	SPIKNN01240H00 Insulation Kit diam.1/2" 150LB FF	6436
250	NR	2	0.00	SPIKNN01253Q00 Insulation Kit diam.3/4" 150LB FF	6436

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280-A
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

FLAT GASKET NBR RUBBER

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 90 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: GFL3GK13670H00
Gasket Flat Thk. 3 mm ASME B16.21 150LB FF GSK NITRILE RUBBER 1/2"

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
G.NE NBR 1/2" 150 SP.3MM FF DWG16 Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5685162 Fax 041.5952930
P.IVA 04156010271 - info@cfservice.eu

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 90 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: GFL3GK13670H00
Gasket Flat Thk. 3 mm ASME B16.21 150LB FF GSK NITRILE RUBBER 1/2"

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF®
CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 4920246632428O-B
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 3.1

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

Spiral Wound Gasket 316L/FG/IR_316L/OR_CS

Material Designations:

ASTM:	**A240 Tp.316L**
EN No:	**1.4404**
DIN:	**X2 CrNiMo17-13-2**
OTHERS:	

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
SWG 316L/FG/316L/CS 1"1/4 3/600 Code :	1,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: GSW0GK1130UQ00
Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/4"

raccortubi Heat num. or Pcs. marking: 6436 - Qty:1,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L windings.

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.030	2.00	0.045	0.015	1,00	18.00	14.00	2,50	0.10
min						16.00	10.00	2.00	
actual	0.024	1.26	0.035	0.002	0.43	16.71	10.04	2.03	0.027

Heat No: 339085

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %	Hardness HB
Min.485	Min.170	40	Max.160
615	265	52	138

Graphite filler

MECHANICAL PROPERTIES

ASTM F 152 N/mm²	ASTM C 695 N/mm²	ASTM F 36 %	Friction coeff ///
>4.5	170	>40	0.05 – 0.14

C (ASTM C 571) %	S (ASTM C 816) Ppm	Cl (ASTM D 512) ppm	F (ASTM D 3868) Ppm	Ash (ASTM C 561) %
>98	<1000	<50	<50	<0.5

Corrosion inhibitor: Zn <1%

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5681562 Fax 041.5952930
P.IVA 04155610271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 100 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: GSW0GK1130UQ00
Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 300LB RF GSK AISI 316 + GRAPHITE c/w INNER RING 1.1/4"

raccortubi Heat num. or Pcs. marking: 6436 - Qty:1,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

A240 Tp.316L ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Mo%	N%
max	0.03	2.00	0.045	0.030	0.75	18.00	14.00	3.00	0.10
min						16.00	10.00	2.00	
actual	0.024	1.28	0.022	0.006	0.54	16.53	10.57	2.03	0.033

Heat No: 5464

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yeld strength Rp 0.2 MPa	Elongation 50mm %	Hardness HV
Min.485	Min.170	Min.40	Max.210
614	312	46	160

Carbon Steel type EN 10111:2006 DD12 outer ring

CHEMICAL ANALISYS

Spec	C%	Mn%	P%	S%
max	0.10	0.45	0.024	0.035
min				
actual	0.08	0.384	0.010	0.010

Heat No: 380236

MECHANICAL PROPERTIES

Tensile strength Rm MPa	Yield strength Rp 0.2 MPa	Elongation 50mm %
Max.420	170 : 320	Min.30
409	308	32.4

Quality Assurance:

CF SERVICE

CF®
CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5952900 Fax 041.5952900
P.IVA 04150610271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 3" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	1,000
INSULATION KIT FLANGE TYPE E 1/2" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000
INSULATION KIT FLANGE TYPE E 3/4" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 02180010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN00570300
Insulation Kit diam.3" 150LB RF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:1,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF®
CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280-C
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INS.GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04366610271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS.GASKET CF3090 3" 150 THK.3MM TYPE F Code :	1,000
INS.GASKET CF3090 1/2"150 THK.3MM TYPE E Code :	2,000
INS.GASKET CF3090 3/4 150 THK.3MM TYPE E Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5568562 Fax 041.5952900
P.IVA 04158010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 230 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN00570300
Insulation Kit diam.3" 150LB RF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:1,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF®
CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01240H00
Insulation Kit diam.1/2" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 3" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	1,000
INSULATION KIT FLANGE TYPE E 1/2" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000
INSULATION KIT FLANGE TYPE E 3/4" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04159610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01240H00
Insulation Kit diam.1/2" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280-C
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INS.GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted.**
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS.GASKET CF3090 3" 150 THK.3MM TYPE F Code :	1,000
INS.GASKET CF3090 1/2"150 THK.3MM TYPE E Code :	2,000
INS.GASKET CF3090 3/4 150 THK.3MM TYPE E Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5681562 Fax 041.5952900
P.IVA 04150010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 240 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01240H00
Insulation Kit diam.1/2" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INSULATION KIT

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04159010271 - info@cfservice.srl

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INSULATION KITS FLANGE TYPE F 3" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	1,000
INSULATION KIT FLANGE TYPE E 1/2" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000
INSULATION KIT FLANGE TYPE E 3/4" 150 KIT MADE BY N 1 G10 INSULATING SLEEVE FOR EACH BOLT N 2 G10 INSULATING WASHERS FOR EACH BOLT N 2 METALLIC ZPS WASHERS FOR EACH BOLT Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5685682 Fax 041.5952900
P.IVA 03815610271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01253Q00
Insulation Kit diam.3/4" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

Material certificate No: 49202466324280-C
Invoice/ddt No: 4280
Invoice/ddt date: 18/10/2024

CERTIFICATE OF CONFORMITY EN 10204 2.2

Customer:
9012369
RACCORTUBI S.P.A.
Viale De Gasperi 194
20010 Marcallo con Casone
MI
IT

Customer references: Order No: **00006436**

Gasket description:

INS.GASKET CF3090

Material Designations:

ASTM:
EN No:
DIN:
OTHERS:

DECLARATION

We hereby certify that the above referenced good are brand new, manufactured with best checked at all stages for quality assurance purposes.
The goods were found to be compliant with current international quality Standards, as well as with End User quality requirements.
The goods were found to be compliant with quantity required, as well as with End User quality requirements.

Visual and dimensional checking: **accepted**.
Country of Origin of raw material: **European Community.**

The chemical and mechanical properties of the material supplied are in full compliance with **NACE MR-01-75 and NACE MR-01-03** (last edition).

We hereby, the undersigned Company declares that the products included in the above-mentioned delivery note are covered with a warranty of 18 months from date of delivery and 12 months from date of installation.

Our Management System is in compliance with EN ISO 9001:2015

Quality Assurance:

CF SERVICE
CF SERVICE s.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.4568562 Fax 041.5952900
P.IVA 04159010271 - info@cfservice.srl

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01253Q00
Insulation Kit diam.3/4" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

CF SERVICE s.r.l unipersonale
Via del vetro, 13 – 30020 MARCON (VE)
Tel. +39 041.45 68 562

DESCRIPTION	QUANTITY
INS.GASKET CF3090 3" 150 THK.3MM TYPE F Code :	1,000
INS.GASKET CF3090 1/2"150 THK.3MM TYPE E Code :	2,000
INS.GASKET CF3090 3/4 150 THK.3MM TYPE E Code :	2,000

Quality Assurance:

CF SERVICE
CF SERVICE S.r.l. Unipersonale
Via del Vetro, 13 - 30020 MARCON (VE)
Tel. 041.5682567 Fax 041.5952900
P.IVA 04136010271 - info@cfservice.net

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 250 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: SPIKNN01253Q00
Insulation Kit diam.3/4" 150LB FF

raccortubi Heat num. or Pcs. marking: 6436 - Qty:2,00

Protocol: CTCERC202400009786 * CERTIFIED TRUE COPY
* Issued 08-11-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400890

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 24.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 17/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00009048
Packing list	PLPLIS202400008996
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00009048

11/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002823

Ordine N. P.O. number: 1724001267 - 24.06.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
2	5	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4''	MA2	CTCERT202400006446_1.0001.TIF CTCERT202400006446_2.0001.TIF CTCERT202400006446_2.0002.TIF CTCERT202400006446_2.0003.TIF CTCERT202400006446_2.0004.TIF CTCERT202400006446_2.0005.TIF CTCERT202400006446_2.0006.TIF CTCERT202400006446_2.0007.TIF
25	5	Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4'' thk 2,87mm	TL6	CTCERT202400006448_1.0001.TIF CTCERT202400006448_2.0001.TIF CTCERT202400006448_2.0002.TIF CTCERT202400006448_2.0003.TIF CTCERT202400006448_2.0004.TIF CTCERT202400006448_2.0005.TIF CTCERT202400006448_2.0006.TIF CTCERT202400006448_2.0007.TIF

raccortubi

00009048

11/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 11/10/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI FORGIATI SEC. ASTM A-182 F55 UNS S32760 DIMS SEC. ANSI B16.11	
2	NR	5	0.00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4''	MA2
				NIPPLI DA TUBO ASTM/ASME A/SA-790 UNS S32760	
25	NR	5	0.00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4'' thk 2,87mm	TL6

Customer: ROSETTI MARINO S.p.A.
Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"
Heat num. or Pcs. marking: MA2 - Qty:5,00
Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY * Issued 17-10-2024
CTCERT202400006446.1.0001

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/003817

Certificate N°: 003817
Omsa Job: 2024/ODV/010393
Data/Date: 26/09/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	6	TAPPI FEMMINA 3000 3/4" NPT F55	SA-A182 F55	MA2	770071	COGNE	2017043119	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0140	0,5900	0,3500	0,0190	0,0008	6,8500	25,1200	3,6800	0,0000	0,0000	0,0000	0,5500	0,0000	0,2600	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	41,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
810	557	43,20	78,50				235	235	296	296	296	-50	SOLUTION ANN AT 110°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	5	N. TUBO 40 3/4"x4"(100mm) PE/NPT UNS S32760	UNS-S32760	TL6	56017	SCHOELLER BLECKMANN E. GmbH	723566	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0140	0,6300	0,3000	0,0280	0,0010	6,7700	25,9200	3,7700	0,0000	0,0000	0,0000	0,7400	0,0000	0,2680	0,0000	0,0600	0,0000	0,0000	0,0000	0,7500	0,0000	42,6500

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
928	716	35			OK		175	178					Solution annealed at 1120°C - water quenched.

RACCORDI SECONDO / FITTINGS IN ACC. TO

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

COGNE ACCIAI SPECIALI S.p.a.

ITALY - 11100 AOSTA - VIA PARAVERA, 16
TEL +39.0165.3021 - FAX +39.0165.302296
CAP. SOC. 100.000.000 EUR INT. VERS.
C.F. 02187360967
VAT: IT00571320076 - R.E.A. n. AO-50474

Company with management systems IGQ approved and certified according to ISO 9001, ISO/TS 16949 e ISO 14001.

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)

CUSTOMER:	OMSA SRL		
CUSTOMER'S ORDER:	94/142		
MANUFACTURER'S WORKS:	AOSTA, VIA PARAVERA 16 - ITALY		
PRODUCER OF THE DOC:	QUALITY DEPARTMENT		
MANUFACTURER'S WORKS ORDER NO: 1102647 /10	MARK OF THE MANUFACTURER:	**COGNE**	
DISPATCH NOTE:	81190376 /10	WEIGHT:	46,00
THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER			
INTERNAL SPEC:	NORSOKREV5	TECHNICAL RULE:	
PRODUCT:	47878 PEL PEELED	ROUND BARS TOLERANCE:	ISOK11
SURFACE FINISH:	2B Cold Finished		
PRODUCT DELIVERY CONDITION:	RS SOLUTION ANNEALED		
PRODUCT DIMENSIONS (mm):	40,000	LENGTH (mm)	04000 /06200
GRADE:	F55 UNSS32760 1.4501	INTERNAL GRADE:	329S
IDENTIFICATION HEAT NO:	770071	IDENTIFICATION LOT NO:	576470
MARKING OF THE PRODUCT:	1.4501	TEST PIECE N:	647

REFERENCE NORMS:EN 10088-3, EN 10272, ASTM A276/ASME SA276, ASTM A479/ASME SA479, ISO15156-3/NACE MR0175, NACE MR0103, API 6A-PSL3, NORSOK M-650 REV.4/M-630 MDS D57 REV.5 QTR04 (up to 101.6mm), QTR05 (101.61-250mm). REFERENCE NORMS ONLY FOR CHEMICAL COMPOSITION: EN 10222-5, ASTM A182/ASME SA182, ASTM A484
HEAT TREATMENT: SOLUBILIZATION 1100 ° C 1.5 min / mm COOLING WATER TEMPERATURE BELOW 260 °C (FURNACE THERMOCOUPLES)
ASTM G48 A/ASTM A923 C TESTING CONDITIONS: Sample surface 120 GRIT, Solution 100g FeCl3.6H2O+900ml H20, T 50°C, 24h, no pitting at 20X.
STEELMAKING EAF + AOD + CONTINUOUS CASTING
HOT ROLLED
REDUCTION RATIO 39,1

CHEM. COMP. (%W/W) - LADLE ANALYSIS ACCORDING TO ASTME1019-A751-E1086-E415-A580
Control lot No. - Weight :020000685670 - 81.533 KG

ELEMENTS	C	Si	Mn	P	S	N	Cr	Mo	Ni	Cu
OBTAINED	0,014	0,35	0,59	0,019	0,0008	0,26	25,12	3,68	6,85	0,55

ELEMENTS	W	CV_F8
OBTAINED	0,54	41

CV_F8 = CR+(3.3*MO)+(16*N2)

HARDNESS TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ENISO6506 HARDNESS TEST HB TESTING METHOD: 10/3000
OBTAINED 235

IMPACT TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION EN ISO 148-1-KV2 DIRECTION OF THE TEST PIECE: L
TYPE OF TEST PIECE KV
TEST TEMPERATURE °C 20
MEASUREMENT UNIT J
OBTAINED 298 297 298

OMSA s.r.l.
Prot. Nr. 9123 Codice colata 1647
Data 06/04/18 Quality Control Barbara Orlandi

CTCERT20240000446.2.0001

raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00

Customer: ROSETTI MARINO S.p.A.
Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"
Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002823

Protocol: CTCERC20240000948 * CERTIFIED TRUE COPY
* Issued 17-10-2024

COGNE ACCIAI SPECIALI S.p.a.

ITALY - 11100 AOSTA - VIA PARAVERA, 16
TEL. +39.0165.3021 - FAX +39.0165.302296
CAP. SOC. 100.000.000 EUR INT. VERS.
C.F. 02187360967
VAT: IT00571320076 - R.E.A. n. AO-50474

Company with management systems IGQ approved and certified according to ISO 9001, ISO/TS 16949 e ISO 14001.

CTCERT20240000644 6.2.0002

TENSILE TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTMA370-E8-0.5"SPEC DIRECTION OF THE TEST PIECE: L

	Rm	Rp02%	Z	Al2
MEASUREMENT UNIT	MPA	MPA	%	% 4,0 D
OBTAINED	810	557	78,5	43,2

CORROSION
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTM G48 A
OBTAINED 0,0138

FERRITE %
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTME562 --
OBTAINED 41,88

MICROSTRUCTURE
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION -- --
OBTAINED SATISFACTORY -

LATERAL EXPANSION
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTMA370 --
OBTAINED 2,5 2,6 2,5

SHEAR %
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTMA370 --
OBTAINED 100 100 100

HARDNESS TEST
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTMA370-E18 HARDNESS TEST HRC TESTING METHOD:
OBTAINED 24

amss s.r.l.
Prot. Nr. 9123 Codice colata TAZ
Data 26/04/18 Quality Control
Barbara Orlandi

raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00
Customer: ROSETTI MARINO S.p.A.
Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"
Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000282
Protocol: CTCERC20240000948 * CERTIFIED TRUE COPY
* Issued 17-10-2024

COGNE ACCIAI SPECIALI S.p.a.
ITALY - 11100 AOSTA - VIA PARAVERA, 16
TEL. +39.0165.3021 - FAX +39.0165.302296
CAP. SOC. 100.000.000 EUR INT. VERS.
C.F. 02187360967
VAT: IT00571320076 - R.E.A. n. AO-50474

Company with management systems IGQ approved and certified according to ISO 9001, ISO/TS 16949 e ISO 14001.

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
DOCUMENT NUMBER 2017043119

IMPACT TEST
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION ASTM A370-E23 TYPE A DIRECTION OF THE TEST PIECE: L

TYPE OF TEST PIECE	KV		
TEST TEMPERATURE °C		50-	
MEASUREMENT UNIT	J		
OBTAINED	296 296	296	

TENSILE TEST
Control lot No. - Weight :020000690464 - 1.780 KG
SPECIFICATION EN-ISO6892-1 DIRECTION OF THE TEST PIECE: L

	Rm_C	Rp02_C	A	Z_C
MEASUREMENT UNIT	MPA	MPA	% 5.0 D	%
OBTAINED	818	552	39,0	78,1

STEELMAKING EAF + AOD + CONTINUOUS CASTING
HOT ROLLED
METALLOGRAPHIC INSPECTION ACCORDING TO ASTM A923 METHOD A: SATISFACTORY.
IMPACT TEST VALUES AT -46°C ARE NOT LESS THAN THOSE AT -50°C HERE STATED.
QTC ON PROLONGATION OF BARS TESTS AT MID RADIUS (CENTER POS. FOR SIZES <2 INCHES).
ASTM A484 DOES NOT APPLY FOR SIZE AND LENGTH TOLERANCES.
MARKING: PRODUCER LOGO, MATERIAL NO, HEAT NO, LOT NR.
ALL THE NORMS MENTIONED ARE INTENDED IN THEIR LAST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.
COUNTRY OF ORIGIN: ITALY, THE MATERIAL COMPLIES WITH FAR DFARS
252.225-7009 ALT 1.
THE PRODUCT SATISFIES CE DIRECTIVES: 2011/65 (ROHS2) - 2000/53 - 2002/95(RoHS) - 2003/11 - 2005/618 AND PED 2014/68/EU.
THE MATERIAL IS FREE OF ANY MERCURY, MERCURY COMPOUNDS AND OR RADIUM CONTAMINATION AT TIME OF SHIPMENT AND WAS PRODUCED WITHOUT USING OZONE DEPLETING SUBSTANCES OF CLASS I AND II.
VISUAL SURFACE INSPECTION AND EDDY CURRENT WITH ROTATING HEAD ACCORDING TO EN 10277-1 Class 4 : SATISFACTORY . DIMENSIONAL TEST ACCORDING TO EN 10278 : SATISFACTORY . ULTRASONIC TEST IN ACCORDING TO EN 10308 , Class 3 : SATISFACTORY . ANTIMIX SPECTROMETER CONTROL WITH PORTABLE PRODUCT : SATISFACTORY . NOT BEEN MADE BY ANY REPAIR MATERIAL WELDING
CORROSION TEST ACCORDING TO ASTM A262 Method E EN ISO 3651-2: SATISFACTORY. NO CRACKS AT 20X MAGNIFICATION

OMSS s.r.l.
Prot. Nr. 9123 Codice colata 17A3
Data 05/04/18 Quality Control
Barbara Orlandi

DATE 31.08.2017

ANTONIO CARMELO CREA FC(QUALITY CERTIFICATOR) - ELECTRONICALLY GENERATED CERTIFICATE -Cogne

Customer: ROSETTI MARINO S.p.A.
Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"
Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00
Protocol: CTCERC20240009048 * CERTIFIED TRUE COPY * Issued 17-10-2024
CTCERT20240000644 6.2.0003

COGNE ACCIAI SPECIALI S.p.a.
Via Paravera, 16
I-11100 AOSTA

MICROPHOTO
МИКРОСЪЁМКА

All.N 1

MARCA *NUANCES* *WERKESTOFF* *GRADE* *МАРКА*	329S	*LOTTO DI CONTROLLO* *LOT DE CONTRÔLE* *LAUFKARTE* *CONTROL LOT* *ПАРТИЯ КОНТРОЛЯ*	020000690464
COLATA *COULEE* *SCHMELZE* *HEAT* *ПЛАВКА*	770071	*REAGENTE* *RÉACTIF* *REAGENS* *ETCHANT* *РЕАГЕНТ*	20 % NaOH electrolyte
TIPO DI APPARECCHIO *TIPE D'APPAREIL* *PRUEFGERAT TYP* *INSTRUMENT TYPE* *ТИП АППАРАТА*		**MICROSCOPE – LEICA** **MEF4M МИКРОСКОП**	
INGRANDIMENTO *AGRANDISSEMENT* *VERGRÖSSERUNG* *ENLARGEMENT* *УВЕЛИЧЕНИЕ*		**400 X**	

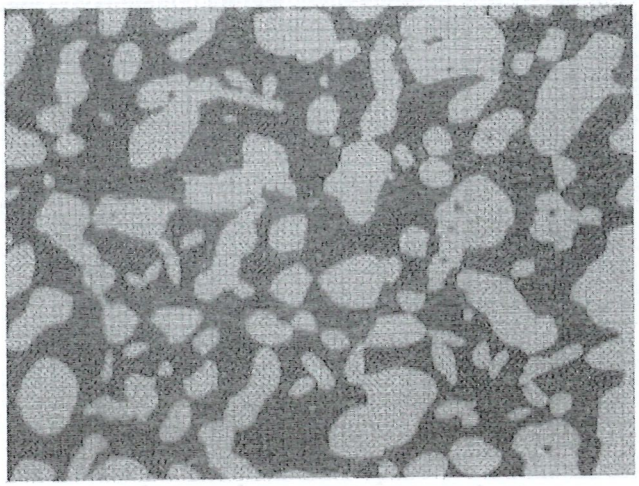
DIREZIONE D'ESAME
DIRECTION D'EXAMEN
PRUEFRICHTUNG
SCANNING DIRECTION
НАПРАВЛЕНИЕ
ПРИ ИССЛЕДОВАНИИ

☐ **LONGITUDINALE - LONGITUDINAL - ПРОДОЛЬНОЕ**

☒ **TRASVERSALE – TRANSVERSAL – KREUZEND-ПОПЕРЕЧНОЕ**

Prot. Nr. 9123 Codice colata ... Data 06/04/17 Quality Control Barbara Briandi

PHOTO (ELECTRONIC IMAGE) – ФОТОСНИМКИ (ЭЛЕКТРОННОЕ ИЗОБРАЖЕНИЕ)



NOTE:
ПРИМЕЧАНИЯ:
"Free from Intermetallic Phases"

FIRMA / UNTERSCHRIFT / SIGNATURE / ПОДПИСЬ	DATA / DATUM / DATE / ДАТА
Christian Del Guerra	24/06/17

Mod.Micro Rev.4

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"

raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

COGNE ACCIAI SPECIALI S.p.a.
Via Paravera, 16
I-11100 AOSTA

MICROPHOTO
МИКРОСЪЁМКА

All.N 2

MARCA *NUANCES* *WERKESTOFF* *GRADE* *МАРКА*	329S	*LOTTO DI CONTROLLO* *LOT DE CONTRÔLE* *LAUFKARTE* *CONTROL LOT* *ПАРТИЯ КОНТРОЛЯ*	020000690464
COLATA *COULEE* *SCHMELZE* *HEAT* *ПЛАВКА*	770071	*REAGENTE* *RÉACTIF* *REAGENS* *ETCHANT* *РЕАГЕНТ*	20 % NaOH electrolyte
TIPO DI APPARECCHIO *TIPE D'APPAREIL* *PRUEFGERAT TYP* *INSTRUMENT TYPE* *ТИП АППАРАТА*	**MICROSCOPE – LEICA** **MEF4M МИКРОСКОП**		
INGRANDIMENTO *AGRANDISSEMENT* *VERGRÖSSERUNG* *ENLARGEMENT* *УВЕЛИЧЕНИЕ*	**500 X**		

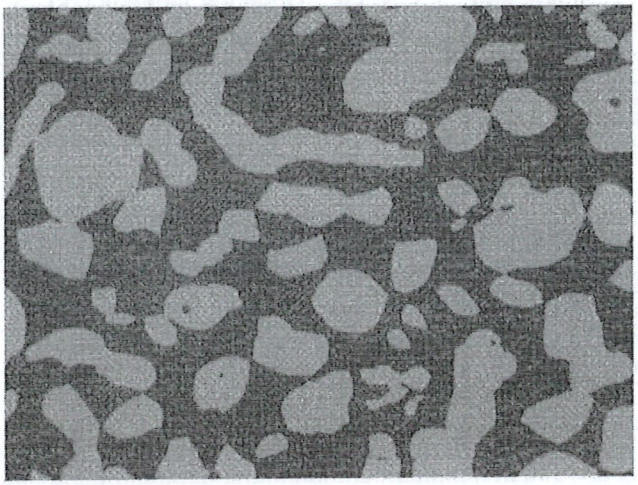
DIREZIONE D'ESAME
DIRECTION D'EXAMEN
PRUEFRICHTUNG
SCANNING DIRECTION
НАПРАВЛЕНИЕ
ПРИ ИССЛЕДОВАНИИ

☐ LONGITUDINALE - LONGITUDINAL - ПРОДОЛЬНОЕ

☒ TRASVERSALE – TRANSVERSAL – KREUZEND-ПОПЕРЕЧНОЕ

cmse s.r.l. Codice colata 1423 Quality Control Barbara Orlandi Prot. Nr. 9173 Data 06/04/18

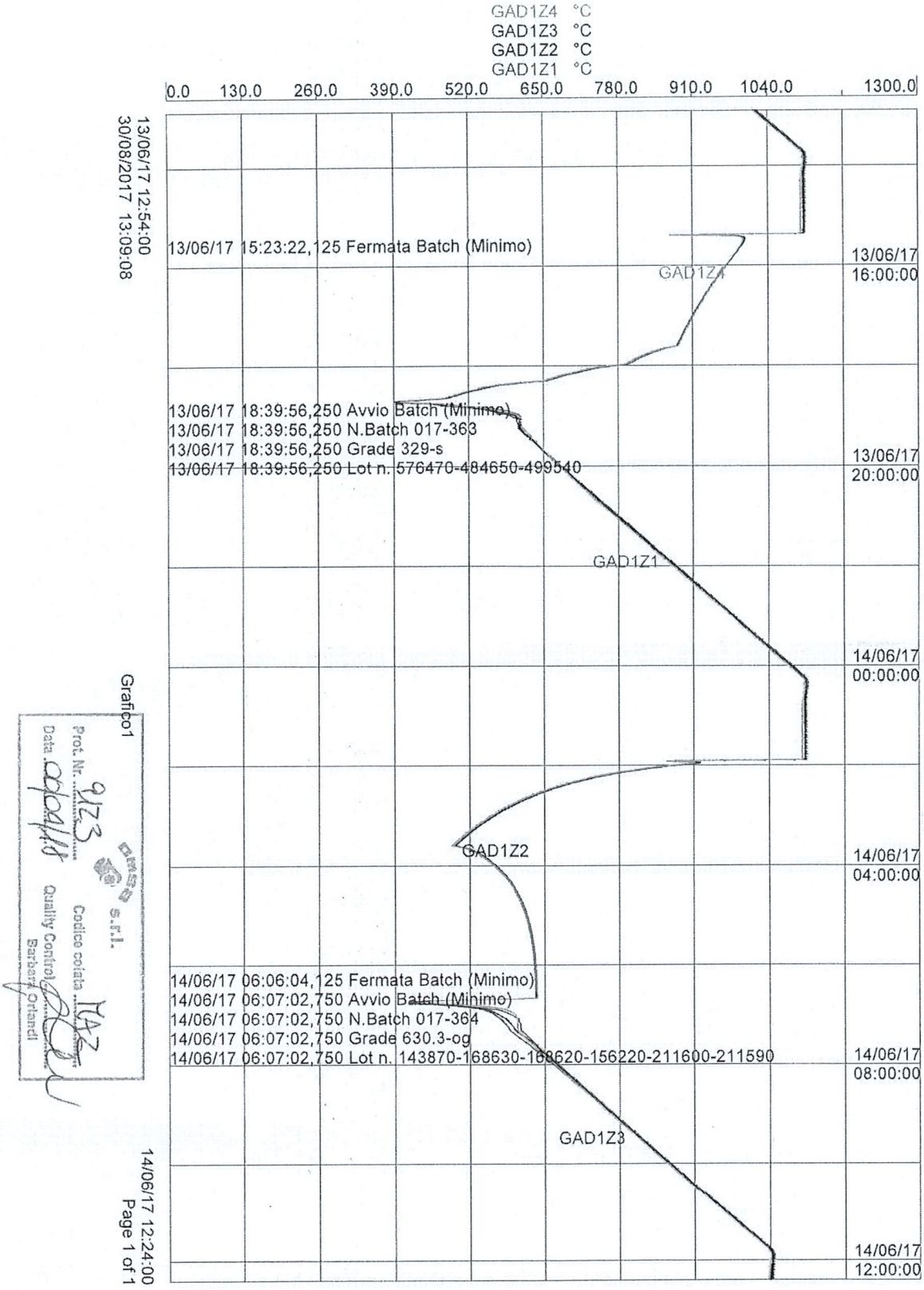
PHOTO (ELECTRONIC IMAGE) – ФОТОСНИМКИ (ЭЛЕКТРОННОЕ ИЗОБРАЖЕНИЕ)



NOTE:
ПРИМЕЧАНИЯ:
"Free from Intermetallic Phases"

FIRMA / SIGNATURE / ПОДПИСЬ UNTERSCHRIFT	DATA / DATE / ДАТА DATUM
Christian Del Guerra	24/06/17

Mod.Micro Rev.4



Prot. Nr. 923
Data 20/04/18
s.r.l.
Codice colata MA2
Quality Control
Barbara Orlandi

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"

raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

N.US.1024/17

COGNE ACCIAI SPECIALI S.p.a

CERTIFICATO DI COLLAUDO ULTRASUONI
CERTIFICAT DE CONTROLE PAR ULTRASONS
ULTRASCHALL PRUEFZEUGNIS
REPORT OF ULTRASONIC INSPECTION
ОТЧЕТ ОБ УЛЬТРАЗВУКОВОМ КОНТРОЛЕ

CLIENTE / CLIENTSGG / BESTELLER / CUSTOMER / ЗАКАЗЧИК		CONFERMA / CONFIRMATION / AUFTRAGSBESTRAKTIGUNG / CONFIRMATION / ПОДТВЕРЖД. ЗАКАЗА	
MARCA / NUANCES / WERKESTOFF / GRADE / МАРКА	329S W.No 1.4501	ORDINE / COMMANDE / AUFTRAG / ORDER / ЗАКАЗ	
SPECIFICA / SPECIFICATION / PRUKEVORSCHRIFT / SPECIFICATION / ТЕХ. ТРЕБОВАНИЯ	EN 10308 Cl 3	COLATA / COULEE / SCHMELZE / HEAT / ПЛАВКА	770071
		SCHEDA / LOT / LAUFKARTE / LOT / ПАРТИЯ	576470
PRODOTTO / PRODUIT / ERZEUGNISFORM / PRODUCT / ИЗДЕЛИЕ	Bars Ø 40 mm	STATO DI LAVORAZIONE / STADE DU PRODUIT / LIEFERZUSTAND / WORKING STEP / ОБРАБОТКА	PEELED SOLUTION TREATED
TIPO DI APPARECCHIO / TIPE D'APPAREILPARUS / PRUEFGERAT TYP / INSTRUMENT TYPE / ТИП АППАРАТА	USN 58 L s/n 020N8M	COSTRUTTORE / CONSTRUCTEUR / BAUART / MAKE / ИЗГОТОВИТЕЛЬ	Krautkramer
TIPO DI SONDA / TIPE DE PALPEUR / PRUFKOPT / PROBETYPE / ТИП ЗОНДА	MSEB4S	FREQUENZA / FREQUENCE / FREQUENZ / FREQUENCY / ЧАСТОТА	4 MHz

DIREZIONE D'ESAME / DIRECTION D'EXAMEN / PRUEFRICHTUNG / SCANNING DIRECTION / НАПРАВЛЕНИЕ ПРИ ИСПЫТАНИИ

☒ RADIALE - RADIAL

☐ ASSIALE – AXIAL – AXIAL-(ANGLE)

☐ CIRCONFERENZIALE –CIRCOFERENTIAL – KREISLINIE – CIRCUMFERENTIAL

☐ MATRICOLA BLOCCO CAMPIONE / DENTIFICATION BLOC DE REFERENCE MUSTER BLOCK / MUSTER BLOCK / TEST BLOCK NR / № ОБРАЗЦА ДЛЯ ИСПЫТАНИЯ

☐ AVG SCALE / ECRANS ABAQUES AVG / AVG SKALEN / AVG SCALE / ШКАЛА AVG

☒ AVG DIAGRAMMI / DIAGRAMMES AVG / AVG DIAGRAMM / AVG DIAGRAM / ДИАГРАММЫ AVG

☒ V1 ☐ V2

RISULTATO DELL'ESAME / RESULTAT DE L' ESSAI / PRUEFERGERBNISSE / RESULT OF THE TEST / РЕЗУЛЬТАТ ИСПЫТАНИЯ

EXAM DATA:24/08/2017

INSPECTED NO 18 BARS

THE MATERIAL IS IN ACCORDANCE TO THE FOLLOWING SPECIFICATIONS:

EN 10308 Cl 3

L'ISPETTORE CND / L'INSPECTEUR CND / ИНСПЕКТОР НРК	III LIV.CND / III УРОВЕНЬ НРК		DATA / DATE / ДАТА DATUM / DATE
BAISOTTI MARCO Liv.II-ISO9712 N° Cert.20741/PND/C	OLIVERO DIMITRI Liv.III - EN473 N° Cert.23340/PND/C		30/08/2017

(Mod. Certus Rev. 4)

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 2 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F55 3/4"

raccortubi Heat num. or Pcs. marking: MA2 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

raccortubi

Customer: ROSETTI MARINO S.p.A.

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

Heat num. or Pcs. marking: TL6 - Qty:5,00

Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002823

Protocol: CTCERC20240000948 * CERTIFIED TRUE COPY * Issued 17-10-2024

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/003817

Certificate N°: 003817
Omsa Job: 2024/ODV/010393
Data/Date: 26/09/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	6	TAPPI FEMMINA 3000 3/4" NPT F55	SA-A182 F55	MA2	770071	COGNE	2017043119	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0140	0,5900	0,3500	0,0190	0,0008	6,8500	25,1200	3,6800	0,0000	0,0000	0,0000	0,5500	0,0000	0,2600	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	41,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
810	557	43,20	78,50				235	235	296	296	296	-50	SOLUTION ANN AT 110°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	5	N. TUBO 40 3/4"x4"(100mm) PE/NPT UNS S32760	UNS-S32760	TL6	56017	SCHOELLER BLECKMANN E. GmbH	723566	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0140	0,6300	0,3000	0,0280	0,0010	6,7700	25,9200	3,7700	0,0000	0,0000	0,0000	0,7400	0,0000	0,2680	0,0000	0,0600	0,0000	0,0000	0,0000	0,7500	0,0000	42,6500

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
928	716	35			OK		175	178					Solution annealed at 1120°C - water quenched.

RACCORDI SECONDO / FITTINGS IN ACC. TO

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

SCHOELLER BLECKMANN TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 723566 Page: 1 / 6	Rev:
Created on: Date: 17.12.2020	Modified on: 17.12.2020

SCHOELLER-BLECKMANN Edelstahlrohr GmbH
2630 Ternitz, Rohrstrasse 1
Austria

TL: +43 2630 316-810
FAX: +43 2630 316-894
E-MAIL: wolfgang.hecher@sber.co.at

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT

TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO
ESPAÑA

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:00000139 S
SOLD ORDER REF.:375848
COPY NUMBER: 008

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I008301

SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

Riegler

FR. N. RIEGLER
(WORKS INSPECTOR)

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

raccortubi Heat num. or Pcs. marking: TL6 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

SCHOELLER BLECKMANN
TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 723566 Page: 2 / 6	Rev:
Created on: Date: 17.12.2020	Modified on: 17.12.2020

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE

HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)

GRADE / ACERO / GRADE / WERKSTOFF: 1.4501,S32760,

STANDARD / NORMA / STANDARD / LIEFERUNG NACH: EN 10216-5:2013 TC2

EN 10297-2:2005

NORSOK M650

NORSOK M630 REV.6 MDS D51 REV.5

ASME SECT.II PART.A SA790/SA790M-2019 ED.

ASTM A790/A790M-20

RTX_D51S REV.4

CHECK ANALYSIS

CORROSION TESTED ACC. TO ASTM A262 PRACTICE E

CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C

CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A

CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B

SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)

QAD 68 REV.0

SHELL MESC SPE 74/014 FEBRUARY 2019 EXCEPT:

NO LIQUID PENETRANT TEST (POINT 14.12.1),

TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.

ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.

IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.

ANSI/NACE MR0103/ISO 17945:2015

ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213

ANSI/NACE MR0175/ISO15156-3:2015

HYDROTEST

TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASTM A999/A999M-18

EN ISO 1127/03.97 D3/T3

ASME SECT.II PART.A SA999/SA999M-2019 ED.

RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 5.000/7.000 MM

PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,

DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 26,67 X 2,87 MM / 3/4 " SCH 40S

COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item Pos Ped. AuftrgPos Usine Pos	Client Item Pos Clnt Kunde Pos Com. Pos	Delivery No Nº Entrega Lieferung Avis. d'exp	Lot No. Nº lote Los Nr. Lot d`inspection	Heat No Colada Schmelze Coulée	Pieces Piezas Stück Pcs	Weight Peso Gewicht Poids	Tot Lgth Long. Tot Gesamtlänge Tolength	Un Lgth Long. Un Längentyp Long. Un
10		8170090068	283112	56017	6	57 KG	33,59 M	5000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr:	Supplier	Method
56017	ACERALAVA (SPAIN)	Electric furnace+AOD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH

Riegler

FR. N. RIEGLER
(WORKS INSPECTOR)

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

raccortubi Heat num. or Pcs. marking: TL6 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

SCHOELLER BLECKMANN TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 723566 Page: 3 / 6	Rev:
Created on: Date: 17.12.2020	Modified on: 17.12.2020

CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Cu	W
L	56017	1	0,010	0,66	0,230	0,023	0,0004	6,91	25,70	3,65	0,65	0,680
C	56017	13	0,014	0,63	0,300	0,028	0,0010	6,77	25,92	3,77	0,74	0,750
C	56017	14	0,013	0,63	0,300	0,027	0,0010	6,74	25,98	3,79	0,73	0,750

*	Heat	Seq	Co	N	Pren
L	56017	1	0,060	0,2557	41,8362
C	56017	13	0,060	0,2680	42,6500
C	56017	14	0,060	0,2690	42,7900

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1120 °C , 10 min , Agua
SOLUTION ANNEALED AT 1120 °C , 10 min , WATER
HYPERTREMPES 1120 °C , 10 min , L' EAU
LOESUNGSGEGLUEHT 1120 °C , 10 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*
Min		*20*	*550*	*640*	*800*	*25*	
Max		*20*					
283112	1	20	716	765	928	35	29
	2	20	710	750	916	32	26

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No	Sample	HRC (O)	HRC (M)	HRC (I)
Min				
Max		*32*	*32*	*32*
283112	1	24	24	25
	2	24	24	24
	3	23	24	23
	4	25	24	23

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E:
SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262
PRACT.E: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT

INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B:
SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B:
SATISFACTORIO

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

Riegler

FR. N. RIEGLER

(WORKS INSPECTOR)

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

raccortubi

Heat num. or Pcs. marking: TL6 - Qty:5,00

Protocol: CTCERC202400009048 * CERTIFIED TRUE COPY
* Issued 17-10-2024

SCHOELLER BLECKMANN TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 723566 Page: 4 / 6	Rev:
Created on: Date: 17.12.2020	Modified on: 17.12.2020

BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2
MET."B": IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT

PITTING CORROSION TEST ACCORDING TO ASTM G48 METHOD A
TEST TEMPERATURE 50°C TEST DURATION: 24 HRS
NO SIGNS OF PITTING ARE PRESENT. WEIGHT LOSS: 0,3888g/m2

CORROSION TEST ACC. TO ASTM A923 METHOD C (AT 50 °C DURING 24 H)
NO SIGNS OF PITTING ARE PRESENT. WEIGHT LOSS: : 3,8880 : MDD

ETCH TEST ACC. TO ASTM A923 METH.A: UNAFFECTED STRUCTURE

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS

100% ULTRASONIC TEST ACC. TO ASTM A999/A999M/ASTM E213: SATISFACTORY

POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY
"X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE
"ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR
"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 172 bar, 2500 PSI DURING 5 SEC
ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 172 bar, 2500 PSI DURANTE 5 SEC
EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 172 bar, 2500 PSI HALTEZEIT 5 SEC
JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 172 bar, 2500 PSI PENDANT 5 SEC
SUR CHAQUE TUBE: SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS

FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

TÜV SÜD

Certified Management System acc. to ISO 9001, ISO 14001 and ISO 45001 by LRQA

SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

Riegler

FR. N. RIEGLER

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Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

raccortubi Heat num. or Pcs. marking: TL6 - Qty:5,00

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TUBACEX GROUP

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Number: 723566 Page: 5 / 6	Rev:
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THE TUBES/PIPES CONFORM ALSO TO
ANSI/NACE MR0103/ISO 17495:2015
ANSI/NACE MR0175/ISO15156-3:2015

BESICHTIGUNG UND NACHMESSUNG: IN ORDNUNG
INSPECTION AND CHECKING OF DIMENSIONS: SATISFACTORY
INSPECTION ET CONTROL DES DIMENSIONS: SATISFAISANT

GEFÜGEKONTROLLE: SIEHE ANLIEGENDEN REPORT
FOR MICROGRAPHIC EXAMINATION SEE ENCLOSED REPORT

QUALIFIED ACCORDING TO NORSOK M650 / QTR 005 / QTR 006 FOR
COLD PILGERED/COLD DRAWN PRODUCTS

DIE WERKSTOFFWERTE ENSPRECHEN PUNKT 7.5 DER DRUCKGERÄTERICHTLINIE 2014/68/EU, ANHANG 1, MIT EINER BRUCHDEHNUNG VON MINDESTENS 14 % IM ZUGVERSUCH UND EINER KERBSCHLAGARBEIT VON MINDESTENS 27 J AN EINER ISO-V-KERBSCHLAGPROBE BEI 20° C.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14 % AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27 J AT 20°C.

MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

SCHOELLER BLECKMANN / TUBACEX GROUP - SBS 26,67 X 2,87 MM / 3/4 " SCH 40S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 1.4501 S32760 CFD CDSMLS HEAT/ PMI-AV LOT NO/ MADE IN AUSTRIA T/A ZFP

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

MECHANICAL TESTS WERE PERFORMED IN LONGITUDINAL DIRECTION IF NOT OTHERWISE STATED.

REALIZADOS TEST MECÁNICOS EN DIRECCIÓN LONGITUDINAL SI NO HAY OTRAS INSTRUCCIONES.

DIE MECHANISCHEN PRÜFUNGEN WURDEN, SOWEIT NICHT ANDERS ANGEGEBEN, IN LÄNGSRICHTUNG DURCHGEFÜHRT.

LES ESSAIS MÉCHANIQUES ONT ÉTÉ FAITS, SI PAS SPÉCIFIÉ, EN DIRECTION LONGITUDINALE.

NO WELD REPAIR HAS BEEN PERFORMED ON THE MATERIAL.

SIN REPARACION POR SOLDADURA

TÜV SÜD

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SCHOELLER-BLECKMANN EDELSTAHLROHR GMBH

Riegler

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REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

AM MATERIAL WURDE NICHT GESCHWEISST.

SANS RÉPARATION AVEC SOUDURE

MATERIAL MANUFACTURER APPROVED WITH CERTIFICATE NR. 245/2004/MUC BY TÜV SÜDDEUTSCHLAND (NOTIFIED BODY 0036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.

FABRICANTE DE MATERIALES APROBADO CON CERTIFICADO Nº 245/2004/MUC EMITIDOPOR TUV SUDDEUTSCHLAND (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO DE LA DIRECTIVA DE EQUIPOS A PRESION 2014/68/EU.

WERKSTOFFHERSTELLER MIT BERECHTIGUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. ZERTIFIKAT NR. 245/2004/MUC DER BENANNTEN STELLE NR.0036, TÜV SÜDDEUTSCHLAND

PRODUCTEUR DU MATERIEL APPROUVE SOUS CERTIFICATION Nº 245/2004/MUC PAR TUV SUDDEUTSCHLAND (N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU.

MATERIAL IS FREE OF RADIOACTIVE CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IST FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

TÜV SÜD

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Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

raccortubi

Heat num. or Pcs. marking: TL6 - Qty:5,00

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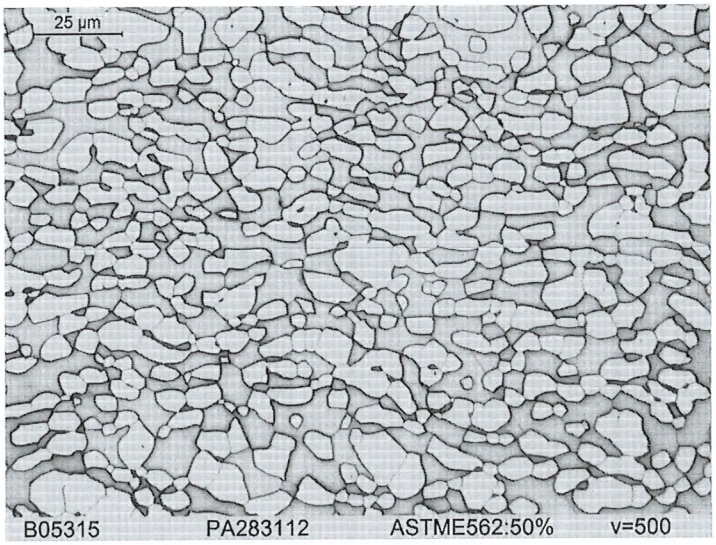
SCHOELLER BLECKMANN EDELSTAHLROHR / TUBACEX GROUP	Anlage zu **ABNAHMEPRÜFZEUGNIS** EN 10204 3.1 Annex to **INSPECTION CERTIFICATE** EN 10204 3.1	Zertifikat Nr. Certificate No. **723566**
		Rev.: 00
		Date: 17.12.2020

MICROGRAPHIC EXAMINATION REPORT

WORK ORDER NO.: I008301 / 10

MICROSTRUCTURE: UNIFORM STRUCTURE ACROSS FULL WALLTHICKNESS,
FREE FROM CARBIDES, NITRIDES AND INTERMETALLIC PHASES.

FERRITE CONTENT TO ASTM E562: 50%



SCHOELLER-BLECKMANN EDELSTAHLROHR GmbH
Rohrstraße 1
2630 Ternitz, AUSTRIA

TL.: +43 2630 316 601
FAX: +43 2630 316 894
E-MAIL: **qualitysber@sber.co.at**

Zeichen des Prüfers
Symbol of Inspector

Riegler
Nicole Riegler
Der Werkssachverständige
Works Inspector

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 25 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Nipple L=100mm ASME B36.19M THRD-M NPT x PE SML ASTM A790 UNS S32760 3/4" thk 2,87mm

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* Issued 17-10-2024

Attachment

to ISO 9001:2015 certificate of approval No ISO 9001 – 0030001 dated 22 December 2021, expiring on 19 January 2025 issued to:

O.M.S.A. S.r.l.

Via per Caronno Varesino, 21048 Solbiate Arno - VA, Italy

The Quality Management System supports the requirements of Annex I, chapt. 4.3 of

DIRETTIVE 2014/68/EU

Approval Number(s): 0030001 – PED

The application of the requirements of 2014/68/EU Directive, attachment I, chapt 4.3 is referred to the manufacturing of:

Fittings (from 3000lbs to 9000lbs and schedule 40 to schedule XXS)

made in:

Carbon Steel (ASME A105, A106/B, A106/C, A234WPB; ASME A350LF2, A333/6, A420WPL6, A350LF1, A333/1, A350LF3; API5L/B; ST33.32; NACE MR0175/ISO 15156-3; SA/A694 F52; SA A694 F60; SA/A694 F65).

Austenitic Stainless Steel (ASME A182F304, A182F304L, A182F304H; ASME A182F316, A182F316L; ASME A182F321, A182F321H; ASME A182F310; ASME A182F347; ASME A182F44 (UNS-S31254); ASME A312TP304, A312TP304L; ASME A312TP316, A312TP316L; ASME A312TP321; ASME A312TP310; ASME A312TP347; NACE MR0175/ ISO 15156-3);

Low-Alloy Steel (ASME A182F1, ASME A182F5; ASME A182F9; ASME A182F11; ASME A182F22; ASME A182F91; NACE MR0175/ISO 15156-3);

Ferritic Alloy-Steel (ASME A335P1; ASME A335P5; ASME A335P9; ASME A335P11; ASME A335P12; ASME A335P22; ASME A335P91; NACE MR0175/ISO 15156-3);

Ferritic-Austenitic Stainless Steel (Duplex and Superduplex) (ASME A182F51 (UNS-S31803); ASME A182F52 (UNS-S32950); ASME A182F53 (UNS-S32750); ASME A182F55 (UNS-S32760); NACE MR0175/ISO 15156-3);

Martensitic Stainless Steel (ASME A182F6A; NACE MR0175/ISO 15156-3);

Alloy (Alloy20 (UNS-N08020); Alloy400 (UNS-N04400); NACE MR0175/ISO 15156-3).

Paul Graaf

Area Operations Manager, Europe

Issued by: LRQA ITALY S.R.L.

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Issued by: LRQA ITALY S.R.L., Viale Monza, 265 20126 Milano Italy

ITALTEST NDT CONTROLLI E COLLAUDI INDUSTRIALI SETTIMO MILANESE – LEGNANO (MI) www.italtest.it	RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI LIQUID PENETRANT TEST REPORT	5 dal 1965 CERT. ISO 9001 LRC0100763/QMS	N° 4.265 / 2024 PAGINA DI PAGINE Page 1 of 2 Pages

CLIENTE Customer RACCORTUBI S.p.A.	ORDINE Order 1724001267 – 24.06.24	COMMESSA Job 00002823

OGGETTO
Object SEE PAGE 2

SPECIFICA GENERALE General specification	PIANO DI CONTROLLO Control Plan	FASE Phase	CRITERIO D'ACCETTAZIONE Acceptance Standards
ASTM E 165			ASME VIII DIV.1 APP.8
PROCEDURA Procedure	MATERIALE Material	DISEGNO FIG. Drawing Fig.	% CONTROLLATA Extent %
	SEE PAGE 2		100% SURFACE

CONDIZIONE SUPERFICE Surface Conditions	SALDATO As Welded	MOLATO Ground	LAVORATO Machined	FORGIATO As Forged X	FUSO As Cast

STATO DEL MATERIALE Material Status	PRIMA DEL T.T. Before Heat Treatment	DOPO T.T. After Heat Treatment	DOPO RIPARAZIONE After Repair

DATI DELLA PROVA
Test Data

METODO DI PULIZIA
Precleaning Method SOLVENT AND PAPER

TECNICA Technique	CONTRASTO DI COLORE Color Contrasting X	FLUORESCENTE Fluorescent
	ILLUMINAZIONE White Light Intensity 1200 lx	ILLUMINAZIONE Black Light Intensity

METODO DI ISPEZIONE Liquid Penetrant Inspection Method	MARCA Brand N.D.T.		PENETRANTE Penetrant	SPRAY Spray X	LOTTO Batch 210115Ps	SCADENZA Expiry 02/2025
	TIPO Type	LAVABILE IN ACQUA Water Washable X		PENNELLO Brush	LOTTO Batch	SCADENZA Expiry
		POST EMULSIONABILE Post Emulsifiable	RIVELATORE Developer	SECCO Dry	LOTTO Batch	SCADENZA Expiry
		RIMOVIBILE CON SOLVENTE Solvent Removable		UMIDO Wet X	LOTTO Batch 230206W150s	SCADENZA Expiry 01/2027

TEMPO DI PENETRAZIONE Dwell Time 20 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER
TEMPO DI SVILUPPO Developing Time 10 MINUTE	METODO DI PULIZIA Cleaning Method WATER AND PAPER

RISULTATI DELLA PROVA
Test Results

SENZA DIFETTI No Defects X	DIFETTI ACCETTABILI Acceptable Defects	DIFETTI NON ACCETTABILI Unaccepptable Defects

OSSERVAZIONI O DESCRIZIONE DELLE INDICAZIONI
Description Of Defects, Size And Location

RISULTATI Results	CONFORME ALLA SPECIFICA According To Specification X	NON CONFORME ALLA SPECIFICA Not According To Specification	SCARTO Scrap

NOTE
Notes

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA Date 21 / 10 / 2024	DATA Date	DATA Date

ITALTEST NDT

CONTROLLI E COLLAUDI INDUSTRIALI

SETTIMO MILANESE – LEGNANO (MI) www.italtest.it

RAPPORTO DI CONTROLLO CON LIQUIDI PENETRANTI

LIQUID PENETRANT TEST REPORT

dal 1965

CERT. ISO 9001 LRC0100763/QMS

N° 4.265 / 2024

PAGINA DI PAGINE
Page 2 of 2 Pages

CLIENTE Customer	ORDINE Order	COMMESSA Job
RACCORTUBI S.p.A.	1724001267 – 24.06.24	00002823

ITEM Item	Q.TÀ Q.ty	DESCRIZIONE Description	MATERIALE Material	COLATA Heat
2	5	CAP FORGED THRD-F NPT 3000 FRG ¾"	ASTM A-182 F55 UNS S32760 DIM. ASME B16.11	MA2
25	5	NIPPLE L=100 THRD-M NPT x PE SML ¾" thk. 2.87 mm	ASTM/ASME A/SA-790 UNS S32760 DIM. ASME B16.19M	TL6
-	-	-	-	-

PROVA EFFETTUATA PRESSO
Test Carried Out At WORKSHOP OF ITALTEST N.D.T. S.r.l. LEGNANO (MI)

L'OPERATORE Technician	RAPPRESENTANTE DEL CLIENTE Client Rapresentative	RAPPRESENTANTE ENTE DI COLLAUDO 3rd Party Inspector
ZEZI LELIO LELIO ZEZI Level 2 SNT TC 1A RT/MT/PT UNI EN ISO 9712 RT		
DATA Date 21 / 10 / 2024	DATA Date	DATA Date

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400896

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 24.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 09/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00008900
Packing list	PLPLIS202400008848
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00008900

09/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
10	1	CAP0CS05071H00 CAPS 1.1/2" XS	16I	CTCERT202400006254_1.0001.TIF CTCERT202400006254_2.0001.TIF
20	2	E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS	1080SA023	CT327#2023SA0#1080_001.TIF CT327#2023SA0#1080_2.0001.TIF CT327#2023SA0#1080_3.0001.TIF CT327#2023SA0#1080_4.0001.TIF CT327#2023SA0#1080_5.0001.TIF CT327#2023SA0#1080_6.0001.TIF CT327#2023SA0#1080_6.0002.TIF CT327#2023SA0#1080_7.0001.TIF CT327#2023SA0#1080_8.0001.TIF CT327#2023SA0#1080_9.0001.TIF CT327#2023SA0#1080_55.TIF CT327#2023SA0#1080_56.TIF CT327#2023SA0#1080_57.TIF CT327#2023SA0#1080_58.TIF CT327#2023SA0#1080_59.TIF CT327#2023SA0#1080_60.TIF CT327#2023SA0#1080_61.TIF CT327#2023SA0#1080_62.TIF CT327#2023SA0#1080_63.TIF CT327#2023SA0#1080_64.TIF CT327#2023SA0#1080_65.TIF
30	3	E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS	1031SA024	CT327#2024SA0#1031_001.TIF CT327#2024SA0#1031_2.0001.TIF CT327#2024SA0#1031_3.0001.TIF CT327#2024SA0#1031_4.0001.TIF CT327#2024SA0#1031_5.0001.TIF CT327#2024SA0#1031_6.0001.TIF CT327#2024SA0#1031_6.0002.TIF CT327#2024SA0#1031_7.0001.TIF CT327#2024SA0#1031_8.0001.TIF CT327#2024SA0#1031_9.0001.TIF CT327#2024SA0#1031_55.TIF CT327#2024SA0#1031_56.TIF CT327#2024SA0#1031_57.TIF CT327#2024SA0#1031_58.TIF CT327#2024SA0#1031_59.TIF CT327#2024SA0#1031_60.TIF CT327#2024SA0#1031_61.TIF

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09/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
40	1	FLB0SS01961H00 BLIND 1.1/2" S.300 RF	S-25033	CTCERT202200003324_1.TIF CTCERT202200003324_2.TIF
80	1	FLW0SS0765UQ00 W.N. 1.1/4" S.300 RF SCH.10/S	13/555	CTCERT201300164108_1.TIF
120	2	REC0SD08001H01 RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS	1004SA024	CT327#2024SA0#1004_001.TIF CT327#2024SA0#1004_2.0001.TIF CT327#2024SA0#1004_3.0001.TIF CT327#2024SA0#1004_4.0001.TIF CT327#2024SA0#1004_5.0001.TIF CT327#2024SA0#1004_6.0001.TIF CT327#2024SA0#1004_6.0002.TIF CT327#2024SA0#1004_7.0001.TIF CT327#2024SA0#1004_8.0001.TIF CT327#2024SA0#1004_9.0001.TIF CT327#2024SA0#1004_55.TIF CT327#2024SA0#1004_56.TIF CT327#2024SA0#1004_57.TIF CT327#2024SA0#1004_58.TIF CT327#2024SA0#1004_59.TIF CT327#2024SA0#1004_60.TIF CT327#2024SA0#1004_61.TIF CT327#2024SA0#1004_62.TIF
260	1	TEE0CS05251H00 TEE UG. 1.1/2" XS SEAMLESS	0D	CTCERT202400006255_1.0001.TIF CTCERT202400006255_2.0001.TIF

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00008900

09/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
270	2	TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1157SA019	CT327#2019SA0#1157_001.TIF CT327#2019SA0#1157_002.TIF CT327#2019SA0#1157_003.TIF CT327#2019SA0#1157_004.TIF CT327#2019SA0#1157_005.TIF CT327#2019SA0#1157_006.TIF CT327#2019SA0#1157_007.TIF CT327#2019SA0#1157_008.TIF CT327#2019SA0#1157_009.TIF CT327#2019SA0#1157_010.TIF CT327#2019SA0#1157_011.TIF CT327#2019SA0#1157_012.TIF CT327#2019SA0#1157_013.TIF CT327#2019SA0#1157_014.TIF CT327#2019SA0#1157_015.TIF CT327#2019SA0#1157_016.TIF CT327#2019SA0#1157_017.TIF CT327#2019SA0#1157_018.TIF
280	1	TER0CS04991H3Q TEE RID. 1.1/2"x3/4" XS SEAMLESS	14E	CTCERT202400006256_1.0001.TIF CTCERT202400006256_2.0001.TIF
290	3	TER0CS26141H01 TEE RID. 1.1/2"x1" XS SEAMLESS	54	CTCERT202400006257_1.0001.TIF CTCERT202400006257_2.0001.TIF

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00008900

09/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 09/10/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI SEC. ASME/ASTM SA/A 420 GR.WPL6, DIM./SMUSSI ANSI B16.9, B16.25	
10	NR	1	0.00	CAP0CS05071H00 CAPS 1.1/2" XS	16I
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
20	NR	2	0.00	E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS	1080SA023
30	NR	3	0.00	E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS	1031SA024
				FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
40	NR	1	0.00	FLB0SS01961H00 BLIND 1.1/2" S.300 RF	S-25033
80	NR	1	0.00	FLW0SS0765UQ00 W.N. 1.1/4" S.300 RF SCH.10/S	13/555

raccortubi

00008900

09/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

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Date: 09/10/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
120	NR	2	0.00	REC0SD08001H01 RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS	1004SA024
				RACCORDI SEC. ASME/ASTM SA/A 420 GR.WPL6, DIM./SMUSSI ANSI B16.9, B16.25	
260	NR	1	0.00	TEE0CS05251H00 TEE UG. 1.1/2" XS SEAMLESS	0D
				RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
270	NR	2	0.00	TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1157SA019
				RACCORDI SEC. ASME/ASTM SA/A 420 GR.WPL6, DIM./SMUSSI ANSI B16.9, B16.25	

raccortubi

00008900

09/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 09/10/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
280	NR	1	0.00	TER0CS04991H3Q TEE RID. 1.1/2"x3/4" XS SEAMLESS	14E
290	NR	3	0.00	TER0CS26141H01 TEE RID. 1.1/2"x1" XS SEAMLESS	54

raccortubi

00008900

02/10/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
20		2 NR	E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS	1080SA023
30		3 NR	E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS	1031SA024
			FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	
40		1 NR	FLB0SS01961H00 BLIND 1.1/2" S.300 RF	S-25033
80		1 NR	FLW0SS0765UQ00 W.N. 1.1/4" S.300 RF SCH.10/S	13/555
			RACCORDI ASTM/ASME SA/A-815 UNS S32760 DIM. ASME B16.9/B16.25	
120		2 NR	REC0SD08001H01 RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS	1004SA024
270		2 NR	TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS	1157SA019

raccortubi

N. 00008900
1 di 1
DATA Date 02/10/2024

PRELIEVO PROVE
Test coupons identification

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub F

Norme di collaudo	Inspection codes	**N.Pratica Ente Collaudo**
Mat.le Mat.l.	FLANGE IN ACCIAIO INOX ASTM A-182 ANSI B16.5 125 - 250 AARH GRADO F316/316L	RINA: LLRR: ABS: ALTRI:

IMBALLO :
MATERIALE DA RENDERSI : SI
DESTINAZIONE MERCE : SIDER TEST STRADA DELLA BARIANELLA 1/B CASTEL SAN GIOVANNI (PC)
NOTE :ESEGUIRE 100% PT TEST IN ACCORDANCE WITH ASME V ON 100% OF ACCESSIBLE SURFACE OF 100% OF THE MATERIAL (OPERATORE II LIVELLO ISO9712 O SNT-TC-1A)

Enti collaudo

Uff. Qualita' Raccortubi
Raccortubi Q.A. Dept

Pos. cl. *Item cl.*	**Q.ta'** *Q.ty*	**Tubi Descrizione** *Tubes Description*	**N. Prova** *Test N.*	**N° Colata o Marcatura Pz.** *Heat N° or PCS. Marking*	**Pr. non distruttiva**	**Pr. distruttiva**
40	1	0.00 FLB0SS01961H00 BLIND 1.1/2" S.300 RF	1,169	S-25033	1.00	0.00
80	1	0.00 FLW0SS0765UQ00 W.N. 1.1/4" S.300 RF SCH.10/S	1,170	13/555	1.00	0.00

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PT 470 / 24

LAB N° 0864 L

Tipo di controllo/ Type of control *Esame con Liquidi Penetranti/ Liquid Penetrant Examination*

Luogo del Controllo/ Test Location: Str. Barianella, 1/B C.S.Giovanni (PC)

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00003948**	**1724001828 - 123A90A**

Doc. Cliente/ Client's doc.	*Doc. Sider Test/ Sider Test doc.*	*Norma Esecuzione/ Execution Standard*	*Accettabilità/ Acceptance Std*
	PO 04-003 PT Rev. 17 - IL 04-003-001 PT Rev. 05	**ASME BPVC.V-2023 Art. 6 and 24**	**ASTM E 165-23 - ASME BPVC.VIII.1-2023 App. 8**

Tecnica d'Esame/ Examination Technique	Light intensity (Lux)	Condizioni Superficiali/ Surface Condition	Area Esame/ Area Tested
Liquidi Penetranti Solubili in Acqua a Contrasto di Colore/ Water Washable Color Contrast Penetrant Examination (IIAe2)	**>= 1076**	**Materiale Finito/ Finished Material**	**100% accessible surfaces**

Pulizia/ Cleaning		*Penetrante/ Penetrant*		*Rimozione Penetrante/ Penetrant Removal*		*Asciugatura/ Drying*		*Rilevatore/ Developer*	
Tipo/ Type	**Solvent NITRO**	Applicazione/ Application	**Brush**	Tipo/ Type	**Water Sponging**	Tipo/ Type	**Clean rags**	Applicazione/ Application	**Spray**
Intervallo/ Interval (min)	5'	Tipo/ Type	**Red K71B2P**	Intervallo/ Interval (min)	5'	Intervallo/ Interval (min)	5'	Tipo/ Type	**White D112A**
		Bagno/ Batch	**230707P**					Bagno/ Batch	**240507W150s**
		Marca/ Trade Mark	**ELITE**					Marca/ Trade Mark	**ELITE**
		Tempo mi. di penetrazione/ Minimum Penetration Time	**10'**					Intervallo di interpretazione/ Final interpretation interval	**7' ÷ 60'**

Posizione/ Item	Qta/ Qty	Descrizione/ Description	Prova Nr./ Test Nr.	Materiale/ Material	Colata/ Heat
40	**1**	**BLIND 1,1/2" S.300 RF**	**1169**	**ASTM A 182 F316/F316L**	**S-25033**
80	**1**	**W.N. 1,1/4" S.300 RF SCH. 10S**	**1170**	**ASTM A 182 F316/F316L**	**13/555**

Assenza di Difetti/ Absence of Defects

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptance Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Operatore CND Liv. II/ Lev. 2 NDE Operator	Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
SIDER TEST S.r.l. MAURIZIO DEPONI LEVEL II SNT-TC-1A	**04/10/2024**	**04/10/2024**	**07/10/2024**			PAOLO AMANI LEVEL 3

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8055-P1	19/09/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006433	

	Item	Quantity	Heat id.
1	CAP 1.1/2" XS WPL6	1,00	16I-16I2373

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PLATE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	Ti%	Nb%	B%
0,220	1,080	0,240	0,014	0,002	0,010	0,030	0,001	0,001	0,001	0,047	0,0020	0,0130	0,0006

CE_{IIW} 0,41

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	323	465	31

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	33	39	39	37

Hardness Test

Base Metal Avg 127 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector / Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini		

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: CAP0CS05071H00
CAPS 1.1/2" XS

raccortubi Heat num. or Pcs. marking: 16I - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

qualytube

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24033

Date - Data - Vom - date : 20/09/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 82

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
1	1.1/2" sch. XS	CAPS ASME/ASTM SA/A 420 WPL6	16I-16I2373	1		
5	4"x1.1/2" STD/XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	513131	1		
2	1.1/2" XS	TEE UG. ASME/ASTM SA/A 420 WPL6	0D-0D1533	1		
3	1.1/2"x3/4" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	14E-14E5482-J5L3682	1		
4	1.1/2"x1" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	54-J9KA054	3		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 EN ISO 17546/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 10 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: CAP0CS05071H00
CAPS 1.1/2" XS

raccortubi Heat num. or Pcs. marking: 16I - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: Master plan Luglio 2023/2

Pos. N. / Item/Poste: 17 — **Q.tà** / Q.ty/Q.té: 122

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1080SA023 — Created on: 25-07-2023

Descrizione / Description / Description: ELBOWS 45° LR 2" SCH.10/S SEAMLESS

Specifica / Specification / Spécification: BW FITTINGS TO ASTM A/815M-2023
ASME SA/815-21 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: MANNESMANN STAINLESS TUBES Cert. No.: 3-22-09826-rev.01
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
MANNESMANN STAINLESS TUBES Cert. No.: 3-22-09826-rev.01

Test produzione / Production test/Coupon de production	Colata N. / Heat N. / Coulée N.	N. prova / Specimen N. / Echantil. N.	Snervamento / Yield strength / Limite d'elasticité N/mm2	Rottura / Tensile / Resistance à la traction N/mm2	Allungam. % / Elongation / Allongement 2"	Durezza / Hardness as per NACE MRO1-75	Durezza / Hardnes / Dureté	Resilienza / Impact energy / Resilience / Joules
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	CC6519	222/23	586	774	41	HRC<28	HRC 25	

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Analisi chimica %
Chemical composition/Composition chimique

Colata N. / Heat N. / Coulée N.	C	Si	Mn	P	S	Cr	Ni	Mo	N	Cu	W			PRE	FERRITE
CC6519	0,017	0,34	0,48	0,021	<0,0003	25,6	7,1	3,7	0,26	0,53	0,55			42.0	50.1

Prove
Tests/Tests

Altri / Others / Autres: G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager RUbecchi

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 0858
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication
Formato a freddo / Cold formed / Formés à froid
Senza saldatura / Seamless / Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0858

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST mechanical chemical non destructive tests

Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ilac-MRA ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description **SACRIFICAL PIECE 2" W.T. 2.77 mm**

Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
1		222/23	CC6519	ASTM A 815-20 UNS S32760

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
95579	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	52,95	29,14	2,43	34,85	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Lavorato/ Machined	Peso iniziale/ Initial weight (g)	28,7911	
Temperatura di prova/ Test temperature (°C)	50	Peso finale/ Final weight (g)	28,7907	
Tempo di esposizione (ore)/ Exposure time (hours)	24	Perdita di peso/ Weigth loss (g)	0,0004	
		Perdita di massa/ Specimen mass loss	0.1	g/m²
		Limite perdita di massa max/ Limit Specimen mass loss max	**1.0**	**g/m²**

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
31/07/2023 09:31:02	01/08/2023 09:31:02

Soluzione/ Solution FeCl3 6% SOLUTION

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 30,86 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **26/07/2023**

Data Rapporto di prova/ Test Report Date **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: Amani Paolo

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pos. marking: 1080SA023 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST
mechanical chemical non destructive tests
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

E562 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position			Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
95575	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B	T	FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	31/07/2023

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv (% Volume Fraction)	50.1	**40**	**55**
s 3,4 95% C.I. 1,3	%RA 2,52		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**54**	3	**52**	4	**50**	5	**54**
6	**50**	7	**54**	8	**54**	9	**54**	10	**52**
11	**46**	12	**42**	13	**54**	14	**48**	15	**52**
16	**46**	17	**54**	18	**48**	19	**54**	20	**48**
21	**46**	22	**54**	23	**50**	24	**50**	25	**48**
26	**46**	27	**48**	28	**46**	29	**52**	30	**48**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.00 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival: **26/07/2023**

Data Rapporto di prova/ Test Report Date: **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS
Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST
mechanical chemical non destructive tests
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Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

ANL 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova/ Test temperature (°C)	ID Gruppo/ Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
95582	ASTM E1086 – 22	RTX_D53 Rev.9	B / UP	20	8509	% by weight	31/07/2023

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,020	±0,004		0,030	Nb					Fe				
Si	0,38	±0,03		1,00	Ti					Ca				
Mn	0,49	±0,03		1,00	*W	0,56	±0,03	0,50	1,00	Ta				
P	0,025	±0,003		0,030	Pb					Sb				
*S	<0,001			0,010	Sn					H				
*Cr	25,8	±0,2	24,0	26,0	As					Cd				
V					B					Se				
*Mo	3,8	±0,1	3,0	4,0	*N	0,28	±0,01	0,20	0,30	Bi				
*Ni	7,2	±0,4	6,0	8,0	La					Hg				
*Cu	0,56	±0,03	0,50	1,00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	42,82	±0,72	40,00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **26/07/2023**

Data Rapporto di prova/ Test Report Date **03/08/2023**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [/]-/; [B]-Specimen in Base Material; [UP]-external sup.

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

DUR 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

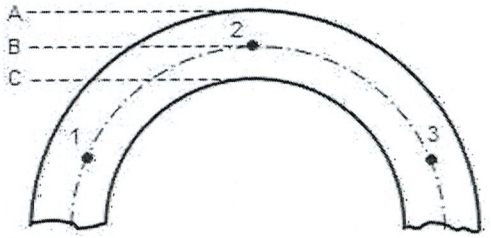
Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
95574	ASTM E 92 – 17 (only Vickers)	RTX_D53 Rev.9	B	T	20 °C	HV10	01/08/2023

(B1) - Base Material **MAX 286**

HV10	1	271	2	268	3	266



Position	Average	
(B1) - Base Material	268	HV10

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **26/07/2023**

Data Rapporto di prova/ Test Report Date **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST
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Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

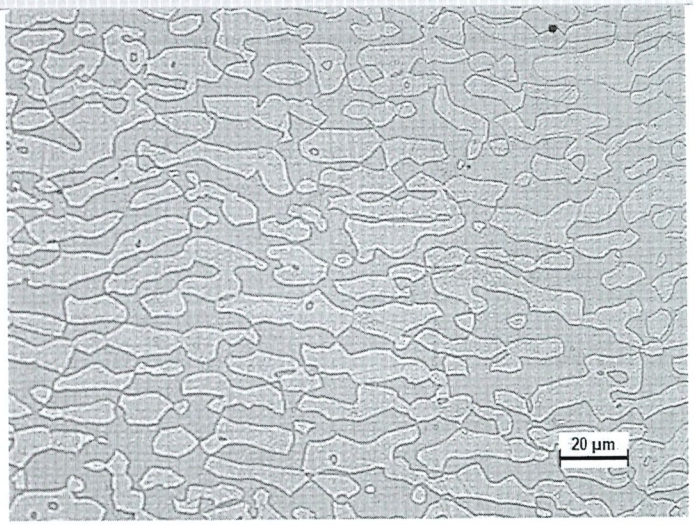
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
95576	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	01/08/2023

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	10% Oxalic	Specimen in Base Material 3.0 x 20.0 = 60.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **26/07/2023**

Data Rapporto di prova/ Test Report Date: **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pos. marking: 1080SA023 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order: **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job: **31007/23 23/0649**

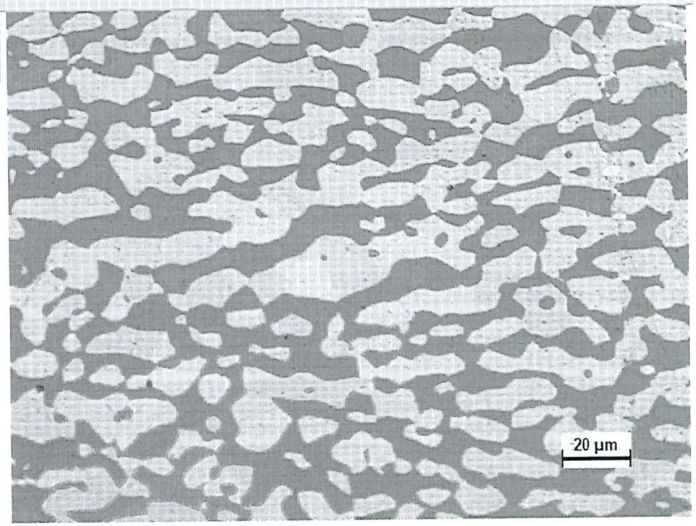
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
95577	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	01/08/2023

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	20% NaOH	Specimen in Base Material 3.0 x 20.0 = 60.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
26/07/2023				
Data Rapporto di prova/ Test Report Date: 03/08/2023	Antonielli Stefano	Amani Paolo		

firmato elettronicamente/electronically signed

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

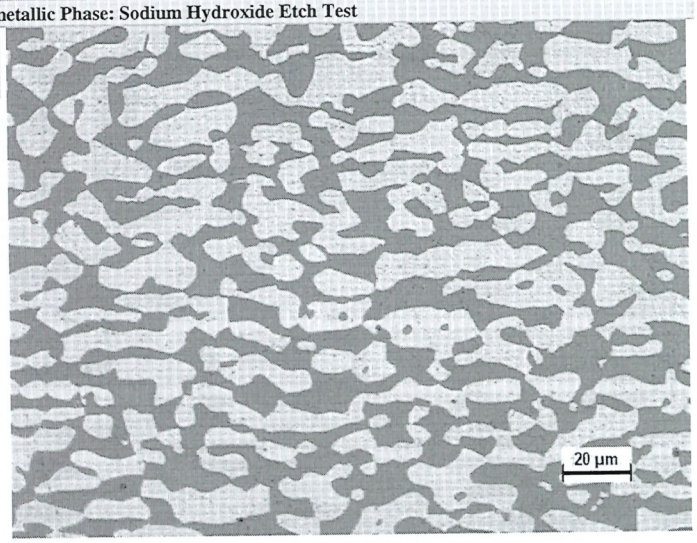
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
95581	ASTM A923 – 22 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	01/08/2023

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **26/07/2023**

Data Rapporto di prova/ Test Report Date: **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC20240000900 * CERTIFIED TRUE COPY * Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.

Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923C 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	**ASTM A 815-20 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
95580	ASTM A923 – 22 Method C	**RTX_D53 Rev.9**	B L FT	Meccanica/ Mechanical	53,17	29,16	2,44	35,03

Condizioni superficiali/ Surface condition: Lavorato/ Machined

Temperatura di prova/ Test temperature (°C): 50

Temperatura Minima Rilevata/ Minimum temperature observed (°C): 49,49

Temperatura Massima Rilevata/ Maximum temperature observed (°C): 50,68

Tempo di esposizione (ore)/ Exposure time (hours): 24

Data inizio/ Initial date	Data fine/ End date
31/07/2023 11:14:28	01/08/2023 11:14:28

Soluzione/ Solution: FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g): 28,6728

Peso finale/ Final weight (g): 28,6723

Perdita di peso/ Weigth loss (g): 0,0005

Perdita di massa/ Specimen mass loss: 0.1 (g/m²)

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **1,4**

Limite velocità di corrosione (mg/(dm²*d)) max/ Corrosion rate limit (mg/(dm²*d)) max **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **26/07/2023**

Data Rapporto di prova/ Test Report Date: **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi
Heat num. or Pcs. marking: 10805A023 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: E45RSD01550200 CURVE 45° LR 2" SCH.10/S SEAMLESS
Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PM 16395 / 23

Rif. Lab SIM (FCP) : **5966 / 23 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN LUGLIO 2023/2**

Commessa/ Job **31007/23 23/0649**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" W.T. 2.77 mm	1		222/23	CC6519	ASTM A 815-20 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth Ø / Width ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength MPa		Rottura/ Tensile strength Rm MPa		Allungamento/ Elongation after fracture A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
95572	ASTM A370 – 22 §6÷14, § A1.3, § A2.2 and § A3.2	**RTX_D53 Rev.9**	3,10 12,46	50,00	B L FT	23,0	(≥550) Rp0,2%	**586**		(≥750)	**774**	(≥25)	**41,0**			01/08/2023

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival **26/07/2023**

Data Rapporto di prova/ Test Report Date **03/08/2023**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

(A01) **Salzgitter Mannesmann Stainless Tubes France SAS**
(A05) B.P.10 - F 21501 Montbard Cedex - FRANCE
www.mannesmann-stainless-tubes.com

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A Member of the Salzgitter Group

INSPECTION CERTIFICATE
Abnahmeprüfzeugnis
Certificat de Réception

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. / Nr. / N° **3-22-09826-rev.01** Pag. 1 / 7

(A06) **Purchaser / Besteller / Acheteur**

RACCORTUBI Spa
Viale De Gasperi
20010 MARCALLO
Milan
Italie

(A07) **Customer Order No / Kundenauftragsnr. / N° Commande Client**

226S

(A08) **SMST-Tubes Order No / Auftragsnr. / N° Commande SMST**

0000291532

SMST-Item

(A09) **Part No / Teilenummer / Part number**

0000291532-000001

(B01) (B02) (B04) **Product Description / Produkt Beschreibung / Description du Produit**

Seamless Stainless Steel Hot Finished Pipes Solution Annealed Pickled / Passivated Plain Ends Square Cut Deburred
Rohre warmgefertigt nahtlos rostfreier Stahl lösungsgeglüht gebeizt / passiviert glatte Enden rechtwinklig gesägt entgratet
Tubes sans soudure Acier Inoxydable Fini à chaud Remis en solution Décapés / Passivés Extrémités lisses coupées d'equerre

Specifications / Spezifikationen / Spécifications ASME SA 790 21;ASME SA 790M 21;ASTM A 790 22;ASTM A 790M 22;NORSOK MDS D51 REV 06;RACCORTUBI RTX_D51S Rev.5; ANSI/NACE MR0103/ISO 17945 2016; ANSI/NACE MR0175/ISO 15156-3 2015

Grade / Werkstoff / Nuance UNS S32760;DMV 25.7N

Tolerances / Toleranzen / Tolérances A 790M / A999

(B03) Supplementary Requirements / Zusatzanforderungen / Éxigences Supplémentaires

None / Keine / Aucune

(B06 - D01) Marking of the Product / Kennzeichnung des Produkts / Marquage du Produit

Technical marking MANNESMANN MST-F - ASME SA 790 / ASTM A 790 - DMV 25.7N - UNS S32760 - NPS 2 X SCH 10S - 60.30 MM X 2.77 MM - SML - HEAT $HEAT_NBR$ - $QUAL_LOT_NBR$ - MADE IN FRANCE - $ORDER_ID$

Country of Origin of the tubes / Herstellungsland der Rohre / Pays d'origine des tubes **France / Frankreich / France**

Quantity / Menge / Quantité						Dimensions / Abmessung / Dimensions			
(B07) Heat Schmelze Coulée	Quality Lot Qualitätslos Lot Qualité	SMST-Item	(B08) Pieces Stück Pièces	(B13) Weight Gewicht Poids	(B16) Length Länge Longueur	(B09) OD	(B10) WT	(B11) Ordered Length Auftragslänge Longueur commandée min	max
CC6519	QL30173864	000001	33	849.00 kg	213.992 m	60.30 mm	2.77 mm	5000 mm	6500 mm
				1871.73 lbs	702.07 ft	NPS 2	SCH 10S	16.40 ft	21.33 ft
				1871.73 lbs	702.07 ft	2.374 "	0.109 "	16.40 ft	21.33 ft
			33	**849.00 kg**	**213.992 m**				
			33	**1871.73 lbs**	**702.07 ft**				

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

(A01) Salzgitter Mannesmann Stainless Tubes France SAS
(A05) B.P.10 - F 21501 Montbard Cedex - FRANCE
www.mannesmann-stainless-tubes.com

MANNESMANN STAINLESS TUBES
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Heat Analysis / Schmelzanalyse / Analyse de Coulée

		Request	C	Si	Mn	P	S	Cr	Ni	Mo	N
	Min		0.00	0.00	0.00	0.00	0.0000	24.0	6.0	3.0	0.20
	Max		0.050	1.0	1.0	0.030	0.0100	26.0	8.0	4.0	0.30
(B07) Heat Schmelze Coulée	Heat Origin Ursprung der Schmelze Origine de la Coulée	(C70) Melting Process Erschmelzungsart Procédé d'élaboration	%	%	%	%	%	%	%	%	%
CC6519	Austria	Airmelt(EAF +AOD)	0.017	0.34	0.48	0.021	<0.0003	25.6	7.1	3.7	0.26

		Request	Cu	W	PREN
	Min		0.50	0.50	40.0
	Max		1.0	1.0	
(B07) Heat Schmelze Coulée	Heat Origin Ursprung der Schmelze Origine de la Coulée	(C70) Melting Process Erschmelzungsart Procédé d'élaboration	%	%	n/a
CC6519	Austria	Airmelt(EAF +AOD)	0.53	0.55	42.0

Product Analysis / Produktanalyse / Analyse sur Produit

ASTM A 790

	Request	C	Si	Mn	P	S	Cr	Ni	Mo	N
	Min	0.00	0.00	0.00	0.00	0.0000	24.0	6.0	3.0	0.20
	Max	0.050	1.0	1.0	0.030	0.0100	26.0	8.0	4.0	0.30
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	%	%	%	%	%	%	%	%	%
QL30173864	39091841	0.019	0.36	0.48	0.011	<0.0010	25.3	7.2	3.9	0.28

	Request	Cu	W	PREN
	Min	0.50	0.50	40.0
	Max	1.0	1.0	
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	%	%	
QL30173864	39091841	0.55	0.56	42.7

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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(A03) No. / Nr. / N° **3-22-09826-rev.01** Pag. 3 / 7

Tensile Test at Room Temperature / Zugversuch bei Raumtemperatur / Essai de traction à température ambiante

ASTM A 370

(C02) Direction: LONGITUDINAL

Coupon Type / Art der Probe / Type du Coupon Test: Plat Type Specimen

		(C14)	(C11)	(C12)	(C13)
			YS 0.2%	U.T.S.	EL
		Width mm	Rp 0,2%	Rm	50mm
Request	Min		550	750	25.0
	Max				
Quality Lot Qualitätslos Lot Qualité	(C00) Sample		MPa	MPa	%
QL30173864	39091841	12.552	635	870	28

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication

(C30) Hardness HRC / Härteprüfung HRC / Essai de dureté HRC

ASTM E 18;EN ISO 6508-1

			(C30) HRC		
		Request			28.0 max
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	Result Ergebnis Resultat	(C31) Min	(C31) Max	(C32) Avg
QL30173864	39091841		24	25	24.5
	39091842		25	26	25.5

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication

(C50) Flattening Test / Faltversuch / Essai d'aplatissement

ASTM A 999

Quality Lot Qualitätslos Lot Qualité	(C00) Sample	Result Ergebnis Resultat
QL30173864	39091841	OK
	39091842	OK

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

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Pitting Corrosion Resistance Test / Prüfung Lochfraßkorrosion / Essai de résistance à la corrosion par piquration

ASTM A 923 METHOD C

	Request Max			10.0000		
	Unit	HOURS	°C	mdd(mg/dm²/day)		
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	Holding time Temps de maintien	Temperature Temperatur Température	Loss Weight Perte de poids	Pitting Piquration	Result Ergebnis Resultat
QL30173864	39091841	24	50	0.4341	No pitting at 20X	Satisfactory

ASTM G48 METHOD A;ISO 17781

	Request Max			1.0000		
	Unit	hours	°C	g/m²		
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	Holding time Temps de maintien	Temperature Temperatur Température	Loss Weight Perte de poids	Pitting Piquration	Result Ergebnis Resultat
QL30173864	39091841	24	50 (+/-1°C)	0.0741	No pitting at 20X	Satisfactory

Micrographic Examination Ferrite / mikroskopische Untersuchung Ferrit / Examen Micrographique Ferrite

ASTM E 562;ISO 17781

			Ferrite Ferritgehalt Mesure de la ferrite par comptage					
		Request		40.0 - 55.0				
Quality Lot Qualitätslos Lot Qualité	(C00) Sample	Result Ergebnis Resultat	(C02) Direction	Result Ergebnis Resultat	Counting method DE Counting method Méthode de comptage	Etch Type Ätzen Type d'attaque	Fields DE Fields Nbre de champs	Evaluation grid DE Evaluation grid Nbre de points par grille
QL30173864	39091841		Transversal	51.7	GRID	Murakami's Etchant N°98	10 MID WT	16

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication

See Test Report N° MET2022102002 in Appendix

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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Micrographic Examination Structure / mikroskopische Untersuchung Gefüge / Examen Micrographique Structure

ISO 17781

Quality Lot Qualitätslos Lot Qualité	(C00) Sample			Result Ergebnis Resultat
QL30173864	39091841	Carbides and precipitates Karbide und Ausscheidungen Carbures et précipités	Observations DE Observations FR Observations	Free from carbides and precipitates
			Result Ergebnis Resultat	OK
		Intermetallic Phases Intermetallische Phasen Phases intermétalliques	Direction	Transversal
			Observations DE Observations FR Observations	Free from intermetallics and Sigma phase
			Result Ergebnis Resultat	OK
		Structure Gefüge Structure	Observations DE Observations FR Observations	Regular ferritic-austenitic structure
			Result Ergebnis Resultat	OK
			Type of etching Art der Ätzung Type d'attaque	10% OXALIC ACID FOLLOWED BY 40% KOH

ISO 17781

Quality Lot Qualitätslos Lot Qualité	(C00) Sample			Result Ergebnis Resultat
QL30173864	39091841	Carbides and precipitates Karbide und Ausscheidungen Carbures et précipités	Observations DE Observations FR Observations	Free from carbides and precipitates
			Result Ergebnis Resultat	OK
		Intermetallic Phases Intermetallische Phasen Phases intermétalliques	Direction	Transversal
			Observations DE Observations FR Observations	Free from intermetallics and Sigma phase
			Result Ergebnis Resultat	OK
		Structure Gefüge Structure	Observations DE Observations FR Observations	Regular ferritic-austenitic structure
			Result Ergebnis Resultat	OK
			Type of etching Art der Ätzung Type d'attaque	NaOH 40% Etchant N°220

Sampling done on tubes in manufacturing length / Beprobung erfolgte an Rohren in Herstelllänge / Echantillonage realisé par longueur de fabrication
See Test Report N° MET2022102001 in Appendix

Customer: ROSETTI MARINO S.p.A.

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raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

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Other Tests and Declarations / Andere Prüfungen und Prüffeststellungen / Autres Tests et Déclarations

QL30173864

Heat Treatment / Wärmebehandlung / Traitement thermique : ANNEALED BY DIRECT QUENCHING - Water Quenching off the extrusion press - Temperature : 1070°C (1958°F) min - 1140°C (2084°F) max

(D01)	Visual and dimensional inspection (VT) on 100% of tubes according to the order Besichtigung und Maßkontrolle von 100% der Rohre gemäß Auftrag Examen visuel et dimensionel sur 100% des tubes selon la commande	Satisfactory Bestanden Satisfaisant
(D51)	Antimixing Check (PMI) on 100% of tubes Verwechselungsprüfung an allen Rohren mittels Spektralprüfung von 100% der Rohre Contrôle anti-mélange par PMI sur 100% des tubes	Satisfactory Bestanden Satisfaisant
(D52)	Hydro Pressure Test on 100% of tubes 5 sec. at 17.00 MPA ASTM A999 (EP_1107) Wasserdruckprüfung auf 100% Rohren 5 sec. mit 17.00 MPA ASTM A999 (EP_1107) Epreuve Hydraulique sur 100% des tubes 5 sec. avec 17.00 MPA ASTM A999 (EP_1107)	Satisfactory Bestanden Satisfaisant
(D04)	Ultrasonic Testing (UT) on 100% of tubes ASTM E 213 (UT_002_L_T_LA) Ultraschallprüfung von 100% der Rohre ASTM E 213 (UT_002_L_T_LA) Contrôle Ultrasons sur 100% des tubes ASTM E 213 (UT_002_L_T_LA)	Satisfactory Bestanden Satisfaisant

Manufacturing according to NORSOK M650 Rev 4 : QTR 004
Fabrication selon NORSOK M650 Rev 4 : QTR 004
Fertigung gemäß NORSOK M650 Rev 4 : QTR 004

No Weld Repair
Keine Reparaturschweissung
Aucune réparation par soudure

(Z01) SMST declares that the product was manufactured, sampled, tested, inspected and packed in accordance with the specifications and any other requirements designated in the purchase order within the extent listed in SMST order acknowledgment, and has been found to meet such requirements
SMST bestätigt, dass die Rohre hergestellt, beprobt, geprüft, kontrolliert und gepackt wurden in Übereinstimmung mit den Spezifikationen und anderen Anforderungen in der Kundenbestellung innerhalb des Umfanges wie dieser in der SMST Auftragsbestätigung aufgeführt wurde. Die Rohre entsprechen den Auftragsanforderungen
SMST Atteste que les produits sont fabriqués, prélevés, testés, inspectés et emballés en conformité aux spécifications et autres exigences stipulées dans la commande d'achat avec les limites décrites dans l'accusé de réception de la commande. Les produits livrés sont conformes à ces stipulations

Tubes are free from mercury contamination and from radioactive contamination
Die Rohre sind frei von Quecksilberverunreinigungen und frei von radioaktiver Verunreinigung
Les tubes sont exempts de contamination par le mercure et de contamination radioactive

The material is conforming to directive 2000/53/EC and 2011/65/EU
Das Material entspricht den Anforderungen der Richtlinien 2000/53/EC und 2011/65/EU
Le matériau est conforme aux directives 2000/53/EC et 2011/65/EU

Confirmation with reference to Pressure Equipment Directive 2014/68/EU:
The works operates a quality management system that has undergone a specific assessment for materials for pressure equipment and is certified by a competent body (TÜV-SÜD-Cert.No: 05/2022/MAN-01)
Bestätigung in Bezug auf Druckgeräterichtlinie 2014/68/EU:
Das Werk wendet ein Qualitätsmanagementsystem an, das in Bezug auf Werkstoffe für Druckgeräte einer spezifischen Bewertung unterzogen wurde und von einer zuständigen Stelle (TÜV-SÜD-Cert.No: 05/2022/MAN-01) zertifiziert ist.
Confirmation concernant la Directive Equipements sous Pression 2014/68/EU:
L'usine applique un système de management de la qualité qui a fait l'objet d'une évaluation spécifique pour les matériaux pour équipements sous pression et qui est certifié par un organisme compétent (TÜV-SÜD-Cert.No: 05/2022/MAN-01)

(Z02)	Mill's Inspector Werkssachverständiger Le Contrôleur usine	**Stephanie Monsat (IU)**	Date of Edition Ausgabedatum Date d'Édition	**20/10/2022**

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

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Certificate anti counterfeiting check
Prüfung der Zeugnisse gegen Fälschung
Contrôle de la contrefaçon des certificats

A set of information from the Inspection Certificate cover page are included in encrypted form in the above QR code. By scanning it with your mobile device you can check if the Inspection Certificate is genuine.
Ein Teil der Informationen der ersten Zeugnis-Seite sind in verschlüsselter Form in dem oben dargestellten QR Code enthalten. Beim Scannen mit einem mobilen Gerät kann das Zeugnis auf Authentizität geprüft werden.
Une partie des informations contenues dans la première page de ce certificat d'inspection sont disponibles sous forme cryptée dans le "QR Code" ci-dessus. Lors de la lecture avec votre appareil mobile, vous pouvez vérifier l'authenticité du certificat d'inspection.

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ESSAIS METALLURGIQUES
(METALLURGICAL TESTS)

PROCES VERBAL D'ESSAI (TEST CERTIFICATE) Né MET2022102002 Rev 00

Commande Né (Order Né) QL30173864 291532 Item 01	Client : RACCORTUBI Spa (Customer)	
Aci¶rie: (Steelworks) BOHLER	Coul¶e Né (Heat Né) CC6519	Nuance : (Grade) DMV25.7N
Dimensions finales (Final size) 60,30 x 2,77 mm	Dimensions de l'¶chantillon (Sample size) 60,30 x 2,77 mm	
Essai contractuel : OUI Contrctual testing : YES		
Documents applicables : (Applicable test documents) Labmet 002 Rev 04		

TAUX DE FERRITE (FERRITE MEASUREMENT) NORME : ISO 17781 + ASTM E562

Impositions (Requirements) : MDS D51 Rev.6: 40% to 55%

R¶sultats (Results)

Rep· re (Ident. Sample)	M¶thode par micrographie ASTM E562 + ISO17781//Micrographic Method ASTM E562 + ISO 17781 - Murakami's etchant (Né98 according ASTME407) - Checked at MX200			
			Mid Wt	Ra%
39091841	Number of fields :	10	Average	51,70% 3,00

(Remarks) Grid of 16 points

R¶sultats conformes aux impositions : OUI (Results conforming to requirements) YES

Visa du client : (Customer)

Fait le (Date of test) 20-oct-22

Essai r¶alis¶ par : L.ROUYER (Test performed by)

V¶rifi¶ et approuv¶ par : T.POMMERY (Reviewed and approved by)

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Laboratoire de SALZGITTER MANNESMANN STAINLESS TUBES , route de semur 21501 MONTBARD France
Tel : 03 80 89 51 61

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

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ESSAIS METALLURGIQUES
(METALLURGICAL TESTS)

PROCES VERBAL D'ESSAI (TEST CERTIFICATE) NéMET2022102001 Rev 00

Commande Né QL30173864 (Order Né) 291532 Item 01	Client : RACCORTUBI Spa (Customer)	
Aci¶rie: BOHLER (Steelworks)	Coul¶e Né CC6519 (Heat Né)	Nuance : DMV25.7N (Grade)
Dimensions finales (mm) (Final size) 60,30 x 2,77 mm	Dimensions de l'¶chantillon (mm): (Sample size) 60,30 x 2,77 mm	
Essai contractuel : Oui (Contractual testing) Yes		
Documents applicables : (Applicable test documents) Labmet 003 Rev 04		

STRUCTURE (STRUCTURE EXAMINATION) NORME: ISO 17781

Instrument : Microscope Né C9-180

Impositions (Requirements) : MDS D51 Rev.6: Microstructure 500 x magnification (OD/Mid WT/ID) with the etchant 20% NaOH and etchant 10% oxalic acid followed by etchant 40% KOH with reported photo: free from lamination, cracks, or detrimental defects, precipitates, carbides, nitrides&intermetallic phases.

Magnification x500

R¶sultats (Results)

Rep· res (Ident. Sample)	Observations (Remarks)
39091841	Free from lamination, cracks, or detrimental defects, carbides, precipitates, nitrides&intermetallic phases. Photo M x500

R¶sultats conformes aux impositions : OUI (Results conforming to requirements) YES

Visa du client : (Customer)

Fait le (Date of test)	Essai r¶alis¶ par : (Test performed by)	V¶rifi¶ et approuv¶ par : (Reviewed and approved by)
20-oct-22	L,ROUYER	T.POMMERY

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Tel : 03 80 89 51 61

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

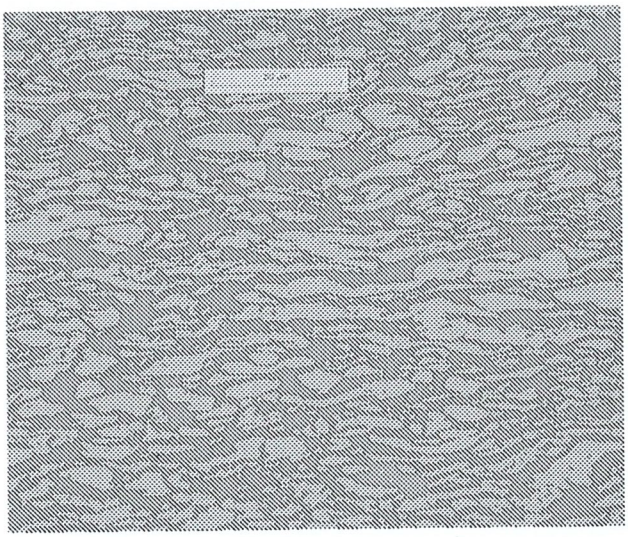
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

PLANCHE DE PHOTOMICROGRAPHIES MICROPHOTOGRAPHS EXHIBIT		
	Quality Lot Né: QL 30173864	Client: RACCORTUBI Spa Customer
Aci¶rie : BOHLER Steel works	Certificat Né : MET2022102003 Certificate	Né C de Client : Customer order Né
Né de Coul¶e : CC6519 Heat Né	Nuance : DMV25.7N Grade	Dimensions : 60.30 x 2.77 mm Size

Exam :
Structure

Section :
Transversal

Etchant :
NaOH 20%
Etchant Né220



Rep· re ¶chantillon

Specimen id˘s:
39091841

Dimensions/Size:
60.30 x 2.77 mm

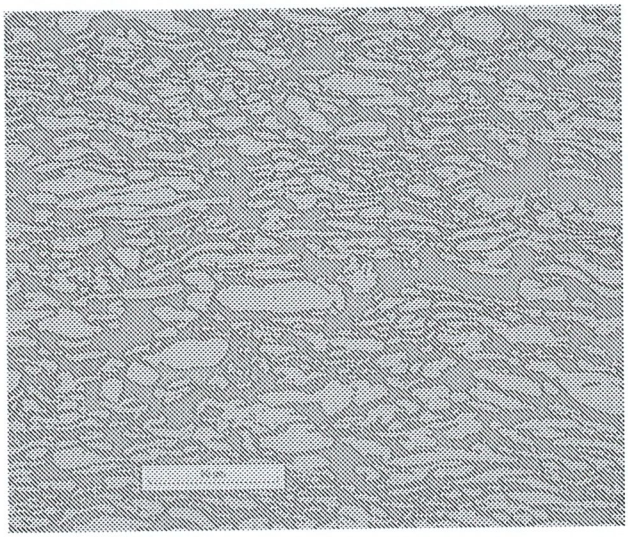
Free from intermetallic phase

Magnification x500

Exam :
Structure

Section :
Transversal

Etchant :
Oxalic acid 10%
followed by
KOH 40%



Rep· re ¶chantillon

Specimen id˘s:
39091841

Dimensions/Size:
60.30 x 2.77 mm

No nitrides, carbides or precipitates

Magnification x500

Date: 20/10/2022
Page 1/2

Technicien, L. ROUYER
The technician in charge of the test

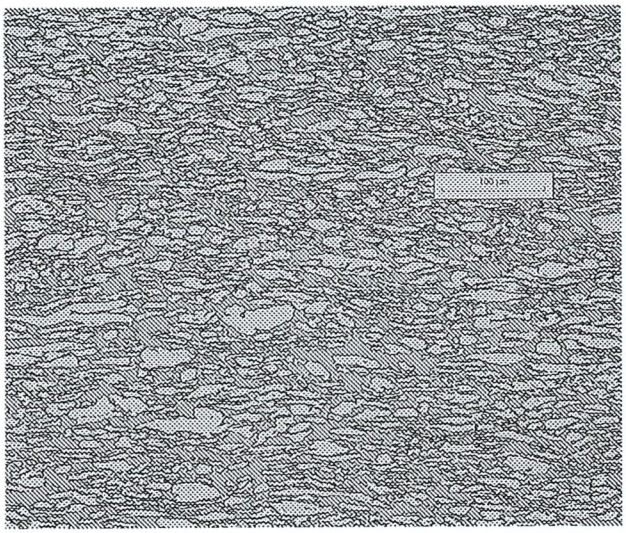
MANNESMANN
STAINLESS TUBES
A Member of the Salzgitter Group

PLANCHE DE PHOTOMICROGRAPHIES MICROPHOTOGRAPHS EXHIBIT		
	Quality Lot Né: QL 30173864	Client: RACCORTUBI Spa Customer
Aci¶rie : BOHLER Steel works	Certificat Né : MET2022102003 Certificate	Né C de Client : Customer order Né
Né de Coul¶e : CC6519 Heat Né	Nuance : DMV25.7N Grade	Dimensions : 60.30 x 2.77 mm Size

Exam :
Ferrite

Section :
Transversal

Etchant :
Murakami˘s
Etchant 98



Rep· re ¶chantillon

Specimen id˘s:
39091841

Dimensions/Size:
60.30 x 2.77 mm

Magnification x200

Date: 20/10/2022
Page 2/2

Technicien, L. ROUYER
The technician in charge of the test

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 20 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E45RSD01550200
CURVE 45° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1080SA023 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

raccortubi Heat num. or Pcs. marking: 10315A024 - Qty:3,00

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer: RACCORTUBI S.p.A.

Ordine N. P.O.N./C.: Master plan Aprile 2024/2

Pos. N. Item/Poste: 23 **Q.tà** Q.ty/Q.té: 209

(*) Marcatura e cert. N. Material Marking e Cert. N.: 1031SA024

Created on: 25-03-2024

Descrizione Description Description: ELBOWS 90° LR 2" SCH.10/S SEAMLESS

Specifica Specification Spécification: BW FITTINGS TO ASME II Part.A SA/815M Ed.2023
ASTM A/815M-2023 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 734881
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 734881

Test produzione Production test/Coupon de production	Caratteristiche meccaniche Mechanical Properties/Caracteristiques Mechaniques							
	Colata N. Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS								
QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	58746	91/24	579	808	29.9	HRC<28	HRC 25	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**Nb**	**W**	**Co**	**N**	**PRE**	**FERRITE**
58746	0,013	0,26	0,76	0,024	0,0005	25,58	6,75	3,64	0,64	0,024	0,610	0,056	0,248	41.560	48.2

Prove
Tests/Tests

Altri Others Autres: G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 7328/24
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo Cold formed Formés à froid	**Senza saldatura** Seamless Sans soudure

Ispezione
Inspection/inspéction
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0267

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240003948

Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST mechanical chemical non destructive tests

Head Office: Strada della Bariancella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN APRILE 2024/2**

Commessa/ Job **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description **SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm**

Qta/ Qty: 1 | Posizione/ Item: | Prova Nr./ Test Nr.: **91/24** | Colata/ Heat: **58746** | Materiale/ Material: **ASTM A 815-23 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
39705	ASTM G48 – 11 (R2020)e1 Method A	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	51,08	28,46	2,78	33,50	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Lavorato/ Machined	Peso iniziale/ Initial weight (g)	31,1547	
Temperatura di prova/ Test temperature (°C)	50	Peso finale/ Final weight (g)	31,1545	
Tempo di esposizione (ore)/ Exposure time (hours)	24	Perdita di peso/ Weigth loss (g)	0,0002	
		Perdita di massa/ Specimen mass loss	0.1	g/m²
		Limite perdita di massa max/ Limit Specimen mass loss max	**1.0**	**g/m²**

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
02/04/2024 08:42:58	03/04/2024 08:42:58

Soluzione/ Solution FeCl3 6% SOLUTION

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 29,07 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3.00

Customer: ROSETTI MARINO S.p.A.

Description: E80RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240003948

Protocol: CTCER20240000890 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST
mechanical chemical non destructive tests
Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

E562 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order: **MASTER PLAN APRILE 2024/2**

Commessa/ Job: **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm	1		91/24	58746	**ASTM A 815-23 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
39701	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	Square 25 x 25 = 25 Points	03/04/2024

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv (% Volume Fraction)	48.2	**40**	**55**
s 3,8	95% C.I. 1,4	%RA	2,94

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**42**	3	**54**	4	**42**	5	**50**
6	**54**	7	**44**	8	**48**	9	**48**	10	**44**
11	**44**	12	**46**	13	**48**	14	**54**	15	**48**
16	**48**	17	**50**	18	**42**	19	**54**	20	**52**
21	**48**	22	**46**	23	**46**	24	**46**	25	**46**
26	**52**	27	**54**	28	**46**	29	**52**	30	**50**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.00 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

firmato elettronicamente/electronically signed

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240003948

Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST mechanical chemical non destructive tests

Head Office: Strada della Bariancella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticita/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

ANL 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order: **MASTER PLAN APRILE 2024/2**

Commessa/ Job: **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description: **SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm**

Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
1		91/24	58746	ASTM A 815-23 UNS S32760

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova/ Test temperature (°C)	ID Gruppo/ Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
39708	PO 04-145 RC R13:2024	RTX_D53 Rev.9	B / UP	20 °C	10470	% by weight	03/04/2024

			Min.	Max.				Min.	Max.		Min.	Max.
C	0,014	±0,003		0.030	Nb					Fe		
Si	0,27	±0,02		1,00	Ti					Ca		
Mn	0,78	±0,05		2,00	W	0,62	±0,06	0,50	1,00	Ta		
P	0,024	±0,003		0.030	Pb					Sb		
S	0,002	±0,001		0.010	Sn					H		
Cr	25,7	±0,3	24,0	26,0	As					Cd		
V					B					Se		
Mo	3,7	±0,2	3.0	4.0	N	0,26	±0,02	0.20	0.30	Bi		
Ni	6,8	±0,4	6.0	8.0	La					Hg		
Cu	0,65	±0,05	0.50	1.00	Mg							
Ce					Zr							
Al					Zn							
Co					O							

FORMULAS			Min.	Max.
*PREN	42,07	±0,72	40,00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.

Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
27/03/2024	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: 04/04/2024	firmato elettronicamente/electronically signed			

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Ql → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [/]-/; [B]-Specimen in Base Material; [UP]-external sup.

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

SIDERTEST mechanical chemical non destructive tests

Head Office: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

DUR 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN APRILE 2024/2**

Commessa/ Job **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

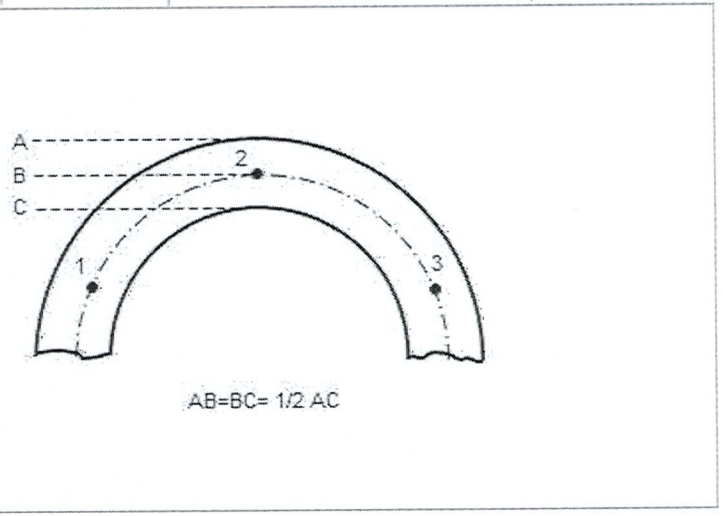
Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm	1		91/24	58746	**ASTM A 815-23 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
39700	ASTM E92 – 23 (only Vickers)	RTX_D53 Rev.9	B	T	20 °C	HV10	03/04/2024

(B1) - Base Material — **MAX 286**

HV10	1	275	2	268	3	278



Position	Average	
(B1) - Base Material	274	HV10

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
27/03/2024				
Data Rapporto di prova/ Test Report Date: 04/04/2024	Morresi Davide	Amani Paolo		
firmato elettronicamente/electronically signed				

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200
CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEITI2024000003948

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order: **MASTER PLAN APRILE 2024/2**

Commessa/ Job: **31004/24 24/0088**

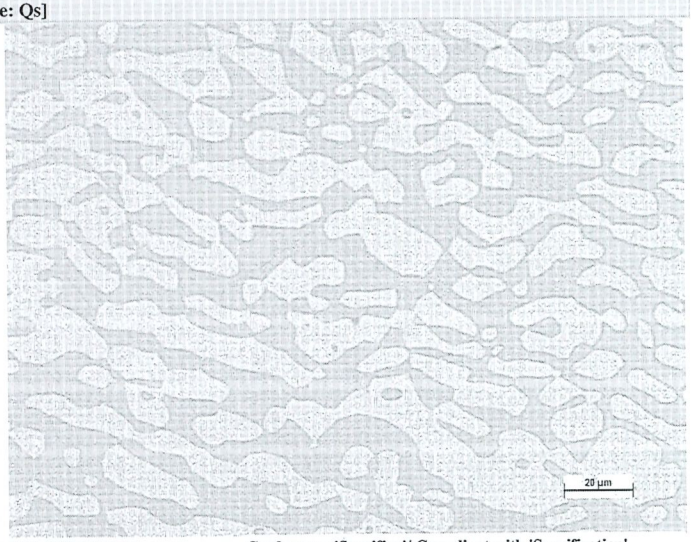
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm	1		91/24	58746	ASTM A 815-23 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
39702	ASTM E3 – 11(R2017) / ASTM E407 – 23	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	03/04/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	10% Oxalic	Specimen in Base Material 3.0 x 20.0 = 60.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
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Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.
Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS
Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

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RAPPORTO DI PROVA/ TEST REPORT

MIC 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN APRILE 2024/2**

Commessa/ Job **31004/24 24/0088**

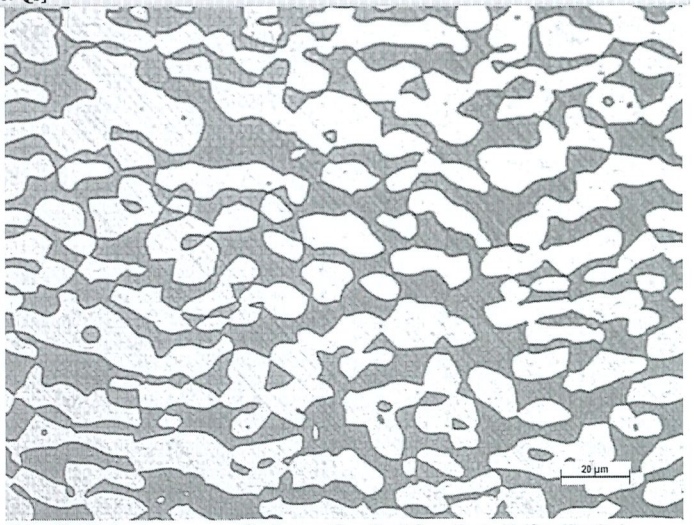
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm	1		**91/24**	**58746**	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
39703	ASTM E3 – 11(R2017) / ASTM E407 – 23	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	03/04/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	20% NaOH	Specimen in Base Material 3.0 x 20.0 = 60.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
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Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 10315A024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer: **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order: **MASTER PLAN APRILE 2024/2**

Commessa/ Job: **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

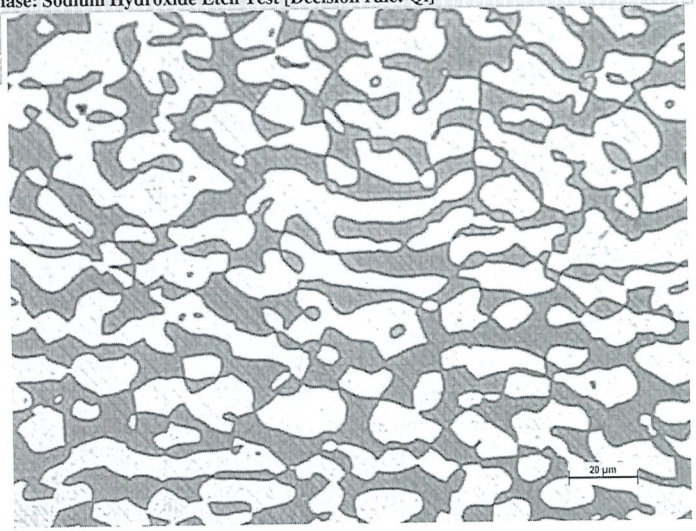
Descrizione/ Description: **SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm**

Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
1		91/24	58746	ASTM A 815-23 UNS S32760

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
39707	ASTM A923 – 23 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	03/04/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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		Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Ingresso Materiale/ Date of Material Arrival	27/03/2024				
Data Rapporto di prova/ Test Report Date	04/04/2024	Antonielli Stefano	Amani Paolo		
	firmato elettronicamente/electronically signed				

DECISION RULE:
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- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
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Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200 CURVE 90° LR 2" SCH.10/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923C 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN APRILE 2024/2**

Commessa/ Job **31004/24 24/0088**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm	1		91/24	58746	ASTM A 815-23 UNS S32760

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
39706	ASTM A923 – 23 Method C	RTX_D53 Rev.9	B L FT	Meccanica/ Mechanical	51,35	28,65	2,79	33,89

Condizioni superficiali/ Surface condition: Lavorato/ Machined

Temperatura di prova/ Test temperature (°C): 50

Temperatura Minima Rilevata/ Minimum temperature observed (°C): 49,71

Temperatura Massima Rilevata/ Maximum temperature observed (°C): 50,47

Tempo di esposizione (ore)/ Exposure time (hours): 24

Data inizio/ Initial date	Data fine/ End date
02/04/2024 09:04:26	03/04/2024 09:04:26

Soluzione/ Solution: FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g): 30,8719

Peso finale/ Final weight (g): 30,8713

Perdita di peso/ Weigth loss (g): 0,0006

Perdita di massa/ Specimen mass loss: 0.2 (g/m²)

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)): **1,8**

Limite velocità di corrosione (mg/(dm²*d)) max/ Corrosion rate limit (mg/(dm²*d)) max: **10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
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- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: E90RSD01650200
CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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Verifica di Autenticita'/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PM 7328 / 24

Rif. Lab SIM (FCP) : **2498 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN APRILE 2024/2

Commessa/ Job
31004/24 24/0088

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description
SACRIFICAL PIECE 2" SCH. 10S W.T. 2.77 mm

Qta/ Qty: **1**

Posizione/ Item:

Prova Nr./ Test Nr.: **91/24**

Colata/ Heat: **58746**

Materiale/ Material
ASTM A 815-23 UNS S32760

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength MPa			MPa	Rottura/ Tensile strength Rm MPa		Allungamento/ Elongation after fracture A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
39698	ASTM A370 – 23 §6÷14, § A1.3, § A2.2 and § A3.2	**Material Standard**	2,99	12,51		50,00	B L FT	23,0	(≥550)	Rp0,2%	**579**		(≥750)	**808**	(≥25)	**29,9**			03/04/2024

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Clicut.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **27/03/2024**

Data Rapporto di prova/ Test Report Date: **04/04/2024**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

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INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RÉCEPTION
ABNAHMEPRUFZEUGNIS
EN 10204:2004 / 3.1

Number: 734881 Page: 1 / 6	Rev:
Created on: Date: 29.06.2022	Modified on: 12.07.2022

TTI - TUBACEX TUBOS INOXIDABLES
Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI 2885 - N.I.F. A-01140227
Tres cruces, 8
01400 Llodio (Alava)
SPAIN
TL: 946721350
FAX: 946725062
E-MAIL:

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT
TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:00000139 S
SOLD ORDER REF.:375848
COPY NUMBER: 005

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I009503
SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

AENOR ER Empresa Registrada UNE-EN ISO 9001
AENOR Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD
Iñigo Arriola Alcibar

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Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E90RSD01650200
CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE

HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)

GRADE / ACERO / GRADE / WERKSTOFF: S32760,1.4501,

STANDARD / NORMA / STANDARD / LIEFERUNG NACH: ASME SECT.II PART.A SA790/SA790M-2021 ED.

ASTM A790/A790M-20

EN 10216-5:2013 TC2

EN 10297-2:2005

NORSOK M650 QTR NO.2

NORSOK M630:2020 MDS D51 REV.6

CHECK ANALYSIS

CORROSION TESTED ACC. TO ASTM A262 PRACTICE E

CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C

CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A

CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B

SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)

HYDROTEST

ANSI/NACE MR0103/ISO 17945:2015

ANSI/NACE MR0175/ISO15156-3:2015

QAD 68 REV.0

RTX_D51S REV.4

SHELL MESC SPE 74/014 FEBRUARY 2020 EXCEPT:

NO LIQUID PENETRANT TEST (POINT 14.12.1),

TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.

ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.

IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.

ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213

TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASME SECT.II PART.A SA999/SA999M-2021 ED.

ASTM A999/A999M-18

EN ISO 1127/03.97 D3/T3

RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 6.000/7.000 MM

PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,

DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 60,33 X 2,77 MM - 2" SCH 10S

COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item / Pos Ped. / AuftrgPos / Usine Pos	Client Item / Pos Clnt / Kunde Pos / Com. Pos	Delivery No / Nº Entrega / Lieferung / Avis. d'exp	Lot No. / Nº lote / Los Nr. / Lot d`inspection	Heat No / Colada / Schmelze / Coulée	Pieces / Piezas / Stück / Pcs	Weight / Peso / Gewicht / Poids	Tot Lgth / Long. Tot / Gesamtlänge / Tolength	Un Lgth / Long. Un / Längentyp / Long. Un
10		8110074401	P2202636	58746	21	576 KG	141,71 M	6000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr:	Supplier	Method
58746	ACERALAVA (SPAIN)	Electric furnace+AOD

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CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
L	58746	1	0,013	0,76	0,260	0,024	0,0005	6,75	25,58	3,64	0,011	0,64
C	58746	6	0,013	0,76	0,270	0,023	0,0005	6,75	25,40	3,68	0,001	0,64
C	58746	7	0,013	0,76	0,270	0,023	0,0005	6,75	25,50	3,62	0,010	0,64

*	Heat	Seq	V	Nb	W	Co	N	Pren
L	58746	1	0,056	0,024	0,610	0,056	0,2480	41,5600
C	58746	6	0,058	0,025	0,610	0,057	0,2480	41,5120
C	58746	7	0,058	0,025	0,610	0,057	0,2480	41,4140

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1100 °C , 7 min , Agua
SOLUTION ANNEALED AT 1100 °C , 7 min , WATER
HYPERTREMPES 1100 °C , 7 min , L' EAU
LOESUNGSGEGLUEHT 1100 °C , 7 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No.	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5	Type	Spc.Type	Spc.Dim
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*			*mm*
P2202636	1	20	697	766	873	33	33	L	S	20,01
	2	20	676	749	849	33	33	L	S	19,99

CORROSION ACCORDING TO ASTM A923 C/CORROSION DE ACUERDO ASTM A923 C/CORROSION SUIVANT ASTM A923 C/CORROSION ACCORDING TO ASTM A923 C

Lot No.	Sample	T	Pits-20x	Wloss	time
		°C		*MDD*	*Horas*
P2202636	1	50	N	2,6070	24,0

Corrosion test ASTM G48 practice A/Corrosión ASTM G48 práctica A/TEST DE CORROSION ASTM G48 practice A/LOCHFRASSTEST ASTM G 48 PR.A

Lot No.	Sample	T	Pits-20x	W.loss	time
		°C		*g/m2*	*Horas*
P2202636	1	50	N	0,2607	24,0

Lot No.	Sample	FOTO	MAGN
P2202636	1	0	20

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No.	Sample	0°Ext1	0°Ext2	0°Ext3	0°Int1	0°Int2	0°Int3	90°Ext1	90°Ext2	90°Ext3	90°Int1	90°Int2	90°Int3	180°Ext1
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2202636	1	17,4	18,1	16,9	15,6	17,2	16,2	15,6	16,2	15,1	14,7	16,2	17,0	18,7

Lot No.	Sample	180°Ext 2	180°Ext3	180°Int1	180°Int2	180°Int3	270°Ext1	270°Ext2	270°Ext3	270°Int1	270°Int2	270°Int3
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2202636	1	20,2	17,9	20,2	16,3	17,1	17,9	17,6	19,8	19,0	19,0	21,1

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FERRITE ACCORDING TO ASTM E 562/Contenido de Ferrita según ASTM E562/FERRITE SUIVANT ASTM E562/FERRIT ENTSPRECHEND ASTM E562

Lot No.	Sample	%Fer	Dev.Ferr
		%	%
P2202636	1	54,81	1,43

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS
EXAMEN DE MICROESTRUCUTRA DE ACUERDO A ASTM A923 MET.A: ESTRUCTURA NO AFECTADA. MATERIAL LIBRE DE FASES INTERMETALICAS Y PRECIPITADOS. ESTRUCTURA UNIFORME A TRAVES DEL ESPESOR.
ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262 PRACT.E: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT
INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B: SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2 MET."B": IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS

FERRITE CONTENT DETERMINED BY FISCHER FERRITOSCOPE TO 100% OF PRODUCTS
CONTENIDO EN FERRITA MEDIDO CON FERRITOSCOPIO SOBRE EL 100% DEL MATERIAL.
Ferritescope-Test auf 100% des Materials.

100% ULTRASONIC TEST ACC. TO ASTM A999 / E213: SATISFACTORY
100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM A999 / E213: SATISFACTORIO
100% ULTRASCHALLPRÜFUNG NACH ASTM A999 / E.213:IN ORDNUNG
100% ESSAI D´ULTRASON D'ACCORD A ASTM A999 / E.213: SATISFAISANTE
POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO

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VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR
"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 170 bar, 2500 PSI DURING 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 170 bar, 2500 PSI DURANTE 5 SEC EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 170 bar, 2500 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 170 bar, 2500 PSI PENDANT 5 SEC SUR CHAQUE TUBE: SATISFAISANT
100% EDDY CURRENT TEST AT ASTM E426: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A ASTM E426: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH ASTM E426: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES ASTM E426: BIEN
100% EDDY CURRENT TEST AT DIN EN 10246-2: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A DIN EN 10246-2: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH DIN EN 10246-2: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES DIN EN 10246-2: BIEN

DIMENSIONAL CHECKING ON EACH TUBE: SATISFACTORY
INSPECCION DIMENSIONAL AL 100% DE LOS TUBOS SATISFACTORIA
100% MASSKONTROLLE: O.B.
VERIFICATION DIMENTIONNELLE AU 100% DES TUBES, SATISFAISANTE

VISUAL INSPECTION ON EACH TUBE: SATISFACTORY
INSPECCION VISUAL AL 100% DE LOS TUBOS, SATISFACTORIA
100% BESIGCHTIGUNG: O.B.
EXAMEN VISUEL AU 100% DES TUBES, SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS
FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

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MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

TX2 TX1 TUBACEX 60,33 X 2,77 MM - 2" SCH 10S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 S32760 1.4501 CFD CD SMLS HEAT/ PMI-AV LOT NO/ MADE IN SPAIN

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.
DURANTE LOS PROCESOS DE FABRICACIÓN E INSPECCIÓN NO SE HA USADO MERCURIO NI INSTRUMENTOS Y/O EQUIPOS CONTENIENDO MERCURIO O CON COMPONENTES DE MERCURIO.
KEINE QUEKSILBER, BZW. QUECKSILBERVERUNREINIGTES KOMPONENTEN ODER KUGELLAGERINSTRUMENTE UND/ODER GERÄTE SIND BENUTZT WORDEN PRODUKTIONS UND BESICHTIGUNGSPROZESS.
IL N'A PAS ÉTÉ FAIT USAGE DE MERCURE, DE COMPOSÉS CONTENANT DU MERCURE OU DE MATÉRIAUX ET/OU D'INSTRUMENT CONTENANT DU MERCURE TOUT AU LONG DES ÉTAPES DE FABRICATION ET DU PROCESSUS D'INSPECTION ET DE CONTRÔLE.

NO WELDING OR WELD REPAIRS WERE MADE
SIN REPARACION POR SOLDADURA
KEINE SCHWEISSBEARBEITUNG WURDE VORGENOMMEN
SANS RÉPARATION AVEC SOUDURE
MATERIAL MANUFACTURER APPROVED BY TÜV SÜD Industrie Service GmbH
(NOTIFIED BODY 036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN
ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3.
FABRICANTE DE MATERIALES APROBADO POR TÜV SÜD Industrie Service GmbH (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO AL ANEXO 1, PUNTO 4.3 DE LA DIRECTIVADE EQUIPOS A PRESION 2014/68/EU.
WERKSTOFFHERSTELLER MIT BERECHTIUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. DER BENANNTEN STELLE NR.0036, TÜV SÜD Industrie Service GmbH
PRODUCTEUR DU MATERIEL APPROUVE PAR TÜV SÜD Industrie Service GmbH N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU ANNEXE 1 POINT 4.3.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20ºC.
LAS CARACTERISTICAS DEL MATERIAL CUMPLEN CON LOS REQUISITOS DEL PUNTO 7.5 DE LA DIRECTIVA PED POR TENER UN ALARGAMIENTO TRAS ROTURA EN EL ENSAYO DE TRACCION NO INFERIOR AL 14% Y PO DE TRACCION NO INFERIOR AL 14% Y POR TENER UNA RESISTENCIA AL IMPACTO NO INFERIOR A 27 J A 20º C.
DIE WERKSTOFF-WERTE ENTSPRECHEN PUNKT 7.5. DER DGRL, ANHANG 1, MIT EINERBRUCHDEHNUNG = 14% IM NORMGEMÄSS DURCHGEFÜHRTEN ZUGVERSUCH UND DER KERBSCHLAGARBEIT = 27J AN EINER ISO - v PRO PROBE BEI EINER TEMPERATUR VON HÖCHSTENS 20ºC
LES CARACTERISTIQUES DU MATERIEL, AYANT UN ALLONGEMENT APRES RUPTURE A L'ESSAI DE TRACTION NON INFERIEUR DU 14% ET UNE RESISTENCE A LA FLEXION PAR CHOC A 20ºC NON INFERIEUR A 27J, SONT CONFORMES AUX PRESCIPTIONS DU PONT 7.5 DE L'ANNEXE I DE PED.

MATERIAL IS FREE OF RADIATION CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IS FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E90RSD01650200
CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TUBACEX GROUP

STRUCTURE EXAMINATION

MTC / Certificate
734881

MATERIAL IDENTIFICATION / IDENTIFICACIÓN DEL MATERIAL

Lot No. / Num Lote	P2202636	Dimension / Dimensión	60,33 x 2,77 mm - 2'SCH 10
Heat / Colada	58746	Grado de acero / Steel grade	S32760

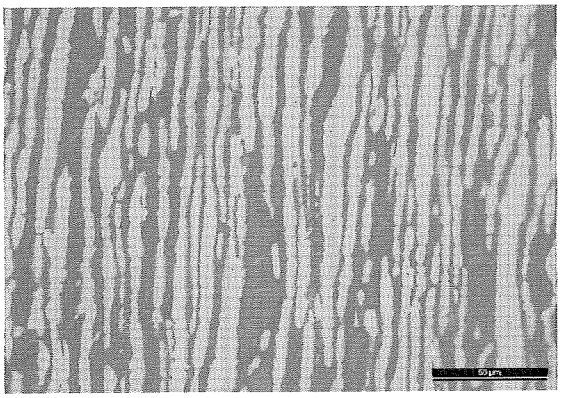
Type Of test / Tipo de Ensayo:	MICROSTRUCTURE EVALUATION

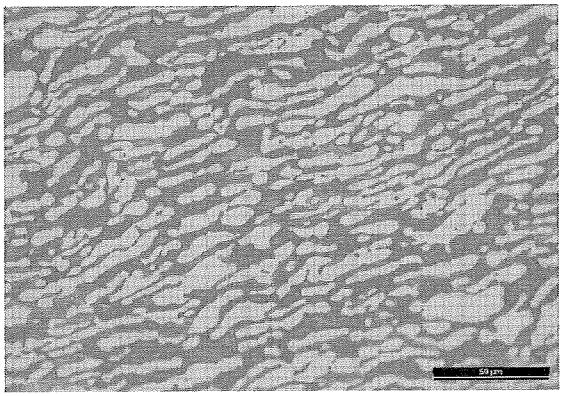
RESULTS / RESULTADO

Result: The microestructure is formed by austenite and ferrite. The presence of intermetallic phases or precipitates is not observed. Uniform structure across full wall thickness Etching method according to ASTM E-407.

Resultado: la microestructura está compuesta por austenita y ferrita. No se observa la presencia de fases intermetálicas y precipitados. Estructura uniforme a través de todo el espesor. Método de ataque según ASTM E-407.

GRAPHICS RECORDS / REGISTROS FOTOGRÁFICOS:





Dir: LONGITUDINAL / MAG: 500X /	Dir: TRANSVERSAL / MAG: 500X /

María Cano
Responsable del Laboratorio
Laboratory Manager

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 30 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: E90RSD01650200
CURVE 90° LR 2" SCH.10/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1031SA024 - Qty:3,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.
Description: FLB0SS01961H00 BLIND 1.1/2" S.300 RF
raccortubi Heat num. or Pcs. marking: S-25033 - Qty:1,00
Order: 1724001828 - 12.09.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024
CTCERT202200003324.1

GOODLUCK
ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

(AS PER EN - 10204 - 3.1 ☑ 3.2 ☐)

Entry No. : 6479

CUSTOMER	CUSTOMER P.O. No. & Dt.	OUR W.O. No. & Dt.	SPCN. No.	QAP NO.	DOC. NO.	PROJECT:	TEST CERTIFICATE No & Dt.
RACCORTUBI S.P.A Viale De Gasperi 194 20010 Marcallo con Casone (MI) ITALY ITALY	00000279 S 15/12/21	Exp/2085/21-22 24.12.2021					GLECO/J-2085/4 Date 31.03.2022

STEEL MELTING PROCESS	ORDER STATUS	DIMENSIONS AS PER	INSPECTION AGENCY	DATE OF INSPN. & TESTING
EF-AOD	PARTIAL	ASME B16.5 (Ed.2020)	M/s. RACCORTUBI	29.03.2022 TO 31.03.2022

Item Sr.No.	Item Code	ITEM DESCRIPTION	MATERIAL SPEC.	QUANTITY (NOS)	HEAT NUMBER	BATCH NUMBER	HEAT TREATMENT CONDITION	TEMP °C	SOAKING TIME (Hrs)	COOLING MEDIUM	DELIVERY STATUS
4.00		1.5 in x 300 # x BLRF (NACE)	ASTM A 182 Gr. F316/316L (Ed.2020)	49	S-25033	GI11130A	Solution treat & quenched	1080°C	04 Hrs	Stirred water	Partial

:GASKET FACE FINISH RF: 125-250 AARH **Total Qty Pc** 49

Report Type	Heat No	Batch No	C%	Mn%	Si%	S%	P%	Cr%	Ni%	Mo%	N%
Ladle	S-25033	-	0.0260	1.5400	0.3200	0.0070	0.0430	16.8200	10.0900	2.0800	0.0696
Product	S-25033	GI11130A	0.0250	1.5900	0.3400	0.0080	0.0400	16.8000	10.0600	2.0500	0.0696
Required Value	-	Max	0.0300	2.0000	1.0000	0.0300	0.0450	18.0000	14.0000	3.0000	0.1000
		Min	-	-	-	-	-	16.0000	10.0000	2.0000	-

for Raccortubi S.P.A
Kmeshwari
31/03/2022

GOOD LUCK ENGG. CO. Devendra Raghav Manager (Q.C.) Dadri (U.P.)

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PT 470 / 24

LAB N° 0864 L

Tipo di controllo/ Type of control *Esame con Liquidi Penetranti/ Liquid Penetrant Examination*

Luogo del Controllo/ Test Location: Str. Barianella, 1/B C.S.Giovanni (PC)

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00003948**	**1724001828 - 123A90A**

Doc. Cliente/ Client's doc.	*Doc. Sider Test/ Sider Test doc.*	*Norma Esecuzione/ Execution Standard*	*Accettabilità/ Acceptance Std*
	PO 04-003 PT Rev. 17 - IL 04-003-001 PT Rev. 05	**ASME BPVC.V-2023 Art. 6 and 24**	**ASTM E 165-23 - ASME BPVC.VIII.1-2023 App. 8**

Tecnica d'Esame/ Examination Technique	Light intensity (Lux)	Condizioni Superficiali/ Surface Condition	Area Esame/ Area Tested
Liquidi Penetranti Solubili in Acqua a Contrasto di Colore/ Water Washable Color Contrast Penetrant Examination (IIAe2)	**>= 1076**	**Materiale Finito/ Finished Material**	**100% accessible surfaces**

Pulizia/ Cleaning		*Penetrante/ Penetrant*		*Rimozione Penetrante/ Penetrant Removal*		*Asciugatura/ Drying*		*Rilevatore/ Developer*	
Tipo/ Type	**Solvent NITRO**	Applicazione/ Application	**Brush**	Tipo/ Type	**Water Sponging**	Tipo/ Type	**Clean rags**	Applicazione/ Application	**Spray**
Intervallo/ Interval (min)	**5'**	Tipo/ Type	**Red K71B2P**	Intervallo/ Interval (min)	**5'**	Intervallo/ Interval (min)	**5'**	Tipo/ Type	**White D112A**
		Bagno/ Batch	**230707P**					Bagno/ Batch	**240507W150s**
		Marca/ Trade Mark	**ELITE**					Marca/ Trade Mark	**ELITE**
		Tempo mi. di penetrazione/ Minimum Penetration Time	**10'**					Intervallo di interpretazione/ Final interpretation interval	**7' ÷ 60'**

Posizione/ Item	Qta/ Qty	Descrizione/ Description	Prova Nr./ Test Nr.	Materiale/ Material	Colata/ Heat
40	**1**	**BLIND 1,1/2" S.300 RF**	**1169**	**ASTM A 182 F316/F316L**	**S-25033**
80	**1**	**W.N. 1,1/4" S.300 RF SCH. 10S**	**1170**	**ASTM A 182 F316/F316L**	**13/555**

Assenza di Difetti/ Absence of Defects

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptace Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Operatore CND Liv. II/ Lev. 2 NDE Operator
SIDER TEST S.r.l.
MAURIZIO DEPIANI
LEVEL II SNT-TC-1A

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date	Cliente/ Customer	Ispettori/ Inspector
04/10/2024	**04/10/2024**	**07/10/2024**		

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
PAOLO AMANI
LEVEL 3

raccortubi Heat num. or Pcs. marking: S-25033 - Qty:1.00
Customer: ROSETTI MARINO S.p.A.
Description: FLB0SS01961H00 BLIND 1.1/2" S.300 RF
Order: 1724001828 - 12.09.24 - Item n.: 40 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000394B
Protocol: CTCERC20240008900 * CERTIFIED TRUE COPY * Issued 09-10-2024
CTCERT20220000324.2

GOODLUCK
ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

Entry No. : 6479

MECHANICAL TEST REPORT AT ROOM TEMPERATURE IN AS DELIVERED CONDITION	Batch No	Gauge Dia / Size (mm)	Yield Strength (N / mm sq.) (0.2% Proof Stress)	Tensile strength (n/mm Sq.)	Elongation % On GL = 4D	Reduction In Area %	Hardness	Impact Test10X10X55 mm (Charpy 2mm V-Notch)					Grain Size as per ASTM E-112
							HBW	01	02	03	Avg(Joules)	Temp °C	
	GI11130A	8.75	269.30	581.82	52.80	78.47	171,173	- - -	- - -	- - -	- - -	- - -	
	REQUIRED	MIN	205.00	515.00	30.00	50.00	-	-	-	-	-	-	
		MAX	-	-	-	-	-	-	-	-	-	-	

SUPPORTING TESTING	TEST STANDARD	ACCEPTANCE LEVEL	RELEVANT REPORT	SEAL/STAMP OF TPI WITNESS	SEAL / STAMP of Incharge Quality
				ARJUN CHAUDHARY Prepared by:	NIKHIL GUPTA Checked By:

Remark
(1) No Weld repair performed on forging.
(2) Hardness Test carried out on job & found satisfactory.
(3) Material comply all the requirements of PO & Specification.
(4) Material conformed all the requirements of ASTM A961/A961M (Ed. 2020)
(5) No Chinese and East European material is used.
(6) Material 100% visual & dimensional checked & found surface free from all types of defects.
(7) PMI carried out on job (PMI Report No. GLECO/PMI/J-2085/4 DATED 31.03.2022 enclosed) & found satisfactory.
(8) IGC test carried out as per ASTM A262 Practice E Test piece Bend over mandrel Dia = 1t X 180° and reviewed under 20X Mag. Observed "Bend Specimen free of any crack and Grain dropping" Microscopic Structure observed under magnification of 250 X and observed "Step Structure" - Found satisfactory.
(9) Material comply all the requirements of NACE MR0175/ISO 15156 (Ed 2015).
(10) Packing carried out as per PO & Spec.RT_FL_EXEU_2011 and found satisfactory.
(11) Material is free from Mercury & Radioactive Contamination.

We hereby certify that material declared above meets the requirement of P.O./ relevant specification — Identification Mark :

Doc No	Doc Rev No	Date	Effective Date	Doc. Retention Period	Doc. Prepared by	Doc. Approved by	*Recorded document will be prepared, Maintained And preserved by* inchange Quality
QA 11 TCFP 08	04	13/08/2018	13/08/2018	AS SPECIFIED BY CUSTOMER / COMPANY PROCEDURE	MR	Dir.works	for Raccortubi S.P.A. Kmaheshwari 31/03/2022

Document Route
(01) Original copy - Forwarded to CUSTOMER as self certified authentic record from GOOD LUCK ENGG. CO.
(02) 1st Copy - Inchange quality to maintain and preserve the record .

CONTROLLED COPY

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2008 CERTIFICATE No. 04 100 011022-E3

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist Valsad, Gujarat - 396 171.
Tel.: 91-260-256 2066 / 4367 / 1166. Fax.: 91-260-256 2287
E-mail : exports@chandansteel.net

L/c. No. : 164108
L/c. Date:

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA VIALE DE GASPERI, 194 20010 MARCALLO CON CASONE (MILANO) - ITALIA	Test Certificate No: EXP/0000-18/2013-14 Date of Issue : 21.06.2013 P. O. No. : OS000114 S Invoice No. & Dat: EXP/0000/2013-14 Dtd. 21.06.2013

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

ARTICLE NO.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
G6LWN1QS300RFS10SE	13/555	104	66	81.12	316/316L	1 1/4" WNRF 300 LBS S10S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

ARTICLE NO.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
G6LWN1QS300RFS10SE	0.030	0.65	1.76	0.031	0.016	16.92	2.02	10.03	-	-	0.0540	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

ARTICLE NO.	0.2% Yield Strength N/mm^2 ($R_{p0.2}$)	Tensile Strength N/mm^2 (R_m)	Elongation %	Reduction of Area %	Hardness (B. H. N.)
G6LWN1QS300RFS10SE	304	589	60	71	174-178
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:

1.The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection 100%:- OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Micro Structure Reveals Austenitic grains with annealing twins and is free from carbide precipitation (At 500 X).
7. Inter-Granular Corrosion Test (ASTM A262 - 10 (Pr.E)):- Satisfactory.
8. The Material conforms to ASTM A 182 - 11 & Dimension confirms to B16.5 - 09 Specification.
9. The material hardness conforms to NACE MR 0175-09 & NACE MR 0103-07.
10. Surface roughness quality checked by comparator & found 125 - 250 AARH

Witnessed
For T.T.I.
Bhavesh Gandhi
Sr. Surveyor
ASNT L-II-UT/MT/RT/PT
26/06/13

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

CHANDAN STEEL LTD. FORGING DIVISION

B. S. RAUTELA
MANAGER Q. A.

Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 80 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLW0SS0765UQ00
W.N. 1.1/4" S.300 RF SCH.10/S

raccortubi Heat num. or Pcs. marking: 13/555 - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

Marine & Offshore

Certificate number: 00891NPL24

www.veristar.com

CERTIFICATE
FOR
PIPE / TUBE AND FITTINGS

Manufacturer	: TECNINOX SRL (production plant of Raccortubi Spa) (SARMATO (PC) - ITA)
Manufacturer's ref. N°	: JOB 478
Supplier	: RACCORTUBI SPA (MARCALLO-MI - ITA)
Purchaser	: ARCUS INOX (Viarmes - FRA)
Purchaser's order N°	: Order 1072051
Shipbuilder	: CHANTIERS DE L'ATLANTIQUE (SAINT-NAZAIRE - FRA)
BV Register N°	: 42644E **Hull N°** : Y34
Requirements	: Bureau Veritas Rules for the Classification of Steel Ships (Jul. 2023)
Product description	: **BW FITTINGS to ASME/ASTM SA/A-403 WP - 316/316L**
Design review	: Reference(s) : N.A.
Quantity	: 35 pcs
Type of product	: ELBOWS
Material grade	: 316/316L
Cast number	: See additional page
Heat number	: See additional page
Manufacturer's certificate number	: See additional page
Material certificate number	: See additional page
Dimensions	: See additional page

Enclosures / Remarks : See certification dossier ARCUS INOX .478
Witness Visual and Dimensional Test.

This certificate is issued by Bureau Veritas Marine & Offshore as per the above Classification Rules and in compliance with the applicable technical requirements therein.

Marking	: & 00891NPL24 marking near to heat number		
Last survey	: 13 May 2024	**Issuance date**	: 13 May 2024
Surveyor	: Andrea Belvisi	**Office**	: BV NAPOLI

This certificate was created electronically and is valid without signature

BUREAU VERITAS MARINE & OFFSHORE INTERNATIONAL REGISTER

This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgment, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

Additional Page

Cliente Customer: ARCUS INOX

Commessa Job N. BV JOB: 0484/NPL/2024

COI:00891NPL24

CHANTIER DE L'ATLANTIQUE - VESSEL N.Y34

Pos. cl. *Item cl.*	Q. Check *Q.ty*	Q.ta' *Q.ty*	Tubi *Tubes*	U.M.	Descrizione *Description*	N. Prova *Test N.*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Kg *Kg*
1	3	8	0,00	NR	ELBOWS 90° LR 8" SCH.40/S SEAMLESS FROM PIPE SCH 40S (5000001885-01WG)	398	1008624	172,00
1	3	16	0,00	NR	ELBOWS 90° LR 8" SCH.40/S SEAMLESS FROM PIPE SCH 40S (5000001885-01WG)	399	1009624	344,00
1	3	11	0,00	NR	ELBOWS 90° LR 8" SCH.40/S SEAMLESS FROM PIPE SCH 40S (5000001885-01WG)	400	1010624	236,50

tot 35 pcs.

Surveyor : Andrea Belvisi

****** End Report******

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Description: RECOSD0801H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5
29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente / **Customer**: RACCORTUBI S.p.A.

Ordine N. / **P.O.N./C.**: Master plan Dicembre 2023/1

Pos. N. / Item/Poste: 11 — **Q.tà** / Q.ty/Q.té: 79

(*) Marcatura e cert. N. / Material Marking e Cert. N.: 1004SA024

Created on: 18-01-2024

Descrizione / Description / Description: CONC.REDS 1.1/2"x1" SCH.40/S SEAMLESS

Specifica / Specification / Spécification: BW FITTINGS TO ASTM A/815M-2023
ASME SA/815-21 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 705701
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 705701

Test produzione / Production test/Coupon de production

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.5 Specimens location drawing as per relevant QTR	56144	426/23	628	881	29.3	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**Nb**	**Co**	**N**	**W**	**PRE**	**FERRITE**
56144	0,013	0,260	0,67	0,020	0,0004	25,55	6,95	3,65	0,62	0,002	0,045	0,2540	0,63	41.659	49.3

Prove
Tests/Tests

Altri / Others / Autres: G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità
Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/EU annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.: 1216/24
- MATERIAL AND TESTS ACCORDING TO M-630 REV.7 - MDS D53 REV.6
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS ACC. TO ASTM A380
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo / Cold formed / Formés à froid
Senza saldatura / Seamless / Sans soudure

Ispezione
Inspection/inspéction

Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique

Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 20 minutes, batch n. 0123

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

raccortubi
Customer: ROSETTI MARINO S.p.A.
Description: RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS REC0SD08001H01
Heat num. or Pcs. marking: 1004SA024 - Qty:2,00
Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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mechanical chemical non destructive tests
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Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN DICEMBRE 2023/1**

Commessa/ Job **30012/23 23/1099**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
6649	ASTM G48 – 11 (R2020)e1 Method A	**RTX_D53 Rev.9**	B L FT	Meccanica/ Mechanical	49,65	29,06	3,57	34,48	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Lavorato/ Machined
Temperatura di prova/ Test temperature (°C)	50
Tempo di esposizione (ore)/ Exposure time (hours)	24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
24/01/2024 14:35:11	25/01/2024 14:35:11

Soluzione/ Solution FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	40,1066	
Peso finale/ Final weight (g)	40,1062	
Perdita di peso/ Weigth loss (g)	0,0004	
Perdita di massa/ Specimen mass loss	0.1	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max	**1.0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 28,86 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **19/01/2024**

Data Rapporto di prova/ Test Report Date **26/01/2024** firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2.00

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

E562 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN DICEMBRE 2023/1

Commessa/ Job
30012/23 23/1099

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
6645	ASTM E562 – 19e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	Square 5 x 5 = 25 Points	24/01/2024

		Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv (% Volume Fraction)	49.3	**40**	55
s 4.1 95% C.I. 1.5	%RA 3.09		

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**44**	3	**42**	4	**52**	5	**44**
6	**46**	7	**44**	8	**46**	9	**54**	10	**50**
11	**52**	12	**54**	13	**46**	14	**48**	15	**48**
16	**52**	17	**52**	18	**54**	19	**44**	20	**44**
21	**54**	22	**52**	23	**54**	24	**54**	25	**48**
26	**54**	27	**44**	28	**52**	29	**50**	30	**54**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle: 30 / 3.50 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival: 19/01/2024

Data Rapporto di prova/ Test Report Date: 26/01/2024 firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: Amani Paolo

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.
Description: REC0SD08001H01 RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00
Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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RAPPORTO DI PROVA/ TEST REPORT

ANL 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN DICEMBRE 2023/1**

Commessa/ Job **30012/23 23/1099**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA A SCINTILLA/ Spark Atomic Emission Spectrometry

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova/ Test temperature (°C)	ID Gruppo/ Group ID	Unità di misura/ Unit of measure	Data esecuzione/ Date of Testing
6652	ASTM E1086 – 22	RTX_D53 Rev.9	B / UP	20	9743	% by weight	24/01/2024

			Min.	Max.				Min.	Max.				Min.	Max.
C	0,015	±0,003		0,030	Nb					Fe				
Si	0,30	±0,02		1,00	Ti					Ca				
Mn	0,69	±0,04		2,00	*W	0,64	±0,04	0,50	1,00	Ta				
P	0,022	±0,005		0,030	Pb					Sb				
S	0,005	±0,001		0,010	Sn					H				
*Cr	25,8	±0,2	24,0	26,0	As					Cd				
V					B					Se				
*Mo	3,7	±0,2	3,0	4,0	*N	0,26	±0,02	0,20	0,30	Bi				
*Ni	7,0	±0,4	6,0	8,0	La					Hg				
*Cu	0,66	±0,04	0,50	1,00	Mg									
Ce					Zr									
Al					Zn									
Co					O									

FORMULAS			Min.	Max.
*PREN	42,17	±0,71	40.00	

Decision rule:
the result is "Compliant to Specification" when:
- *Result-U ≥ Lower Limit (<2,5 %PFA)*
- *Result+U ≤ Upper Limit (<2,5 %PFA)*
- *Result-U≥ Lower Limit and Result+U≤ Upper Limit (<5 %PFA)*

When the result falls within the uncertainty range at the limit value, the result is Not Compliant.
Where U is the Uncertainty and PFA is the Probability of False Accept (ILAC-G8:09/2019)

The symbol * before the element or formula indicates a value that is outside the Laboratory's accredited range for that element/formula.The symbol (!) means that the sensitivity of the instrument does not satisfy the required number of significant digits.
Expanded uncertainty above reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **19/01/2024**

Data Rapporto di prova/ Test Report Date **26/01/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Qi — Qualitative
- Qs — Semi-quantitative
- Qa — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [/]-/: [B]-Specimen in Base Material; [UP]-external sup.

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RAPPORTO DI PROVA/ TEST REPORT

DUR 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN DICEMBRE 2023/1

Commessa/ Job
30012/23 23/1099

Campione fornito da cliente/ Sample supplied by customer :

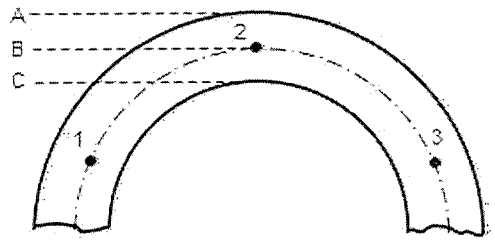
Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

PROVA DI DUREZZA HV10 - HV30 - HV5/ HV10 - HV30 - HV5 hardness test [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Temp./ Temp.	Durezza/ Hardness	Data esecuzione/ Date of Testing
6644	ASTM E92 – 23 (only Vickers)	RTX_D53 Rev.9	B	T	20 °C	HV10	24/01/2024

(B1) - Base Material MAX 286

HV10	1	273	2	274	3	273



AB=BC= 1/2 AC

Position	Average		CV%
(B1) - Base Material	273	HV10	0,3

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival **19/01/2024**

Data Rapporto di prova/ Test Report Date **26/01/2024**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qa → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: RID. CONC: 1.1/2"x1" SCH.40/S SEAMLESS REC0SD08001H01

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.

Description: REC05D08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2.00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

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U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN DICEMBRE 2023/1**

Commessa/ Job **30012/23 23/1099**

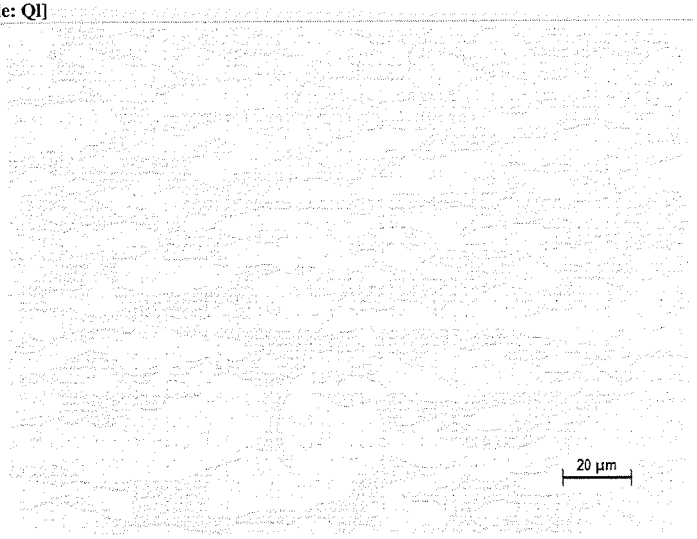
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
6646	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	24/01/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	10% Oxalic	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./
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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
19/01/2024	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: **26/01/2024** (firmato elettronicamente/electronically signed)				

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: REC05D08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2.00

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

MIC 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN DICEMBRE 2023/1

Commessa/ Job
30012/23 23/1099

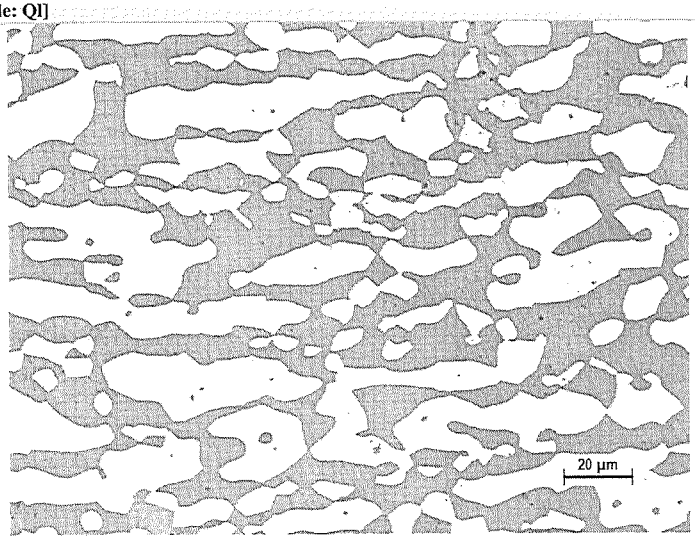
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
6647	ASTM E3 – 11(R2017) + ASTM E407 – 07 (R2015)e1	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	24/01/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	20% NaOH	Specimen in Base Material 3.5 x 20.0 = 70.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./
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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
19/01/2024				
Data Rapporto di prova/ Test Report Date **26/01/2024** firmato elettronicamente/electronically signed	*Antonielli Stefano*	*Amani Paolo*		

DECISION RULE:
- QI → Qualitative
- QS → Semi-quantitative
- QN → Quantitative (Implicit Uncertainty)
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Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — ilac-MRA

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN DICEMBRE 2023/1

Commessa/ Job
30012/23 23/1099

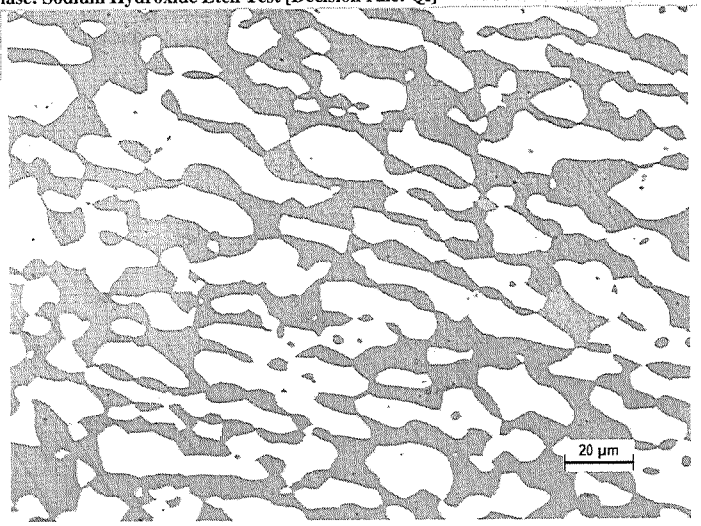
Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		**426/23**	**56144**	**ASTM A 815-23 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
6651	ASTM A923 – 22 Method A	**RTX_D53 Rev.9 + STATOIL -2010080 Rev.0**	B T FT	24/01/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
500 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
19/01/2024	*Antonielli Stefano*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date: **26/01/2024**	firmato elettronicamente/electronically signed			

DECISION RULE
- QI → Qualitative
- QS → Semi-quantitative
- QI → Quantitative (Implicit Uncertainty)
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The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD08001H01 RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.

Description: RECOSD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923C 1216 / 24

Rif. Lab SIM (FCP): **419 / 24 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO — LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order **MASTER PLAN DICEMBRE 2023/1**

Commessa/ Job **30012/23 23/1099**

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		**426/23**	**56144**	**ASTM A 815-23 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test [Decision rule: Qs]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²
6650	ASTM A923 – 22 Method C	**RTX_D53 Rev.9**	B L FT	Meccanica/ Mechanical	49,86	29,08	3,58	34,65

Condizioni superficiali/ Surface condition	Lavorato/ Machined
Temperatura di prova/ Test temperature (°C)	50
Temperatura Minima Rilevata/ Minimum temperature observed (°C)	49,86
Temperatura Massima Rilevata/ Maximum temperature observed (°C)	50,48
Tempo di esposizione (ore)/ Exposure time (hours)	24

Data inizio/ Initial date	Data fine/ End date
24/01/2024 14:48:29	25/01/2024 14:48:29

Soluzione/ Solution FeCl3 6% SOLUTION

Peso iniziale/ Initial weight (g)	39,9407	
Peso finale/ Final weight (g)	39,9401	
Perdita di peso/ Weigth loss (g)	0,0006	
Perdita di massa/ Specimen mass loss	0.2	(g/m²)

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed	(mg/(dm²*d))	**1,7**
Limite velocità di corrosione (mg/(dm²*d)) max/ Corrosion rate limit (mg/(dm²*d)) max		**10.0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	**19/01/2024**	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Rapporto di prova/ Test Report Date	**26/01/2024** firmato elettronicamente/electronically signed	*Antonielli Stefano*	*Amani Paolo*		

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: REC0SD08001H01
RID CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PM 1216 / 24

Rif. Lab SIM (FCP) : **419 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/ Order
MASTER PLAN DICEMBRE 2023/1

Commessa/ Job
30012/23 23/1099

Campione fornito da cliente/ Sample supplied by customer :

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
SACRIFICAL PIECE 1.1/2" W.T. 3.68 mm	1		426/23	56144	**ASTM A 815-23 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo (mm)	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength (≥550) MPa		Rottura/ Tensile strength Rm (≥750) MPa		Allungamento/ Elongation after fracture (≥25) A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
6642	ASTM A370 – 23 §6÷14, § A1.3, § A2.2 and § A3.2	**Material Standard**	3,74	12,49		50,00	B L FT	23,0	ReH	**628**		**881**		**29,3**			26/01/2024

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival: **19/01/2024**

Data Rapporto di prova/ Test Report Date: **26/01/2024**
firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/ Inspector

Cliente/ Customer

DECISION RULE:
- Ql — Qualitative
- Qs — Semi-quantitative
- Qn — Quantitative (Implicit Uncertainty)
- Qi — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

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INSPECTION CERTIFICATE,
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RÉCEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 705701 Page: 1 / 6	Rev: 00
Created on: Date: 04.09.2019	Modified on: 09.09.2019

203809

TTI - TUBACEX TUBOS INOXIDABLES
Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI 2885 - N.I.F. A-01140227
Tres cruces, 8
01400 Llodio (Alava)
SPAIN
TL: 946721350
FAX: 946725062
E-MAIL:

REVIEWED

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT
TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:OS000008 S
SOLD ORDER REF.:332477
COPY NUMBER: 001

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I006119
SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR GA Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD
Iñigo Arriola Aloiber

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
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Number: 705701 Page: 2 / 6	Rev: 00
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MATERIAL: SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED / PASIVADO / PASSIVÉ / PASSIVIERT
GRADE / ACERO / GRADE / WERKSTOFF: S32760,1.4501,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: ASME SECT.II PART.A SA790/SA790M-2017 ED.
ASTM A790/A790M-18
EN 10216-5:2013 TC2
EN 10297-2:2005
NORSOK M650 QTR NO.2
NORSOK M630 REV.6 MDS D51 REV.5
CHECK ANALYSIS
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C
CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B
SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)
HYDROTEST
ANSI/NACE MR0103/ISO 17945:2015
ANSI/NACE MR0175/ISO15156-3:2015
QAD 68 REV.0
RTX_D51S REV.4
SHELL MESC SPE 74/014 FEBRUARY 2017 EXCEPT:
NO LIQUID PENETRANT TEST (POINT 14.12.1),
TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.
ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.
IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.
ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASME SECT.II PART.A SA999/SA999M-2017 ED.
ASTM A999/A999M-18
EN ISO 1127/03.97 D3/T3
RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 5.000/7.000 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 48,26 X 3,68 MM - 1.1/2" SCH 40S
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item Pos Ped. AuftrgPos Usine Pos	Client Item Pos Clnt Kunde Pos Com. Pos	Delivery No Nº Entrega Lieferung Avis. d'exp	Lot No. Nº lote Los Nr. Lot d`inspection	Heat No Colada Schmelze Coulée	Pieces Piezas Stück Pcs	Weight Peso Gewicht Poids	Tot Lgth Long. Tot Gesamtlänge Tolength	Un Lgth Long. Un Längentyp Long. Un
10		8110064672	P1904210	56144	16	392 KG	96,32 M	5000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr:	Supplier	Method
56144	ACERALAVA (SPAIN)	Electric furnace+AOD

AENOR Empresa Registrada UNE-EN ISO 9001
AENOR Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD
Iñigo Arriola Aloiber

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Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
L	56144	1	0,013	0,67	0,260	0,020	0,0004	6,95	25,55	3,65	0,011	0,62
C	56144	10	0,013	0,63	0,270	0,019	0,0004	6,70	25,40	3,67	0,013	0,64
C	56144	11	0,013	0,63	0,270	0,019	0,0004	6,70	25,40	3,67	0,013	0,64

*	Heat	Seq	V	Nb	W	Co	N	Pren
L	56144	1	0,049	0,002	0,630	0,045	0,2540	41,6590
C	56144	10	0,049	0,002	0,620	0,045	0,2540	41,5750
C	56144	11	0,049	0,002	0,620	0,045	0,2450	41,4310

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1100 °C , 5 min , Agua
SOLUTION ANNEALED AT 1100 °C , 5 min , WATER
HYPERTREMPES 1100 °C , 5 min , L' EAU
LOESUNGSGEGLUEHT 1100 °C , 5 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No.	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5	Type	Spc.Type	Spc.Dim
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*			*mm*
P1904210	1	20	691	792	903	36	36	L	S	19,96
	2	20	663	754	876	35	35	L	S	20,09

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No.	Sample	HRC1	HRC2
P1904210	1	17,4	17,5

CORROSION ACCORDING TO ASTM A923 C/CORROSION DE ACUERDO ASTM A923 C/CORROSION SUIVANT ASTM A923 C/CORROSION ACCORDING TO ASTM A923 C

Lot No.	Sample	T	Pits-20x	Wloss	time
		°C		*MDD*	*Horas*
P1904210	1	50	N	0,0000	24,0

Corrosion test ASTM G48 practice A/Corrosión ASTM G48 práctica A/TEST DE CORROSION ASTM G48 practice A/LOCHFRASSTEST ASTM G 48 PR.A

Lot No.	Sample	T	Pits-20x	W.loss	time
		°C		*g/m2*	*Horas*
P1904210	1	50	N	0,0000	24,0

FERRITE ACCORDING TO ASTM E 562/Contenido de Ferrita según ASTM E562/FERRITE SUIVANT ASTM E562/FERRIT ENTSPRECHEND ASTM E562

Lot No.	Sample	%Fer	Dev.Ferr
		%	*%*
P1904210	1	54,65	1,97

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi

Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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FULL WALL THICKNESS
EXAMEN DE MICROESTRUCUTRA DE ACUERDO A ASTM A923 MET.A: ESTRUCTURA NO AFECTADA. MATERIAL LIBRE DE FASES INTERMETALICAS Y PRECIPITADOS. ESTRUCTURA UNIFORME A TRAVES DEL ESPESOR.
ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262 PRACT.E: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT
INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B: SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2 MET."B": IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS
FERRITE CONTENT DETERMINED BY FISCHER FERRITOSCOPE TO 100% OF PRODUCTS TO BE BETWEEN 35% - 55% FERRITE CONTENT

CONTENIDO EN FERRITA MEDIDO CON FERRITOSCOPIO SOBRE EL 100% DE LOS TUBOS, CONTENIDO EN FERRITA COMPRENDIDO ENTRE 35% - 55%.

100% ULTRASONIC TEST ACC. TO ASTM A999 / E213: SATISFACTORY
100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM A999 / E213: SATISFACTORIO
100% ULTRASCHALLPRÜFUNG NACH ASTM A999 / E.213:IN ORDNUNG
100% ESSAI D´ULTRASON D'ACCORD A ASTM A999 / E.213: SATISFAISANTE
POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT "RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR "X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 170 bar, 2500 PSI DURING 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 170 bar, 2500 PSI DURANTE 5 SEC EN CADA TUBO:

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AENOR Gestión Ambiental UNE EN ISO 14001

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Iñigo Arriola Alcibar

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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Number: 705701 Page: 5 / 6	Rev: 00
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SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 170 bar, 2500 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 170 bar, 2500 PSI PENDANT 5 SEC SUR CHAQUE TUBE: SATISFAISANT
100% EDDY CURRENT TEST AT ASTM E426: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A ASTM E426: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH ASTM E426: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES ASTM E426: BIEN
100% EDDY CURRENT TEST AT DIN EN 10246-2: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A DIN EN 10246-2: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH DIN EN 10246-2: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES DIN EN 10246-2: BIEN

DIMENSIONAL CHECKING ON EACH TUBE: SATISFACTORY
INSPECCION DIMENSIONAL AL 100% DE LOS TUBOS SATISFACTORIA
100% MASSKONTROLLE: O.B.
VERIFICATION DIMENTIONNELLE AU 100% DES TUBES, SATISFAISANTE

VISUAL INSPECTION ON EACH TUBE: SATISFACTORY
INSPECCION VISUAL AL 100% DE LOS TUBOS, SATISFACTORIA
100% BESIGCHTIGUNG: O.B.
EXAMEN VISUEL AU 100% DES TUBES, SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS

FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

TX2 TX1 TUBACEX 48,26 X 3,68 MM - 1.1/2" SCH 40S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 S32760 1.4501 CFD CD SMLS HEAT/ PMI-AV LOT NO/ MADE IN SPAIN

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

AENOR Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

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INGENIERIA DE CALIDAD

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.
DURANTE LOS PROCESOS DE FABRICACIÓN E INSPECCIÓN NO SE HA USADO MERCURIO NI INSTRUMENTOS Y/O EQUIPOS CONTENIENDO MERCURIO O CON COMPONENTES DE MERCURIO.
KEINE QUEKSILBER, BZW. QUECKSILBERVERUNREINIGTES KOMPONENTEN ODER KUGELLAGERINSTRUMENTE UND/ODER GERÄTE SIND BENUTZT WORDEN PRODUKTIONS UND BESICHTIGUNGSPROZESS.
IL N'A PAS ÉTÉ FAIT USAGE DE MERCURE, DE COMPOSÉS CONTENANT DU MERCURE OU DE MATÉRIAUX ET/OU D'INSTRUMENT CONTENANT DU MERCURE TOUT AU LONG DES ÉTAPES DE FABRICATION ET DU PROCESSUS D'INSPECTION ET DE CONTRÔLE.

NO WELDING OR WELD REPAIRS WERE MADE
SIN REPARACION POR SOLDADURA
KEINE SCHWEISSBEARBEITUNG WURDE VORGENOMMEN
SANS RÉPARATION AVEC SOUDURE
MATERIAL MANUFACTURER APPROVED BY TÜV SÜD Industrie Service GmbH
(NOTIFIED BODY 036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN
ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3.
FABRICANTE DE MATERIALES APROBADO POR TÜV SÜD Industrie Service GmbH (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO AL ANEXO 1, PUNTO 4.3 DE LA DIRECTIVADE EQUIPOS A PRESION 2014/68/EU.
WERKSTOFFHERSTELLER MIT BERECHTIUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. DER BENANNTEN STELLE NR.0036, TÜV SÜD Industrie Service GmbH
PRODUCTEUR DU MATERIEL APPROUVE PAR TÜV SÜD Industrie Service GmbH N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU ANNEXE 1 POINT 4.3.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20°C.
LAS CARACTERISTICAS DEL MATERIAL CUMPLEN CON LOS REQUISITOS DEL PUNTO 7.5 DE LA DIRECTIVA PED POR TENER UN ALARGAMIENTO TRAS ROTURA EN EL ENSAYO DE TRACCION NO INFERIOR AL 14% Y PO DE TRACCION NO INFERIOR AL 14% Y POR TENER UNA RESISTENCIA AL IMPACTO NO INFERIOR A 27 J A 20° C.
DIE WERKSTOFF-WERTE ENTSPRECHEN PUNKT 7.5. DER DGRL, ANHANG 1, MIT EINERBRUCHDEHNUNG = 14% IM NORMGEMÄSS DURCHGEFÜHRTEN ZUGVERSUCH UND DER KERBSCHLAGARBEIT = 27J AN EINER ISO - v PRO PROBE BEI EINER TEMPERATUR VON HÖCHSTENS 20°C
LES CARACTERISTIQUES DU MATERIEL, AYANT UN ALLONGEMENT APRES RUPTURE A L'ESSAI DE TRACTION NON INFERIEUR DU 14% ET UNE RESISTENCE A LA FLEXION PAR CHOC A 20°C NON INFERIEUR A 27J, SONT CONFORMES AUX PRESCIPTIONS DU PONT 7.5 DE L'ANNEXE I DE PED.

MATERIAL IS FREE OF RADIATION CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IS FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

AENOR ER Empresa Registrada UNE-EN ISO 9001
AENOR Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Aloibar

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204 3.1
Annex 1
Microphotographs

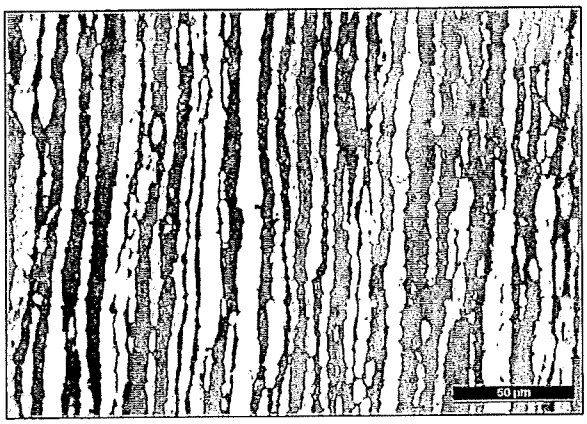
Number	:	705701
Page	:	1/2
Date	:	09/09/2019

TTI - TUBACEX TUBOS INOXIDABLES, S.A.U.

Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI2885 - N.I.F. A-01140227
Tres Cruces, 8
01400 Llodio (Álava)
SPAIN

Sales Order	:	I006119
Sales Item	:	10
Standard	:	ASTM A790
Grade	:	UNS S32760
Dimensions	:	1.1/2"SCH 40

Microstructure: MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS



904210 I006119-10 Y I006198-30 C-56144 LONG 500X.

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies ordered requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsability for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

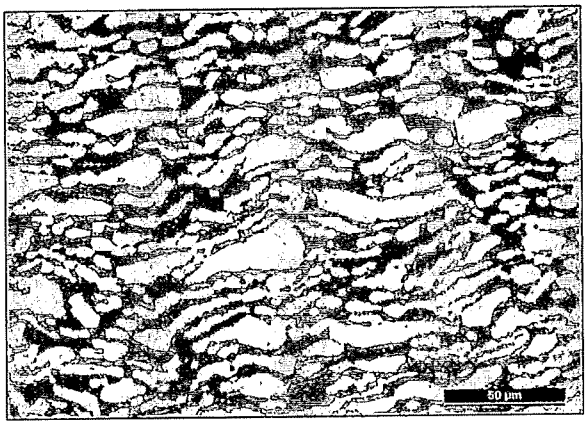
INSPECTION CERTIFICATE
EN 10204 3.1
Annex 1
Microphotographs

Number	:	705701
Page	:	2/2
Date	:	09/09/2019

TTI - TUBACEX TUBOS INOXIDABLES, S.A.U.
Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI2885 - N.I.F. A-01140227
Tres Cruces, 8
01400 Llodio (Álava)
SPAIN

Sales Order	:	I006119
Sales Item	:	10
Standard	:	ASTM A790
Grade	:	UNS S32760
Dimensions	:	1.1/2"SCH 40

Microstructure: MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS



904210 I006119-10 Y I006198-30 C-56144 TRANS 500X

AENOR ER Empresa Registrada UNE-EN ISO 9001
AENOR GP Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies ordering requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 120 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REC0SD08001H01
RID. CONC. 1.1/2"x1" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1004SA024 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

CTCERT202400006255.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8055-P2	19/09/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006433	

	Item	Quantity	Heat id.
2	TEE 1.1/2" XS WPL6	1,00	0D-0D1533

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%
0,110	1,280	0,290	0,009	0,004	0,020	0,120	0,020	0,020	0,001	0,012	0,0020	0,0020	0,0010

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	325	520	34

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	55	61	58	58

Hardness Test

Base Metal **Avg** 140 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 260 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0CS05251H00
TEE UG. 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 0D - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

EITI - The Inspection Body

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24033

Date - Data - Vom - date : 20/09/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 82

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Désignation du Produit

see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
1	1.1/2" sch. XS	CAPS ASME/ASTM SA/A 420 WPL6	16I-16I2373	1		
5	4"x1.1/2" STD/XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	513131	1		
2	1.1/2" XS	TEE UG. ASME/ASTM SA/A 420 WPL6	0D-0D1533	1		
3	1.1/2"x3/4" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	14E-14E5482-J5L3682	1		
4	1.1/2"x1" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	54-J9KA054	3		

issued by **Verified by** **Customer**

Qualytube
Nicolò Turani - NDT Specialist
ISO 9712 [illegible] 2-UT
ISO 9712 CICPND 27059/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 260 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0CS05251H00
TEE UG. 1.1/2" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 0D - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

tecninox

Stab. / Plant.: Via Don Spagnoli 5 - 29010 Sarmato (PC) - ITALIA
tel. (+39) 0523.887452 - fax. (+39) 0523.887687

Sede Operativa / Commercial Office:
RACCORTUBI S.p.A. - Viale De Gasperi, 194
20010 - Marcallo con Casone (MI) - ITALIA
tel. (+39) 02.976300.1 - fax. (+39) 02.90376337 - info@raccortubi.it

Certificato di collaudo d'officina tipo: EN 10204 3.1
Product test certificate Type: EN 10204 3.1
Certificat de Reception Type: EN 10204 3.1

Cliente Customer/ RACCORTUBI S.p.A.

Ordine N. P.O.N./C.N. OF005236 del 19/02/19

Pos. N. Item/Poste 23 **Q.tà** Q.ty/Q.té 58

(*) Marcatura e cert. N. Material Marking e Cert. N. 1157SA019

Created on: 30-08-2019

Descrizione Description Description EQ. TEES 1.1/2" SCH.40/S

Specifica Specification Spécification BW FITTINGS TO ASTM A/815M-14e1
ASME SA/815M ed.17 UNS S32760
DIMS/ENDS ANSI ASME B16.9-ed.2018 B16.25-ed.2017

Materiale base - Fabbricante: TUBACEX Cert. No.: 648100
Raw material - manufacturer/Materiel du depart - fabriquant: SMLS PIPES TO ASTM A-790 UNS S32760
TUBACEX Cert. No.: 648100

Test produzione
Production test/Coupon de production

Caratteristiche meccaniche
Mechanical Properties/Caracteristiques Mechaniques

Test results from sacrificial fitting or representative pipe ring according to approved M-650 QTRS	**Colata N.** Heat N. Couléè N.	**N. prova** Specimen N. Echantil. N.	**Snervamento** Yield strength Limite d'elasticité N/mm2	**Rottura** Tensile Resistance à la traction N/mm2	**Allungam. %** Elongation Allongement 2"	**Durezza** Hardness as per NACE MRO1-75	**Durezza** Hardnes Dureté	**Resilienza** Impact energy Resilience **Joules**
QTR: 01/SDSS/A Rev.4 Specimens location drawing as per relevant QTR	49329	495/19	642	881	35.3	HRC<28	HRC 24	

Analisi chimica %
Chemical composition/Composition chimique

Colata N. Heat N. Couléè N.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**Cu**	**W**	**N**			**PRE**	**FERRITE**
49329	0,014	0,460	0,69	0,020	0,0004	25,55	6,95	3,62	0,66	0,62	0,268			41.784	47.3

Prove
Tests/Tests

Altri Others Autres G-48 MET.A

I dati dell'analisi chimica e delle prove meccaniche corrispondono al certificato del fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove.
The chemical analysis and mechanical properties fully comply with the certificate issued by the raw material manufacturer and/or by the laboratory that carried out the tests.
L'analyse chimique et les caracteristique mécaniques sont en conformité au certificat émis par le producteur du materiel de base et/ou par le laboratoire qui a ecsécuté les tests.

Responsabile Controllo Qualità

Quality Control Manager

Note/Remarks/Notes

MATERIAL CONFORMS TO NACE MR0175/ISO 15156 & MR0103 CURRENT EDITION
CERTIFIED ACC.TO PED 2014/68/UE annex I para 4.3
- LIQUID PENETRANT EXAMINATION ACCORDING TO ASME VIII Div 1 App 8 ON 10% OF FITTINGS: SATISFACTORY
- FITTINGS CAN SATISFACTORILY PASS THE INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A 262 Pr E
- FOR SPECIAL TEST SEE SIDER TEST CERTIFICATES N.:19752/19
- MATERIAL AND TESTS ACCORDING TO M-630 REV.6 - MDS D53 REV.5
- 100% OF THE FITTINGS HAVE BEEN MEASURED BY FISCHER FERITOSCOPE MP30 FOR FERRITE CONTENT WITH RESULTS WITHIN 35%-55% (AND 35%-65% ON WELD BEAD).

ALL FITTINGS HAVE BEEN SUPPLIED IN PICKLED AND PASSIVATED CONDITIONS
(*) Material marked with certificate number as per relevant code.

Costruzione
Manufacture/Méthode de fabrication

Formato a freddo	**Senza saldatura**
Cold formed	Seamless
Formés à froid	Sans soudure

Ispezione
Inspection/inspécton
Esame visivo e dimensionale: Soddisfacente
Identificazione materiale: 100% soddisfacente

Visual and dimensional test: Satisfactory
Positive Material Identification: 100% satisfactory

Examen visuel et dimensionel: Satisfaisant
Analyse de controle du produit: 100% satisfaisant

Trattamento termico
Heat treatment/Traitement Thermique
Solubilizzazione a 1130°C

Solution Annealing at 1130°C , water quenching

Hypertrempés à 1130°C

Heat treatment soaking time for 30 minutes, batch n.0313

Guaranteed caracteristics (A.M. du 24.03.78)
Caracteristiques garanties pour Z2CN18-10 et Z2CND17-13

C <= 0.25%	Rm <= 760 N/mm2
S <= 0.05%	Rm(A-2) <= 10500 N/mm2
P <= 0.05%	A% sur 5,65 sqrt(So) >= 16

Il materiale è stato fornito in conformità ai requisiti dell'ordine.
The material has been furnished in accordance with purchase order requirements.
Le materiel a eté trouvé conforme aux exigences.

Marchio di fabbrica
Trade Mark

Ispettore
Inspector/Inspecteur

SIDER TEST Srl
Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it
www.sidertest.it *Your Strategic Partner in Material Testing!*

RAPPORTO DI PROVA/TEST REPORT

G48ACE 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²	
105408	ASTM G 48-11(2015) - Met. A	**RTX_D53 Rev.7**	B L FT	Meccanica/ Mechanical	50,77	25,49	5,09	33,65	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Temperatura di prova (°C)/ Test temperature (°C) 50

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data e ora inizio/ Initial date and time	Data e ora fine/ End date and time
03/09/2019 09:00:00	04/09/2019 09:00:00

Soluzione/ Solution FeCl3 · 6H2O 10% WATER SOLUTION

Peso iniziale/ Initial weight (g)	48,0673		
Peso finale (g)/ Final weight (g)	48,0670		
Perdita di peso (g)/ Weigth loss (g)	0,0003		
Perdita di massa/ Specimen mass loss		0,0892	g/m²
Limite perdita di massa max/ Limit Specimen mass loss max		**4,0**	**g/m²**

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X / NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata/ Examined area cm² 25,88 (LxWx2)/100

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta /Any false statement or modification of this test report is n violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019				
Data Rapporto di prova/ Test Report Date: 04/09/2019	Antonielli Stefano	Amani Paolo		

firmato elettronicamente/electronically signed

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [L]-long.

Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Heat num. or Pcs. marking: 1157SA019 - Qty:2,00
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00
Description: TEE GD002931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS
Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948
Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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RAPPORTO DI PROVA/TEST REPORT

E562 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
105404	ASTM E 562-11	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	20% NaOH	500 X	40 mm x 40 mm 5 x 5 = 25 Points	04/09/2019

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction) 47.3	**40**	**55**

s 3,7 95% C.I. 1,4 %RA 2,95

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	**48**	2	**52**	3	**42**	4	**48**	5	**50**
6	**50**	7	**44**	8	**46**	9	**48**	10	**44**
11	**44**	12	**44**	13	**52**	14	**54**	15	**48**
16	**46**	17	**42**	18	**52**	19	**44**	20	**46**
21	**46**	22	**42**	23	**54**	24	**46**	25	**52**
26	**52**	27	**44**	28	**44**	29	**50**	30	**44**

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle 30 / 11 x 20 mm / 1 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector	Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

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RAPPORTO DI PROVA/TEST REPORT

ANL 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Customer: ROSETTI MARINO S.p.A.

Description: TEE OSD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		495/19	49329	**ASTM A 815-18 UNS S32760**

ANALISI SPETTROMETRICA AD EMISSIONE ATOMICA SOTTOVUOTO/ Atomic emission vacuum Spectrometric analysis

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Temperatura di prova (°C)/ Test temperature (°C)	ID Gruppo / Group ID	Data esecuzione/ Date of Testing
105411	PO 04-145 RC R08, 2018	RTX_D53 Rev.7 + STATOIL -2010080 Rev.0	B UP	20	7995	04/09/19

			%	Min.	Max.				%	Min.	Max.				%	Min.	Max.
C	**0,016**	**± 0,003**	97,5		0,030	**Nb**						**Fe**					
Si	**0,50**	**± 0,02**	97,5		1,00	**Ti**						**Ca**					
Mn	**0,72**	**± 0,02**	97,5		1,00	**W**	**0,63**	**± 0,02**	95,0	0,50	1,00	**Ta**					
P	**0,021**	**± 0,003**	97,5		0,030	**Pb**						**Sb**					
S	**0,005**	**± 0,005**	97,5		0,010	**Sn**						**H**					
Cr	**25,6**	**± 0,3**	95,0	24,0	26,0	**As**						**Cd**					
V						**B**						**Se**					
Mo	**3,6**	**± 0,1**	95,0	3,0	4,0	**N**	**0,28**	**± 0,02**	95,0	0,20	0,30	**Bi**					
Ni	**7,0**	**± 0,1**	95,0	6,0	8,0	**La**						**Hg**					
Cu	**0,67**	**± 0,03**	95,0	0,50	1,00	**Mg**											
Ce						**Zr**											
Al						**Zn**											
Co						**O**											

FORMULAS

			%	Min.	Max.
PREN	**42,0**	**± 0,3**	97,5	40,0	

Decision rule:
the result is "Compliant to Specification" when:
- *Result ≥ Lower Limit (confidence interval CI=50÷97,5 %)*
- *Result ≤ Upper Limit (confidence interval CI=50÷97,5 %)*
- *Lower Limit ≤ Result ≤ Upper Limit (confidence interval CI=47,5÷95%)*

When the result falls within the uncertainty range at the limit value, the result can be Probably Compliant or Probably Not Compliant

Expanded uncertainty below reported is based on standard uncertainty multiplied by a coverage factor k = 2 that corresponds to a coverage probability of about 95% for a normal distribution. The evaluation is based on EA 4/16 Ed. 2003

Note/ Remarks

Esito/ Conclusion: Conforme a 'Specifica' / Compliant with 'Specification'

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: 04/09/2019				

firmato elettronicamente/electronically signed

Test Position Legend: : [B]-Specimen in Base Material: [UP]-external sup.

Customer: ROSETTI MARINO S.p.A.

Description: TEE0SD02831H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

raccortubi Heat num. or Pos. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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RAPPORTO DI PROVA/TEST REPORT

DUR 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

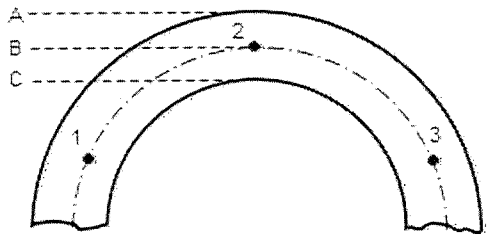
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		495/19	49329	**ASTM A 815-18 UNS S32760**

PROVA DI DUREZZA HBW (Strumento di misura dell'impronta di Tipo A)/ HBW hardness test (Indentation measuring device Type A)

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position		Durezza/ Hardness	Data esecuzione/ Date of Testing
105403	ASTM E 10-18 except par. 5.7 Portable Hardness Testing Machines	**RTX_D53 Rev.7**	B	T	HBW 2,5/187,5	03/09/2019

(B1) - Base Material **MAX 270**

1 **249** 2 **242** 3 **247**



AB=BC= 1/2 AC

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

Position	Average	StdDev
(B1) - Base Material	246	3,6

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019	*Morresi Davide*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date: **04/09/2019**				

firmato elettronicamente/electronically signed

Test Position Legend: [B]-Specimen in Base Material; [SZ]-along the thickness; [T]-trasv.

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RAPPORTO DI PROVA/TEST REPORT

MIC 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

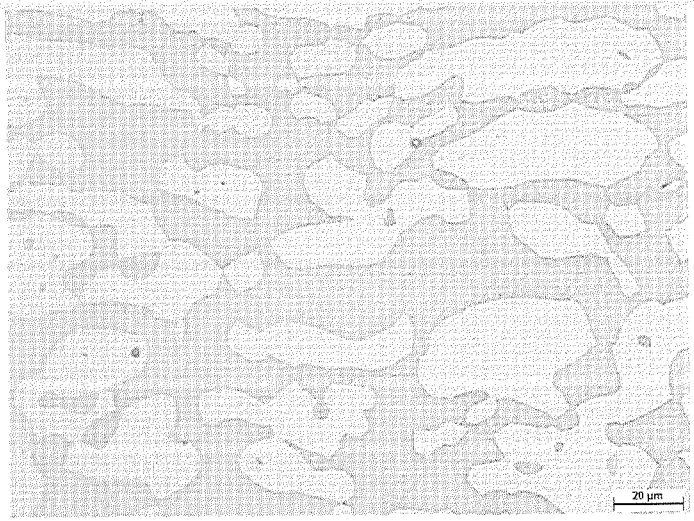
Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105405	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	10% Oxalic	Materiale base / Base Material

5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da nitruri. / Structure free from nitrides.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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02/09/2019	*Antonielli Stefano*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date **04/09/2019**	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 11575A019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEITI2024000003948
Protocol: CTCERC2024000008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

Customer: ROSETTI MARINO S.p.A.
Description: TEE SDO2931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS
raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948
Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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RAPPORTO DI PROVA/TEST REPORT

MIC 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

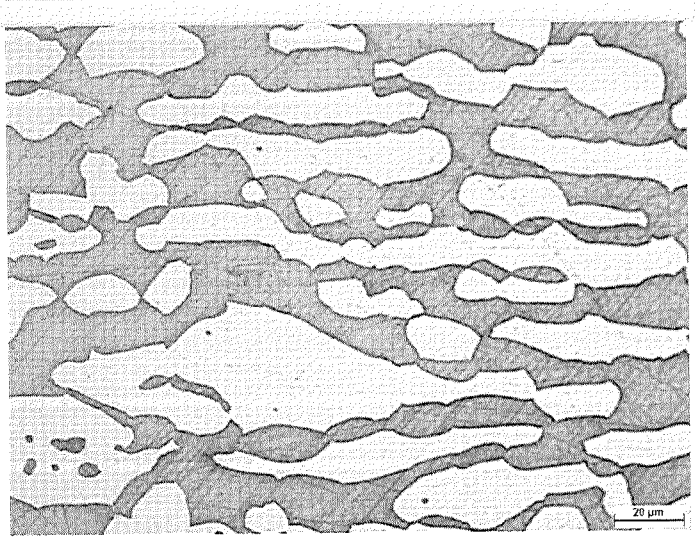
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	**1**		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

ESAME MICROGRAFICO/ Micrographic examination

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105406	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	20% NaOH	Materiale base / Base Material
		5.0 x 20.0 = 100.0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019	*Antonielli Stefano*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date **04/09/2019**	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [T]-trasv.

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RAPPORTO DI PROVA/TEST REPORT

A923A 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

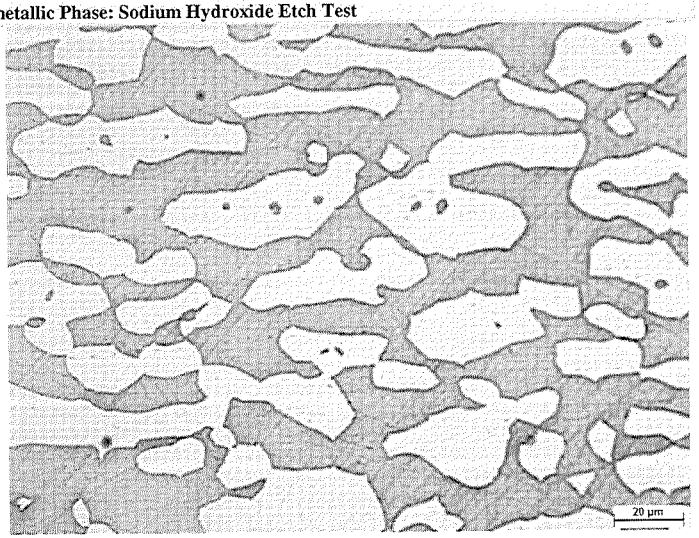
Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
105410	ASTM A 923-14 (Met. A)	**RTX_D53 Rev.7 + STATOIL -2010080 Rev.0**	B T FT	02/09/2019

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata / Examined area:
500 X	40g NaOH to 100g distilled water	Materiale base / Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/Inspector	Cliente/Customer
02/09/2019	*Antonielli Stefano*	*Amani Paolo*		
Data Rapporto di prova/ Test Report Date **04/09/2019**	firmato elettronicamente/electronically signed			

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Customer: ROSETTI MARINO S.p.A.

Description: TEE0SD02931H00 TEE UG. 1.1/2" SCH.40/S SEAMLESS

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY * Issued 09-10-2024

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00
Customer: ROSETTI MARINO S.p.A.
Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948
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* Issued 09-10-2024

SIDER TEST Srl
Mechanical and Chemical Laboratory Non Destructive Tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it
www.sidertest.it *Your Strategic Partner in Material Testing!*

RAPPORTO DI PROVA/TEST REPORT

A923C 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

Individuazione di fasi intermetalliche dannose: Prova di corrosione per "pitting" in cloruro ferrico/ Detecting Detrimental Intermetallic Phase: Ferric Chloride Pitting Corrosion Test

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Lunghezza/ Length mm	Larghezza/ Width mm	Spessore/ Thickness mm	Area/ Area cm²
105409	ASTM A 923-14 (Met. C)	**RTX_D53 Rev.7**	B L FT	Meccanica/ Mechanical	23,06	48,96	5	29,78

Temperatura di prova (°C)/ Test temperature (°C) 50

Temperatura Minima Rilevata (°C)/ Minimum specimen preparation (°C) 49,7

Temperatura Massima Rilevata (°C)/ Maximum specimen preparation (°C) 50,2

Peso iniziale/ Initial weight (g) 44,3776

Peso finale (g)/ Final weight (g) 44,3766

Perdita di peso (g)/ Weigth loss (g) 0,0010

Tempo di esposizione (ore)/ Exposure time (hours) 24

Data inizio/ Initial date	Data fine/ End date
03/09/2019 09:00:00	04/09/2019 09:00:00

Soluzione/ Solution FeCl3 · 6H2O 10% water solution

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X /
NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Velocità di corrosione/ Corrosion speed (mg/(dm²*d)) **3,4**

Limite velocità di corrosione (mg/(dm²*d)) max./ Corrosion rate limit (mg/(dm²*d)) max. **10,0**

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

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Data Ingresso Materiale/ Date of Material Arrival **02/09/2019**

Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Antonielli Stefano*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector	Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness: [L]-long.

Customer: ROSETTI MARINO S.p.A.

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pos. marking: 1157SA019 - Qty:2,00

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000003948

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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RAPPORTO DI PROVA/TEST REPORT

PM 19752 / 19

Rif. Lab SIM (FCP) : **6512 / 19 (A / A)**

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Tecninox Srl Via Don Spagnoli, 5 29010 Sarmato PC**

Ordine/Order **OF005236**

Commessa/Job **44/19 19/1356**

Campione fornito da cliente/Sample supplied by the Customer :

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
SACRIFICAL PIECE 1.1/2" W.T. 5.08 mm	1		**495/19**	**49329**	**ASTM A 815-18 UNS S32760**

PROVA DI TRAZIONE A TEMPERATURA AMBIENTE/ Tensile test at room temperature

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Dimensioni/ Dimension Wth mm	Ø / Width mm	ØPipe mm	Lo/ Lo	Posizione di prelievo/ Test position	Temp./ Temp. °C	Snervamento/ Yield strength Mpa		Mpa	Rottura/ Tensile strength Rm Mpa		Allungamento/ Elongation A (%)		Strizione/ Area Reduction Z (%)	S/R/ Ratio Yield strength / Tensile strength	Data esecuzione/ Date of Testing
105401	ASTM A 370-18 (Tension Test)	**RTX_D53 Rev.7**	5,21	12,50		50,00	B L FT	23	(≥550)	Rp0,2% **642**		(750÷895)	**881**	(≥25)	**35,3**			03/09/2019

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

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Data Rapporto di prova/ Test Report Date **04/09/2019**

firmato elettronicamente/electronically signed

Responsabile di Reparto o sostituto/ Department Manager or Deputy: *Morresi Davide*

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: *Amani Paolo*

Ispettori/Inspector	Cliente/Customer

Test Position Legend: [B]-Specimen in Base Material: [FT]-full thickness; [L]-long.

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INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RÉCEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 648100 Page: 1 / 6	Rev: 00
Created on: Date: 16.06.2016	Modified on: 24.06.2016

TTI - TUBACEX TUBOS INOXIDABLES
Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI 2885 - N.I.F. A-01140227
Tres cruces, 8
01400 Llodio (Alava)
SPAIN
TL: +34 946719300
FAX: +34 946725062
E-MAIL: qualitytti@tubacex.es

202862

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT
TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:OS000042 S
SOLD ORDER REF.:334420
COPY NUMBER: 001

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: 504654
SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE: 182919

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED / PASIVADO / PASSIVÉ / PASSIVIERT
GRADE / ACERO / GRADE / WERKSTOFF: S32760,1.4501,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: ASME SECT.II PART.A SA790/SA790M-2013 ED.
ASTM A790/A790M-14a
EN 10216-5:2013 TC2
EN 10297-2:2005
NORSOK M650 QTR No.2
NORSOK M630 REV.6 MDS D51 REV.5
SHELL ES/247 REV.2 EXCEPT STRESS CORROSION TEST (POINT 7.2)-,
DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)
FERRITE CONTENT IN ACC. WITH ASTM E562
NACE MR0103-2012
NACE MR0175/ISO 15156-3:2015
SHELL MESC SPE 74/014 JANUARY 2015 EXCEPT:
NO STRESS CORROSION TEST (POINT 13.7.2),
NO LIQUID PENETRANT TEST (POINT 14.12.1),
FLATTENING TEST AS PER ASTM A790
CHECK ANALYSIS ACCORDING TO ASTM A790
TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.
ULTRASONIC TEST IN ACCORDANCE WITH ASTM A450/E213 LONGITUDINAL ONLY.
ULTRASONIC TEST ACCORDING TO ASTM A450/E213
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASME SECT.II PART.A SA999/SA999M-2013 ED.
ASTM A999/A999M-14
EN ISO 1127/03.97 D3/T3
RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 5.000/7.000 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 48,26 X 5,08 MM - 1.1/2" SCH 80S
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

AENOR ER Empresa Registrada UNE-EN ISO 9001
AENOR Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

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INGENIERIA DE CALIDAD
Iñigo Arriola Aloibar

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Customer: ROSETTI MARINO S.p.A.
Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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EN 10204:2004 / 3.1

Created on: Date: 16.06.2016 | Modified on: 24.06.2016

Sales Item / Pos Ped. / AuftrgPos / Usine Pos	Client Item / Pos Clnt / Kunde Pos / Com. Pos	Delivery No / N° Entrega / Lieferung / Avis. d'exp	Lot No. / N° lote / Los Nr. / Lot d'inspection	Heat No / Colada / Schmelze / Coulée	Pieces / Piezas / Stück / Pcs	Weight / Peso / Gewicht / Poids	Tot Lgth / Long. Tot / Gesamtlänge / Tolength	Un Lgth / Long. Un / Längentyp / Long. Un
10		8110045038	P1602531	49329	16	562 KG	104,34 M	5000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr: 49329

Method: Electric furnace+AOD

CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Cu	W
L	49329	1	0,014	0,69	0,460	0,020	0,0004	6,95	25,55	3,62	0,66	0,620
C	49329	24	0,016	0,69	0,460	0,020	0,0010	6,95	25,45	3,65	0,68	0,630

*	Heat	Seq	N	Pren
L	49329	1	0,2680	41,7840
C	49329	24	0,2680	41,7830

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1100 °C , 7 min , Agua
SOLUTION ANNEALED AT 1100 °C , 7 min , WATER
HYPERTREMPES 1100 °C , 7 min , L' EAU
LOESUNGSGEGLUEHT 1100 °C , 7 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No.	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5	Type	Spc.Type	Spc.Dim
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*			*mm*
P1602531	1	20	734	827	925	32	31	L	S	19,00

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No.	Sample	HRC1	HRC2
P1602531	1	25,0	26,0

IMPACT TEST/TEST DE IMPACTO/RESILIENCE/KERBSCHLAGVERSUCH

Lot No.	Sample	T	Wspec	Ecv 1	Ecv 2	Ecv 3	Ecv AVG	Type
		°C	*mm*	*J*	*J*	*J*	*J*	
P1602531	1	-51	10,00	206	212	246	222	L

CORROSION ACCORDING TO ASTM A923 C/CORROSION DE ACUERDO ASTM A923 C/CORROSION SUIVANT ASTM A923 C/CORROSION ACCORDING TO ASTM A923 C

Lot No.	Sample	T	Pits-20x	Wloss	time
		°C		*MDD*	*Horas*
P1602531	1	50	N	1,2024	24,0

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

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INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

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raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
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EN 10204:2004 / 3.1

Number: 648100 Page: 3 / 6	Rev: 00
Created on: Date: 16.06.2016	Modified on: 24.06.2016

Corrosion test ASTM G48 practice A/Corrosión ASTM G48 práctica A/TEST DE CORROSION ASTM G48 practice A/LOCHFRASSTEST ASTM G 48 PR.A

Lot No.	Sample	T °C	Pits-20x	W.loss g/m2	time Horas
P1602531	1	50	N	0,1202	24,0

FERRITE ACCORDING TO ASTM E 562/Contenido de Ferrita según ASTM E562/FERRITE SUIVANT ASTM E562/FERRIT ENTSPRECHEND ASTM E562

Lot No.	Sample	%Fer %	Dev.Ferr %
P1602531	1	51,42	0,87

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS
EXAMEN DE MICROESTRUCUTRA DE ACUERDO A ASTM A923 MET.A: ESTRUCTURA NO AFECTADA. MATERIAL LIBRE DE FASES INTERMETALICAS Y PRECIPITADOS. ESTRUCTURA UNIFORME A TRAVES DEL ESPESOR.

INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B: SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2 MET."B": IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT
INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT.E/MIL-P-24691-3/ MIL-1144D:SATISFACTORY

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS
FERRITE CONTENT DETERMINED BY FISCHER FERRITOSCOPE TO 100% OF PRODUCTS TO BE BETWEEN 35% - 55% FERRITE CONTENT

CONTENIDO EN FERRITA MEDIDO CON FERRITOSCOPIO SOBRE EL 100% DE LOS TUBOS, CONTENIDO EN FERRITA COMPRENDIDO ENTRE 35% - 55%

100% ULTRASONIC TEST ACC. TO ASTM E.213: SATISFACTORY
100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM E.213: SATISFACTORIO
100% ULTRASCHALLPRÜFUNG NACH ASTM E.213:IN ORDNUNG
100% ESSAI D´ULTRASON D'ACCORD A ASTM E.213: SATISFAISANTE

POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Aloibar

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Description: TEE0SD02931H00
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raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

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EN 10204:2004 / 3.1

Number: 648100 Page: 4 / 6	Rev: 00
Created on: Date: 16.06.2016	Modified on: 24.06.2016

VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT "RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR "X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 170 bar, 2500 PSI DURING 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 170 bar, 2500 PSI DURANTE 5 SEC EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 170 bar, 2500 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 170 bar, 2500 PSI PENDANT 5 SEC SUR CHAQUE TUBE: SATISFAISANT

100% EDDY CURRENT TEST AT DIN EN 10246-2: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A DIN EN 10246-2: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH DIN EN 10246-2: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES DIN EN 10246-2: BIEN

DIMENSIONAL CHECKING ON EACH TUBE: SATISFACTORY
INSPECCION DIMENSIONAL AL 100% DE LOS TUBOS SATISFACTORIA
100% MASSKONTROLLE: O.B.
VERIFICATION DIMENTIONNELLE AU 100% DES TUBES, SATISFAISANTE

VISUAL INSPECTION ON EACH TUBE: SATISFACTORY
INSPECCION VISUAL AL 100% DE LOS TUBOS, SATISFACTORIA
100% BESIGCHTIGUNG: O.B.
EXAMEN VISUEL AU 100% DES TUBES, SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS

FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 648100 Page: 5 / 6	Rev: 00
Created on: Date: 16.06.2016	Modified on: 24.06.2016

MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

TX2 TX1 TUBACEX 48,26 X 5,08 MM - 1.1/2" SCH 80S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 S32760 1.4501 CFD CD SMLS HEAT/ PMI-AV LOT NO/ MADE IN SPAIN

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.
DURANTE LOS PROCESOS DE FABRICACIÓN E INSPECCIÓN NO SE HA USADO MERCURIO NI INSTRUMENTOS Y/O EQUIPOS CONTENIENDO MERCURIO O CON COMPONENTES DE MERCURIO.
KEINE QUEKSILBER, BZW. QUECKSILBERVERUNREINIGTES KOMPONENTEN ODER KUGELLAGERINSTRUMENTE UND/ODER GERÄTE SIND BENUTZT WORDEN PRODUKTIONS UND BESICHTIGUNGSPROZESS.
IL N'A PAS ÉTÉ FAIT USAGE DE MERCURE, DE COMPOSÉS CONTENANT DU MERCURE OU DE MATÉRIAUX ET/OU D'INSTRUMENT CONTENANT DU MERCURE TOUT AU LONG DES ÉTAPES DE FABRICATION ET DU PROCESSUS D'INSPECTION ET DE CONTRÔLE.

NO WELDING OR WELD REPAIRS WERE MADE
SIN REPARACION POR SOLDADURA
KEINE SCHWEISSBEARBEITUNG WURDE VORGENOMMEN
SANS RÉPARATION AVEC SOUDURE

MATERIAL MANUFACTURER APPROVED BY TÜV SÜD Industrie Service GmbH (NOTIFIED BODY 036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 97/23/EC ANNEX 1 POINT 4.3.
FABRICANTE DE MATERIALES APROBADO POR TÜV SÜD Industrie Service GmbH (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO AL ANEXO 1, PUNTO 4.3 DE LA DIRECTIVA DE EQUIPOS A PRESION 97/23/EC.
WERKSTOFFHERSTELLER MIT BERECHTIUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 97/23/EC UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. DER BENANNTEN STELLE NR.0036, TÜV SÜD Industrie Service GmbH
PRODUCTEUR DU MATERIEL APPROUVE PAR TÜV SÜD Industrie Service GmbH N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 97/23/EC ANNEXE 1 POINT 4.3.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20ºC.
LAS CARACTERISTICAS DEL MATERIAL CUMPLEN CON LOS REQUISITOS DEL PUNTO 7.5 DE LA DIRECTIVA PED POR TENER UN ALARGAMIENTO TRAS ROTURA EN EL ENSAYO DE TRACCION NO INFERIOR AL 14% Y PO DE TRACCION NO INFERIOR AL 14% Y POR TENER UNA RESISTENCIA AL IMPACTO NO INFERIOR A 27 J A 20º C.
DIE WERKSTOFF-WERTE ENTSPRECHEN PUNKT 7.5. DER DGRL, ANHANG 1, MIT EINERBRUCHDEHNUNG = 14% IM NORMGEMÄSS DURCHGEFÜHRTEN ZUGVERSUCH UND DER KERBSCHLAGARBEIT = 27J AN EINER ISO - v PRO PROBE BEI EINER TEMPERATUR VON HÖCHSTENS 20°C
LES CARACTERISTIQUES DU MATERIEL, AYANT UN ALLONGEMENT APRES RUPTURE A L'ESSAI DE TRACTION NON INFERIEUR DU 14% ET UNE RESISTENCE A LA FLEXION PAR CHOC A 20°C NON INFERIEUR A 27J, SONT CONFORMES AUX PRESCIPTIONS DU PONT 7.5 DE L'ANNEXE I DE PED.

MATERIAL IS FREE OF RADIATION CONTAMINATION

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 648100 Page: 6 / 6	Rev: 00
Created on: Date: 16.06.2016	Modified on: 24.06.2016

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IS FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

AENOR ER Empresa Registrada UNE EN ISO 9001

AENOR Gestión Ambiental UNE EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

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Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204 3.1
Annex 1
Microphotographs

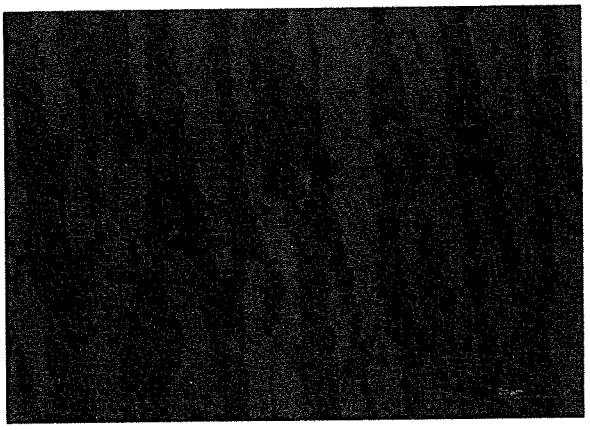
Number	:	648100
Page	:	1/2
Date	:	29/06/2016

TTI - TUBACEX TUBOS INOXIDABLES, S.A.U.

Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI2885 - N.I.F. A-01140227
Tres Cruces, 8
01400 Llodio (Alava)
SPAIN

Sales Order	:	182919
Sales Item	:	10
Standard	:	ASTM A790
Grade	:	UNS S32760
Dimensions	:	1.1/2" SCH 80S

Microstructure: MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS



P1602531 182919-10 C-49329 LONG 500X.jpg

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR GA Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES
INGENIERIA DE CALIDAD

Iñigo Arriola Alcibar

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE
EN 10204 3.1
Annex 1
Microphotographs

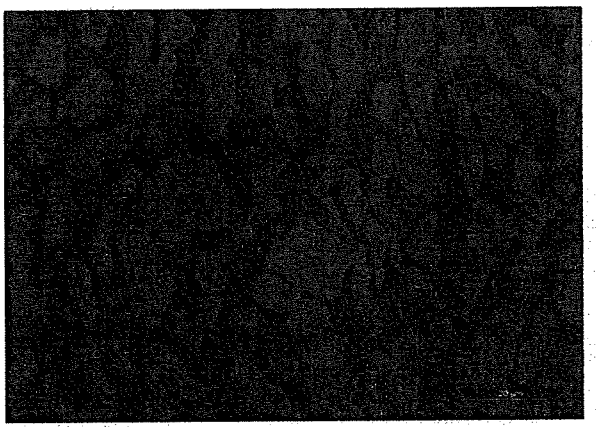
Number	:	648100
Page	:	2/2
Date	:	29/06/2016

TTI - TUBACEX TUBOS INOXIDABLES, S.A.U.

Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI2885 - N.I.F. A-01140227
Tres Cruces, 8
01400 Llodio (Álava)
SPAIN

Sales Order	:	182919
Sales Item	:	10
Standard	:	ASTM A790
Grade	:	UNS S32760
Dimensions	:	1.1/2" SCH 80S

Microstructure: MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS



P1602531 182919-10 C-49329 TRANS 500X.jpg

AENOR ER Empresa Registrada UNE-EN ISO 9001
AENOR GA Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies ordinary requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must adhere its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES
INGENIERIA DE CALIDAD
Iñigo Arriola Alcibar

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 270 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TEE0SD02931H00
TEE UG. 1.1/2" SCH.40/S SEAMLESS

raccortubi Heat num. or Pcs. marking: 1157SA019 - Qty:2,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

CTCERT202400006256.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8055-P3	19/09/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006433	

	Item	Quantity	Heat id.
3	TEE 1.1/2" x 3/4" XS WPL6	1,00	14E-14E5482-J5L3682

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,110	1,340	0,220	0,006	0,005	0,020	0,120	0,010	0,030	0	0

CE_{IIW} 0,36

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	330	476	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	39	46	41	42

Hardness Test

Base Metal Avg 141 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 280 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TER0CS04991H3Q
TEE RID. 1.1/2"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 14E - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

EITI - The Inspection Body.

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24033

Date - Data - Vom - date : 20/09/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 82

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
1	1.1/2" sch. XS	CAPS ASME/ASTM SA/A 420 WPL6	16I-16I2373	1		
5	4"x1.1/2" STD/XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	513131	1		
2	1.1/2" XS	TEE UG. ASME/ASTM SA/A 420 WPL6	0D-0D1533	1		
3	1.1/2"x3/4" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	14E-14E5482-J5L3682	1		
4	1.1/2"x1" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	54-J9KA054	3		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuveri - NDT Specialist
ISO 9712 CICPND 10246/PND/C Level 2 UT
ISO 9712 CICPND 27056/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 280 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TER0CS04991H3Q
TEE RID. 1.1/2"x3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 14E - Qty:1,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

CTCERT202400006257.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8055-P4	19/09/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006433	

	Item	Quantity	Heat id.
4	TEE 1.1/2" x 1" XS WPL6	3,00	54-J9KA054

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	TEE COLD FORMED, THEN HEAT TREATED AND MAGNETIC PARTICLE EXAMINATED ACCORDING ASTM E709
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,270	0,280	0,009	0,001	0,020	0,130	0,010	0,010	0	0,0100	0	0,0001

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	311	519	32

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	39	37	35	37

Hardness Test

Base Metal Avg 133 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

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Luca Alessandrini			

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Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 290 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TER0CS26141H01
TEE RID. 1.1/2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 54 - Qty:3,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

EITI - The Inspection Body

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24033

Date - Data - Vom - date : 20/09/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 82

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
1	1.1/2" sch. XS	CAPS ASME/ASTM SA/A 420 WPL6	16I-16I2373	1		
5	4"x1.1/2" STD/XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	513131	1		
2	1.1/2" XS	TEE UG. ASME/ASTM SA/A 420 WPL6	0D-0D1533	1		
3	1.1/2"x3/4" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	14E-14E5482-J5L3682	1		
4	1.1/2"x1" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	54-J9KA054	3		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuzzi – NDT Specialist
ISO 9712 CICPND 27048/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 290 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: TER0CS26141H01
TEE RID. 1.1/2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 54 - Qty:3,00

Protocol: CTCERC202400008900 * CERTIFIED TRUE COPY
* Issued 09-10-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400892

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 24.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 09/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche

- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:

-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00008991
Packing list	PLPLIS202400008938
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00008991

09/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
110	6.99	PIPESD02860200 60.33x2.77 SEAMLESS	59769 CTCERT202400001808_1.0001.TIF CTCERT202400001808_1.0002.TIF CTCERT202400001808_1.0003.TIF CTCERT202400001808_1.0004.TIF CTCERT202400001808_1.0005.TIF CTCERT202400001808_1.0006.TIF CTCERT202400001808_2.0001.TIF

raccortubi

00008991

09/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 09/10/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				TUBI SMLS SEC. ASTM ASTM/ASME A/SA-790 S32760 DIMS. SEC. ANSI B36.19	
110	M	6.99	1.00	PIPESD02860200 60.33x2.77 SEAMLESS	59769

raccortubi

00008991

09/10/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
			TUBI SMLS SEC. ASTM ASTM/ASME A/SA-790 S32760 DIMS. SEC. ANSI B36.19	
110	6.99	M	PIPESD02860200 60.33x2.77 SEAMLESS	59769

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RECEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 749303 Page: 1 / 6	Rev:
Created on: Date: 13.12.2023	Modified on: 29.12.2023

TTI - TUBACEX TUBOS INOXIDABLES

Registro Mercantil de Alava, Tomo 587, Folio 189, Hoja VI 2885 - N.I.F. A-01140227

Tres cruces, 8
01400 Llodio (Alava)
SPAIN

TL: 946721350
FAX: 946725062
E-MAIL:

CUSTOMER DESCRIPTION/DESCRIPCIÓN DEL CLIENTE/KUNDENBEZEICHNUNG/COMMETTANT

CLIENT SOLD TO/SOLICITANTE/AUFTRAGGEBER/COMMETTANT

TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO

SOLD TO:RACCORTUBI S.P.A.
SOLD P.O. REF.:00000291 S
SOLD ORDER REF.:392648
COPY NUMBER: 002

CLIENT ORDER/PEDIDO CLIENTE/KUNDEN AUFTRAGSNUMMER/NO.DE COMMANDE: I010738

SALES ORDER/PEDIDO VENTAS/AUFTRAGSNUMMER/NO.DE COMMANDE D'USINE:

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES S.A.U.
Quality & Environment Director

Aitor Gonzalez Arco

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI TUBACEX GROUP

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CERTIFICADO DE INSPECCIÓN
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Number: 749303 Page: 2 / 6	Rev:
Created on: Date: 13.12.2023	Modified on: 29.12.2023

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
HEAT-TREATED, PICKLED / TRATADO, DECAPADO / HYPERTREMPE, DECAPE / WÄRMEBEHANDELT, GEBEIZT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)
GRADE / ACERO / GRADE / WERKSTOFF: S32760,1.4501,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: ASME SECT.II PART.A SA790/SA790M-2021 ED.
ASTM A790/A790M-22
EN 10216-5:2021 TC2
EN 10297-2:2005
NORSOK M650 QTR N.2
NORSOK M630:2020 MDS D51 REV.6
CHECK ANALYSIS
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO ASTM A923 TEST METHOD C
CORROSION TESTED ACC. TO ASTM G48 TEST METHOD A
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE B
SHELL ES/247 REV.2 EXCEPT DPI (TABLE 1) AND SURFACE REQUIREMENTS (POINT 9.1)
HYDROTEST
ANSI/NACE MR0103/ISO 17945:2015
ANSI/NACE MR0175/ISO15156-3:2015
QAD 68 REV.0
RTX_D51S REV.6
SHELL MESC SPE 74/014 FEBRUARY 2021 EXCEPT:
NO LIQUID PENETRANT TEST (POINT 14.12.1),
TENSILE TEST ONLY IN LONGITUDINAL DIRECTION.
ULTRASONIC TEST ONLY FOR LONGITUDINAL DEFECTS.
IMPACT TEST (if applicable): Lateral expansion 0.38 mm. minimum.
ULTRASONIC TEST ACC. TO ASTM A999/A999M / ASTM E213
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASME SECT.II PART.A SA999/SA999M-2021 ED.
ASTM A999/A999M-18
EN ISO 1127/03.2019 D3/T3
RANDOM LENGTHS / LARGOS VARIABLES / LONGUEUR COURANTE / EINGEENGTE LÄNGE 6.000/7.000 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 60,33 X 2,77 MM - 2" SCH 10S
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item Pos Ped. AuftrgPos Usine Pos	Client Item Pos Clnt Kunde Pos Com. Pos	Delivery No Nº Entrega Lieferung Avis. d'exp	Lot No. Nº lote Los Nr. Lot d`inspection	Heat No Colada Schmelze Coulée	Pieces Piezas Stück Pcs	Weight Peso Gewicht Poids	Tot Lgth Long. Tot Gesamtlänge Tolength	Un Lgth Long. Un Längentyp Long. Un
10		8110078916	P2305072	59769	15	395 KG	100,76 M	6000-7000 MM

RAW MATERIAL/DATOS MATERIAL/VORMATERIAL/MATIERE PREMIERE

Heat Nr:	Supplier	Method
59769	ACERALAVA (SPAIN)	Electric furnace+AOD

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
Quality & Environment Director

Aitor Gonzalez Arco

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI
TUBACEX GROUP

INSPECTION CERTIFICATE, CERTIFICADO DE INSPECCIÓN CERTIFICAT DE RECEPTION ABNAHMEPRÜFZEUGNIS EN 10204:2004 / 3.1

Number: 749303 Page: 3 / 6	Rev:
Created on: Date: 13.12.2023	Modified on: 29.12.2023

CHEMICAL COMPOSITION (%)/COMPOSICIÓN QUÍMICA (%)/CHEMISCHE ZUSAMMENSETZUNG (%)/COMPOSITION CHIMIQUE(%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu
L	59769	1	0,013	0,66	0,510	0,025	0,0005	6,95	25,58	3,62	0,014	0,66
C	59769	9	0,013	0,68	0,540	0,025	0,0005	6,75	25,20	3,70	0,013	0,64
C	59769	10	0,013	0,67	0,540	0,025	0,0003	6,80	25,30	3,65	0,013	0,65

*	Heat	Seq	V	Nb	W	Co	N	Pren
L	59769	1	0,058	0,008	0,600	0,065	0,2385	41,3420
C	59769	9	0,067	0,005	0,590	0,065	0,2385	41,2260
C	59769	10	0,066	0,005	0,590	0,065	0,2385	41,1610

HEAT TREATMENT/TRATAMIENTO TÉRMICO/WÄRMEBEHANDLUNG/TRAITEMENT THERMIQUE

HIPERTEMPLADOS A 1100 °C , 5 min , Agua
SOLUTION ANNEALED AT 1100 °C , 5 min , WATER
HYPERTREMPES 1100 °C , 5 min , L' EAU
LOESUNGSGEGLUEHT 1100 °C , 5 min , Wasser

TENSILE TEST/TEST DE TENSIÓN/ESSAI TRACTION/ZUGVERSUCH

Lot No.	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5	Type	Spc.Type	Spc.Dim
		°C	*MPa*	*MPa*	*MPa*	*%*	*%*			*mm*
P2305072	1	20	628	698	828	30	30	L	S	20,10
	2	20	620	693	828	30	30	L	S	20,13

CORROSION ACCORDING TO ASTM A923 C/CORROSION DE ACUERDO ASTM A923 C/CORROSION SUIVANT ASTM A923 C/CORROSION ACCORDING TO ASTM A923 C

Lot No.	Sample	T	Pits-20x	Wloss	time
		°C		*MDD*	*Horas*
P2305072	1	50	N	1,0100	24,0

Corrosion test ASTM G48 practice A/Corrosión ASTM G48 práctica A/TEST DE CORROSION ASTM G48 practice A/LOCHFRASSTEST ASTM G 48 PR.A

Lot No.	Sample	T	Pits-20x	W.loss	time
		°C		*g/m2*	*Horas*
P2305072	1	50	N	0,1010	24,0

HARDNESS TEST/TEST DE DUREZA/DUREE/HÄRTEPRÜFUNG

Lot No.	Sample	0°Ext1	0°Ext2	0°Ext3	0°Int1	0°Int2	0°Int3	90°Ext1	90°Ext2	90°Ext3	90°Int1	90°Int2	90°Int3	180°Ext1
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2305072	1	19,2	18,7	17,9	16,2	15,5	16,0	18,0	19,1	18,4	17,2	18,1	16,9	19,6

Lot No.	Sample	180°Ext 2	180°Ext3	180°Int1	180°Int2	180°Int3	270°Ext1	270°Ext2	270°Ext3	270°Int1	270°Int2	270°Int3
		HRC	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*	*HRC*
P2305072	1	18,2	19,7	16,4	17,3	18,4	17,8	17,6	18,6	17,8	16,8	19,0

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
Quality & Environment Director

Aitor Gonzalez Arco

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI TUBACEX GROUP

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Number: 749303 Page: 4 / 6	Rev:
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FERRITE ACCORDING TO ASTM E 562/Contenido de Ferrita según ASTM E562/FERRITE SUIVANT ASTM E562/FERRIT ENTSPRECHEND ASTM E562

Lot No.	Sample	%Fer	Dev.Ferr
		%	%
P2305072	1	51,66	1,51

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS METALLURGIQUES

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

EXAMEN DE MICROESTRUCUTRA DE ACUERDO A ASTM A923 MET.A: ESTRUCTURA NO AFECTADA. MATERIAL LIBRE DE FASES INTERMETALICAS Y PRECIPITADOS. ESTRUCTURA UNIFORME A TRAVES DEL ESPESOR.

ETCH STRUCTURE ACC. ASTM A923 MET.A: UNAFFECTED STRUCTURE. MATERIAL FREE FROM INTERMETALLIC PHASES AND PRECIPITATES. UNIFORM STRUCTURE ACROSS FULL WALL THICKNESS

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY

ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E: SATISFACTORIO

BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262 PRACT.E: IN ORDNUNG

ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT

INTERGRANULAR CORROSION TEST ACC.TO DIN EN ISO 3651-2 MET.B: SATISFACTORY

ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ISO 3651-2 MET.B: SATISFACTORIO

BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ISO 3651-2 MET."B": IN ORDNUNG

ESSAI DE CORR. INTERGR. SELON ASTM ISO 3651-2 MET."B":SATISFAISANT

NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE PRÜFUNGEN/ESSAIS NON DESTRUCTIFS

FERRITE CONTENT DETERMINED BY FISCHER FERRITOSCOPE TO 100% OF PRODUCTS

CONTENIDO EN FERRITA MEDIDO CON FERRITOSCOPIO SOBRE EL 100% DEL MATERIAL.

Ferritescope-Test auf 100% des Materials.

100% ULTRASONIC TEST ACC. TO ASTM A999 / E213: SATISFACTORY

100% ENSAYO DE ULTRASONIDOS DE ACUERDO A ASTM A999 / E213: SATISFACTORIO

100% ULTRASCHALLPRÜFUNG NACH ASTM A999 / E.213:IN ORDNUNG

100% ESSAI D´ULTRASON D'ACCORD A ASTM A999 / E.213: SATISFAISANTE

POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY "X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY

VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE "ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

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Quality & Environment Director

Aitor Gonzalez Arco

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

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EN 10204:2004 / 3.1

Number: 749303 Page: 5 / 6	Rev:
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VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR
"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 170 bar, 2500 PSI DURING 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 170 bar, 2500 PSI DURANTE 5 SEC EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 170 bar, 2500 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 170 bar, 2500 PSI PENDANT 5 SEC SUR CHAQUE TUBE: SATISFAISANT
100% EDDY CURRENT TEST AT ASTM E426: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A ASTM E426: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH ASTM E426: O.B.
100% CONTROLE COURANTS FOUCAULT D'APRES ASTM E426: BIEN

DIMENSIONAL CHECKING ON EACH TUBE: SATISFACTORY
INSPECCION DIMENSIONAL AL 100% DE LOS TUBOS SATISFACTORIA
100% MASSKONTROLLE: O.B.
VERIFICATION DIMENTIONNELLE AU 100% DES TUBES, SATISFAISANTE

VISUAL INSPECTION ON EACH TUBE: SATISFACTORY
INSPECCION VISUAL AL 100% DE LOS TUBOS, SATISFACTORIA
100% BESIGCHTIGUNG: O.B.
EXAMEN VISUEL AU 100% DES TUBES, SATISFAISANT

TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE PRÜFUNGEN/TECHNOLOGICAL TESTS

FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

MARKING/ETIQUETADO/KENNZEICHNUNG/MARKSTEXT

TX2 TX1 TUBACEX 60,33 X 2,77 MM - 2" SCH 10S ASME SA790 ASTM A790 EN 10216-5 TC2 EN 10297-2 S32760 1.4501 CFD CD SMLS HEAT/ PMI-AV LOT NO/MADE IN SPAIN

AENOR Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order#s requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

TUBACEX TUBOS INOXIDABLES S.A.U.
Quality & Environment Director

Aitor Gonzalez Arco

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TTI TUBACEX GROUP

INSPECTION CERTIFICATE
CERTIFICADO DE INSPECCIÓN
CERTIFICAT DE RÉCEPTION
ABNAHMEPRÜFZEUGNIS
EN 10204:2004 / 3.1

Number: 749303 Page: 6 / 6	Rev:
Created on: Date: 13.12.2023	Modified on: 29.12.2023

REMARKS/OBSERVACIONES/ANMERKUNG/REMARQUES

NO MERCURY, MERCURY COMPOUNDS OR MERCURY BEARING INSTRUMENTS AND/OR EQUIPMENT HAVE BEEN USED ALONG MANUFACTURING AND INSPECTION PROCESS.
DURANTE LOS PROCESOS DE FABRICACIÓN E INSPECCIÓN NO SE HA USADO MERCURIO NI INSTRUMENTOS Y/O EQUIPOS CONTENIENDO MERCURIO O CON COMPONENTES DE MERCURIO.
KEINE QUEKSILBER, BZW. QUECKSILBERVERUNREINIGTES KOMPONENTEN ODER KUGELLAGERINSTRUMENTE UND/ODER GERÄTE SIND BENUTZT WORDEN PRODUKTIONS UND BESICHTIGUNGSPROZESS.
IL N'A PAS ÉTÉ FAIT USAGE DE MERCURE, DE COMPOSÉS CONTENANT DU MERCURE OU DE MATÉRIAUX ET/OU D'INSTRUMENT CONTENANT DU MERCURE TOUT AU LONG DES ÉTAPES DE FABRICATION ET DU PROCESSUS D'INSPECTION ET DE CONTRÔLE.

NO WELDING OR WELD REPAIRS WERE MADE
SIN REPARACION POR SOLDADURA
KEINE SCHWEISSBEARBEITUNG WURDE VORGENOMMEN
SANS RÉPARATION AVEC SOUDURE
MATERIAL MANUFACTURER APPROVED BY TÜV SÜD Industrie Service GmbH
(NOTIFIED BODY 036)TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN
ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3.
FABRICANTE DE MATERIALES APROBADO POR TÜV SÜD Industrie Service GmbH (ORGANISMO NOTIFICADO 0036) PARA LA EMISION DE CERTIFICADOS ESPECIFICOS DE CONTROL DE PRODUCTO DE ACUERDO AL ANEXO 1, PUNTO 4.3 DE LA DIRECTIVADE EQUIPOS A PRESION 2014/68/EU.
WERKSTOFFHERSTELLER MIT BERECHTIUNG ZUR AUSSTELLUNG VON BESCHEINIGUNGEN ÜBER SPEZIFISCHE PRÜFUNGEN AN DEN WERKSTOFFEN IM GELTUNGSBEREICH DER ZERTIFIZIERUNG UND IN ÜBEREINSTINSTIMMUNG MIT DER DRUCKGERÄTERICHTLINIE 2014/68/EU UND DEN ZUGRUNDE LIEGENDEN SPEZIFIKATIONEN ENTSPR. DER BENANNTEN STELLE NR.0036, TÜV SÜD Industrie Service GmbH
PRODUCTEUR DU MATERIEL APPROUVE PAR TÜV SÜD Industrie Service GmbH N.B. 0036) POUR EMISSION DES CERTIFICATS SPECIFIQUE DE CONTROLE DE PRODUIT SELON LA DIRECTIVE DES EQUIPES A PRESION 2014/68/EU ANNEXE 1 POINT 4.3.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14% AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27J AT 20ºC.
LAS CARACTERISTICAS DEL MATERIAL CUMPLEN CON LOS REQUISITOS DEL PUNTO 7.5 DE LA DIRECTIVA PED POR TENER UN ALARGAMIENTO TRAS ROTURA EN EL ENSAYO DE TRACCION NO INFERIOR AL 14% Y PO DE TRACCION NO INFERIOR AL 14% Y POR TENER UNA RESISTENCIA AL IMPACTO NO INFERIOR A 27 J A 20º C.
DIE WERKSTOFF-WERTE ENTSPRECHEN PUNKT 7.5. DER DGRL, ANHANG 1, MIT EINERBRUCHDEHNUNG = 14% IM NORMGEMÄSS DURCHGEFÜHRTEN ZUGVERSUCH UND DER KERBSCHLAGARBEIT = 27J AN EINER ISO - v PRO PROBE BEI EINER TEMPERATUR VON HÖCHSTENS 20ºC
LES CARACTERISTIQUES DU MATERIEL, AYANT UN ALLONGEMENT APRES RUPTURE A L'ESSAI DE TRACTION NON INFERIEUR DU 14% ET UNE RESISTENCE A LA FLEXION PAR CHOC A 20ºC NON INFERIEUR A 27J, SONT CONFORMES AUX PRESCIPTIONS DU PONT 7.5 DE L'ANNEXE I DE PED.

MATERIAL IS FREE OF RADIATION CONTAMINATION
EL MATERIAL ESTA LIBRE DE CONTAMINACION POR RADIACIONES
MATERIAL IS FREI VON RADIOAKTIVITÄT
MATÉRIEL LIBRE DE POLUTION RADIOACTIVE

AENOR ER Empresa Registrada UNE-EN ISO 9001

AENOR Gestión Ambiental UNE-EN ISO 14001

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TUBACEX TUBOS INOXIDABLES S.A.U.
Quality & Environment Director
Aitor Gonzalez Arco

TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 110 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: PIPESD02860200
60.33x2.77 SEAMLESS

raccortubi Heat num. or Pcs. marking: 59769 - Qty:6,99

Protocol: CTCERC202400008991 * CERTIFIED TRUE COPY
* Issued 09-10-2024

TUBACEX GROUP

STRUCTURE EXAMINATION

MTC / Certificate
749303

MATERIAL IDENTIFICATION / IDENTIFICACIÓN DEL MATERIAL

Lot No. / Num Lote	**P2305072**	**Dimension** / Dimensión	60,33 x 2,77 mm - 2'SCH 10
Heat / Colada	59769	**Grado de acero** / Steel grade	S32760

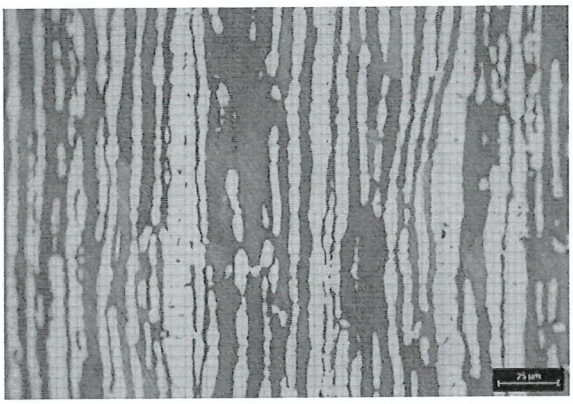
Type Of test / Tipo de Ensayo:	**MICROSTRUCTURE EVALUATION**

RESULTS / RESULTADO

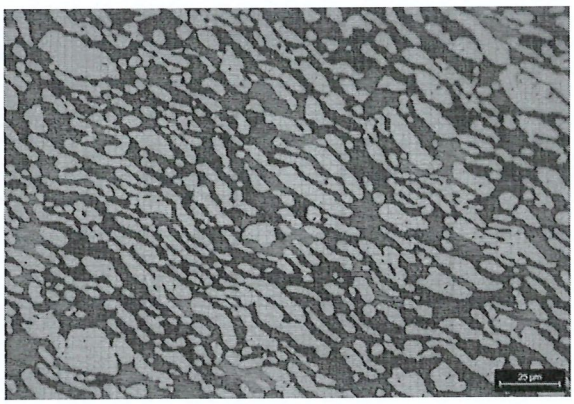
Result: The microestructure is formed by austenite and ferrite. The presence of intermetallic phases or precipitates is not observed. Uniform structure across full wall thickness Etching method according to ASTM E-407.

Resultado: la microestructura está compuesta por austenita y ferrita. No se observa la presencia de fases intermetálicas y precipitados. Estructura uniforme a través de todo el espesor. Método de ataque según ASTM E-407.

GRAPHICS RECORDS / REGISTROS FOTOGRÁFICOS:



Dir: LONGITUDINAL / MAG: 500X /



Dir: TRANSVERSAL / MAG: 500X /

Irene Castro
Responsable del Laboratorio
Laboratory Manager

POSITIVE MAT.L ID. S32760

Pagina / *Page:* 1

Cliente / *Customer*: ROSETTI MARINO

Commessa / *Job N.*: 3948

Pos. *Item*	N. Prog.	% CR	% Ni	% Mo	% Ti	% W	% Nb	% Cu	% N	% N. Colata / Marcatura Pz *Heat N./PCS Marking*
	Min.	24,00	6,00	3,00						
	Max	26,00	8,00	4,00						
11	**1**	25,41	6,84	3,68						**59769**

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Cliente
Customer

Raccortubi Q.A./Q.C.

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400891

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 24.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 16/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00009589
Packing list	PLPLIS202400009528
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00009589

16/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 16/10/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
50	NR	4	0.00	FLR0SS0034010H Flange Reducing ASME B16.5 THRD-F NPT 150LB RF FRG ASTM A182 Gr.F316/316L 1''x1/2''	292021

raccortubi

00009589

16/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
50	4	FLR0SS0034010H Flange Reducing ASME B16.5 THRD-F NPT 150LB RF FRG ASTM A182 Gr.F316/316L 1''x1/2''	292021 CTCERT202400006846_1.0001.TIF

CTCERT202400006846.1.0001

HERTECANT FLANGES

Tel.: +32 (0) 15 22 49 10

www.hertecantflanges.com

CERTIFICATE	No		Date	Your order	Our order
EN 10204 - 3.1	24704453-1	/	11/10/2024	00006434	68805

Buyer:	Requirements:	
RACCORTUBI S.p.A. VIALE DE GASPERI 194 20010 MARCALLO CON CASONE Italy	ASME B16.5 Rockwell HRC acc to NACE MR 01-75/01-03 - ISO15156 ASME SA 182 SECT II PART A ED 2021, YEAR ASTM 2021	

Grade:	Heat treatment:	Brand mark	Inspectors stamp
F316L/F316 ASTM A 182 / ASME SA 182	solution annealed at 1050 °C quenched in water	H I S	P P

Marking: **Quantity:** 4

Heat + Prod.number / Description / Mark + Inspector stamp

292021 P95781 THREADED 1" x 1/2" CLASS 150 316L R.F. REDUCING

Mechanical properties:

	Rp 0,2 % [N/mm2]	Rp 1,0 [N/mm2]	Rm [N/mm2]	Elongation (4D) %	Elongation (5D) %	Reduction of area [%]	Impact test 20° [J]			Avg	Lateral expansion
TANG	305	353	582	52.7		64	166	160	185	170	2.28-2.23-2.26
	HARDNESS HB BRINELL 2.5/187.5 KG RESULTS:						155-165				

Chemical analysis (%) :

C	Si	Mn	P	S	Cr	Mo	Ni	Ti	N	Cu	Al
0.013	0.46	1.54	0.031	0.024	16.57	2.02	10.06		0.074		
B	Co	Nb	W	V	Ta	Fe					
	0.16										

Melting process / Producer	E+AOD/VALBRUNA	
Inspection and gauge measurement: No remarks	**100% PMI test:** Result :No remarks	**IGC test :** ASTM A262 Pract. E: No remarks

Certified acc. PED 2014/68/EU Annex 1, § 4.3 by certification Body -0036- of TÜV SÜD Industrie Service GMBH - Certificate Nr. 286/2006/MUC

The product mentioned herein complies with the specification and customers requirements.

Materials are free from mercury. Country of origin of the flanges is Belgium.

Materials are free of radio-active contamination.

Works inspector:

QUALITY CONTROL DEPARTMENT

Vets

TERMS AND CONDITIONS OF SALES ON OUR WEBSITE

HERTECANT FLANGES N.V.

Lossing 22
2260 Heultje - Westerlo (Belgium)
BTW/VAT/TVA N° BE 0466 169 726

Tel.: +32 (0) 15 22 49 10
www.hertecantflanges.com

Bank Belgium:
ING Lummen
IBAN BE89 3630 8481 1685
SWIFT-code: BBRUBEBB

KBC Westerlo
IBAN BE34 7330 4069 7590
SWIFT-code: KREDBEBB

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 50 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLR0SS0034010H
Flange Reducing ASME B16.5 THRD-F NPT 150LB RF FRG ASTM A182 Gr.F316/316L 1"x1/2"

raccortubi Heat num. or Pcs. marking: 292021 - Qty:4,00

Protocol: CTCERC202400009589 * CERTIFIED TRUE COPY
* Issued 16-10-2024

SIDERTEST
mechanical chemical non destructive tests
Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant A: Strada della Barianella, 1/B - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

PT 493 / 24

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0864 L

Tipo di controllo/ Type of control ***Esame con Liquidi Penetranti/ Liquid Penetrant Examination***

Luogo del Controllo/ Test Location: ***Str. Barianella, 1/B C.S.Giovanni (PC)***

Cliente/ Customer	Subcliente/ Subcustomer	Commessa/ Job	Ordine/ Order
Raccortubi Spa Viale De Gasperi, 194 - 20010 - Marcallo con Casone (MI)	**ROSETTI MARINO SPA**	**00003948**	**1724001828 - 123A90A**

Doc. Cliente/ Client's doc.	*Doc. Sider Test/ Sider Test doc.*	*Norma Esecuzione/ Execution Standard*	*Accettabilità/ Acceptance Std*
	PO 04-003 PT Rev. 17 - IL 04-003-001 PT Rev. 05	**ASME BPVC.V-2023 Art. 6 and 24**	**ASTM E 165-23 - ASME BPVC.VIII.1-2023 App. 8**

Tecnica d'Esame/ Examination Technique	Light intensity (Lux)	Condizioni Superficiali/ Surface Condition	Area Esame/ Area Tested
Liquidi Penetranti Solubili in Acqua a Contrasto di Colore/ Water Washable Color Contrast Penetrant Examination (IIAe2)	**>= 1076**	**Materiale Finito/ Finished Material**	**100% accessible surfaces**

Pulizia/ Cleaning		*Penetrante/ Penetrant*		*Rimozione Penetrante/ Penetrant Removal*		*Asciugatura/ Drying*		*Rilevatore/ Developer*	
Tipo/ Type	**Solvent NITRO**	Applicazione/ Application	**Brush**	Tipo/ Type	**Water Sponging**	Tipo/ Type	**Clean rags**	Applicazione/ Application	**Spray**
Intervallo/ Interval (min)	5'	Tipo/ Type	**Red K71B2P**	Intervallo/ Interval (min)	5'	Intervallo/ Interval (min)	5'	Tipo/ Type	**White D112A**
		Bagno/ Batch	**230707P**					Bagno/ Batch	**240507W150s**
		Marca/ Trade Mark	**ELITE**					Marca/ Trade Mark	**ELITE**
		Tempo mi. di penetrazione/ Minimum Penetration Time	**10'**					Intervallo di interpretazione/ Final interpretation interval	**7' ÷ 60'**

Posizione/ Item	Qta/ Qty	Descrizione/ Description	Prova Nr./ Test Nr.	Materiale/ Material	Colata/ Heat
50	**4**	**FLANGE REDUCING 1" x 1/2" S.150 RF**	**1241**	**ASTM A 182 F316/F316L**	**292021**

Assenza di Difetti/ Absence of Defects

Conforme a 'Accettabilità'/ Conforming to 'Acceptance Std

Regola decisionale adottata per l'uso dell'incertezza di misura quando dichiara la conformità a un requisito specificato: per i controlli NDT il laboratorio monitora le sorgenti di incertezza, ma non la calcola. Non si riporta l'incertezza nel rapporto di prova. Il risultato può essere CONFORME o NON CONFORME/ Decision rule adopted for the use of measurement uncertainty when declaring compliance with a specified requirement: for NDT controls the laboratory monitors sources of uncertainty, but does not calculate it. The uncertainty is not reported in the test report. The result can be COMPLIANT or NON-COMPLIANT

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Accettabilità" riguarda solamente le prove presenti in questo rapporto di prova.Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti./ This test report refers only to the examined sample as received from the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client. Compliance with documents in "Acceptace Std" refers only to the tests described on this test report.Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.

Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Operatore CND Liv. II/ Lev. 2 NDE Operator
SIDER TEST S.r.l.
MAURIZIO ENDENI
LEVEL II SNT-TC-1A

Data Ingresso Materiale/ Date of Material Arrival	Data esecuzione/ Date of Testing	Data Rapporto di prova/ Test Report Date
17/10/2024	18/10/2024	18/10/2024

Cliente/ Customer	Ispettori/ Inspector

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
PAOLO AMANI
LEVEL 3
SNT-TC-1A - ISO 9712 - NDT-PND-001 - RT - UT

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

ZERTIFIKAT

Die Notifizierte Stelle - Kennnummer 0036 -
der TÜV SÜD Industrie Service GmbH

bescheinigt, dass die Firma

Hertecant Flanges NV
Lossing 22
B-2260 Heultje-Westerlo

als Werkstoffhersteller für

gesenkgeschmiedete Flansche aus austenitischen und austenitisch-ferritischen Stählen

über ein zertifiziertes Qualitätsmanagementsystem
entsprechend Anhang I, Absatz 4.3 der Druckgeräterichtlinie 2014/68/EU,
AD 2000-Merkblatt W 0 sowie EN 764-5, Absatz 4.2

verfügt und dieses anwendet.

Der Geltungsbereich ist aus der Anlage ersichtlich.
Weitere Einzelheiten sind im Bericht Nr. P-B-20-11-720303228 genannt.

Das Unternehmen ist daher berechtigt, in Übereinstimmung mit der Druckgeräte-richtlinie 2014/68/EU Bescheinigungen über spezifische Prüfungen an den Werkstoffen im o.g. Geltungsbereich auszustellen. Eventuell weitergehende Anforderungen aus den angewandten technischen Spezifikationen zur Erfüllung des Anhanges I bleiben unberührt.

Das Zertifikat ist gültig bis Oktober 2023.

Zur Aufrechterhaltung der Gültigkeit ist ein jährliches Überwachungsaudit erforderlich.

Zertifikat-Nr.: DGR-0036-QS-W 286/2006/MUC-001
München, 8. März 2021

Notified Body, Nr. 0036

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

(M. Strobel)

Zertifizierungsstelle
Werkstoff- und Schweißtechnik

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

CERTIFICATE

The Notified Body - 0036 -
of TÜV SÜD Industrie Service GmbH

certifies that

Hertecant Flanges NV
Lossing 22
B-2260 Heultje-Westerlo

has implemented, operates and maintains a

Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU, Annex I, Section 4.3, AD 2000-Merkblatt W 0 as well as EN 764-5, Para. 4.2

as a material manufacturer for the scope of

dye forged flanges in austenitic and austenitic-ferritic materials.

The scope of the approval is described in the annex to this certificate.
Further details are mentioned in report no. P-B-20-11-720303228.

The manufacturer is therefore authorized to issue certificates of specific product control within the scope of the assessed quality system and in accordance with the Pressure Equipment Directive 2014/68/EU. Possible additional requirements - specific to applied technical specifications to meet PED Annex I - are not affected.

This certificate is valid through October 2023.

In order to adhere the validity an annual surveillance audit is required.

Certificate No.: DGR-0036-QS-W 286/2006/MUC-001
Munich, March 8th, 2021

Notified Body, No. 0036

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

(M. Strobel)

Certification Body
Material and Welding Technology

EQ3101146

Industrie Service

DECLARATION

I, the undersigned, Pieter Deleu, lead auditor by TÜV SÜD Industrie Service GmbH, in charge of the recertification process of the Company Hertecant Flanges N.V. attest that the plant Hertecant Flanges N.V. in 2260 Heultje -Westerlo (Belgium), has been in progress of the recertification process on date of 07/02/2024 following the Directive 2014/68/EU annex I § 4.3 and the recertification process for the AD 2000-W0 standard with the Notified Body TÜV SÜD Industrie Service GmbH, Westendstr. 199, D-80686 München.

The audit result was positive.

The Notified Body has been informed about the positive result. Then the new certificate and scope will be issued by the Notified Body as soon as possible.

Boortmeerbeek, 05/07/2024

Ing. P. Deleu
Lead auditor

TÜV SÜD Benelux BV, Leuvensesteenweg 350, B-3190 Boortmeerbeek
TEL.: +32- (0)15 50 96 30

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001828	123A90A	Q012400893

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **24.10.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 23/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00009192
Packing list	PLPLIS202400009133
Ns. Rif.	00003948
Vs. Rif.	1724001828 - 12.09.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00009192

23/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00003948

Ordine N. P.O. number: 1724001828 - 12.09.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*	Immagine *Image*
60	2	FLW0CS22230H00 Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 1/2" thk 3.73mm	22/75635	CTCERT202400006519_1.0001.TIF CTCERT202400006519_2.0001.TIF
70	2	FLW0CS22243Q00 Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 3/4" 3,91mm	23/70335	CTCERT202400006520_1.0001.TIF CTCERT202400006520_2.0001.TIF
130	1	REE0CS1728041H RID. ECC. 4"x1.1/2" STD/XS SEAMLESS	513131	CTCERT202400006258_1.0001.TIF CTCERT202400006258_2.0001.TIF

raccortubi

00009192

23/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00003948
Ordine N. P.O. number: 1724001828 - 12.09.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 23/10/2024
Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine
Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
				FLANGE IN ACCIAIO CALMATO ASTM A-350 GRADO LF2	
60	NR	2	0.00	FLW0CS22230H00 Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 1/2" thk 3.73mm	22/75635
70	NR	2	0.00	FLW0CS22243Q00 Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 3/4" 3,91mm	23/70335
				RACCORDI SEC. ASME/ASTM SA/A 420 GR.WPL6, DIM./SMUSSI ANSI B16.9, B16.25	
130	NR	1	0.00	REE0CS1728041H RID. ECC. 4"x1.1/2" STD/XS SEAMLESS	513131

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — **Nr** A03 2024-C_MFF-02265 — **Data / Dated** 01.10.2024 Z02

RACCORTUBI S.P.A. A06 Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	**Ordine / PO**	6435	A07
	Item	001	A07
	DDT / Delivery note	2024-3E301-0002216	A10
	Packing List		A11
	Fattura / Invoice		A12
	Ns. rif. / Our ref.	2024-3E201-0001413-0001	A08

Dest. **RACCORTUBI SPA** A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	22/75635	2,00	WN 150 FF 1/2" XS LF2 CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -24a ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03
FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 055/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,210	1,010	0,010	0,013	0,180	0,080	0,020	0,023	0,200	0,002	0,001	0,009
PRODUCT ANALYSIS	0,183	0,216	1,002	0,007	0,009	0,186	0,071	0,018	0,021	0,193	0,003	0,003	0,006

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,029	0,407	0,348	0,482	0,200	--
PRODUCT ANALYSIS	0,034	0,409	0,350	0,471	0,204	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	339,0	--	536,0	28,4	62,8

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
153,0 ; 157,0	KV	10x10x55 mm	-46	38	42	53	44,3

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2017		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; FF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06		D01		Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018	Vis. & Dim.	SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 60 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLW0CS22230H00
Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 1/2" thk 3.73mm

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:2,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

Certificate no.	055/2024	Date	27/09/2024	Customer	RACCORTUBI S.P.A.	Order no.	6435
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Frigerio Simone	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	20°C

Yoke Type	Type and Trade Equipment				Magnetic Particles Type	
AC/DC	Silver Yoke NDT Italiana Serial no. 1822	X	Y-2 Yoke Magnaflux Serial no. E3313		Wet Fluorescent Magnetic Particles: NDT Italiana Elite FW1	Illumination Type: Led UV Lamp Magnaflux Serial no. E3512
Note						

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined %	Results C[1]	Results NC[1]	Note
1	001	WN 150 FF 1/2" XS	22/75635	2	WHOLE ACCESSIBLE SURFACE	100	X		No indications detected
2	002	WN 150 FF 3/4" XS	22/70335	2	WHOLE ACCESSIBLE SURFACE	100	X		No indications detected

Note	Flanges bores and other surfaces were magnetic particle inspected in both directions, axial & circumferential in accordance with ASTM A275/A508 .				
Operator Signature		Approved by	Metalfar Prodotti Industriali S.p.A. Mr. Simone Frigerio Quality Control Manager NDE Level II ISO 9712 e-mail: qcm@metalfarItaly.com	Customer Inspector	

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 60 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLW0CS22230H00
Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 1/2" thk 3.73mm

raccortubi Heat num. or Pcs. marking: 22/75635 - Qty:2,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV	METALFAR PRODOTTI INDUSTRIALI SPA A01 23861 CESANA BRIANZA (LC) - ITALY VIA G. PARINI, 28 PHONE + 39 031 655441 - FAX +39 031 655149 certificate@metalfaritaly.com	COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV

INSPECTION CERTIFICATE EN 10204:2004 / 3.1 A02 — Nr A03 2024-C_MFF-02265 — Data / Dated 01.10.2024 Z02

RACCORTUBI S.P.A. A06 Viale Lidice 38/40/42 10095 GRUGLIASCO TO IT	Ordine / PO	6435	A07
	Item	002	A07
	DDT / Delivery note	2024-3E301-0002216	A10
	Packing List		A11
	Fattura / Invoice		A12
	Ns. rif. / Our ref.	2024-3E201-0001413-0002	A08

Dest. RACCORTUBI SPA A06
VIA F.LLI KENNEDY, 59
20010 MARCALLO CON CASONE MI IT

Cod. colata / Heat Code B07	Nr. colata / Heat Nr B07	Quantità / Quantity B08	Descrizione / Description B01 - (B09 - B11)
	23/70335	2,00	WN 150 FF 3/4" XS LF2 CL1

Mat. in acc. a / Mat. in acc. to B02
ASTM A 350M -24a ,ASME SA 350 M - 23 ,ASME CODE SECT. II, PART A, ED. 2023
ASTM A350 LF2 CL1
NACE MR-0175/2021 ISO 15156-2 :2020
NACE MR-0103/2015 ISO 17945 :2015
Q.A.S.IN ACCORD.WITH PRESS.EQUIPM.DIRECT.2014/68/EU(PED) ANNEX I,PARAGRAPH 4.3
& PRESSURE EQUIPMENT(SAFETY) REGULATION 2016 No.1105 SCHEDULE 2, PART 4 PARA.31

Ann. mat. / Mat. remarks D02-B03
FULLY KILLED STEEL AND FINE GRAIN PRACTICED
MT 100% PERFORMED ACC. ASTM E709 :SEE REPORT No: 055/2024

Elementi / Elements (C71 - C92)	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Cu	V	Nb	N
LADLE ANALYSIS	0,180	0,230	1,000	0,009	0,012	0,140	0,110	0,020	0,019	0,200	0,002	0,002	0,010
PRODUCT ANALYSIS	0,182	0,235	1,002	0,010	0,009	0,144	0,106	0,018	0,020	0,196	0,003	0,002	0,011

	Al	CE LF	CE SF	F1	F2	PREN
LADLE ANALYSIS	0,026	0,400	0,347	0,472	0,160	--
PRODUCT ANALYSIS	0,025	0,402	0,349	0,467	0,162	--

CE LF=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE SF=C+(Mn/6) F1=Cu+Ni+Cr+Mo+V F2=Cr+Mo

Provetta / Test specimen C10		Forma / Shape C10	°C C03	Snervamento>0,2% / Yield Strength>0,2% C11	Snervamento>1,0% / Yield Strength>1,0% C11	Rottura / Tensile C12	Allungamento / Elongation C13	Contrazione / Reduction of area C14
Sez/Sect mm2	Gauge L.mm	1=O - 2=□		MPa	MPa	MPa	%	%
126,60	50,80	1	20	350,0	--	545,0	30,3	65,4

DUREZZA / HARDNESS C30		RESILIENZA / IMPACT TEST					
HBW C31	Tipo/Type C40	Provetta / Test Specimen C41	°C C03	1-Joule C42	2-Joule C42	3-Joule C42	Media/Average C43
160,0 ; 163,0	KV	10x10x55 mm	-46	52	35	72	53,0

Tratt. Term. / Heat treatment B04	NORMALIZED AT 930 °C - COOLED IN STILL AIR	C70	GAS FURNACE
Dim in acc. a / Dim. acc. to B14	ASME/ANSI B16.5 -2017		
Finitura / Roughness B15	ASME/ANSI B46.1 -2019 ; FF FINISHING 125-250 µin AARH		

Marcatura in acc. / Marking in acc. to B06				Origine / Origin of Steel B16	
	ANSI/MSS SP-25-2018	Vis. & Dim. D01	SATISFACTORY		ITALY EUROPEAN UNION

Note / Notes Z01-B03
MATERIAL 100% MANUFACTURED IN ITALY; MATERIAL IN ACCORDANCE WITH ORDER AND SPECIFICATION
Issued in agreement with TÜV SÜD Industrie Service GmbH August 12th, 2021" .
Certification no.DGR-0036-QS-W 1025/2021/MUC-01
TENSILE TEST AND CHARPY KV IMPACT TEST PERFORMED IN ACCORDANCE WITH ASTM A370 -22.

UFFICIO CONTROLLO QUALITA' / QUALITY CONTROL DEPARTMENT A05	ENTE UFFICIALE DI COLLAUDO / INSPECTION AUTHORITY Z03	MARCHIO PRODUZIONE / MANUFACTURER'S SYMBOL A04
D. Gaffuri		MFF

MIM30800 del 29/08/2023

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 70 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLW0CS22243Q00
Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 3/4" 3,91mm

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:2,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

A FARINA COMPANY

CERTIFICATO ESAME MAGNETICO

MIM22800 REV.00
27/02/2023

QAM
Luca Frigerio

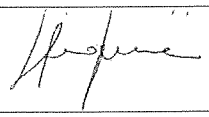
Certificate no.	055/2024	Date	27/09/2024	Customer	RACCORTUBI S.P.A.	Order no.	6435
Material	ASTM A350 LF2CL1	Surface Condition	Machined	Operator	Frigerio Simone	Note	

Procedure / Standard	ASTM E709	Acceptance	ASME VIII DIV. 1 APPENDIX 6

Temperature	20°C

Yoke Type	Type and Trade Equipment				Magnetic Particles Type	
AC/DC	Silver Yoke NDT Italiana Serial no. 1822	X	Y-2 Yoke Magnaflux Serial no. E3313		Wet Fluorescent Magnetic Particles	Illumination Type
					NDT Italiana Elite FW1	Led UV Lamp Magnaflux Serial no. E3512
Note						

No.	P.O. Item	Product	Heat	Quantity	Examined Part	Examined %	Results C[1]	Results NC[1]	Note
1	001	WN 150 FF 1/2" XS	22/75635	2	WHOLE ACCESSIBLE SURFACE	100	X		No indications detected
2	002	WN 150 FF 3/4" XS	22/70335	2	WHOLE ACCESSIBLE SURFACE	100	X		No indications detected

Note	Flanges bores and other surfaces were magnetic particle inspected in both directions, axial & circumferential in accordance with ASTM A275/A508 .				
Operator Signature		Approved by	*Metalfar Prodotti Industriali S.p.A.* *Mr. Simone Frigerio* *Quality Control Manager* *NDE Level II ISO 9712* *e-mail: qcm@metalfarltaly.com*	Customer Inspector	

1: C = Compilant - NC = Non Compilant

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 70 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: FLW0CS22243Q00
Flange WN ASME B16.5 150LB FF FRG ASTM/ASME A/SA350 Gr.LF2 3/4" 3,91mm

raccortubi Heat num. or Pcs. marking: 23/70335 - Qty:2,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

CTCERT202400006258.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8055-P5	19/09/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006433	

	Item	Quantity	Heat id.
5	R.E. 4" x 1.1/2" XS WPL6	1,00	513131

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,160	0,610	0,220	0,026	0,012	0,018	0,012	0,005	0,021	0,002	0,0020

CE_{IIW} 0,27

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	298	515	34

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
7.5 X 10	0,6	Base Mat.	119	126	128	124

Hardness Test

Base Metal **Avg** 140 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 130 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REE0CS1728041H
RID. ECC. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 513131 - Qty:1,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

EITI - The Inspection Body

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24033

Date - Data - Vom - date : 20/09/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 82

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
1	1.1/2" sch. XS	CAPS ASME/ASTM SA/A 420 WPL6	16I-16I2373	1		
5	4"x1.1/2" STD/XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	513131	1		
2	1.1/2" XS	TEE UG. ASME/ASTM SA/A 420 WPL6	0D-0D1533	1		
3	1.1/2"x3/4" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	14E-14E5482-J5L3682	1		
4	1.1/2"x1" XS	TEE RID. ASME/ASTM SA/A 420 WPL6	54-J9KA054	3		

issued by | Verified by | Customer

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 CICPND 26046/PND/C Level 2 UT
ISO 9712 CICPND 27058/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001828 - 12.09.24 - Item n.: 130 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400003948

Description: REE0CS1728041H
RID. ECC. 4"x1.1/2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 513131 - Qty:1,00

Protocol: CTCERC202400009192 * CERTIFIED TRUE COPY
* Issued 23-10-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400918

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani 29.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 18/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00009591
Packing list	PLPLIS202400009531
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00009591

18/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002823

Ordine N. P.O. number: 1724001267 - 24.06.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz.** *Heat N° or PCS. Marking*	**Immagine** *Image*
27	1	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"x1.1/2" thk 6,02mmX5,08mm	T24617	CTCERT202400006888_1.0001.TIF CTCERT202400006888_1.0002.TIF CTCERT202400006888_2.0001.TIF
28	1	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm	712578	CTCERT202400006889_1.0001.TIF CTCERT202400006889_1.0002.TIF CTCERT202400006889_2.0001.TIF CTCERT202400006889_2.0002.TIF CTCERT202400006889_3.0001.TIF CTCERT202400006889_4.0001.TIF CTCERT202400006889_4.0002.TIF CTCERT202400006889_4.0003.TIF

raccortubi

00009591

18/10/2024

POSITIVE MATERIAL IDENTIFICATION

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Il materiale sottoelencato e' stato sottoposto con esito favorevole al controllo P.M.I tramite apparecchiatura NITON XLT898 secondo specifica PO 40 REV.8.

The under listed material have been satisfactory passed the P.M.I. test carried out with instruments NITON XLT898 in accordance with specification PO 40 REV.8.

Note:
Notes: P.M.I. extension 100%

Operatore Qualificato
Qualified Operator

Ente Terzo
Third Party Agency

Raccortubi S.p.A.

Pos. *Item*	**Q.ta'** *Q.ty*	**U.M.**	**Descrizione** *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
27		1 NR	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4''x1.1/2'' thk 6,02mmX5,08mm	T24617
28		1 NR	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4''x1.1/2'' thk 3,05mmX3,68mm	712578

raccortubi

00009591

18/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 18/10/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
27	NR	1	0.00	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"x1.1/2" thk 6,02mmX5,08mm	T24617
28	NR	1	0.00	NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm	712578

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

ZERTIFIKAT

Die Notifizierte Stelle - Kennnummer 0036 -
der TÜV SÜD Industrie Service GmbH

bescheinigt, dass die Firma

FITTINOX S.r.l.
Via Copernico, 34/36
IT-29027 Podenzano (PC)

als Werkstoffhersteller für

Formstücke, Flansche und Schmiedestücke aus unlegierten, niedrig und hochlegierten Stählen

über ein zertifiziertes Qualitätsmanagementsystem entsprechend Anhang I, Absatz 4.3 der Druckgeräterichtlinie 2014/68/EU, AD 2000-Merkblatt W 0 sowie EN 764-5, Absatz 4.2

verfügt und dieses anwendet.

Der Geltungsbereich ist aus der Anlage ersichtlich.
Weitere Einzelheiten sind im Bericht Nr. C-722312218-23 genannt.

Das Unternehmen ist daher berechtigt, in Übereinstimmung mit der Druckgeräte-richtlinie 2014/68/EU Bescheinigungen über spezifische Prüfungen an den Werkstoffen im o.g. Geltungsbereich auszustellen. Eventuell weitergehende Anforderungen aus den angewandten technischen Spezifikationen zur Erfüllung des Anhanges I bleiben unberührt.

Das Zertifikat ist gültig bis 31.05.2026.

Zur Aufrechterhaltung der Gültigkeit ist ein jährliches Überwachungsaudit erforderlich.

Zertifikat-Nr.: DGR-0036-QS-W 960/2020/MUC-03
München, 15. August 2023

Notified Body, Nr. 0036

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

(M. Strobel)

EQ3061038

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

CERTIFICATE

The Notified Body - 0036 -
of TÜV SÜD Industrie Service GmbH

certifies that

FITTINOX S.r.l.
Via Copernico, 34/36
IT-29027 Podenzano (PC)

has implemented, operates and maintains a

Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU, Annex I, Section 4.3, AD 2000-Merkblatt W 0 as well as EN 764-5, Para. 4.2

as a material manufacturer for the scope of

fittings, flanges and forgings in unalloyed, low and high alloyed steels.

The scope of the approval is described in the annex to this certificate.
Further details are mentioned in report no. C-722312218-23.

The manufacturer is therefore authorized to issue certificates of specific product control within the scope of the assessed quality system and in accordance with the Pressure Equipment Directive 2014/68/EU. Possible additional requirements - specific to applied technical specifications to meet PED Annex I - are not affected.

This certificate is valid through 31.05.2026.

In order to adhere the validity an annual surveillance audit is required.

Certificate No.: DGR-0036-QS-W 960/2020/MUC-03
Munich, August 15th, 2023

Notified Body, Nr. 0036

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

(M. Strobel)

EQ3061038

Customer: ROSETTI MARINO S.p.A.

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"x1.1/2" thk 6,02mmX5,08mm

Order: 1724001267 - 24.06.24 - Item n.: 27 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000282

Heat num. or Pcs. marking: T24617 - Qty:1,00

Protocol: CTCERC20240000591 * CERTIFIED TRUE COPY

* Issued 18-10-2024

CTCERT20240000688.1.0001

fittinox PIPE FITTINGS SOLUTIONS

VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0357/01 Rev.0
type: 3.1
DATA 17/10/2024

FITTINOX JOB	CUSTOMER	CUSTOMER P.O.	PROJECT
24C0357	RACCORTUBI S.p.A.	00006099	N/A
MATERIAL SPECIFICATION & GRADE	ASME BPVC.II.A 2023 SA350/SA350M / ASTM A350/A350M:23 LF2 CL. 1	DIMENSIONS & TOLERANCES	ASME B16.5-2017

FITTINOX ITEM	CUSTOMER ITEM	Q. TY	ITEM DESCRIPTION	HEAT	LOT	CODE	TEST N.
0001	1	1	NIPOFLANGE REINFORCED D.4" x 1 1/2" THK 6.02mm / 5.08mm 150# RF ASTM/ASME A/SA350 LF2 CL.1 - ITEM 27	T24617			TS00414

BASE MATERIAL TRACEABILITY

HEAT NUMBER	MELTING PROCESS	MILL CERTIFICATE	STEEL MAKER
T24617	E.F. + V.D. + FULLY KILLED	2011/05/000293-KRY	SOCHOROVA VALCOVNA TZ a.s.

CHEMICAL ANALYSIS (%)

Min		0,60	0,15										
Max	0,300	1,35	0,30	0,035	0,040	0,30	0,40	0,12	0,080	0,40	0,020	1,000	
HEAT N°	C	Mn	Si	P	S	Cr	Ni	Mo	V	Cu	Nb	V+Ni+Cu+Mo+Cr	
T24617	0,200	1,07	0,21	0,014	0,004	0,06	0,02	0,01	0,003	0,05	0,002	0,141	

HEAT TREATMENT DETAILS

HEAT	LOT	TEST N.	TYPE HT	HEATING RATE °C/h	HOLDING TEMPERATURE °C	HOLDING TIME (hh:mm)	COOLING RATE °C/h	COOLING MEDIA
T24617		TS00414	NORMALIZING		900	02:00		STILL AIR

MECHANICAL PROPERTIES

		TENSILE TEST											HARDNESS		IMPACT TEST (KV)							
		LIMITS				≥ 250		485÷655	≥ 22		≥ 30		≤ 197	≤ 197			10 x 10	-46	≥ 16	≥ 20		
HEAT LOT	TEST N.	TEMP	DIR.	POS.	DIM.	YS 0.2%	YS (1%)	TS	A Elong.	L0	Z	YS/ TS	VALUES	AVG VALUE	DIR.	POS.	DIM.	TEMP	IMPACT TEST VALUES	IMPACT TEST AVG	SHEAR AREA VALUES	LATERAL EXP. VALUES
		(°C)			(mm)	(MPa)	(MPa)	(MPa)	(%)		(%)		(HBW)	(HBW)			(mm)	(°C)	(J)	(J)	%	mm.
T24617 -	TS00414	23	T	1/2	Ø 6.26	311		502	36,4	4d	65,2	0,62	146-151-154	150,33	T	1/2	10 x 10	-46	48-52-55	51,67		

TRADE MARK

DATE 17/10/2024

ISSUED BY A. ARCELLI

VERIFIED BY G. RAIMONDI

INSPECTOR

DATE

INSPECTOR

DATE

fittinox
PIPE FITTINGS SOLUTIONS

VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0357/01 Rev.0
type: 3.1
DATA 17/10/2024

REMARKS AND SUPPLEMENTARY INFORMATION

-Mechanical properties on pieces in finished conditions.
-Starting Material: round forged bar
-Type of construction: seamless.
-Method of manufacture: Machined directly from round forged bar.
-100% Visual dimensional and marking check carried out on finished pieces with satisfactory results.
-100% Positive material identification (PMI) carried out on finished pieces with satisfactory results.
-Marking: MSS-SP25-08

WE CERTIFY THAT THE DELIVERED PRODUCTS COMPLY WITH THE ORDER

TRADE MARK

ISSUED BY A. ARCELLI — INSPECTOR

DATE 17/10/2024

VERIFIED BY G. RAIMONDI — INSPECTOR

DATE

DATE

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 27 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM/ASME A/SA350 Gr.LF2 4"x1.1/2" thk 6,02mmX5,08mm

raccortubi Heat num. or Pcs. marking: T24617 - Qty:1,00

Protocol: CTCERC202400009591 * CERTIFIED TRUE COPY
* Issued 18-10-2024

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

EITI - The Inspection Body.

qualytube

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24034

Date - Data - Vom - date : 17/10/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 90

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit

see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME V Article 7
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2023 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
24	3/4" x 3,91mm	ASTM/ASME A/SA 333 GR.6	24636	5		NIPPLE L=100mm
27	4"x1.1/2" 6,02mm/5,08mm	ASTM/ASME A/SA350 LF2	T24617	1		NIPOFLANGE REINFORCED

issued by

Qualytube
Nicolò Tucini - NDT Specialist
ISO 9712 CICPND 28046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

Verified by

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - MT/PT/VT/RT

Customer

CTCERT20240000689.1.0001

fittinox
PIPE FITTINGS SOLUTIONS

VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0357/02 Rev.0
type: 3.1
DATA 17/10/2024

Customer: ROSETTI MARINO S.p.A.
Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm
Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240000282
raccortubi Heat num. or Pcs. marking: 712578 - Qty:1,00
Protocol: CTCERC20240000591 * CERTIFIED TRUE COPY * Issued 18-10-2024

FITTINOX JOB	CUSTOMER	CUSTOMER P.O.	PROJECT
24C0357	RACCORTUBI S.p.A.	00006099	N/A
MATERIAL SPECIFICATION & GRADE	ASTM A182/A182M-23 F55 / MDS D54 / ISO 17781	DIMENSIONS & TOLERANCES	ASME B16.9-2018 - ASME B16.25-2017

FITTINOX ITEM	CUSTOMER ITEM	Q. TY	ITEM DESCRIPTION	HEAT	LOT	CODE	TEST N.
0002	2	1	NIPOFLANGE REINFORCED D.4" x 1 1/2" THK 3.05mm / 3.68mm 150# RF ASTM A182 F55 - ITEM 28	712578			TN01211
0003	3	1	FLANGIA GREZZA D.1 1/2" 150# RF ASTM A182 F55 PER PROVE POS.2	712578			TN01211

BASE MATERIAL TRACEABILITY

HEAT NUMBER	MELTING PROCESS	MILL CERTIFICATE	STEEL MAKER
712578	E.F. + A.O.D.	305370	BGH Edelstahl Freital GmbH

CHEMICAL ANALYSIS (%)

Min						24,00	6,00	3,00	0,50	0,2000	0,50	
Max	0,030	1,00	1,00	0,030	0,010	26,00	8,00	4,00	1,00	0,3000	1,00	
HEAT N°	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	N	W	Pren
712578	0,029	0,64	0,27	0,024	0,001	25,57	7,74	3,56	0,63	0,2575	0,80	41.44

HEAT TREATMENT DETAILS

HEAT	LOT	TEST N.	TYPE HT	HEATING RATE °C/h	HOLDING TEMPERATURE °C	HOLDING TIME (hh:mm)	COOLING RATE °C/h	COOLING MEDIA
712578		TN01211	SOLUTION ANNEALING	50	1100	03:00		WATER

MECHANICAL PROPERTIES

		TENSILE TEST											HARDNESS		IMPACT TEST (KV)							
		LIMITS				≥ 550		≥ 800	≥ 25		≥ 45		≤ 32	≤ 32			10 x 10	-46	≥ 35	≥ 45		
HEAT LOT	TEST N.	TEMP	DIR.	POS.	DIM.	YS 0.2%	YS (1%)	TS	A Elong.	L0	Z	YS/ TS	VALUES	AVG VALUE	DIR.	POS.	DIM.	TEMP	IMPACT TEST VALUES	IMPACT TEST AVG	SHEAR AREA VALUES	LATERAL EXP. VALUES
		(°C)			(mm)	(MPa)	(MPa)	(MPa)	(%)		(%)		(HRC)	(HRC)			(mm)	(°C)	(J)	(J)	%	mm.
712578 -	TN01211	23	L	1/2	Ø 12.49	607		816	42,3	4d	68	0,74	20,8-19,9-20,6	20,43	T	1/2	10 x 10	-46	306,2-298,4-285,6	296,73	100-100-100	2.65-2.58-2.44

TRADE MARK

ISSUED BY A. ARCELLI — VERIFIED BY G. RAIMONDI

DATE 17/10/2024

INSPECTOR — DATE

INSPECTOR — DATE

fittinox
PIPE FITTINGS SOLUTIONS

VIA N. COPERNICO,34/36 (Z.I.)
29027 PODENZANO (PC) ITALY
TEL: +39 0523 524138-524208
FAX +39 0523 5241423

INSPECTION CERTIFICATE
according to ISO 10474 / EN 10204
MATERIAL TEST CERTIFICATE

N° 24C0357/02 Rev.0
type: 3.1
DATA 17/10/2024

Customer: ROSETTI MARINO S.p.A.

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm

Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT20240002823

raccortubi Heat num. or Pcs. marking: 712578 - Qty:1.00

REMARKS AND SUPPLEMENTARY INFORMATION

-Mechanical properties on pieces in finished conditions.
-Starting material: Round forged bar
-Type of construction: Seamless.
-Method of manufacture: Machined directly from round bar.
-100% Positive material identification (PMI) carried out on finished pieces with satisfactory results.
-For G48 meth.A corrosion test see Sider Test report no. G48ACE 25211/24
-For ferrite check see Sider Test report no. E562 13139/19
-For microstructural analysis see Sider Test report no. MIC 13139/19
-100% Dye penetrant test carried out acc. to ASTM E165 on finished pieces with satisfactory results. See attached report no. 24C0357/02-PTR
-100% Visual-Dimensional and marking check carried out on finished pieces with satisfactory results. See report 24C0357/02-VDM
-Marking: MSS SP25-08.
-Surface Protection: Passivation
-Material acc. to NACE MR0175/ISO 15156-3:2015-NACE MR0103/ISO 17945:2016 Hardness <32 HRC (< 301 HBW - < 318 HV)
MATERIAL MANUFACTURER WITH AN ISO 9001:2015 MANAGEMENT SYSTEM APPROVED WITH CERTIFICATE NO. IT248115-2 BY BUREAU VERITAS ACCREDITATION BODY
IN ACCORDANCE WITH PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU ANNEX 1 POINT 4.3.
MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14%
AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27 J AT 20°C.

WE CERTIFY THAT THE DELIVERED PRODUCTS COMPLY WITH THE ORDER

TRADE MARK	ISSUED BY A. ARCELLI	VERIFIED BY G. RAIMONDI	INSPECTOR	INSPECTOR
DATE 17/10/2024			DATE	DATE

Protocol: CTCERC20240009591 * CERTIFIED TRUE COPY
* Issued 18-10-2024

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RAPPORTO CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT EXAMINATION
RAPPORT D'EXAMEN PAR RESSUAGE

24C0357/02-PTR
Rev.0
17/10/2024
Page 1 to 2
PTR

CLIENTE: Purchaser / Client	RACCORTUBI S.p.A.	**ORDINE CLIENTE:** P.O. / Commande du Client:	00006099
COMMESSA FTX: FTX Job / Commande FTX:	24C0357	**PROGETTO:** Project / Projet:	N/A
LIVELLO QUALITÁ: Quality Level / Niveau de Qualité:	N.A.	**PROCEDURA No.:** Procedure no. / Procedure no.	PI 6 Rev.4
PIANO QUALITÁ No: ITP No. / PQ No.:	N/A	**FASE:** Phase / Phase	N.A.
SPECIFICHE: Specifications No / Specifications No:	ASTM A182/A182M-23 F55 / MDS D54 / ISO 17781		
NORME DI PROCEDIMENTO: Testing STD / Normes de procedure	N.A.		

POS. FTX FTX Pos / Pos. FTX	ART. CLIENTE Cl. Item / Cl. Article	QTÁ Q.ty / Q.té	DESCRIZIONE Description / Description	GRADO MATERIALE Mat. Grade / Nuance	COLATA Heat / Coulée	CODICE Heat Code / Cod Coulèe	LOTTO Lot / Lot	NUMERO SAGGIO Test Number / Numero de temoin
0002	2	1	NIPOFLANGE REINFORCED D.4" x 1 1/2" THK 3.05mm / 3.68mm 150# RF ASTM A182 F55 - ITEM 28	F 55	712578			TN01211
0003	3	1	FLANGIA GREZZA D.1 1/2" 150# RF ASTM A182 F55 PER PROVE POS.2	F 55	712578			TN01211

TECNICA UTILIZZATA: Tecniques used / Technique utilisée:	**LIQUIDI PENETRANTI LAVABILI CON ACQUA** Visible penetrant examination - Water washable / Liquides pénétrants lavables à l'eau		
MEZZO DI ILLUMINAZIONE UTILIZZATO: Light medium used / éclairage utilisé	**LAMPADA A LUCE BIANCA (1076 LUX MINIMO)** White lamp / Lamp à lumière blanche		
CONDIZIONI SUPERFICIALI: Surface Conditions / État de surface	**LAVORATA DI MACCHINA-SABBIATA Ra ≤ 6,3 µm** Machined - Sandblasted / Usiné - sablée		
TEMPERATURA DEI PEZZI: Pieces temperature / Température des pieces	**16 ÷ 30 °C**		
PULIZIA INIZIALE Initial cleaning / Nettoyage préliminaire	**DETERGENTE IN ACQUA CALDA** Detergent in hot water / Détergent dans l'eau chaude	**PULIZIA FINALE** Final cleaning / Nettoyage final.	**ACQUA** Water / Eau
MARCA E TIPO DI PENETRANTE: Trademark & type penetrant / Marque et type de pénétrant	**NDT ITALIANA MET-L-CHEK VP 30 "VISIBLE"**	**LOTTO DI PRODUZIONE No.** Batch no. / Lot no.	**18268**
MARCA E TIPO RIVELATORE: Trademark & type developer / Marque et type de révélateur:	**NDT ITALIANA MET-L-CHEK D70**	**LOTTO DI PRODUZIONE No.** Batch no. / Lot no.	**18267**
APPLICAZIONE PENETRANTE: Penetrant application / Application du pénétrant	**IMMERSIONE** Immersion / Immersion		
APPLICAZIONE RIVELATORE: Developer Application / Application du révélateur	**NEBULIZZAZIONE** Spraying / Pulverisation		
MEZZO DI RIMOZIONE: Removal means / Produit de nettoyage	**ACQUA** Water / Eau		
TEMPO DI SVILUPPO: Developing time / Durée de révélation	**12 ÷ 18 MINUTI** Minutes / Minutes		
TEMPO DI PENETRAZIONE: Penetration Dwell time / Durée de pénétration	**25 MINUTI** Minutes / Minutes		
CRITERI DI ACCETTABILITÁ Acceptance criteria / critères d'acceptation	**ASME VIII Div. 1 - App. 8**		

	OPERATORE Operator - Operateur	UFFICIO QUALITÁ Quality Dpt. – Quality departement	ISPETTORE CLIENTE Client's Inspector – Inspection client
NOME-Name / Nom: **DATA**-Date / Date: **FIRMA** – Signature / Signature:	J. VILLAFUERTE 11/10/2024	A. ARCELLI 17/10/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm

raccortubi Heat num. or Pcs. marking: 712578 - Qty:1,00

Protocol: CTCERC202400009591 * CERTIFIED TRUE COPY
* Issued 18-10-2024

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RAPPORTO CONTROLLO CON LIQUIDI PENETRANTI
LIQUID PENETRANT EXAMINATION
RAPPORT D'EXAMEN PAR RESSUAGE

ESTENSIONE DELL'ESAME: Examination coverage / Couverture de l'examen	**100% DELLE SUPERFICI INTERNE ED ESTERNE ACCESSIBILI** 100% of internal and external accessible surfaces / 100% des surfaces accessibles
INDICAZIONI RILEVANTI: Recordable indications / Indications relevée	**NESSUNA** None / Aucune

DECISIONE - Decision – Decision

CONFORME Conforming / Conforme	☑	**NON CONFORME** Non conforming / Non-Conforme	

SCHIZZO - Sketch / Représentation

SI – Yes / Oui		**NO** – No / Non	☑

NOTE – Remarks - Observations

	OPERATORE Operator - Operateur	UFFICIO QUALITÁ Quality Dpt. – Quality departement	ISPETTORE CLIENTE Client's Inspector – Inspection client
NOME-Name / Nom: **DATA**-Date / Date: **FIRMA** – Signature / Signature:	**J. VILLAFUERTE** 11/10/2024	**A. ARCELLI** 17/10/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm

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RAPPORTO DI CONTROLLO VISIVO-DIMENSIONALE E MARCATURA
VISUAL DIMENSIONAL AND MARKING REPORT
RAPPORT DE CONTROLE VISUEL –DIMENSIONNEL ET MARQUAGE

24C0357/02-VDM
Rev.0
17/10/2024
Page 1 to 1
VDM

CLIENTE: Purchaser / Client	RACCORTUBI S.p.A.	**ORDINE CLIENTE:** P.O. / Commande du Client:	00006099
COMMESSA FTX: FTX Job / Commande FTX:	24C0357	**PROGETTO:** Project / Projet:	N/A
LIVELLO QUALITÁ: Quality Level / Niveau de Qualité:	N.A.	**PROCEDURA No.:** Procedure no. / Procedure no.	PI 47 Rev.4 - PI 52 Rev.2 - PI 28 Rev.4
PIANO QUALITÁ No: ITP No. / PQ No.:	N/A	**FASE:** Phase / Phase	N.A.
SPECIFICHE: Specifications No / Specifications No:	ASTM A182/A182M-23 F55 / MDS D54 / ISO 17781		
NORME DI PROCEDIMENTO: Testing STD / Normes de procedure	N.A.		

POS. FTX FTX Pos / Pos. FTX	ART. CLIENTE Cl. Item / Cl. Article	QTÁ Q.ty / Q.té	DESCRIZIONE Description / Description	GRADO MATERIALE Mat. Grade / Nuance	COLATA Heat / Coulée	CODICE Heat Code / Cod Coulée	LOTTO Lot / Lot	NUMERO SAGGIO Test Number / Numero de temoin
0002	2	1	NIPOFLANGE REINFORCED D.4" x 1 1/2" THK 3.05mm / 3.68mm 150# RF ASTM A182 F55 - ITEM 28	F 55	712578			TN01211
0003	3	1	FLANGIA GREZZA D.1 1/2" 150# RF ASTM A182 F55 PER PROVE POS.2	F 55	712578			TN01211

METODO UTILIZZATO: Examination method / Méthode utiliséè	**METODO DIRETTO** Direct method / Methode directe
STRUMENTI UTILIZZATI: Used Equipments / Instruments utilisés	**173C ; 181C ; 143C**
CRITERI DI ACCETTABILITÁ Acceptance criteria / critères d'acceptation	**ASME B16.9-2018 - ASME B16.25-2017**

DECISIONE - Decision – Decision

CONFORME Conforming / Conforme	☑	**NON CONFORME** Non conforming / Non-Conforme	

SCHIZZO - Sketch / Représentation

SI – Yes / Oui		**NO** – No / Non	☑

NOTE – Remarks - Observations

	OPERATORE Operator - Operateur	UFFICIO QUALITÁ Quality Dpt. – Quality departement	ISPETTORE CLIENTE Client's Inspector – Inspection client
NOME-Name / Nom: **DATA**-Date / Date: **FIRMA** – Signature / Signature:	**A. DONVITO** 11/10/2024	**A. ARCELLI** 17/10/2024	

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3,05mmX3,68mm

raccortubi Heat num. or Pcs. marking: 712578 - Qty:1,00

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raccortubi Heat num. or Pcs. marking: 712578 - Qty:1.00
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Verifica di Autenticità/ Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

G48ACE 25211 / 24

Rif. Lab SIM (FCP) : **8155 / 24 (A / A)**

LAB N° 0864 L

Cliente/ Customer **Fittinox Srl V. Copernico, 34/36 29027 Podenzano PC**

Ordine/ Order **FPO-0003948**

Commessa/ Job **O0018272**

Subcliente/ Subcustomer **KADDAS OILFIELD SERVICES**

Campione fornito da cliente/ Sample supplied by customer :Parte del prodotto finito/ part of finished product

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
TEST SAMPLE Ø 120 mm	1		712578-L7987	712578-L7987	ASTM A 815-23 UNS S32760

Prova di "pitting" in ferro-cloruro/ Ferric chloride pitting test [Decision rule: Qn]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Dimensioni/ Dimension mm Lunghezza/ Length	Larghezza/ Width	Spessore/ Thickness	Area/ Area cm²	
138083	ASTM G48 11 (R2020)e1 Method A	ISO 17781:2017	B L UP	Chimica/ Chemical	48,29	26,71	12,07	43,90	[(LxWx2)+(WxTx2)+(LxTx2)] / 100

Condizioni superficiali/ Surface condition	Pulizia chimica/ Chemically cleaned	Peso iniziale/ Initial weight (g)	122,7815	
Temperatura di prova/ Test temperature (°C)	50	Peso finale/ Final weight (g)	122,7813	
Tempo di esposizione (ore)/ Exposure time (hours)	24	Perdita di peso/ Weigth loss (g)	0,0002	
Data e ora inizio/ Initial date and time: 15/10/2024 13:34:39	Data e ora fine/ End date and time: 16/10/2024 13:34:39	Perdita di massa/ Specimen mass loss	< 0,1	g/m²
		Limite perdita di massa max/ Limit Specimen mass loss max	**1.0**	**g/m²**

Soluzione/ Solution FeCl3 6% SOLUTION

NON SONO STATI RISCONTRATI PIT NEL CAMPIONE IN ESAME A 20 X/ NO PITS HAVE BEEN FOUND IN THE SPECIMEN TESTED AT 20 X

Area esaminata A/ Examined area A	cm²	25.80
Area esaminata B/ Examined area B	cm²	25.80

Note Tecniche/ Technical Notes: Pickling: 20% HNO3+5% HF, 60°C, 5 Minutes

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	11/10/2024	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
Data Rapporto di prova/ Test Report Date	17/10/2024	Antonielli Stefano	Amani Paolo		
	firmato elettronicamente/electronically signed				

DECISION RULE:
- Ql → Qualitative
- Qs → Semi-quantitative
- Qn → Quantitative (Implicit Uncertainty)
- Qi → Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment.

The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [L]-long.; [UP]-external sup.

Customer: ROSETTI MARINO S.p.A.
Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" thk 3.05mmX3.68mm
Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
raccortubi Heat num. or Pcs. marking: 712578 - Qty:1.00
Protocol: CTCERC202400009591 * CERTIFIED TRUE COPY * Issued 18-10-2024
CTCERT202400006889.4.0002

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RAPPORTO DI PROVA/TEST REPORT

E562 13139 / 19

Page 1 of 1

Rif. Lab SIM (FCP) : 4253 / 19 (A / A)

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/Customer **Fittinox Srl V. Copernico, 34/36 29027 Podenzano PC**

Subcliente/Subcustomer **KADDAS OILFIELD SERVICES**

Ordine/Order **FPO-0003948**

Commessa/Job **O0018272**

Campione fornito da cliente Sample supplied by the Customer :Parte del prodotto finito/ part of finished product

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
TEST SAMPLE Ø 120 mm	1		712578-L7987	712578-L7987	ASTM A 815-18 UNS S32760

Determinazione della Frazione di volume tramite conteggio manuale sistematico dei punti/ Determining volume fraction by systematic manual point count

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Preparazione provino/ Specimen preparation	Ingrandimento/ Enlargement	Misura del reticolo/ Grid size	Data esecuzione/ Date of Testing
68552	ASTM E 562-11	MESC SPE 76/203 (2012)	B T 1/2	20% NaOH	400 X	40 mm x 40 mm 5 x 5 = 25 Points	14/06/2019

	Valore Min/ Value Min	Valore Max/ Value Max
Ferrite Vv (% Frazione di volume)/ Vv(% Volume Fraction) 46.5	40	60

s 4,5 95% C.I. 1,7 %RA 3,65

Ferrite % Frazione di volume per ciascun campo esaminato/ % Volume Fraction for each metallographic section

1	42	2	54	3	52	4	42	5	52
6	48	7	50	8	42	9	52	10	44
11	52	12	54	13	44	14	42	15	42
16	44	17	52	18	44	19	42	20	52
21	44	22	40	23	46	24	44	25	40
26	50	27	48	28	42	29	46	30	50

Nr. di campi per provino/sezione/spaziatura/angolo/ Nr. of fields for specimens/section/angle 30 / 20 x 20 mm / 3 x 3.0 mm / 45°

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

INSPECTION SERVICES
DNV·GL
Inspector no.: 32-486
Date:
Signature: 14 GIU. 2019
☑ Witnessed ☐ Reviewed

Si dichiara che i risultati presenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente , che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report. The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta / Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action. This test report cannot be partially reproduced without our written approval.

Data Ingresso Materiale/ Date of Material Arrival **03/06/2019**

Data Rapporto di prova/ Test Report Date **14/06/2019**

Responsabile di Reparto o sostituto/ Department Manager or Deputy
Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy
Amoni Paolo

Ispettori/Inspector
WITNESSED NOTED REVIEWED
SURVEYOR M. CAMPELLI
DATE 14/6/19

Cliente/Customer ☐ Witness ☐ Review
TÜV NORD
14 JUN 2019 Name:

Test Position Legend: [1/2]-1/2 thickness; [B]-Specimen in Base Material; [T]-transv

Customer: ROSETTI MARINO S.p.A.
Description: NipoFlange Reinforced Manuf.s STD 150LB RF FRG ASTM A182 Gr.F55 4"x1.1/2" Ihk 3,05mmX3,68mm
Order: 1724001267 - 24.06.24 - Item n.: 28 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000002823
raccortubi Heat num. or Pcs. marking: 712578 - Qty:1,00
Protocol: CTCERC2024000009591 * CERTIFIED TRUE COPY * Issued 18-10-2024
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RAPPORTO DI PROVA/TEST REPORT

MIC 13139 / 19

Rif. Lab SIM (FCP) : 4253 / 19 (A / A)

LAB N° 0864 L

Cliente/Customer Fittinox Srl V. Copernico, 34/36 29027 Podenzano PC

Ordine/Order FPO-0003948

Commessa/Job O0018272

Subcliente/Subcustomer KADDAS OILFIELD SERVICES

Campione fornito da cliente Sample supplied by the Customer :Parte del prodotto finito: part of finished product

Descrizione/Description	Qta/Qty	Posizione/Item	Prova Nr./ Test Nr.	Colata/Heat	Materiale/Material
TEST SAMPLE Ø 120 mm	1		712578-L7987	712578-L7987	ASTM A 815-18 UNS S32760

ESAME MICROGRAFICO/ Micrographic examination

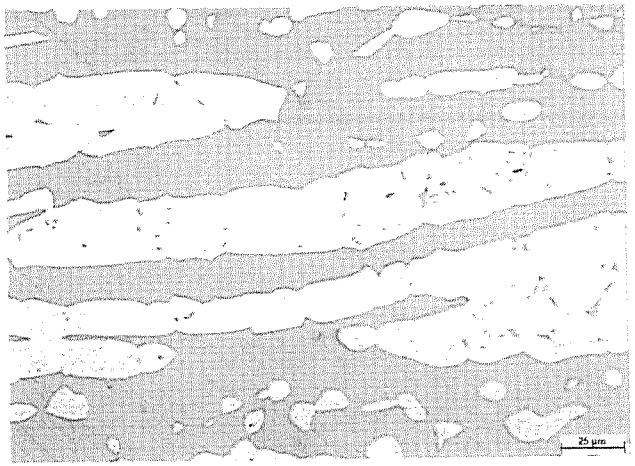
ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
68553	ASTM E 3-11(2017)+ASTM E 407-07(2015)e1	MESC SPE 76/203 (2012)	B T 1/2	14/06/2019

Ingrandimento/ Enlargement: 400 X

Attacco/ Etching: 20% NaOH

Area esaminata / Examined area: Materiale base / Base Material

20,0 x 20,0 = 400,0 mm²



Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: Conforme a 'Specifica'/ Compliant with 'Specification'

DNV·GL INSPECTION SERVICES
Inspector no.: 32-486
Date: 14 JUN. 2019
Signature:
☑ Witnessed ☐ Reviewed

Si dichiara che i risultati prosenti in questo rapporto di prova si riferiscono al solo campione fornito dal Cliente, che esegue il campionamento.I campi in blu sono forniti dal cliente.La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova.Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA./This test report refers only to the examined sample supplied by the Customer. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report. The symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA.
Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta./Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval.

Data Ingresso Materiale/ Date of Material Arrival	03/06/2019
Data Rapporto di prova/ Test Report Date	14/06/2019

Responsabile di Reparto o sostituto/ Department Manager or Deputy: Antonielli Stefano

Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy: Amani Paolo

Ispettore/Inspector
WITNESSED NOTED REVIEWED
SURVEYOR M. CAMPELLI
DATE 14/6/19

TUV NORD Italia
Cliente/Customer
☒ Witness ☐ Review
Date: 14 JUN 2019 Name:

Test Position Legend: [1/2]-1/2 thickness; [B]-Specimen in Base Material; [T]-trans

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Head Office: Strada della Bariancella, 1/B - 29015 Castel San Giovanni(PC) ITALY
U.O. Plant B: Viale dell Industria, 25 - 29015 Castel San Giovanni(PC) ITALY
Tel. +39 0523 881900 Fax. +39 0523 842903 sidertest@sidertest.it www.sidertest.it

Verifica di Autenticità/
Authenticity Verification

RAPPORTO DI PROVA/ TEST REPORT

A923A 25791 / 24

Rif. Lab SIM (FCP): 8283 / 24 (A / A)

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO
LAB N° 0864 L

Cliente/ Customer	Ordine/ Order	Commessa/ Job
Raccortubi Spa Viale De Gasperi, 194 20010 Marcallo con Casone MI	123A90A	2823 (PP09591)
Subcliente/ Subcustomer: ROSETTI MARINO SPA		

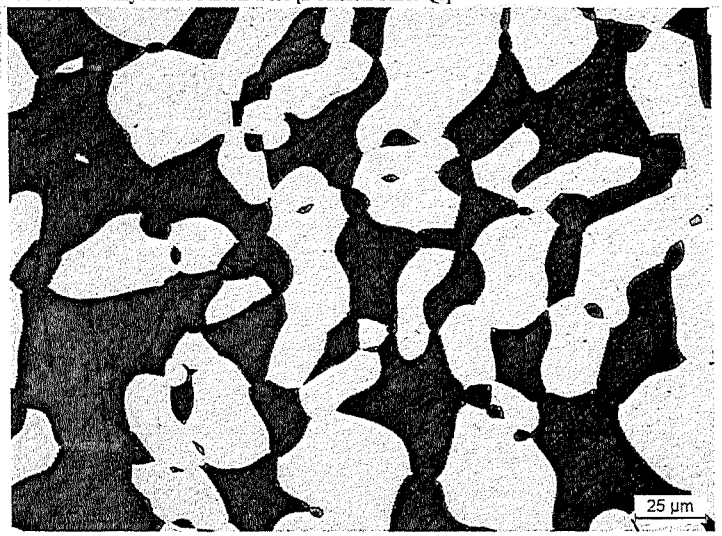
Campione fornito da cliente/ Sample supplied by customer :Parte del prodotto finito/ part of finished product

Descrizione/ Description	Qta/ Qty	Posizione/ Item	Prova Nr./ Test Nr.	Colata/ Heat	Materiale/ Material
NipoFlange 4" X 1.1/2" W.T. 3.05 x 3.68 mm	1		1243	712578	ASTM A 182-23 F55

Individuazione di fasi intermetalliche dannose: Attacco con idrossido di sodio/ Detecting Detrimental Intermetallic Phase: Sodium Hydroxide Etch Test [Decision rule: QI]

ID Prova/ ID Specimen	Metodo di prova/ Test method	Specifica/ Specification	Posizione di prelievo/ Test position	Data esecuzione/ Date of Testing
140749	ASTM A923 – 23 Method A	Job 2823	B T FT	24/10/2024

Ingrandimento/ Enlargement	Attacco/ Etching	Area esaminata/ Examined area
400 X	40g NaOH to 100g distilled water	Specimen in Base Material



Classificazione struttura attaccata:Struttura inalterata./Classification of etch structure:Unaffected structure.

Note Tecniche/ Technical Notes: Microstruttura ferritica-austenitica / Ferritic-austenitic microstructure. Struttura libera da precipitazioni a bordo grano,fasi intermetalliche e precipitati/Structure free from grain boundary carbides, intermetallic phases and precipitates.

Esito/ Conclusion: **Conforme a 'Specifica'/ Compliant with 'Specification'**

I risultati presenti in questo rapporto di prova si riferiscono al solo campione così come ricevuto dal Cliente, che esegue il campionamento, salvo in caso di trattamenti termici effettuati dal Laboratorio. I campi in blu sono forniti dal cliente. La conformità ai documenti in "Specifica" riguarda solamente le prove presenti in questo rapporto di prova. Il simbolo * antecedente a "ID_Prova" indica una prova non accreditata da ACCREDIA. Dichiarazioni false, fittizie o fraudolente e modifiche del presente rapporto di prova costituiscono reato punibile secondo le norme penali vigenti. Il rapporto di prova non può essere riprodotto parzialmente, salvo nostra approvazione scritta. Il Laboratorio non è responsabile dei dati forniti dal cliente che possono influenzare la validità dei risultati./ This test report refers only to the examined sample as received from the Customer, except in case of heat treatments carried out by the Laboratory. Clients are in charge of sampling. Blue fields are supplied by the Client.Compliance with documents in "Specification" refers only to the tests described on this test report.The * symbol before "ID_Prova" indicates that the test is not accredited by ACCREDIA. Any false statement or modification of this test report is a violation of law and the Laboratory may take legal action.This test report cannot be partially reproduced without our written approval. Laboratory is not responsible for information supplied by the customer which can affect the validity of the result.

Data Ingresso Materiale/ Date of Material Arrival	Responsabile di Reparto o sostituto/ Department Manager or Deputy	Responsabile Laboratorio o Sostituto/ Laboratory Manager or Deputy	Ispettori/ Inspector	Cliente/ Customer
21/10/2024	Antonielli Stefano	Amani Paolo		
Data Rapporto di prova/ Test Report Date: 24/10/2024	firmato elettronicamente/electronically signed			

DECISION RULE:
- QI — Qualitative
- QS — Semi-quantitative
- QN — Quantitative (Implicit Uncertainty)
- QI — Quantitative (Non Implicit Uncertainty) - the uncertainty is reported in the test report and is used for conformity assessment. The result can be COMPLIANT or NOT COMPLIANT

Test Position Legend: [B]-Specimen in Base Material; [FT]-full thickness; [T]-trasv.

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400900

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.----------.

TMUGF Firma / MTSMD Signature: Sonia Emiliani

Data / Date: 21.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 02/10/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00008811
Packing list	PLPLIS202400008761
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00008811

02/10/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.

Commessa Job N. 00002823

Ordine N. P.O. number: 1724001267 - 24.06.24

123A90A - Base Load Power Hub Platform

Pos. *Item*	**Q.ta'** *Q.ty*	**Descrizione** *Description*	**N° Colata o Marcatura Pz. Immagine** *Heat N° or PCS. Marking Image*
24	5	Nipple L=100mm ASME B36.10M THRD-M NPT x PE SML ASTM/ASME A/SA333 Gr.6 3/4'' thk 3,91mm	SU1 CTCERT202400006148_1.0001.TIF

raccortubi

00008811

02/10/2024

CERTIFICATO DI CONFORMITA'
Ex works quality certificate of inspection
Certificat de conformite'

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Si certifica che il materiale sotto elencato e' conforme ai requisiti di qualita' contrattuali inclusi i codici applicabili, gli standard e le specifiche, ha soddisfacentemente superato le prove di ispezioni e collaudi richiesti ed e' stato percio' autorizzato alla spedizione.

This is to certify that the material listed hereinbelow conform to contractual quality requirements including applicable codes, standards and specifications and has satisfactorily passed our technical and quality inspection requirements and have therefore been approved for shipment.

Nous declarons que le materiel sous mentionne est conforme a les indications de la qualite' contractuelles, aux codes, les standards et specifications applicables; il a depasse favourablement les esaais d'inspection et les inspections demandes et il a ete donc authorise a l'expedition.

Date: 02/10/2024

Signed by Q.A. dept:

Tipo di Mat.le e specifiche: come da ordine

Mat.l type and spec.s: as per P.Order

Pos. *Item*	U.M.	Q.ta' *Q.ty*	Tubi *Tubes*	Descrizione *Description*	N° Colata o Marcatura Pz. *Heat N° or PCS. Marking*
24	NR	5	0.00	Nipple L=100mm ASME B36.10M THRD-M NPT x PE SML ASTM/ASME A/SA333 Gr.6 3/4" thk 3,91mm	SU1

Attachment

to ISO 9001:2015 certificate of approval No ISO 9001 – 0030001 dated 22 December 2021, expiring on 19 January 2025 issued to:

O.M.S.A. S.r.l.

Via per Caronno Varesino, 21048 Solbiate Arno - VA, Italy

The Quality Management System supports the requirements of Annex I, chapt. 4.3 of

DIRETTIVE 2014/68/EU

Approval Number(s): 0030001 – PED

The application of the requirements of 2014/68/EU Directive, attachment I, chapt 4.3 is referred to the manufacturing of:

Fittings (from 3000lbs to 9000lbs and schedule 40 to schedule XXS)

made in:

Carbon Steel (ASME A105, A106/B, A106/C, A234WPB; ASME A350LF2, A333/6, A420WPL6, A350LF1, A333/1, A350LF3; API5L/B; ST33.32; NACE MR0175/ISO 15156-3; SA/A694 F52; SA A694 F60; SA/A694 F65).

Austenitic Stainless Steel (ASME A182F304, A182F304L, A182F304H; ASME A182F316, A182F316L; ASME A182F321, A182F321H; ASME A182F310; ASME A182F347; ASME A182F44 (UNS-S31254); ASME A312TP304, A312TP304L; ASME A312TP316, A312TP316L; ASME A312TP321; ASME A312TP310; ASME A312TP347; NACE MR0175/ ISO 15156-3);

Low-Alloy Steel (ASME A182F1, ASME A182F5; ASME A182F9; ASME A182F11; ASME A182F22; ASME A182F91; NACE MR0175/ISO 15156-3);

Ferritic Alloy-Steel (ASME A335P1; ASME A335P5; ASME A335P9; ASME A335P11; ASME A335P12; ASME A335P22; ASME A335P91; NACE MR0175/ISO 15156-3);

Ferritic-Austenitic Stainless Steel (Duplex and Superduplex) (ASME A182F51 (UNS-S31803); ASME A182F52 (UNS-S32950); ASME A182F53 (UNS-S32750); ASME A182F55 (UNS-S32760); NACE MR0175/ISO 15156-3);

Martensitic Stainless Steel (ASME A182F6A; NACE MR0175/ISO 15156-3);

Alloy (Alloy20 (UNS-N08020); Alloy400 (UNS-N04400); NACE MR0175/ISO 15156-3).

Paul Graaf

Area Operations Manager, Europe

Issued by: LRQA ITALY S.R.L.

LRQA Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.
Issued by: LRQA ITALY S.R.L., Viale Monza, 265 20126 Milano Italy

Customer: ROSETTI MARINO S.p.A.

Description: Nipple L=100mm ASME B36.10M THRD-M NPT x PE SML ASTM/ASME A/SA333 Gr.6 3/4" thk 3,91mm

Order: 1724001267 - 24.06.24 - Item n.: 24 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT2024000028823

raccortubi Heat num. or Pcs. marking: SU1 - Qty:5,00

Protocol: CTCERC2024000008811 * CERTIFIED TRUE COPY * Issued 02-10-2024

CTCERT2024000006148.1.0001

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: RACCORTUBI SPA
Ordine cliente/Customer order n°: 00006095 del 25-06-2024
DDT/Delivery note/Packing list: 2024/DDT/003595

Certificate N°: 003595
Omsa Job: 2024/ODV/010393
Data/Date: 12/09/2024

Item	Quantity	Descrizione	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	N.TUBO XS 3/4"x4"(100mm) PE/NPT A333/6	SA-A333 GR.6	SU1	24636	ZELEZIARNE PODBREZOVA	53275/1/2022	Slovacchia

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0,0200	1,2100	0,2300	0,0180	0,0070	0,0700	0,0700	0,0200	0,0010	0,0260	0,0040	0,1600	0,0010	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,4200	0,0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
596	443	29,20			999,90	20,50	169	172	104	108	96	-56	Normalized at 900°C - Cooled in still air

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1 -13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

EITI - The Inspection Body.

qualytube

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24034

Date - Data - Vom - date : 17/10/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 90

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke	According to	EN 10246-12 ASTM E709 - ASME V Article 7
Particles type	fluorescent	According to	ASTM SA960 SUPPLEMENTARY S53
Joke	AC - Magnafulx	Particles Description	MG ICRI G182 batch. No. 2023 04 H2
Calibration block	ASME 4,5 Kg	Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
		Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
24	3/4" x 3,91mm	ASTM/ASME A/SA 333 GR.6	24636	5		NIPPLE L=100mm
27	4"x1.1/2" 6,02mm/5,08mm	ASTM/ASME A/SA350 LF2	T24617	1		NIPOFLANGE REINFORCED

issued by

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 UT/PT/MT/RT/VT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

Verified by

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - UT/PT/MT/RT

Customer

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
RACCORTUBI	1724001267	123A90A	Q012400686

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 02.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

raccortubi
Viale De Gasperi, 194
20010 MARCALLO Con CASONE (MI) - Italia
Tel. 02/976300.1 - Fax 02/976300252

Marcallo (MI) 07/08/2024

ROSETTI MARINO S.p.A.
Via Trieste, 230
48122 - RAVENNA

Uff. Collaudi

OGGETTO /Subject:

- TRASMISSIONE CERTIFICATI di analisi chimica e prove meccaniche
- Test certificates transmittal

-Vi inviamo in allegato la certificazione relativa al seguente ordine:
-Please find here attached material test certificates for the above mentioned P.Order:

Type	EN 10204:2005 3.1
Prot. N.	00007552
Packing list	PLPLIS202400007510
Ns. Rif.	00002823
Vs. Rif.	1724001267 - 24.06.24
	123A90A - Base Load

DISTINTI SALUTI
Best Regards

raccortubi

raccortubi

00007552

07/08/2024

ALLEGATO RIASSUNTIVO
Summary of test certificates

Cliente Customer: ROSETTI MARINO S.p.A.
Commessa Job N. 00002823
Ordine N. P.O. number: 1724001267 - 24.06.24
123A90A - Base Load Power Hub Platform

Pos. *Item*	Q.ta' *Q.ty*	Descrizione *Description*	N° Colata o Marcatura Pz. Immagine *Heat N° or PCS. Marking Image*
4	5	CURVE 90° LR 3/4" XS SEAMLESS	50 CTCERT202400005039_1.0001.TIF CTCERT202400005039_2.0001.TIF
5	10	CURVE 90° LR 1" XS SEAMLESS	2 CTCERT202400005040_1.0001.TIF CTCERT202400005040_2.0001.TIF
15	6	Flange WN For Jackscrews diam.4" Thk.3.05mm 300LB RF ASTM A182 Gr.F316/316L	CH-21767 CTCERT202400004587_1.0001.TIF
16	24	Flange WN For Jackscrews diam.1" Thk.3,38mm 300LB RF ASTM A182 Gr.F316/316L	S-27133 CTCERT202300002221_1.0001.TIF CTCERT202300002221_1.0002.TIF
31	2	RID. CONC. 1.1/2"x1" XS SEAMLESS	32 CTCERT202400005041_1.0001.TIF CTCERT202400005041_2.0001.TIF
36	1	RID. ECC. 3"x2" STD/XS SEAMLESS	OK3882 CTCERT202400005043_1.0001.TIF CTCERT202400005043_2.0001.TIF
37	1	RID. ECC. 2"x1" XS SEAMLESS	J1L8480 CTCERT202400005042_1.0001.TIF CTCERT202400005042_2.0001.TIF

Certificate

Quality management system for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 IND/Q-20 0005.00

Name and address of the certificate holder:

GoodLuck Engineering Company
(Unit of Goodluck India Limited)
Khasara No 2839,
Dhoom Manikpur
Dadri
Gautambudh Nagar 203207
India

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, Par. 4.3, with regard to the materials as listed in the scope of approval.

Test basis: **QM System acc. to EN 764-5, article 4.2 and AD 2000-Merkblatt W0**

Audit report no.: 01 202 IND/Q-20 0005

Scope: **Manufacture of Stainless Steel, Carbon Steel & Alloy Steel, Ferrous and Non- Ferrous Forgings, Flanges, Forged Bars, Stub Ends, Rolled Bars, Bright Bars, Black Bars, see annex to certificate: 01 202 IND/Q-20 0005, revision 02 from 22-03-23**

Manufacturing plant: see certificate holder

Validity: **This certificate is valid to 2026-03-12.**

Cologne, 2023-05-04

Dipl.-Ing. (FH) Vera Ruff

TÜV Rheinland® 0035 Notified Body

TÜV Rheinland Industrie Service GmbH
Notified Body for Pressure Equipment, ID-No. 0035
Am Grauen Stein, D-51105 Cologne

E-108a

® TÜV, TUEV und TUV sind eingetragene Marken. Eine Nutzung und Verwendung bedarf der vorherigen Zustimmung.

CERTIFICATE

Management system as per

ISO 9001 : 2015

The Certification Body TÜV NORD CERT GmbH hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

CHANDAN STEEL LTD.
Plot Nos. 31, 35, 36, 45, 46, 142 and Survey Nos. 102/2 & 102/3 Village Dehri, Taluka Umbergaon, GIDC Umbergaon, Dist. Valsad - 396 171 Gujrat, India

operates a management system in accordance with the requirements of ISO 9001 : 2015 and will be assessed for conformity within the 3 year term of validity of the certificate.

Scope -

Manufacturing and Supply of Various Grades of Stainless Steel Billets, Ingots, RCS, Hot Rolled Bars, Wire Rods, Wires, Bright Bars, Angles, Flat Bars, Shapes and Sections, Forgings, Flanges, Stainless Bars for the Reinforcement and Seamless Stainless Steel Pipes, Tubes & U Tubes.

Certificate Registration No.**04 100 011022**
Audit Report No.**2.5-1260/2001**

Valid from **24.05.2022**
Valid until **23.05.2025**
Initial certification **31.05.2001**

Certification Body
at TÜV NORD CERT GmbH

Mumbai, **21.05.2022**

DAkkS Deutsche Akkreditierungsstelle D-ZM-12007-01-00

CTCERT202400005039.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy
STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	5924-P1	15/07/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006096	

	Item	Quantity	Heat id.
1	CURVA 3/4" XS 90° LR WPL6	5,00	50

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,110	1,280	0,260	0,010	0,003	0,020	0,110	0,010	0,020	0	0
	CE_{IIW} 0,35									

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	353	442	31

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	34	34	37	35

Hardness Test

Base Metal **Avg** 132 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 4 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: CURVE 90° LR 3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 50 - Qty:5,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

EITI - The Inspection Body.

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24028

Date - Data - Vom - date : 22/07/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 57

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Désignation du Produit
see table below

Test	Electromagnetic joke	**According to**	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
Particles type	fluorescent	**According to**	ASTM SA960 SUPPLEMENTARY S53
Joke	AC - Magnafulx	**Particles Description**	MG ICRI G182 batch. No. 2015 04 H2
Calibration block	ASME 4,5 Kg	**Inspection conditions**	BLACK UV LIGHT - 1000 µW/cm2 min.
		Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
4	3/4" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	50	5		
5	1" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	2	10		
31	1.1/2" x 1" sch. XS	RID. CONC. ASME/ASTM SA/A 420 WPL6	32	2		
37	2" x 1" x sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	J1L8480	1		
	3" x 2" sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	0K3882	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tucini - NDT Specialist
ISO 9712 CICPND 28046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – MT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 4 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: CURVE 90° LR 3/4" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 50 - Qty:5,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005040.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	5924-P2	15/07/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006096	

	Item	Quantity	Heat id.
2	CURVA 1" XS 90° LR WPL6	10,00	02

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,300	0,240	0,015	0,002	0,030	0,120	0,020	0,010	0	0,0100	0	0,0002

CE_{IIW} 0,36

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	326	469	36

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	29	31	33	31

Hardness Test

Base Metal **Avg** 121 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.
Order: 1724001267 - 24.06.24 - Item n.: 5 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: CURVE 90° LR 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 2 - Qty:10,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

EITI - The Inspection Body.

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24028

Date - Data - Vom - date : 22/07/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 57

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito SATISFACTORY
Ergebnis - Résultat NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
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	3" x 2" sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	0K3882	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 CICPND 13046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 5 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: CURVE 90° LR 1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 2 - Qty:10,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)
ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG,
Chowpatty MUMBAI 400 007, INDIA
Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34
Website : www.chandansteel.net
Email : csl@chandansteel.net
L/c. No. :
L/c. Date:

Works : Plot # 31 to 36, 45 to 49/2, 142 (Exp. Area), G.I.D.C. Umbergac
Survey No. 102/2 & 102/3, Village - Dehri, Dist. - Valsad, Gujarat - 396171 I
Tel. : (+91) 260 7128999/800/802 .
Email : info@chandansteel.com
GSTIN - 24AAACC4713B1ZG

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORTUBI SPA VIALE DE GASPERI, 194 20010 MARCALLO CON CASONE (MILANO) - ITALIA	Test Certificate No. : EXP/24-25/00069 -35 Date of Issue : 18.04.2024 P. O. No. : 00000077 Invoice No. & Date : EXP/24-25/00069 Dtd.18.04.2024

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES (HS Code : 7307.21.00)

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
40	CH-21767	32	12	354.83	ASTM/ASME A/SA182 F316/316L	4" WNRF 300 LBS 10S	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
40	0.020	0.43	1.72	0.040	0.005	17.00	2.02	10.05	-	-	0.076	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm2 (Rp0.2)	Tensile Strength N/mm² (R_m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
40	268	563	59	71	165-167
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:
1. The material is solution annealed at minimum 1050 °C and water quenched.
2. Visual and Dimensions inspection OK.
3. PMI Test 100%:- Satisfactory.
4. No welding was performed on this material.
5. Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
6. Inter-Granular Corrosion Test (ASTM A262 - 17 (Pr.E)):- Satisfactory.
7. The material conforms to ASTM A 182 - 23, ASME SECTION II PART A SA 182 - 23 & Dimension confirms to ASME B16.5-20 Specification.
8. The material conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
9. Surface roughness quality checked by comparator & found 125 - 250 AARH
10. Visual , Dimension and PMI performed by CSL.
11. Mechanical Testing perfomed by CSL.
12. Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.

Q.A.

V.Y.NARAYANAN
WORKS INSPECTOR

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 15 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: Flange WN For Jackscrews diam.4" Thk.3.05mm 300LB RF ASTM A182 Gr.F316/316L

raccortubi Heat num. or Pcs. marking: CH-21767 - Qty:6,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

raccortubi Heat num. or Pcs. marking: S-27133 - Qty:24,00
Customer: ROSETTI MARINO S.p.A.
Description: Flange WN For Jackscrews diam.1" Thk.3,38mm 300LB RF ASTM A182 Gr.F316/316L
Order: 1724001267 - 24.06.24 - Item n.: 16 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823
Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY * Issued 07-08-2024
CTCERT202300002221.1.0001

GOODLUCK

ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

(AS PER EN - 10204 - 3.1 ☑ / 3.2 ☐)

Entry No. : 5562

CUSTOMER	CUSTOMER P.O. No. & Dt.	OUR W.O. No. & Dt.	SPCN. No.	QAP NO.	DOC. NO.	PROJECT:	TEST CERTIFICATE No & Dt.
RACCORTUBI S.P.A Viale De Gasperi 194 20010 Marcallo con Casone (MI) ITALY	00000295 S 14/10/22	Exp/1391/22-23 18.10.2022					GLECO/J-1391-20 Date 28.01.2023

STEEL MELTING PROCESS	ORDER STATUS	DIMENSIONS AS PER	INSPECTION AGENCY	DATE OF INSPN. & TESTING
EF-AOD		ASME B16.5 (Ed.2020)	M/s RACCORTUBI	27 & 28.01.2023

Item Sl.No.	Item Code	ITEM DESCRIPTION	MATERIAL SPEC.	QUANTITY (NOS)	HEAT NUMBER	BATCH NUMBER	HEAT TREATMENT CONDITION	TEMP °C	SOAKING TIME (Hrs)	COOLING MEDIUM	DELIVERY STATUS
21.000		1.0 in x 300 # x WNRF x SCH 40S (NACE)	ASTM A 182 Gr.F316/316L (Ed.2021)	30	S-27133	GJ2200B	Solution treat & Quenched	1080	04 Hrs	Stirred Water & cooled Below 260°C	Complete

GASKET FACE FINISH: 125-250 AARH

Total Qty Pc 30

Report Type	Heat No	Batch No	C%	Mn%	Si%	S%	P%	Cr%	Ni%	Mo%	N%
Ladle	S-27133	-	0.0250	1.5400	0.3300	0.0100	0.0380	16.8600	10.1100	2.0200	0.0616
Product	S-27133	GJ2200B	0.0230	1.5800	0.3500	0.0090	0.0360	16.8200	10.0800	2.0500	0.0616
Required Value	-	Min	-	-	-	-	-	16.0000	10.0000	2.0000	-
		Max	0.0300	2.0000	1.0000	0.0300	0.0450	18.0000	14.0000	3.0000	0.1000

Good Luck Engg. Co. * Dadri (U.P.) * Nikhil Gupta Asst. Manager (Q.C.)

For Raccortubi S.P.A

28/01/23

raccortubi Heat num. or Pcs. marking: S-27133 - Qty:24,00
Protocol: CTCERC2024000752 * CERTIFIED TRUE COPY * Issued 07-08-2024

GOODLUCK
ADM. OFFICE: II F -166-167,
Nehru Nagar, Ambedkar Road, Ghaziabad

GOOD LUCK ENGINEERING CO.

Works : Khasra No. 2839, Village : Dhoom Manikpur, G.T. Road, Dadri, G.B. Nagar-203207, U.P. (India)
qc1@goodluckindia.com

ISO 9001 - 2015
CERTIFIED COMPANY
CERTIFICATE NO.-IND.21.6268/QM/U

MATERIAL TEST CERTIFICATE

Entry No. : 5562

MECHANICAL TEST REPORT AT ROOM TEMPERATURE IN AS DELIVERED CONDITION	Batch No	Gauge Dia / Size (mm)	Yield Strength (N / mm sq.) (0.2% Proof Stress)	Tensile strength (n/mm Sq.)	Elongation % On GL = 4D	Reduction in Area %	Hardness BHN	Impact Test10X10X55 mm (Charpy 2mm V-Notch) 01	02	03	Avg(Joules)	Temp °C	Grain Size as per ASTM E-112
	GJ2200B	12.50	293.24	552.26	54.00	75.40	170, 172	- - -	- - -	- - -	- - -	- - -	
	REQUIRED	MIN	205.00	515.00	30.00	50.00	- -	- -	- -	- -	- -	- -	
		MAX	-	-	-	-							

SUPPORTING TESTING	TEST STANDARD	ACCEPTANCE LEVEL	RELEVANT REPORT

SEAL/STAMP OF TPI WITNESS

SEAL / STAMP of Incharge Quality

ARJUN CHAUDHARY
Prepared by:

NIKHIL GUPTA
Checked By:

Goodluck Engg. Co. Nikhil Gupta Asst. Manager (Q.C.) Dadri (U.P.)

Remark
(1) No Weld repair performed on forging.
(2) Hardness Test carried out on job & found satisfactory.
(3) Material comply all the requirements of PO & Specification.
(4) Material conformed all the requirements of ASTM A961/A961M (Ed. 2021)
(5) No Chinese and East European material is used.
(6) Material 100% visual & dimensional checked & found surface free from all types of defects.
(7) PMI carried out on job (PMI Report No. GLECO/PMI/J-1391/20 DATED 28.01.2023 enclosed) & found satisfactory.
(8) IGC test carried out as per ASTM A262 Practice E Test piece Bend over mandrel Dia = 1t X 180° and reviewed under 20X Mag. Observed "Bend Specimen free of any crack and Grain dropping" Microscopic Structure observed under magnification of 250 X and observed "Step Structure" - Found satisfactory.
(9) Material comply all the requirements of NACE MR0175/ISO 15156 (Ed 2015).
(10) Packing carried out as per PO & Spec.RT_FL_EXEU_2011 and found satisfactory.
(11) Material is free from Mercury & Radioactive Contamination.

We hereby certify that material declared above meets the requirement of P.O./ relevant specification

Identification Mark :

Doc No	Doc Rev No	Date	Effective Date	Doc. Retention Period	Doc. Prepared by	Doc. Approved by	Recorded document will be prepared, Maintained And preserved by inchange Quality
QA 11 TCFP 08	04	13/08/2018	13/08/2018	AS SPECIFIED BY CUSTOMER / COMPANY PROCEDURE	MR	Dir.works	

Document Route
(01) Original copy - Forwarded to CUSTOMER as self certified authentic record from GOOD LUCK ENGG. CO.
(02) 1st Copy - Inchange quality to maintain and preserve the record .

CONTROLLED COPY

For Raccortubi S.P.A

Kmaheshwari 28/01/23

CTCERT202400005041.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

IRC SPA FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	5924-P3	15/07/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006096	

	Item	Quantity	Heat id.
3	R.C. 1.1/2" x 1" XS WPL6	2,00	32

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,260	0,290	0,012	0,001	0,020	0,110	0,010	0,010	0	0,0100	0	0,0001

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	357	529	32

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	42	39	45	42

Hardness Test

Base Metal Avg 131 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
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The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

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Luca Alessandrini			

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Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 31 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. CONC. 1.1/2"x1" XS SEAMLESS

accortubi Heat num. or Pcs. marking: 32 - Qty:2,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
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EITI - The Inspection Body.

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24028

Date - Data - Vom - date : 22/07/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 57

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
4	3/4" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	50	5		
5	1" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	2	10		
31	1.1/2" x 1" sch. XS	RID. CONC. ASME/ASTM SA/A 420 WPL6	32	2		
37	2" x 1" x sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	J1L8480	1		
	3" x 2" sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	0K3882	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 CICPND 28046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - MT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 31 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. CONC. 1.1/2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: 32 - Qty:2,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

CTCERT202400005043.1.0001

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	5924-P5	15/07/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006096	

	Item	Quantity	Heat id.
5	R.E. 3" x 2" XS WPL6	1,00	0K3882

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Al%	N%	Ti%	Nb%
0,110	1,280	0,270	0,008	0,003	0,020	0,110	0,010	0,010	0,001	0	0	0	0

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	328	484	34

Impact Test

Direction L **Test Temperature** -46 °C **Test Type** KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	41	37	39	39

Hardness Test

Base Metal **Avg** 197 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 36 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. ECC. 3"x2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: OK3882 - Qty:1,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

EITI - The Inspection Body.

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24028

Date - Data - Vom - date : 22/07/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 57

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke
Particles type	fluorescent
Joke	AC - Magnafulx
Calibration block	ASME 4,5 Kg

According to	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
According to	ASTM SA960 SUPPLEMENTARY S53
Particles Description	MG ICRI G182 batch. No. 2015 04 H2
Inspection conditions	BLACK UV LIGHT - 1000 µW/cm2 min.
Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
4	3/4" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	50	5		
5	1" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	2	10		
31	1.1/2" x 1" sch. XS	RID. CONC. ASME/ASTM SA/A 420 WPL6	32	2		
37	2" x 1" x sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	J1L8480	1		
	3" x 2" sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	0K3882	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Tuzzi - NDT Specialist
ISO 9712 CICPND 28046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 28229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 - MT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 36 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. ECC. 3"x2" STD/XS SEAMLESS

raccortubi Heat num. or Pcs. marking: OK3882 - Qty:1,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT 01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

Inspection Certificate
EN 10204-2004 3.1

Document no.	5924-P4	15/07/2024
Purchaser	030206018013 - RACCORTUBI SPA	
Order	00006096	

	Item	Quantity	Heat id.
4	R.E. 2" x 1" XS WPL6	1,00	J1L8480

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Ti%	Nb%	B%
0,110	1,290	0,300	0,009	0,001	0,020	0,130	0,010	0,010	0	0,0100	0	0,0001

CE_{IIW} 0,36

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	315	497	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
2.5 X 10	0,2	Base Mat.	30	28	32	30

Hardness Test

Base Metal Avg 135 HBW
133 - 137

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 37 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. ECC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: J1L8480 - Qty:1,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

qualytube

EITI S.r.l. - Qualytube Division
Via Pietro Palmieri 29, 10138 Torino
Via Enrico Berlinguer 4, 20060 Pozzo d'Adda (MI)

EITI - The Inspection Body.

MagneticTest Report

Test Report
Rapporto di Prova
Prüfbericht
Rapport d'essai

Report No. - Rapporto N°
Berichten Nr. - Rapport N° : MT24028

Date - Data - Vom - date : 22/07/2024

Customer - Cliente - Besteller - Acheteur 1)
RACCORTUBI

Customer - Cliente - Besteller - Acheteur 2)

Order No. - Ordine N° - Bestell-Nr. - Commande N°
No. 57

Performed Test
100% MAGNETIC TEST ON ACCESSIBLE SURFACE

Material Description- Descrizione del Materiale
Gegenstand - Dèsignation du Produit
see table below

Test	Electromagnetic joke	**According to**	EN 10246-12 ASTM E709 - ASME VIII Division 1 App.6/8
Particles type	fluorescent	**According to**	ASTM SA960 SUPPLEMENTARY S53
Joke	AC - Magnafulx	**Particles Description**	MG ICRI G182 batch. No. 2015 04 H2
Calibration block	ASME 4,5 Kg	**Inspection conditions**	BLACK UV LIGHT - 1000 µW/cm2 min.
		Pie gauge	ASME

Result - Esito
Ergebnis - Résultat
SATISFACTORY
NO REPORTABLE INDICATIONS HAVE BEEN FOUND

ITEM	DIAMETER (NPS) THICKNESS (mm)	STANDARD / GRADE	HEAT	No.		NOTE
4	3/4" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	50	5		
5	1" sch. XS	CURVA 90^ LR ASME/ASTM SA/A 420 WPL6	2	10		
31	1.1/2" x 1" sch. XS	RID. CONC. ASME/ASTM SA/A 420 WPL6	32	2		
37	2" x 1" x sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	J1L8480	1		
	3" x 2" sch. XS	RID. ECC. ASME/ASTM SA/A 420 WPL6	0K3882	1		

issued by **Verified by** **Customer**

Qualytube
Nicolò Turani – NDT Specialist
ISO 9712 CICPND 23046/PND/C Level 2 UT
ISO 9712 CICPND 27050/PND/C Level 2 PT
ISO 9712 CICPND 25229/PND/C Level 2 MT

EITI - European Institute of Technical Inspections
Dario Pasqualini
Technical Director
ISO 9712 Level 3 – UT/PT/VT/RT

Customer: ROSETTI MARINO S.p.A.

Order: 1724001267 - 24.06.24 - Item n.: 37 - Project: 123A90A - Base Load Power Hub Platform - Our ref.: OCVEIT202400002823

Description: RID. ECC. 2"x1" XS SEAMLESS

raccortubi Heat num. or Pcs. marking: J1L8480 - Qty:1,00

Protocol: CTCERC202400007552 * CERTIFIED TRUE COPY
* Issued 07-08-2024

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001850	123A90A	Q012400894

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **24.10.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 1 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.C. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 1 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 1 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 2 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1/2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 2 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1/2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 2 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1/2" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 3 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 3 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 3 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 4 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 4 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 4 DESCRIZIONE GUARNIZIONE IN GOMMA NBR Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 5 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.C. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 5 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 5 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 3/4" s= 3,00 COLATA QTA 10,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 6 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 6 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 6 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1" s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 7 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1"1/2 s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 7 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1"1/2 s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 7 DESCRIZIONE GUARNIZIONE IN GOMMA NEOPRENE Serie 150lbs da 1"1/2 s= 3,00 COLATA QTA 20,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 8 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 3/4 COLATA QTA 20,000

TECNOSERVICE ITALIA

Nr. Certificato/ Certificate No.
24/01472
Data/Date
08/10/2024

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 8 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 3/4 COLATA QTA 20,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 8 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 3/4 COLATA QTA 20,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 1 COLATA QTA 50,000

TECNOSERVICE ITALIA

Nr. Certificato/ Certificate No.
24/01472
Data/Date
08/10/2024

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 1 COLATA QTA 50,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 1 COLATA QTA 50,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 10 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 1"1/2 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 10 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 1"1/2 COLATA QTA 10,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 10 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe AI316 Serie 150lbs da 1"1/2 COLATA QTA 10,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str.* *N/mm2*	Snervamento *Yield point 0,2 %* *N/mm2*	Snervamento *Yield point 1%* *N/mm2*	Allungamento *Elongation* *%*	Contrazione *Reduc.area* *%*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 11 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 11 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 11 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 12 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 3 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto

We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 12 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 3 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto

We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 12 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 3 COLATA QTA 5,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 13 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 4 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 13 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 4 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 13 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 4 COLATA QTA 15,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 14 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 6 COLATA QTA 2,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 14 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 6 COLATA QTA 2,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto

We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 14 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 6 COLATA QTA 2,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 15 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 10 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 15 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 150lbs da 10 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 15 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 150lbs da 10 COLATA QTA 5,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str.* *N/mm2*	Snervamento *Yield point 0,2 %* *N/mm2*	Snervamento *Yield point 1%* *N/mm2*	Allungamento *Elongation* *%*	Contrazione *Reduc.area* *%*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 16 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 3/4 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 16 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe AI316 Serie 3/600lbs da 3/4 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto

We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 16 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 3/600lbs da 3/4 COLATA QTA 15,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 17 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1 COLATA QTA 80,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 17 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 3/600lbs da 1 COLATA QTA 80,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 17 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1 COLATA QTA 80,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 18 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/2 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 18 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/2 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 18 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/2 COLATA QTA 15,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 19 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 3/600lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA

Nr. Certificato/ Certificate No.
24/01472
Data/Date
08/10/2024

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 19 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 19 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 3/600lbs da 2 COLATA QTA 15,000

TECNOSERVICE ITALIA
GUARNIZIONI INDUSTRIALI

AZIENDA CON
SISTEMA DI GESTIONE QUALITA'
CERTIFICATO DA DNV
ISO 9001

RAPPORTO DI QUALITA' EN 10204 3.1

Quality assurance report EN 10204 3.1

Nr. Certificato/Certificate No: **24/01472**

Data/Date: **08/10/2024**

Cliente/Customers: **PANTALONE SRL**

Ordine/Order: **vari**

Conferma d'ordine/Order Confirm.: **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE
A.Q.
TECNOSERVICE ITALIA srl
TECNOSERVICE ITALIA s.r.l.

ENTE UFFICIALE DI COLLAUDO
Inspection authority

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 20 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 300lbs da 4 COLATA QTA 20,000

TECNOSERVICE ITALIA

Nr. Certificato/ Certificate No.
24/01472
Data/Date
08/10/2024

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 20 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 300lbs da 4 COLATA QTA 20,000

TECNOSERVICE ITALIA

Nr. Certificato/ Certificate No.	
24/01517	
Data/Date	
08/10/2024	

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 20 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Al316 Serie 300lbs da 4 COLATA QTA 20,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 21 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 300lbs da 6 COLATA QTA 6,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 21 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 300lbs da 6 COLATA QTA 6,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 21 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 300lbs da 6 COLATA QTA 6,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl TECNOSERVICE ITALIA s.r.l.	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 22 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/4 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01472	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01472**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
	VS ORDINE 2024-OF-0002994 DEL 16/07/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO AISI 316L	
	SECONDO UNI/DIN	
	NS. COMMESSA 24/01194 DEL 18/07/2024	
1	S13 DN25 PN10/40 316L/316L+GRAF	4
2	S13 DN40 PN10/40 316L/316L+GRAF	10
3	S13 DN50 PN10/40 316L/316L/GRAPH.	10
4	S13 DN65 PN10/40 316L/316L+GRAF	10
5	S13 DN80 PN10/40 316L/316L/GRAPH.	10
	.	
	VS ORDINE 2024-OF-3702 DEL 23/09/2024	
	.	
	GUARNIZIONI PIANE IN GOMMA NEOPRENE SP.3	
	SECONDO ASME B16.21	
	NS. COMMESSA 24/01472 DEL 25/09/2024	
1	A12 2" 150 RF SP.3 NEOPRENE	10
5	A12 3/4" 150 RF SP.3 NEOPRENE	10
6	A12 1" 150 RF SP.3 NEOPRENE	20
7	A12 1.1/2" 150 RF SP.3 NEOPRENE	20
	.	
	GUARNIZIONI PIANE IN GOMMA NBR SP.3	
	SECONDO ASME B16.21	
2	A12 1/2" 150 RF SP.3 GOMMA NBR	10
3	A12 3/4" 150 RF GOMMA NBR SP 3	10
4	A12 1" 150 RF SP.3 GOMMA NBR	20
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL	
	INTERNO AISI 316L - SECONDO ASME B16.20	
8	S15 3/4" 150 SI/316L/GR/316L	20
9	S15 1" 150 SI/316L/GR/316L	50
10	S15 1.1/2" 150 SI/316L/GR/316L	10
11	S15 2" 150 SI/316L/GR/316L	15
12	S15 3" 150 SI/316L/GR/316L	5
13	S15 4" 150 SI/316L/GR/316L	15
14	S15 6" 150 SI/316L/GR/316L	2
15	S15 10" 150 SI/316L/GR/316L	5
16	S15 3/4" 3/600 SI/316L/GR/316L	15
17	S15 1" 3/600 SI/316L/GR/316L	80

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE TECNOSERVICE ITALIA s.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 22 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/4 COLATA QTA 5,000

TECNOSERVICE ITALIA

RAPPORTO PROVE COLLAUDO

Test report
EN 10204 3.1

Nr. Certificato/ Certificate No.	Data/Date
24/01517	**08/10/2024**

Cliente/Customer	Ordine/Order	Conferma d'ordine/Order Confirm.
PANTALONE SRL	**vari**	**24/01517**

Tipo di controllo/Type of control according to UNI ISO 2859-1 SEMPLICE-ORDINARIO- II° LIVELLO - AQL 1.5

- ☐ Dimensionale/Dimensional
- ☐ Qualitativo/Quality
- ☐ Quantitativo/Quantity
- ☐ Imballaggio/Packing
- ☐ Certificati originali/Original certificates
- ☐ Marcatura identificazione/Marking

ITEM	Descrizione - Posizioni / Description - Items	Quantità Nr. / Quantity Nr.
18	S15 1.1/2" 3/600 SI/316L/GR/316L	15
19	S15 2" 3/600 SI/316L/GR/316L	15
20	S15 4" 300 SI/316L/GR/316L	20
21	S15 6" 300 SI/316L/GR/316L	6
22	S15 1.1/4" 3/600 SI/316L/GR/316L	5
	.	
	VS ORDINE 2024-OF-3751 DEL 25/09/2024	
	.	
	GUARNIZIONI PIANE IN ESENTE AMIANTO NS TECNOFREE 50 (VERDE) SP.3 SECONDO UNI/DIN	
	NS. COMMESSA 24/01484 DEL 26/09/2024	
1	A10 DN150 PN10/16 SP.3 TECNOFREE 50	42
2	A10 DN100 PN10/16 SP.3 TECNOFREE 50	10
	.	
	VS ORDINE 2024-OF-3878 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL INTERNO AISI 316L - SECONDO ASME B16.20	
	NS. COMMESSA 24/01517 DEL 03/10/2024	
1	S15 4" 2500 SI/316L/GR/316L	1
	.	
	VS ORDINE 2024-OF-3865 DEL 02/10/2024	
	.	
	GUARNIZIONI SPIRALI AISI 316L+GRAFITE, ANELLO ESTERNO CARBON STEEL SECONDO ASME B16.20	
2	S13 16" 600 SI/316L/GRAPH.	4

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e le specifiche del materiale richiesto
We certify that the material supplied meets the requirements of the purchase order and the required material specifications

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	QUALITY CONTROL C.Q.F. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO Inspection authority
QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA S.r.l.		

PANTALONE SRL Doc. N° 2024-DDTC-0012532 Data 16.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 22 DESCRIZIONE GUAR.SPIR.316+GRAFITE AeFe Ai316 Serie 3/600lbs da 1"1/4 COLATA QTA 5,000

TECNOSERVICE ITALIA GUARNIZIONI INDUSTRIALI AZIENDA CON SISTEMA DI GESTIONE QUALITA' CERTIFICATO DA DNV ISO 9001	RAPPORTO DI QUALITA' EN 10204 3.1 *Quality assurance report EN 10204 3.1*	Nr. Certificato/Certificate No **24/01472** Data/Date **08/10/2024**
Cliente/Customers **PANTALONE SRL**	Ordine/Order **vari**	Conferma d'ordine/Order Confirm. **24/01472**

ANALISI CHIMICHE IN % chemical analysis

Materiale *Material*	Colata *Heat*	C	SI	MN	P	S	Cr	NI	Mo	Al	Cu	Ti	N
STRIP 5x0,2 SS316/L	SD42156-70	0,0186	0,581	1,099	0,031	0,0033	16,059	10,035	2,039	0	0	0	0,0001

CARATTERISTICHE MECCANICHE / Mechanical properties

Materiale *Material*	Colata *Heat*	Rottura *Tensile str. N/mm2*	Snervamento *Yield point 0,2 % N/mm2*	Snervamento *Yield point 1% N/mm2*	Allungamento *Elongation %*	Contrazione *Reduc.area %*	Durezza *Hardness*
STRIP 5x0,2 SS316/L	SD42156-70	615	290	0	49	0	HB 141

QUALITY ASSURANCE A.Q. TECNOSERVICE ITALIA srl	ENTE UFFICIALE DI COLLAUDO *Inspection authority*

REPORT OF CONFORMITY

Certifichiamo che il materiale fornito incontra i requisiti dell'ordine di acquisto e la specifica del materiale richiesto.
We certify that the material supplied meets the requirements of the purchase order and the required material specifications.

I VALORI DI ANALISI CHIMICA E MECCANICA SONO RIPORTATI DAI CERTIFICATI FORNITI DAI PRODUTTORI DI MATERIA PRIMA
Chemical and mechanical analysis results have been taken from the certificates of raw material's suppliers.

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001850	123A90A	Q012400898

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

21.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 10,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 2

MCV
industrial valves, pipes & fittings

AQSCERT ISO 9001:2015

PED certified

MILL TEST CERTIFICATE

EN 10204:2004/3.1

CUSTOMER: PANTALONE S.R.L.

INVOICE N. 50-2024
P.O. 2024-OMAG-0000066 / 2024-OMAG-0000067

PRODUCTS: CARBON STEEL FORGED FLANGES

Date: May 06, 2024

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
1	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 40 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
2	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 80 PN06	PCS	100	2031	SATISFACTION	SATISFACTION	-
3	FLANGE EN FLAT 01/A A 105N EN1092-1 DN200 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
4	FLANGE EN FLAT 01/A A 105N EN1092-1 DN250 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
5	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
6	FLANGE EN FLAT 01/A A105N EN1092-1 DN 250 PN10	PCS	50	2031	SATISFACTION	SATISFACTION	-
7	FLANGE EN FLAT 01/A A105N EN1092-1 DN 300 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
8	FLANGE EN FLAT 01/A A105N EN1092-1 DN 350 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
9	FLANGE EN FLAT 01/A A105N EN1092-1 DN 450 PN10	PCS	5	2031	SATISFACTION	SATISFACTION	-
10	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 25 PN40	PCS	500	2031	SATISFACTION	SATISFACTION	-
11	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 32 PN40	PCS	100	2031	SATISFACTION	SATISFACTION	-
12	FLANGE EN FLAT 01/A A105N EN1092-1 DN 50 PN16	PCS	500	2031	SATISFACTION	SATISFACTION	-
13	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 4 fori	PCS	150	2031	SATISFACTION	SATISFACTION	-
14	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 8 fori	PCS	100	2031	SATISFACTION	SATISFACTION	-
15	FLANGE EN FLAT 01/A A105N EN1092-1 DN 80 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
16	FLANGE EN FLAT 01/A A105N EN1092-1 DN100 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
17	FLANGE EN FLAT 01/A A105N EN1092-1 DN125 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
18	FLANGE EN FLAT 01/A A105N EN1092-1 DN150 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
19	FLANGE EN FLAT 01/A ASTM A 105 EN1092-1 DN300 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
20	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN16	PCS	10	2031	SATISFACTION	SATISFACTION	-
21	FLANGE EN FLAT 01/A A 105N EN1092-1 DN450 PN16	PCS	2	2031	SATISFACTION	SATISFACTION	-
22	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 80 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
23	FLANGE EN BLIND 05/A A 105N EN1092-1 DN125 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
24	FLANGE EN BLIND 05/A A 105N EN1092-1 DN200 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
25	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 15 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
26	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 20 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 10,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 2

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
27	FLANGE EN BLIND 05/A A105 EN1092-1 DN 65 PN16 8 FORI	PCS	50	2035	SATISFACTION	SATISFACTION	-
28	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 25 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
29	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 40 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-
30	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 80 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
31	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN100 PN16	PCS	100	2035	SATISFACTION	SATISFACTION	-
32	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN125 PN16	PCS	30	2035	SATISFACTION	SATISFACTION	-
33	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN150 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
34	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN200 PN16	PCS	20	2035	SATISFACTION	SATISFACTION	-
35	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN400 PN16	PCS	3	2035	SATISFACTION	SATISFACTION	-
36	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 300 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	15	2035	SATISFACTION	SATISFACTION	-
37	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	5	2035	SATISFACTION	SATISFACTION	-
38	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (THICKNESS 3,91 mm)	PCS	50	2035	SATISFACTION	SATISFACTION	-
39	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 80 PN06 (HDG GALVANIZED)	PCS	10	2031	SATISFACTION	SATISFACTION	-
40	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 32 PN40 (HDG GALVANIZED)	PCS	50	2031	SATISFACTION	SATISFACTION	-
41	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	PCS	100	2038	SATISFACTION	SATISFACTION	-
42	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"	PCS	200	2038	SATISFACTION	SATISFACTION	-
43	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"1/2	PCS	10	2038	SATISFACTION	SATISFACTION	-
44	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 4"	PCS	100	2038	SATISFACTION	SATISFACTION	-
45	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 8"	PCS	50	2038	SATISFACTION	SATISFACTION	-
46	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 10"	PCS	50	2038	SATISFACTION	SATISFACTION	-
47	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 24"	PCS	5	2038	SATISFACTION	SATISFACTION	-
48	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 32" B16.47 A	PCS	2	2038	SATISFACTION	SATISFACTION	-
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,18 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sp. 3,96 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sp. 8,74 mm	PCS	10	2038	SATISFACTION	SATISFACTION	-
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sp. 11,13 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
57	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sp. 11,13 mm	PCS	20	2038	SATISFACTION	SATISFACTION	-
58	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	100	2040	SATISFACTION	SATISFACTION	-
59	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	50	2040	SATISFACTION	SATISFACTION	-
60	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
61	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
62	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 30	PCS	20	2040	SATISFACTION	SATISFACTION	-
63	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch 30	PCS	30	2040	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 10,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 2

MCV
industrial valves, pipes & fittings

PED certified

IQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
64	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 60	PCS	20	2040	SATISFACTION	SATISFACTION	-
65	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1"1/2 Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
66	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
67	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	PCS	30	2040	SATISFACTION	SATISFACTION	-
68	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
69	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 32" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
70	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sch XS	PCS	100	2040	SATISFACTION	SATISFACTION	-
71	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 20" Sch XS	PCS	5	2040	SATISFACTION	SATISFACTION	-
72	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch 160	PCS	50	2040	SATISFACTION	SATISFACTION	-
73	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	40	2040	SATISFACTION	SATISFACTION	-
74	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	2	2040	SATISFACTION	SATISFACTION	-
75	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 6" Sch Std	PCS	20	2040	SATISFACTION	SATISFACTION	-
76	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
77	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
78	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2	PCS	50	2042	SATISFACTION	SATISFACTION	-
79	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 2"	PCS	100	2042	SATISFACTION	SATISFACTION	-
80	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 4"	PCS	50	2042	SATISFACTION	SATISFACTION	-
81	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 8"	PCS	20	2042	SATISFACTION	SATISFACTION	-
82	FLANGE ANSI BLIND RF ASTM A 105 Serie 300lbs da 24"	PCS	2	2042	SATISFACTION	SATISFACTION	-
83	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3" Sp. 3,96 mm	PCS	50	2042	SATISFACTION	SATISFACTION	-
84	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sp. 3,96 mm	PCS	30	2042	SATISFACTION	SATISFACTION	-
85	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sp. 5,56 mm	PCS	20	2042	SATISFACTION	SATISFACTION	-
86	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sp. 11,13 mm	PCS	5	2042	SATISFACTION	SATISFACTION	-
87	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sch 20	PCS	10	2042	SATISFACTION	SATISFACTION	-
88	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 24" Sch Std	PCS	2	2042	SATISFACTION	SATISFACTION	-
89	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
90	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch 160	PCS	50	2042	SATISFACTION	SATISFACTION	-
91	FLANGE ANSI SO RF ASTM A 105 Serie 300lbs da 4"	PCS	20	2042	SATISFACTION	SATISFACTION	-
92	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
93	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
94	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	300	2042	SATISFACTION	SATISFACTION	-
95	FLANGE ANSI SW RF ASTM A 105 Serie 600lbs da 1/2" Sch XS	PCS	1000	2042	SATISFACTION	SATISFACTION	-
			7453				

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 10,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 2

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

CHEMICAL COMPOSITION AND MECHANICAL PROPERTY OF THE RAW MATERAL

	BATCH NO.	CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY			HARDNESS
		C %	Si %	Mn %	S %	P %	Cr %	Mo %	V %	Ni %	Cu %	-	-	Tensile Strength	Yield Strength	Rate of reduction in area	
A105N	MIN		0,100	0,600										485	250	20	
	MAX	0,350	0,350	1,050	0,040	0,035	0,300		0,080	0,400	0,400			620			
	2031	0,190	0,180	0,780	0,010	0,011	0,080		0,020	0,110	0,120			585	268	25	
A105	MIN		0,100	0,600										485	250	30	137
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,120	0,080	0,400	0,400	-	-				187
	2035	0,170	0,160	0,750	0,011	0,012	0,090	0,080	0,030	0,009	0,110			560	265	32	168
	2038	0,180	0,180	0,760	0,012	0,010	0,100	0,070	0,040	0,010	0,120			565	264	31	169
	2040	0,170	0,200	0,680	0,011	0,013	0,080	0,060	0,020	0,011	0,100			550	268	33	170
	2042	0,190	0,200	0,720	0,010	0,011	0,090	0,065	0,022	0,013	0,090			555	269	32	165

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

MCV Pipes & Fittings Trading L.L.C.
trn 100051413000003
commercial license 108440

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MCV industrial valves, pipes & fittings

INSPECTION BY:

REVIEWED BY:

Q.A.MANAGER:

MCV Pipes & Fittings Trading L.L.C.
no. 1009, Block B, Youssef Zahra Building,
Al Qusais Third, P.O. Box 124328, Dubai, UAE

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C

CUSTOMER: PANTALONE SRL

PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024

Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
1	THREADED FLANGE 13/B A 105N ZNB EN1092-1 DN 65 PN6 GALVANIZED	20	SATISFACTION	1205
2	THREADED FLANGE 13/B A 105 ZNB EN1092-1 DN 50 PN16 GALVANIZED	50	SATISFACTION	1205
3	THREADED FLANGE 13/B A 105 ZNB EN1092-1 DN 65 PN16 GALVANIZED	200	SATISFACTION	1205
4	FREE FLANGE 02/A A 105N ZNB EN1092-1 DN 25 PN16 GALVANIZED	30	SATISFACTION	1205
5	FREE FLANGE 02/A A 105N ZNB EN1092-1 DN 50 PN16 GALVANIZED	50	SATISFACTION	1205
6	FLAT FLANGE 01/A A 105N EN1092-1 DN 50 PN06	50	SATISFACTION	1205
7	FLAT FLANGE 01/A A 105N EN1092-1 DN 65 PN06	250	SATISFACTION	1205
8	FLAT FLANGE 01/A A 105N EN1092-1 DN 80 PN06	100	SATISFACTION	1205
9	FLAT FLANGE 01/A A 105N EN1092-1 DN100 PN06	100	SATISFACTION	1205
10	FLAT FLANGE 01/A A 105N EN1092-1 DN125 PN06	50	SATISFACTION	1205
11	FLAT FLANGE 01/A A 105N EN1092-1 DN 15 PN40	200	SATISFACTION	1205
12	FLAT FLANGE 01/A A105N EN1092-1 DN 40 PN40	200	SATISFACTION	1205
13	FLAT FLANGE 01/A A105N EN1092-1 DN 65 PN16 8 HOLES	150	SATISFACTION	1205
14	FLAT FLANGE 01/A A105N EN1092-1 DN100 PN16	300	SATISFACTION	1205
15	FLAT FLANGE 01/A A105N EN1092-1 DN125 PN16	200	SATISFACTION	1205
16	FLAT FLANGE 01/A A105N EN1092-1 DN150 PN16	200	SATISFACTION	1205
17	FLAT FLANGE 01/A A105N EN1092-1 DN200 PN16	150	SATISFACTION	1205

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000
ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
18	FLAT FLANGE 01/A A105N EN1092-1 DN250 PN16	150	SATISFACTION	1205
19	FLAT FLANGE 01/A A 105N EN1092-1 DN150 PN40	30	SATISFACTION	1205
20	BLIND FLANGE 05/A A 105N EN1092-1 DN 32 PN06	10	SATISFACTION	1208
21	BLIND FLANGE 05/A A 105N EN1092-1 DN 50 PN06	50	SATISFACTION	1208
22	BLIND FLANGE 05/A A 105N EN1092-1 DN300 PN06	2	SATISFACTION	1208
23	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 25 PN40	50	SATISFACTION	1208
24	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 80 PN16	50	SATISFACTION	1208
25	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN150 PN16	30	SATISFACTION	1208
26	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN250 PN16	20	SATISFACTION	1208
27	BLIND FLANGE 05/A A 105N EN1092-1 DN350 PN16	5	SATISFACTION	1208
28	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 65 PN40	10	SATISFACTION	1208
29	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 25 PN40 Sch Std (NECK THICKNESS 3,38 mm)	300	SATISFACTION	1208
30	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 32 PN40 Sch Std (NECK THICKNESS 3,56 mm)	50	SATISFACTION	1208
31	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 80 PN16 Sch Std (NECK THICKNESS 5,49 mm)	200	SATISFACTION	1208
32	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 100 PN16 Sch Std (NECK THICKNESS 6,02 mm)	200	SATISFACTION	1208
33	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 250 PN16 Sch Std (NECK THICKNESS 9,27 mm)	20	SATISFACTION	1208
34	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (NECK THICKNESS 9,27 mm)	5	SATISFACTION	1208

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

Annex no. 1 to the Certificate no. 1586/5/2023

Scope of materials for fittings

Product form	Standard	Nominal size	Wall thickness
ELBOW	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
TEE	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
CROSS	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
BEND	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
REDUCER	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm

Specification	Material Grade	Product type
EN10216-2	P265GH, 10CrMo9-10, 15NiCuMoNb5-6-4, X10CrMoVNb9-1, X10CrWMoVNb9-2	all products form referred in Annex
EN10216-5	X2CrNi18-9, X2CrNiN18-10, X6CrNiNb18-10, X6CrNiMoTi17-12-2, X6CrNiMoNb17-12-2	
ASTM A 106	B	
ASTM A 234	WPB, WPC, WP11 CL1, WP11 CL2, WP91	
ASME SA 335	P5, P22, P36,P91, P92	
ASTM A 312	TP304, TP304L, TP316, TP316L, TP321	
ASTM A 420	WPL3, WPL6, WPL8, WPL9	
API 5L	X42, X60, X65, X70	
EN 10253-2	P235GH, X10CrMoVNb9-1, 13CrMo4-5, 10CrMo9-10	
EN 10253-3	X6CrNiTi18-10	
GB/T 5310	20G, 15CrMoG, 12Cr1MoVG,	
GB/T 8163	10, 20, Q345	
GB/T 9948	1Cr5Mo	

TECHNICKÁ INŠPEKCIA TI 5 SLOVENSKÁ REPUBLIKA

JUDr. Vladimir Jurik
General Director

TI

Technická inšpekcia, a.s., Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

0036333

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

Annex no. 2 to the Certificate no. 1586/5/2023

Scope of materials for flanges

Specification	Standard	Pressure rating (PN)	Nominal diameter (DN)
Forged flange (weld neck)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (socket weld)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (hubbed threaded)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (plate loose)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (slip on)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (blind)	ASME B16.5 ASME B16.47 ASME B16.48 EN 1092-1	6 to 420	15 - 1050

Material:

Specification	Material Grade	Product type
NB/T 47008	16Mn, 20#, 20MnMo, 20MnMoNb, 15CrMo, 12CrlMoV 12Cr5Mo, 35CrMo	Flanges
NB/T 47009	16MnD, 09MnNiD	
NB/T 47010	S30408, S31608, S30403, S31603	
ASME SA 105	--	
ASME SA 182	F304, F304L, F316, F316L, F5, F9, F11, F12, F22	
GB/T 700	Q235B	
GB/T 713	Q245R, Q345R	
EN 10025	1.0037, 1.0038	
EN 10222-2	1.0352, 1.0426	
EN 10222-4	1.0487, 1.0565	
EN 10022-5	1.4307, 1.4301, 1.4541, 1.4404, 1.4401	

JUDr. Vladimir Jurik
General Director

TECHNICKÁ INŠPEKCIA SLOVENSKÁ REPUBLIKA TI -5-

TI

Technická inšpekcia, a.s., Trnavská cesta 56, 821 01 Bratislava, Slovenská republika č. 006332

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
35	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 400 PN16 Sch Std (NECK THICKNESS 9,27 mm)	10	SATISFACTION	1208
36	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (NECK THICKNESS 3,91 mm)	50	SATISFACTION	1208
37	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 100 PN40 Sch Std (NECK THICKNESS 6,02 mm)	100	SATISFACTION	1208
38	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 4" Sch Std	20	SATISFACTION	1211
39	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" THICKNESS 4,78 mm	100	SATISFACTION	1211
40	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" THICKNESS 3,96 mm	100	SATISFACTION	1211
41	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" THICKNESS 4,78 mm	200	SATISFACTION	1211
42	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	20	SATISFACTION	1211
43	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	30	SATISFACTION	1211
44	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch Std	500	SATISFACTION	1211
45	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 5" Sch Std	10	SATISFACTION	1211
46	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sch Std	500	SATISFACTION	1211
47	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	100	SATISFACTION	1211
48	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch Std	100	SATISFACTION	1214
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch Std	50	SATISFACTION	1214
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch Std	20	SATISFACTION	1214
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	20	SATISFACTION	1214

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000
ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch XS	30	SATISFACTION	1214
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch XS	500	SATISFACTION	1214
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sch XS	20	SATISFACTION	1214
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 24" Sch 40	2	SATISFACTION	1214
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch 160	50	SATISFACTION	1214
57	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3/4" Sch Std	20	SATISFACTION	1214
58	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sch Std	100	SATISFACTION	1214
59	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 8" Sch Std	50	SATISFACTION	1214
60	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 14" Sch Std	5	SATISFACTION	1214
61	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 18" Sch Std	2	SATISFACTION	1214
62	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch XS	100	SATISFACTION	1214
63	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sch XS	20	SATISFACTION	1214
64	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 1"1/4	20	SATISFACTION	1216
65	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 1"1/2	200	SATISFACTION	1216
66	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 2"	300	SATISFACTION	1216
67	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 3"	500	SATISFACTION	1216
68	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 4"	300	SATISFACTION	1216

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000
ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

mcv
industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
69	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 5"	20	SATISFACTION	1216
70	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 6"	200	SATISFACTION	1216
71	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 12"	50	SATISFACTION	1216
72	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 14"	20	SATISFACTION	1216
73	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 16"	30	SATISFACTION	1216
74	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 24"	10	SATISFACTION	1216
75	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	100	SATISFACTION	1218
76	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	100	SATISFACTION	1218
77	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1"1/2 Sch XS	150	SATISFACTION	1218
78	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	100	SATISFACTION	1218
79	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"1/4	50	SATISFACTION	1218
80	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"1/2	100	SATISFACTION	1218
81	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 3"	100	SATISFACTION	1218
82	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 6"	50	SATISFACTION	1218
83	FLANGE ANSI BL RF ASTM A 105 Serie 150lbs da 12"	30	SATISFACTION	1218
84	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 16"	20	SATISFACTION	1218
85	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 20"	10	SATISFACTION	1218

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C

CUSTOMER: PANTALONE SRL

PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024

Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
86	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 30" B16.47 Tipo A	5	SATISFACTION	1218
87	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 6"	30	SATISFACTION	1218
88	FLANGE ANSI FILET.NPT RF A 105 Serie 150lbs da 3"	20	SATISFACTION	1218
89	FLANGE ANSI WN RF ASTM A 350LF2 Serie 150lbs da 2" Sch XS	20	SATISFACTION	1220
90	FLANGE B16.47A BLIND RF A105 Serie 150lbs da 32"	2	SATISFACTION	1218
	TOTAL	**8848**		

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ITA mobile +39 393 91 65 707

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industrial valves, pipes & fittings

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000
ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

B) Chemical Analysis:

Steel No.	HEAT NO.	C %	Si %	Mn %	S %	P %	Cr %	V %	Ni %	Mo %	Cu %	Nb
A105N	MIN		0,100	0,600								-
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,080	0,400	0,120	0,400	-
	1205	0,150	0,200	0,740	0,006	0,012	0,090	0,020	0,100	0,040	0,120	-
A105	MIN		0,100	0,600								-
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,080	0,400	0,120	0,400	-
	1208	0,210	0,190	0,780	0,008	0,013	0,086	0,020	0,110	0,050	0,110	-
	1211	0,200	0,200	0,750	0,009	0,011	0,085	0,030	0,120	0,060	0,120	-
	1214	0,230	0,210	0,690	0,010	0,010	0,079	0,010	0,100	0,070	0,130	-
	1216	0,220	0,190	0,750	0,011	0,011	0,068	0,020	0,120	0,080	0,140	-
	1218	0,190	0,230	0,730	0,010	0,012	0,075	0,030	0,130	0,060	0,130	-
A350LF2	MIN		0,150	0,600								
	MAX	0,300	0,300	1,350	0,040	0,035	0,300	0,080	0,400	0,120	0,400	0,020
	1220	0,150	0,180	0,780	0,009	0,011	0,080	0,010	0,080	0,007	0,110	0,004

MCV Pipes & Fittings Trading L.L.C.
trn 104061413300003
commercial license 1084401

1009, Block B, Youssef Zahra Building,
Al Qoze Third
P.O. Box 124328, Dubai, UAE

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UAE mobile +971 (0)56 6657272
ITA mobile +39 393 91 65 707

info@mcvbroker.com
www.mcvbroker.com

industrial valves, pipes & fittings

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C

CUSTOMER: PANTALONE SRL

PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024

Date: Mar. 6, 2024

C) Mechanical Test:

Steel No.	HEAT NO.	Tensile strength Mpa	Yield Strength Mpa	Elongation %	HARDNESS	Impact Test,ISO-V Specimen KV2 J @-20℃ for A105N & A105 & A350LF2				-	-	-
						1	2	3	Av.	-	-	-
A105N	MIN	485	250	20	-				≥27	-	-	-
	MAX	620			-					-	-	-
	1205	550	268	25		33	32	31	32	-	-	-
A105	MIN	485	250	30	137				≥27	-	-	-
	MAX				197					-	-	-
	1208	545	265	33	154	30	33	31	31	-	-	-
	1211	543	255	32	157	33	32	33	32,5	-	-	-
	1214	560	268	31	155	32	30	31	31	-	-	-
	1216	540	265	32	156	33	30	31	31	-	-	-
	1218	535	259	33	153	32	33	32	32	-	-	-
A350LF2	MIN	485	250	30					≥27	-	-	-
	MAX	655			197					-	-	-
	1220	540	275	32	158	31	33	32	32	-	-	-

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industrial valves, pipes & fittings

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INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

AQSCERT®

CS 008 28.03.22
FULL MEMBER OF EA, IAF, SIGNATORY OF MUTUAL RECOGNITION AGREEMENTS

CERTIFICATE OF CONFORMITY
FOR QUALITY MANAGEMENT SYSTEM
PER IL SISTEMA DI GESTIONE DELLA QUALITÀ

Certificate No	AQS/Q/102082023
Name of Company /Rilasciato a:	**M C V PIPES & FITTINGS TRADING L.L.C** **AE1893148**
Address/Indirizzo:	G01-20, Ontario Tower, Business Bay, P.O. Box 124328, Dubai / - Dubai - United Arab Emirates.
Standard / Norma:	**EN-ISO 9001:2015**

Concerning the following for services / È conforme ai requisiti, per il seguente campo applicativo:

Own brand marketing of valves, pipes, flanges and fittings.

Commercializzazione a marchio proprio di valvole, tubi, flange e raccordi.

EA Sectors / Settori EA: 29.

Validity of the Certificate / Validità del certificato:

First Issue/Prima emissione	The first maintenance within	The second maintenance within	Expiry date/Data di scadenza
28/04/2023	28/04/2024	28/04/2025	27/04/2026

For Certification Body

Eriola Cuni

AQSCERT S.r.l / Jusuf Vrioni Street, Building 1, No 6, 1001, Tirana, Albania | www.aqscert.org info@aqscert.org

DOC FO-AQS-018 Rev 04 del 01-08-2021

The validity of the certificate is subject to respect for the conditions established in the AQSCERT Regolation. The validity of the certificate is subordinate to periodic surveillance and to a complete reassessment at 3-year intervals. To check the validity of the certificate on the web site www.aqscert.org, in section "MY CERTIFICATE", please write the name of the company and the number of the certificate.

La validità del certificato è soggetto alle norme stabilite nei regolamenti AQSCERT. La validità del certificato è subordinata alla manutenzione periodica e ad una rivalutazione completa a intervalli di 3 anni. Per verificare la validità del certificato sul sito web www.aqscert.org , nella sezione "MY CERTIFICATE", si prega di scrivere il nome dell'azienda e il numero del certificato

AQSCERT

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 2,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 3

Technická inšpekcia, a.s.

Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

CERTIFICATE

no. 1586/5/2023

Technická inšpekcia, a. s.,
based on the inspection results of specific assessment for materials

confirms, that

M C V PIPES & FITTINGS TRADING L.L.C.
no. 1009, Block B, Youssef Zahra Building, Al Goze Third,
P.O. Box 124328, Dubai, UAE
(Registered Office)

North Loop Industrial Zone, Jinghai County, Tianjin, China
(Workshop)

has implemented and applies quality assurance system for materials

according to point 4.3 of Annex I to the Directive 2014/68/EU on pressure equipment

Scope of materials:
Seamless pipe fittings
Forged flanges
(refer to the Annex 1 and 2 to the Certificate for details)

Inspection report no. 1586/5/2023.

Manufacturer will inform Technická inšpekcia, a. s. about every modification in quality assurance system that can affect quality of materials.

The Certificate validity is conditioned with performing of surveillance by Technická inšpekcia, a.s. for minimum 1 periodic audit per 12 months. Audit Report proves performing of periodic audit.

Certificate is valid until November 8, 2026

Date of initial certification: November 9, 2023

Bratislava, November 9, 2023

JUDr. Vladimír Jurík
General Director

ČSTI-190

A 019091

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 8,000

ITEM 3 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 4

MCV
industrial valves, pipes & fittings

AQSCERT ISO 9001:2015

PED certified

MILL TEST CERTIFICATE

EN 10204:2004/3.1

CUSTOMER: PANTALONE S.R.L.

INVOICE N. 50-2024
P.O. 2024-OMAG-0000066 / 2024-OMAG-0000067

PRODUCTS: CARBON STEEL FORGED FLANGES

Date: May 06, 2024

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
1	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 40 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
2	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 80 PN06	PCS	100	2031	SATISFACTION	SATISFACTION	-
3	FLANGE EN FLAT 01/A A 105N EN1092-1 DN200 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
4	FLANGE EN FLAT 01/A A 105N EN1092-1 DN250 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
5	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
6	FLANGE EN FLAT 01/A A105N EN1092-1 DN 250 PN10	PCS	50	2031	SATISFACTION	SATISFACTION	-
7	FLANGE EN FLAT 01/A A105N EN1092-1 DN 300 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
8	FLANGE EN FLAT 01/A A105N EN1092-1 DN 350 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
9	FLANGE EN FLAT 01/A A105N EN1092-1 DN 450 PN10	PCS	5	2031	SATISFACTION	SATISFACTION	-
10	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 25 PN40	PCS	500	2031	SATISFACTION	SATISFACTION	-
11	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 32 PN40	PCS	100	2031	SATISFACTION	SATISFACTION	-
12	FLANGE EN FLAT 01/A A105N EN1092-1 DN 50 PN16	PCS	500	2031	SATISFACTION	SATISFACTION	-
13	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 4 fori	PCS	150	2031	SATISFACTION	SATISFACTION	-
14	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 8 fori	PCS	100	2031	SATISFACTION	SATISFACTION	-
15	FLANGE EN FLAT 01/A A105N EN1092-1 DN 80 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
16	FLANGE EN FLAT 01/A A105N EN1092-1 DN100 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
17	FLANGE EN FLAT 01/A A105N EN1092-1 DN125 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
18	FLANGE EN FLAT 01/A A105N EN1092-1 DN150 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
19	FLANGE EN FLAT 01/A ASTM A 105 EN1092-1 DN300 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
20	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN16	PCS	10	2031	SATISFACTION	SATISFACTION	-
21	FLANGE EN FLAT 01/A A 105N EN1092-1 DN450 PN16	PCS	2	2031	SATISFACTION	SATISFACTION	-
22	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 80 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
23	FLANGE EN BLIND 05/A A 105N EN1092-1 DN125 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
24	FLANGE EN BLIND 05/A A 105N EN1092-1 DN200 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
25	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 15 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
26	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 20 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 8,000

ITEM 3 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 4

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
27	FLANGE EN BLIND 05/A A105 EN1092-1 DN 65 PN16 8 FORI	PCS	50	2035	SATISFACTION	SATISFACTION	-
28	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 25 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
29	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 40 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-
30	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 80 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
31	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN100 PN16	PCS	100	2035	SATISFACTION	SATISFACTION	-
32	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN125 PN16	PCS	30	2035	SATISFACTION	SATISFACTION	-
33	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN150 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
34	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN200 PN16	PCS	20	2035	SATISFACTION	SATISFACTION	-
35	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN400 PN16	PCS	3	2035	SATISFACTION	SATISFACTION	-
36	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 300 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	15	2035	SATISFACTION	SATISFACTION	-
37	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	5	2035	SATISFACTION	SATISFACTION	-
38	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (THICKNESS 3,91 mm)	PCS	50	2035	SATISFACTION	SATISFACTION	-
39	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 80 PN06 (HDG GALVANIZED)	PCS	10	2031	SATISFACTION	SATISFACTION	-
40	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 32 PN40 (HDG GALVANIZED)	PCS	50	2031	SATISFACTION	SATISFACTION	-
41	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	PCS	100	2038	SATISFACTION	SATISFACTION	-
42	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"	PCS	200	2038	SATISFACTION	SATISFACTION	-
43	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"1/2	PCS	10	2038	SATISFACTION	SATISFACTION	-
44	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 4"	PCS	100	2038	SATISFACTION	SATISFACTION	-
45	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 8"	PCS	50	2038	SATISFACTION	SATISFACTION	-
46	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 10"	PCS	50	2038	SATISFACTION	SATISFACTION	-
47	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 24"	PCS	5	2038	SATISFACTION	SATISFACTION	-
48	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 32" B16.47 A	PCS	2	2038	SATISFACTION	SATISFACTION	-
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,18 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sp. 3,96 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sp. 8,74 mm	PCS	10	2038	SATISFACTION	SATISFACTION	-
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sp. 11,13 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
57	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sp. 11,13 mm	PCS	20	2038	SATISFACTION	SATISFACTION	-
58	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	100	2040	SATISFACTION	SATISFACTION	-
59	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	50	2040	SATISFACTION	SATISFACTION	-
60	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
61	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
62	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 30	PCS	20	2040	SATISFACTION	SATISFACTION	-
63	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch 30	PCS	30	2040	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 8,000

ITEM 3 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 4

mcv industrial valves, pipes & fittings

PED certified

IQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
64	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 60	PCS	20	2040	SATISFACTION	SATISFACTION	-
65	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1"1/2 Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
66	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
67	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	PCS	30	2040	SATISFACTION	SATISFACTION	-
68	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
69	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 32" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
70	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sch XS	PCS	100	2040	SATISFACTION	SATISFACTION	-
71	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 20" Sch XS	PCS	5	2040	SATISFACTION	SATISFACTION	-
72	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch 160	PCS	50	2040	SATISFACTION	SATISFACTION	-
73	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	40	2040	SATISFACTION	SATISFACTION	-
74	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	2	2040	SATISFACTION	SATISFACTION	-
75	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 6" Sch Std	PCS	20	2040	SATISFACTION	SATISFACTION	-
76	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
77	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
78	FLANGE ANSI BLIND RF AST MA105 Serie 300lbs da 1"1/2	PCS	50	2042	SATISFACTION	SATISFACTION	-
79	FLANGE ANSI BLIND RF AST MA105 Serie 300lbs da 2"	PCS	100	2042	SATISFACTION	SATISFACTION	-
80	FLANGE ANSI BLIND RF AST MA105 Serie 300lbs da 4"	PCS	50	2042	SATISFACTION	SATISFACTION	-
81	FLANGE ANSI BLIND RF AST MA105 Serie 300lbs da 8"	PCS	20	2042	SATISFACTION	SATISFACTION	-
82	FLANGE ANSI BLIND RF AST M A 105 Serie 300lbs da 24"	PCS	2	2042	SATISFACTION	SATISFACTION	-
83	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3" Sp. 3,96 mm	PCS	50	2042	SATISFACTION	SATISFACTION	-
84	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sp. 3,96 mm	PCS	30	2042	SATISFACTION	SATISFACTION	-
85	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sp. 5,56 mm	PCS	20	2042	SATISFACTION	SATISFACTION	-
86	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sp. 11,13 mm	PCS	5	2042	SATISFACTION	SATISFACTION	-
87	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sch 20	PCS	10	2042	SATISFACTION	SATISFACTION	-
88	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 24" Sch Std	PCS	2	2042	SATISFACTION	SATISFACTION	-
89	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
90	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch 160	PCS	50	2042	SATISFACTION	SATISFACTION	-
91	FLANGE ANSI SO RF ASTM A 105 Serie 300lbs da 4"	PCS	20	2042	SATISFACTION	SATISFACTION	-
92	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
93	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
94	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	300	2042	SATISFACTION	SATISFACTION	-
95	FLANGE ANSI SW RF ASTM A 105 Serie 600lbs da 1/2" Sch XS	PCS	1000	2042	SATISFACTION	SATISFACTION	-
			7453				

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2038 QTA 8,000

ITEM 3 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 4

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

CHEMICAL COMPOSITION AND MECHANICAL PROPERTY OF THE RAW MATERAL

	BATCH NO.	CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY			HARDNESS
		C %	Si %	Mn %	S %	P %	Cr %	Mo %	V %	Ni %	Cu %	-	-	Tensile Strength	Yield Strength	Rate of reduction in area	
A105N	MIN		0,100	0,600										485	250	20	
	MAX	0,350	0,350	1,050	0,040	0,035	0,300		0,080	0,400	0,400			620			
	2031	0,190	0,180	0,780	0,010	0,011	0,080		0,020	0,110	0,120			585	268	25	
A105	MIN		0,100	0,600										485	250	30	137
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,120	0,080	0,400	0,400	-	-				187
	2035	0,170	0,160	0,750	0,011	0,012	0,090	0,080	0,030	0,009	0,110			560	265	32	168
	2038	0,180	0,180	0,760	0,012	0,010	0,100	0,070	0,040	0,010	0,120			565	264	31	169
	2040	0,170	0,200	0,680	0,011	0,013	0,080	0,060	0,020	0,011	0,100			550	268	33	170
	2042	0,190	0,200	0,720	0,010	0,011	0,090	0,065	0,022	0,013	0,090			555	269	32	165

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

MCV Pipes & Fittings Trading L.L.C.
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MCV industrial valves, pipes & fittings

INSPECTION BY:

REVIEWED BY:

Q.A.MANAGER:

MCV Pipes & Fittings Trading L.L.C.
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PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
1	THREADED FLANGE 13/B A 105N ZNB EN1092-1 DN 65 PN6 GALVANIZED	20	SATISFACTION	1205
2	THREADED FLANGE 13/B A 105 ZNB EN1092-1 DN 50 PN16 GALVANIZED	50	SATISFACTION	1205
3	THREADED FLANGE 13/B A 105 ZNB EN1092-1 DN 65 PN16 GALVANIZED	200	SATISFACTION	1205
4	FREE FLANGE 02/A A 105N ZNB EN1092-1 DN 25 PN16 GALVANIZED	30	SATISFACTION	1205
5	FREE FLANGE 02/A A 105N ZNB EN1092-1 DN 50 PN16 GALVANIZED	50	SATISFACTION	1205
6	FLAT FLANGE 01/A A 105N EN1092-1 DN 50 PN06	50	SATISFACTION	1205
7	FLAT FLANGE 01/A A 105N EN1092-1 DN 65 PN06	250	SATISFACTION	1205
8	FLAT FLANGE 01/A A 105N EN1092-1 DN 80 PN06	100	SATISFACTION	1205
9	FLAT FLANGE 01/A A 105N EN1092-1 DN100 PN06	100	SATISFACTION	1205
10	FLAT FLANGE 01/A A 105N EN1092-1 DN125 PN06	50	SATISFACTION	1205
11	FLAT FLANGE 01/A A 105N EN1092-1 DN 15 PN40	200	SATISFACTION	1205
12	FLAT FLANGE 01/A A105N EN1092-1 DN 40 PN40	200	SATISFACTION	1205
13	FLAT FLANGE 01/A A105N EN1092-1 DN 65 PN16 8 HOLES	150	SATISFACTION	1205
14	FLAT FLANGE 01/A A105N EN1092-1 DN100 PN16	300	SATISFACTION	1205
15	FLAT FLANGE 01/A A105N EN1092-1 DN125 PN16	200	SATISFACTION	1205
16	FLAT FLANGE 01/A A105N EN1092-1 DN150 PN16	200	SATISFACTION	1205
17	FLAT FLANGE 01/A A105N EN1092-1 DN200 PN16	150	SATISFACTION	1205

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C

CUSTOMER: PANTALONE SRL

PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024

Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
18	FLAT FLANGE 01/A A105N EN1092-1 DN250 PN16	150	SATISFACTION	1205
19	FLAT FLANGE 01/A A 105N EN1092-1 DN150 PN40	30	SATISFACTION	1205
20	BLIND FLANGE 05/A A 105N EN1092-1 DN 32 PN06	10	SATISFACTION	1208
21	BLIND FLANGE 05/A A 105N EN1092-1 DN 50 PN06	50	SATISFACTION	1208
22	BLIND FLANGE 05/A A 105N EN1092-1 DN300 PN06	2	SATISFACTION	1208
23	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 25 PN40	50	SATISFACTION	1208
24	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 80 PN16	50	SATISFACTION	1208
25	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN150 PN16	30	SATISFACTION	1208
26	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN250 PN16	20	SATISFACTION	1208
27	BLIND FLANGE 05/A A 105N EN1092-1 DN350 PN16	5	SATISFACTION	1208
28	BLIND FLANGE 05/A ASTM A 105 EN1092-1 DN 65 PN40	10	SATISFACTION	1208
29	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 25 PN40 Sch Std (NECK THICKNESS 3,38 mm)	300	SATISFACTION	1208
30	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 32 PN40 Sch Std (NECK THICKNESS 3,56 mm)	50	SATISFACTION	1208
31	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 80 PN16 Sch Std (NECK THICKNESS 5,49 mm)	200	SATISFACTION	1208
32	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 100 PN16 Sch Std (NECK THICKNESS 6,02 mm)	200	SATISFACTION	1208
33	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 250 PN16 Sch Std (NECK THICKNESS 9,27 mm)	20	SATISFACTION	1208
34	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (NECK THICKNESS 9,27 mm)	5	SATISFACTION	1208

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

Annex no. 1 to the Certificate no. 1586/5/2023

Scope of materials for fittings

Product form	Standard	Nominal size	Wall thickness
ELBOW	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
TEE	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
CROSS	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
BEND	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
REDUCER	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm

Specification	Material Grade	Product type
EN10216-2	P265GH, 10CrMo9-10, 15NiCuMoNb5-6-4, X10CrMoVNb9-1, X10CrWMoVNb9-2	all products form referred in Annex
EN10216-5	X2CrNi18-9, X2CrNiN18-10, X6CrNiNb18-10, X6CrNiMoTi17-12-2, X6CrNiMoNb17-12-2	
ASTM A 106	B	
ASTM A 234	WPB, WPC, WP11 CL1, WP11 CL2, WP91	
ASME SA 335	P5, P22, P36,P91, P92	
ASTM A 312	TP304, TP304L, TP316, TP316L, TP321	
ASTM A 420	WPL3, WPL6, WPL8, WPL9	
API 5L	X42, X60, X65, X70	
EN 10253-2	P235GH, X10CrMoVNb9-1, 13CrMo4-5, 10CrMo9-10	
EN 10253-3	X6CrNiTi18-10	
GB/T 5310	20G, 15CrMoG, 12Cr1MoVG,	
GB/T 8163	10, 20, Q345	
GB/T 9948	1Cr5Mo	

JUDr. Vladimir Jurik
General Director

TECHNICKÁ INŠPEKCIA SLOVENSKÁ REPUBLIKA

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Technická inšpekcia, a.s., Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

c 006333

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

Annex no. 2 to the Certificate no. 1586/5/2023

Scope of materials for flanges

Specification	Standard	Pressure rating (PN)	Nominal diameter (DN)
Forged flange (weld neck)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (socket weld)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (hubbed threaded)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (plate loose)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (slip on)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (blind)	ASME B16.5 ASME B16.47 ASME B16.48 EN 1092-1	6 to 420	15 - 1050

Material:

Specification	Material Grade	Product type
NB/T 47008	16Mn, 20#, 20MnMo, 20MnMoNb, 15CrMo, 12CrlMoV 12Cr5Mo, 35CrMo	Flanges
NB/T 47009	16MnD, 09MnNiD	
NB/T 47010	S30408, S31608, S30403, S31603	
ASME SA 105	--	
ASME SA 182	F304, F304L, F316, F316L, F5, F9, F11, F12, F22	
GB/T 700	Q235B	
GB/T 713	Q245R, Q345R	
EN 10028	1.0037, 1.0038	
EN 10222-2	1.0352, 1.0426	
EN 10222-4	1.0487, 1.0565	
EN 10022-5	1.4307, 1.4301, 1.4541, 1.4404, 1.4401	

JUDr. Vladimir Jurik
General Director

TECHNICKÁ INŠPEKCIA SLOVENSKÁ REPUBLIKA 5

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č. 006332

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000
ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
35	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 400 PN16 Sch Std (NECK THICKNESS 9,27 mm)	10	SATISFACTION	1208
36	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (NECK THICKNESS 3,91 mm)	50	SATISFACTION	1208
37	WELDING NECK FLANGE 11/B A 105 EN1092-1 DN 100 PN40 Sch Std (NECK THICKNESS 6,02 mm)	100	SATISFACTION	1208
38	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 4" Sch Std	20	SATISFACTION	1211
39	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" THICKNESS 4,78 mm	100	SATISFACTION	1211
40	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" THICKNESS 3,96 mm	100	SATISFACTION	1211
41	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" THICKNESS 4,78 mm	200	SATISFACTION	1211
42	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	20	SATISFACTION	1211
43	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	30	SATISFACTION	1211
44	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch Std	500	SATISFACTION	1211
45	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 5" Sch Std	10	SATISFACTION	1211
46	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sch Std	500	SATISFACTION	1211
47	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	100	SATISFACTION	1211
48	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch Std	100	SATISFACTION	1214
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch Std	50	SATISFACTION	1214
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch Std	20	SATISFACTION	1214
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	20	SATISFACTION	1214

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch XS	30	SATISFACTION	1214
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch XS	500	SATISFACTION	1214
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sch XS	20	SATISFACTION	1214
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 24" Sch 40	2	SATISFACTION	1214
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 2" Sch 160	50	SATISFACTION	1214
57	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3/4" Sch Std	20	SATISFACTION	1214
58	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sch Std	100	SATISFACTION	1214
59	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 8" Sch Std	50	SATISFACTION	1214
60	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 14" Sch Std	5	SATISFACTION	1214
61	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 18" Sch Std	2	SATISFACTION	1214
62	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch XS	100	SATISFACTION	1214
63	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sch XS	20	SATISFACTION	1214
64	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 1"1/4	20	SATISFACTION	1216
65	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 1"1/2	200	SATISFACTION	1216
66	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 2"	300	SATISFACTION	1216
67	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 3"	500	SATISFACTION	1216
68	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 4"	300	SATISFACTION	1216

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

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industrial valves, pipes & fittings

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EN 10204:2004/3.1

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CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
69	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 5"	20	SATISFACTION	1216
70	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 6"	200	SATISFACTION	1216
71	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 12"	50	SATISFACTION	1216
72	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 14"	20	SATISFACTION	1216
73	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 16"	30	SATISFACTION	1216
74	FLANGE ANSI SO RF ASTM A 105 Serie 150lbs da 24"	10	SATISFACTION	1216
75	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	100	SATISFACTION	1218
76	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	100	SATISFACTION	1218
77	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1"1/2 Sch XS	150	SATISFACTION	1218
78	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	100	SATISFACTION	1218
79	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"1/4	50	SATISFACTION	1218
80	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"1/2	100	SATISFACTION	1218
81	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 3"	100	SATISFACTION	1218
82	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 6"	50	SATISFACTION	1218
83	FLANGE ANSI BL RF ASTM A 105 Serie 150lbs da 12"	30	SATISFACTION	1218
84	FLANGE ANSI BL. RF ASTM A 105 Serie 150lbs da 16"	20	SATISFACTION	1218
85	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 20"	10	SATISFACTION	1218

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

A) Content of the Delivery:

NO.	DESCRIPTION	QTY	SURFACE QUALITY	HEAT NO.
86	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 30" B16.47 Tipo A	5	SATISFACTION	1218
87	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 6"	30	SATISFACTION	1218
88	FLANGE ANSI FILET.NPT RF A 105 Serie 150lbs da 3"	20	SATISFACTION	1218
89	FLANGE ANSI WN RF ASTM A 350LF2 Serie 150lbs da 2" Sch XS	20	SATISFACTION	1220
90	FLANGE B16.47A BLIND RF A105 Serie 150lbs da 32"	2	SATISFACTION	1218
	TOTAL	**8848**		

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industrial valves, pipes & fittings

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

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MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C

CUSTOMER: PANTALONE SRL

PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024

Date: Mar. 6, 2024

B) Chemical Analysis:

Steel No.	HEAT NO.	C %	Si %	Mn %	S %	P %	Cr %	V %	Ni %	Mo %	Cu %	Nb
A105N	MIN		0,100	0,600								-
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,080	0,400	0,120	0,400	-
	1205	0,150	0,200	0,740	0,006	0,012	0,090	0,020	0,100	0,040	0,120	-
A105	MIN		0,100	0,600								-
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,080	0,400	0,120	0,400	-
	1208	0,210	0,190	0,780	0,008	0,013	0,086	0,020	0,110	0,050	0,110	-
	1211	0,200	0,200	0,750	0,009	0,011	0,085	0,030	0,120	0,060	0,120	-
	1214	0,230	0,210	0,690	0,010	0,010	0,079	0,010	0,100	0,070	0,130	-
	1216	0,220	0,190	0,750	0,011	0,011	0,068	0,020	0,120	0,080	0,140	-
	1218	0,190	0,230	0,730	0,010	0,012	0,075	0,030	0,130	0,060	0,130	-
A350LF2	MIN		0,150	0,600								
	MAX	0,300	0,300	1,350	0,040	0,035	0,300	0,080	0,400	0,120	0,400	0,020
	1220	0,150	0,180	0,780	0,009	0,011	0,080	0,010	0,080	0,007	0,110	0,004

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industrial valves, pipes & fittings

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000
ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204:2004/3.1

MANUFACTURER: M C V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE SRL
PRODUCTS: CARBON STEEL FLANGES

INVOICE NO. 31-2024
Date: Mar. 6, 2024

C) Mechanical Test:

Steel No.	HEAT NO.	Tensile strength Mpa	Yield Strength Mpa	Elongation %	HARDNESS	Impact Test,ISO-V Specimen KV2 J @-20℃ for A105N & A105 & A350LF2				-	-	-
						1	2	3	Av.	-	-	-
A105N	MIN	485	250	20	-				≥27	-	-	-
	MAX	620			-					-	-	-
	1205	550	268	25		33	32	31	32	-	-	-
A105	MIN	485	250	30	137				≥27	-	-	-
	MAX				197					-	-	-
	1208	545	265	33	154	30	33	31	31	-	-	-
	1211	543	255	32	157	33	32	33	32,5	-	-	-
	1214	560	268	31	155	32	30	31	31	-	-	-
	1216	540	265	32	156	33	30	31	31	-	-	-
	1218	535	259	33	153	32	33	32	32	-	-	-
A350LF2	MIN	485	250	30					≥27	-	-	-
	MAX	655			197					-	-	-
	1220	540	275	32	158	31	33	32	32	-	-	-

MCV Pipes & Fittings Trading L.L.C.
trn 104051413300003
commercial license 1084401

1009, Block B, Youssef Zahra Building,
Al Qoze Third
P.O. Box 124328, Dubai, UAE

UAE office +971 (0)4 299 0295
UAE mobile +971 (0)56 6057272
ITA mobile +39 393 91 65 707

info@mcvbroker.com
www.mcvbroker.com

industrial valves, pipes & fittings

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

INSPECTION BY:

REVIEWED BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

AQSCERT CERTIFICATIONS & INSPECTIONS

IAF

DA

CS 008 28.03.22
FULL MEMBER OF EA, IAF, SIGNATORY OF MUTUAL RECOGNITION AGREEMENTS

CERTIFICATE OF CONFORMITY

FOR QUALITY MANAGEMENT SYSTEM
PER IL SISTEMA DI GESTIONE DELLA QUALITÀ

Certificate No: AQS/Q/102082023

Name of Company /Rilasciato a: **M C V PIPES & FITTINGS TRADING L.L.C**
AE1893148

Address/Indirizzo: G01-20, Ontario Tower, Business Bay, P.O. Box 124328, Dubai / - Dubai - United Arab Emirates.

Standard / Norma: **EN-ISO 9001:2015**

Concerning the following for services / È conforme ai requisiti, per il seguente campo applicativo:

Own brand marketing of valves, pipes, flanges and fittings.

Commercializzazione a marchio proprio di valvole, tubi, flange e raccordi.

EA Sectors / Settori EA: 29.

Validity of the Certificate / Validità del certificato:

First Issue/Prima emissione	The first maintenance within	The second maintenance within	Expiry date/Data di scadenza
28/04/2023	28/04/2024	28/04/2025	27/04/2026

CERTIFICATION LABORATORY TESTS INSPECTION AQSCERT

For Certification Body

Eriola Cuni

AQSCERT S.r.l. / Jusuf Vrioni Street, Building 1, No 6, 1001, Tirana, Albania / www.aqscert.org info@aqscert.org

DOC FO-AQS-018 Rev 04 del 01-08-2021

The validity of the certificate is subject to respect for the conditions established in the AQSCERT Regolation. The validity of the certificate is subordinate to periodic surveillance and to a complete reassessment at 3-year intervals. To check the validity of the certificate on the web site www.aqscert.org, in section "MY CERTIFICATE", please write the name of the company and the number of the certificate.

La validità del certificato è soggetto alle norme stabilite nei regolamenti AQSCERT. La validità del certificato è subordinata alla manutenzione periodica e ad una rivalutazione completa a intervalli di 3 anni. Per verificare la validità del certificato sul sito web www.aqscert.org , nella sezione "MY CERTIFICATE", si prega di scrivere il nome dell'azienda e il numero del certificato

AQSCERT

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 1218 QTA 20,000

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1

Technická inšpekcia, a.s.

Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

CERTIFICATE
no. 1586/5/2023

Technická inšpekcia, a. s.,
based on the inspection results of specific assessment for materials

confirms, that

M C V PIPES & FITTINGS TRADING L.L.C.
no. 1009, Block B, Youssef Zahra Building, Al Goze Third,
P.O. Box 124328, Dubai, UAE
(Registered Office)

North Loop Industrial Zone, Jinghai County, Tianjin, China
(Workshop)

has implemented and applies quality assurance system for materials

according to point 4.3 of Annex I to the Directive 2014/68/EU on pressure equipment

Scope of materials:
Seamless pipe fittings
Forged flanges
(refer to the Annex 1 and 2 to the Certificate for details)

Inspection report no. 1586/5/2023.

Manufacturer will inform Technická inšpekcia, a. s. about every modification in quality assurance system that can affect quality of materials.

The Certificate validity is conditioned with performing of surveillance by Technická inšpekcia, a.s. for minimum 1 periodic audit per 12 months. Audit Report proves performing of periodic audit.

Certificate is valid until November 8, 2026

Date of initial certification: November 9, 2023

Bratislava, November 9, 2023

JUDr. Vladimír Jurík
General Director

OST3-190

A 019091

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 5032 QTA 2,000

ITEM 6 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 1/2

TECNICATRE
Stainless Steel Experience

TECNICA TRE s.r.l.
36061 BASSANO DEL GR. -VI- Via delle Viole, 16 - Tel. +39 0424
Fax Sede legale: Via delle Viole, 16 36061 BASSANO DEL GR. -VI-
Partita Iva 02523320246 - R.I. VI-1996-149

CERTIFICATO DI COLLAUDO
WORK TEST CERTIFICATE

EN 10204/3.1 DIN 50049/3.1
NR. BD24015163
DEL 03/06/24

Delivery Note

NR. BD24015163
DEL 03/06/24

CLIENTE: **PANTALONE S.R.L.**
CUSTOMER
VIA DON PRIMO MAZZOLARI, 21 - Z.I. SELVAIEZZI
66100 CHIETI (CHIETI SCALO) CH

RIF. DDT **BD24015163**

ANALISI CHIMICA - CHEMICAL COMPOSITION

COLATA	QTA'	CODICE	DESCRIZIONE	MATERIALE	C%	Si%	Mn%	S%	P%	Ni%	Cr%	Mo%	Al%	Cu%	Ti%	N%
HEAT NO.	*Q.TY*	*CODE*	*DESCRIPTION*	*MATERIAL*	*C%*	*Si%*	*Mn%*	*S%*	*P%*	*Ni%*	*Cr%*	*Mo%*	*Al%*	*Cu%*	*Ti%*	*N%*
			Ns. Ordine Cliente Nr. OC24015637 del 03/06/24													
			Vs. Ordine Cliente Nr. 2024-OF-0002193 del 03/06/24													
5186	10	805#150180005N	FLANGIA ASME B16.5 150 LBS BLIND 8" A105NORM	A 105 N	0,16	0,178	0,71	0,016	0,018	0,19	0,19	0,052		0,19		
			Ns. Ordine Cliente Nr. OC24015964 del 03/06/24													
			Vs. Ordine Cliente Nr. 2024-OMAG-0000378 del 03/06/24													
5032	50	805#150101205N	FLANGIA ASME B16.5 150 LBS BLIND 1/2" A105NORM	A 105N	0,015	0,178	0,74	0,016	0,018	0,19	0,19	0,054		0,18		

Note - Notes

Firma
Signature

TECNICATRE
TECNICA TRE SRL
Via delle Viole, 16 - 36061 Bassano del Grappa (VI)
C.F. e P.IVA: 02523320246 - Tel. 0424 504078

I dati dell'analisi chimica e delle prove meccaniche corrispondono fedelmente al certificato inviato dal fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove. I certificati sono conservati nel nostro archivio.
The chemical analysis and mechanical properties fully comply with the certificate issued by the manufacturer of the basic material and/or by the laboratory carrying out test. The certificates are kept in our archives.

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 5032 QTA 2,000

ITEM 6 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 1/2

TECNICATRE
Stainless Steel Experience

TECNICA TRE s.r.l.
36061 BASSANO DEL GR. -VI- Via delle Viole, 16 - Tel. +39 0424
Fax Sede legale: Via delle Viole, 16 36061 BASSANO DEL GR. -VI-
Partita Iva 02523320246 - R.I. VI-1996-149

CERTIFICATO DI COLLAUDO
WORK TEST CERTIFICATE

EN 10204/3.1 DIN 50049/3.1
NR. BD24015163
DEL 03/06/24

Delivery Note

NR. BD24015163
DEL 03/06/24

CLIENTE: **PANTALONE S.R.L.**
CUSTOMER
VIA DON PRIMO MAZZOLARI, 21 - Z.I. SELVAIEZZI
66100 CHIETI (CHIETI SCALO) CH

RIF. DDT **BD24015163**

CARATTERISTICHE MECCANICHE - MECHANICAL TEST

COLATA Heat no.	SNERVAMENTO yield point - N/mm2	ROTTURA tensile - N/mm2	ALLUNGAMENTO elongation - %	CONTRAZIONE red of area - %	DUREZZA hardness - %
5186	261,0	521,0	34,0	37,0	160,0
5032	260,0	545,0	34,0	38,0	160,0

Note - Notes

Firma
Signature

TECNICATRE
Stainless Steel Experience
TECNICA TRE SRL
Via delle Viole, 16 - 36061 Bassano del Grappa (VI)
C.F. e P.IVA: 02523320246 - Tel. 0424 516778

I dati dell'analisi chimica e delle prove meccaniche corrispondono fedelmente al certificato inviato dal fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove. I certificati sono conservati nel nostro archivio.
The chemical analysis and mechanical properties fully comply with the certificate issued by the manufacturer of the basic material and/or by the laboratory carrying out test. The certificates are kept in our archives.

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC S.R.L.

Bestelle - Customer

PANTALONE SRL
66100 CHIETI
Via Don Primo Mazzolari, 21
CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the original as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: A105

Datum / Date: 2024/06/12

Nr. / No.: 1140

Doc n°	Pos. / Item	Code / Code	Stückzahl / Quantity	Abmessungen / Dimension	(2) H / SM	Schmelze Nr. / Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analisys - % C	Si	Mn	P	S	Cr	Ni		Mechanische Eigenschaften Mecanical Test Yield Point N/mm2	Tensile Strenght N/mm2	Elongation %	Reduction %	Kerbschlagheit [J] Impact Test [J] Proben/arm	Specimen	ISO V Temperatur °C -20	Härte Hardness HB30 min	max
							Mo	Al	Cu	V	Nb	Ti	N	C.E.									
	1		2	EN1092-1 TYPE 01A PN16/40 DN40 A105	0001	S30421																	
	2		114	EN/11B PN16/40 DN40 A105 NAZ. s 4.00	0172	38094	0,19	0,28	0,87	0,015	0,01	0,16	0,07		350	522	28,66	66,67	38	42	47	140	144
							0,02	0,02	0,16	0,02	0,001	0,01	0,01	0,39									
	3		1	EN1092-1 TYPE 01A PN16 DN250 A105	0001	S2816	0,23	0,22	0,85	0,015	0,009	0,11	0,019		330	539	33,16	58,43	60	56	57	162	171
															332	536	32,64	59,16	58	62	59	162	171
							0,005	0,03	0,18	0,006	0,004	0,002	0,004	0,40913	326	531	33,02	58,22	57	59	60	162	171
															325	536	33,09	58,64	62	61	57	162	171
	4		2	EN1092-1 TYPE 01A PN16 DN65 A105 4HOLES	0001	S30518	0,25	0,24	0,74	0,012	0,011	0,1	0,027		330	510	35,15	60,32	52	54	50	166	170
															335	512	35,26	60,26	53	51	49	166	170
							0,003	0,027	0,22	0,002	0,003	0,003	0,006	0,4108	333	509	34,69	60,12	52	50	53	166	170
															332	508	35,35	60,35	50	53	52	166	170
	5		30	EN1092-1 TYPE 01A PN16 DN65 A105 4HOLES	0001	S30518	0,25	0,24	0,74	0,012	0,011	0,1	0,027		330	510	35,15	60,32	52	54	50	166	170
															335	512	35,26	60,26	53	51	49	166	170
							0,003	0,027	0,22	0,002	0,003	0,003	0,006	0,4108	333	509	34,69	60,12	52	50	53	166	170
															332	508	35,35	60,35	50	53	52	166	170

Werkstoff / Material Quality: A105		Anforderungen / Requested Values	Min	0,16	0,15	0,7	0	0	0	0		260	485	23	30	Min	0	Single test	144	187
			Max	0,22	0,3	1,3	0,02	0,015	0,02	0,25		99999	600	99999	99999	Max	9999999			
Kompatibilität / A105			Min	0	0,02	0,3	0	0			0,39	Temperatur °C		-20		Min	-50	Mittelwert von 3 Proben		
Lieferbedingungen / Condition of supply			Max	0,05	0,04	0,3	0,03	0,02			0,43	Temperature °C				Max	20	Average 3 test		

(2) Hersteller / Steel Maker
0001 SHANDONG IRON & STEEL CO.,LTD.JINAN COMPANY
0172 RIVA ACCIAIO S.P.A.

Lieferzustand / State of supply: Normalized - Hot Froged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without objection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC
ZETAMEC srl unipersonale
Via Fiorolle, 28/30 Tel. 0424 36801
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC S.R.L.

Besteller - Customer

PANTALONE SRL Via Don Primo Mazzolari, 21
66100 CHIETI CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the original as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: A105 | Datum / Date: 2024/06/12 | Nr. / No.: 1140

Doc n°	Pos. / Item	Code / Code	Stückzahl / Quantity	Abmessungen / Dimension	(2) H / SM	Schmelze Nr. / Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analysis - % C	Si	Mn	P	S	Cr	Ni		Mechanische Eigenschaften Mecanical Test Yield Point N/mm2	Tensile Strenght N/mm2	Elongation %	Reduction %	Kerbschlagheit [J] Impact Test [J] Probenform / Specimen ISO V Temperatur °C - -20			Härte Hardness HB30 min	max
							Mo	Al	Cu	V	Nb	Ti	N	C.E.									
	1		34	ANSI 300lbs BL 2" RF A105	0002	37038	0,19	0,24	0,78	0,016	0,009	0,005	0,003		267	516	29	57	53	51	51	144	
							0,003		0,003	0,001													
	2		5	ANSI 300lbs BL 2" RF A105	0002	37038	0,19	0,24	0,78	0,016	0,009	0,005	0,003		267	516	29	57	53	51	51	144	
							0,003		0,003	0,001													
	3		200	EN1092-1 TYPE 01A PN16/40 DN25 A105	0031	230720	0,202	0,234	0,883	0,012	0,003				263	584	45	46	34				151
																			32				
																			31				
	4		44	ANSI 300lbs BL 1-1/2" RF A105	0001	S21241	0,24	0,26	0,82	0,015	0,011	0,1	0,023		359	503	32,65	59,93	55	58	56	166	170
															346	500	32,71	60,02	57	55	54	166	170
							0,002	0,026	0,17	0,001	0,005	0,001	0,004	0,41013	350	509	33,1	59,74	58	56	59	166	170
															353	510	32,69	60,57	58	56	60	166	170
	5		5	ANSI 150lbs BL 1-1/2" RF A105	0001	S21002	0,21	0,24	0,85	0,013	0,01	0,12	0,024		325	532	33,52	60,33	57	61	58	164	170
															327	526	33,16	59,7	59	60	57	164	170
							0,005	0,028	0,13	0,001	0,004	0,001	0,006	0,38713	321	528	32,83	59,84	60	58	56	164	170
															322	531	33,61	60,12	57	60	59	164	170

Werkstoff / Material Quality: A105		Anforderungen / Requested Values	Min	0.16	0.15	0.7	0	0	0	0		260	485	23	30	Min	0	Single test	144	187
			Max	0.22	0.3	1.3	0.02	0.015	0.02	0.25		99999	600	99999	99999	Max	9999999			
Kompatibilität / A105			Min	0	0.02	0.3	0	0			0.39	Temperatur °C		-20		Min	-50	Mittelwert von 3 Proben		
Lieferbedingungen / Condition of supply			Max	0.05	0.04	0.3	0.03	0.02			0.43	Temperature °C				Max	20	Average 3 test		

(2) Hersteller / Steel Maker

0001 SHANDONG IRON & STEEL CO.,LTD.JINAN COMPANY
0002 WEIFANG IRON AND STEEL GROUP CO., LTD
0031 Shandong guangfu group co.ltd

Lieferzustand / State of supply: Normalized - Hot Froged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without objection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC
ZETAMEC srl unipersonale
Via Fiorolle, 28/30 Tel. 0424 30801
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC S.R.L.

Besteller - Customer

PANTALONE SRL Via Don Primo Mazzolari, 21
66100 CHIETI CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the orginal as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: A105 | Datum / Date: 2024/06/12 | Nu. / No.: 1140

Doc n°	Pos. / Item	Code / Code	Stückzahl / Quantity	Abmessungen / Dimension	(2) H SM	Schmelze Nr. / Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analsys - %								Mechanische Eigenschaften Mecanical Test				Kerbschlagheit [J] Impact Test [J]			Härte Hardness	
							C	Si	Mn	P	S	Cr	Ni		Yield Point	Tensile Strenght	Elongation	Reduction	Proben/orm / Specimen		ISO V	HB30	
							Mo	Al	Cu	V	Nb	Ti	N	C.E.	N/mm2	N/mm2	%	%	Temperatur °C		-20	min	max
	1		86	EN/11B PN16/40 DN40 A105 NAZ. s 4.00	0217	294987	0,18	0,24	0,84	0,01	0,007	0,1	0,11		430	516	30,98	70,01	49			144	149
							0,02	0,023	0,21	0,006	0,001	0,007	0,009	0,37					53				
																			42				
	2		13	EN/11B PN16/40 DN40 A105 NAZ. s 4.00	0217	294987	0,18	0,24	0,84	0,01	0,007	0,1	0,11		430	516	30,98	70,01	49			144	149
							0,02	0,023	0,21	0,006	0,001	0,007	0,009	0,37					53				
																			42				
	3		4	ANSI 150lbs BL 1" RF A105		S31055	0,24	0,25	0,77	0,015	0,011	0,17	0,021		338	520	35,82	60,19	50	53	52	167	172
															332	516	35,69	60,11	52	51	49	167	172
							0,005	0,026	0,23	0,004	0,007	0,003	0,008	0,42087	336	518	36,03	59,87	47	50	52	167	172
															335	512	35,92	60,35	48	48	50	167	172
	4		10	ANSI 150lbs BL 2" RF A105		25230	0,19	0,23	0,77	0,018	0,011	0,021	0,01		268	507	31	55	54			147	
							0,003		0,01	0,001				0,32					57				
																			50				
	5		10	ANSI 150lbs BL 2" RF A105		25230	0,19	0,23	0,77	0,018	0,011	0,021	0,01		268	507	31	55	54			147	
							0,003		0,01	0,001				0,32					57				
																			50				

Werkstoff / Material Quality: A105		Anforderungen / Requested Values	Min	0,16	0,15	0,7	0	0	0	0		260	485	23	30	Min	0	Single test	144	187
			Max	0,22	0,3	1,3	0,02	0,015	0,02	0,25		99999	600	99999	99999	Max	9999999			
Kompatibilität / A105			Min	0	0,02	0,3	0	0			0,39	Temperatur °C		-20		Min	-50	Mittelwert von 3 Proben		
Lieferbedingungen / Condition of supply			Max	0,05	0,04	0,3	0,03	0,02			0,43	Temperature °C				Max	20	Average 3 test		

(2) Hersteller / Steel Maker: 0217 ACCIAIERIE VENETE SPA

Lieferzustand / State of supply: Normalized - Hot Froged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without objection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC srl unipersonale
Via Fiorolle, 28/30 Tel. 0424 30691
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC s.r.l.

Besteller - Customer

PANTALONE SRL Via Don Primo Mazzolari, 21
66100 CHIETI CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the original as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: A105 | Datum / Date: 2024/06/12 | Nr. / No.: 1140

Doc n°	Pos. Item	Code Code	Stückzahl Quantity	Abmessungen Dimension	(2) H SM	Schmelze Nr. Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analysis - %								Mechanische Eigenschaften Mechanical Test				Kerbschlagheit [J] Impact Test [J]			Härte Hardness	
							C	Si	Mn	P	S	Cr	Ni		Yield Point	Tensile Strenght	Elongation	Reduction	Probenform	Specimen	ISO V	HB30	
							Mo	Al	Cu	V	Nb	Ti	N	C.E.	N/mm2	N/mm2	%	%	Temperatur °C		-20	min	max
	1		15	ANSI 300lbs BL 6" RF A105		92720	0,19	0,21	0,77	0,016	0,009	0,02	0,02		261	513	32	55	52			145	
							0,003		0,01	0,001				0,33					56				
																			56				

Werkstoff / Material Quality: A105		Anforderungen / Requested Values	Min	0,16	0,15	0,7	0	0	0	0		260	485	23	30	Min	0	Single test	144	187			
			Max	0,22	0,3	1,3	0,02	0,015	0,02	0,25		99999	600	99999	99999	Max	9999999						
Kompatibilität / Compatibility: A105			Min	0	0,02	0,3	0	0			0,39	Temperatur °C		-20		Min	-50	Mittelwert von 3 Proben					
Lieferbedingungen / Condition of supply			Max	0,05	0,04	0,3	0,03	0,02			0,43	Temperature °C				Max	20	Average 3 test					

(2) Hersteller / Steel Maker

Lieferzustand / State of supply: Normalized - Hot Froged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without objection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC
ZETAMEC srl Unipersonale
Via Fiorolle, 28/30 Tel. 0424 30691
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC S.R.L.

Besteller - Customer

PANTALONE SRL
66100 CHIETI
Via Don Primo Mazzolari, 21
CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the original as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: P245GH

Datum / Date: 2024/06/12

Nr. / No.: 1140

Doc n°	Pos. Item	Code Code	Stückzahl Quantity	Abmessungen Dimension	(2) H SM	Schmelze Nr. Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analisys - %								Mechanische Eigenschaften Mechanical Test				Kerbschlagheit [J] Impact Test [J]			Härte Hardness	
							C	Si	Mn	P	S	Cr	Ni		Yield Point	Tensile Strenght	Elongation	Reduction	Probenform	Specimen	ISO V	HB30
							Mo	Al	Cu	V	Nb	Ti	N	C.E.	N/mm2	N/mm2	%	%	Temperatur °C		-10	min / max
	1		20	EN1092-1 TYPE 01B PN16/40 DN15 P245GH RF	0001	S30235	0,18	0,24	0,65	0,013	0,009	0,02	0,019		288	475	31,6	50,35	61	63	64	155	165
															287	474	31,8	50,45	62	63	62	155	165
							0,005	0,025	0,033	0,001	0,006	0,001	0,005	0,33	288	476	30,92	51,26	60	64	63	155	165
															289	475	31,33	50,78	61	62	64	155	165
	2		2	EN1092-1 TYPE 01A PN16/40 DN40 P245GH	0001	S30636	0,19	0,23	0,66	0,017	0,011	0,025	0,023		280	465	31,8		60	63	64		166
							0,002		0,037	0,001	0,007	0,003											
	3		4	EN1092-1 TYPE 01A PN16/40 DN25 P245GH		S31056	0,18	0,23	0,63	0,016	0,009	0,025	0,019		280	469	34,5	49,93	48	52	52	158	165
															283	468	34,39	49,65	51	48	53	158	165
							0,003	0,027	0,038	0,002	0,005	0,003	0,005	0,2948	278	463	34,61	49,72	49	50	49	158	165
															281	465	34,32	49,66	50	49	48	158	165
	4		14	EN1092-1 TYPE 01A PN16/40 DN40 P245GH		S31111	0,19	0,21	0,61	0,017	0,012	0,021	0,023		289	468	33,23	51,26	65	59	61	158	167
															287	465	32,85	50,64	61	63	62	158	167
							0,006	0,024	0,034	0,002	0,001	0,003	0,004	0,30127	285	467	33,12	51,21	64	61	60	158	167
															286	465	33,25	50,79	63	65	62	158	167

Werkstoff / Material Quality	ASTM / ASME A / SA P245GH		Anforderungen / Requested Values	Min	0,08	0	0,5	0	0	0	0		245	410	25	0	Min	32	Single test	0	999
				Max	0,2	0,4	1,3	0,025	0,159	99	99		99999	530	99999	99999	Max	9999999			
Kompatibilität /	1.0352 P245GH EN 10222-2:2001			Min	0	0	0	0	0	0	0	0	Temperatur °C		-10		Min	-29	Mittelwert von 3 Proben		
Lieferbedingungen / Condition of supply				Max	99	99	99	99	99	99	99	99	Temperature °C				Max	20	Average 3 test		

(2) Hersteller / Steel Maker: 0001 SHANDONG IRON & STEEL CO.,LTD.JINAN COMPANY

Lieferzustand / State of supply: Normalized - Hot Fraged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without obiection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC
ZETAMEC srl unipersonale
Via Fiorolle, 28/30 Tel. 0424 30691
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA S21241 QTA 8,000

ITEM 12 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2

ZETAMEC S.R.L.

Besteller - Customer

PANTALONE SRL Via Don Primo Mazzolari, 21
66100 CHIETI CH Italia

Zetamec srl Unipersonale, Via Fiorolle, 28/30 - 36060 Romano d'Ezzelino (VI)
Tel. 042430691 - E-mail: info@zetamec.com - Sito web: www.zetamec.com

Abnahmeprüfzeugnis nach EN 10204 / 3.1
Inspection Certificate in accordance to EN 10204 / 3.1

Copia conforme all'originale secondo quanto consentito dal punto 6 della normativa UNI EN 10204:2005
Copy in compliance with the original as established by point 6 of UNI EN 10204:2005

Gegenstand / Object: RST 37.2

Datum / Date: 2024/06/12

Nr. / No.: 1140

Doc n°	Pos. Item	Code Code	Stückzahl Quantity	Abmessungen Dimension	(2) H SM	Schmelze Nr. Heat No.	Chemische Zusammensetzung in Gew. - % Chemical Analysis - %								Mechanische Eigenschaften Mechanical Test				Kerbschlagheit [J] Impact Test [J]			Härte Hardness	
							C	Si	Mn	P	S	Cr	Ni		Yield Point	Tensile Strenght	Elongation	Reduction	Probenform	Specimen	ISO V	HB30	
							Mo	Al	Cu	V	Nb	Ti	N	C.E.	N/mm2	N/mm2	%	%	Temperatur °C		20	min	max
	1		1	UNI 2276 PN6 DN600 RST37.2	0020	230823	0,17	0,22	0,42	0,019	0,018				265	470	35						
	2		1	UNI 6091 PN6 DN600 RST37.2		37561	0,17	0,18	0,49	0,017	0,011	0,033	0,006		248	397	33		49				
																			46				
																			52				

Werkstoff / Material Quality: RST37.2		Anforderungen / Requested Values	Min	0	0	0	0	0	0	0		235	340	24	0	Min	0	Single test	0	9999
			Max	0,19	99	99	0,06	0,06	99	99		99999	99999	99999	99999	Max	9999999			
Kompatibilität /			Min	0	0	0	0	0	0	0	0	Temperatur °C		20		Min	-20	Mittelwert von 3 Proben		
Lieferbedingungen / Condition of supply			Max	99	99	99	99	99	99	0,01	99	Temperature °C				Max	20	Average 3 test		

(2) Hersteller / Steel Maker: 0020 GUANGFU STEEL CO.

Lieferzustand / State of supply: Normalized - Hot Froged

Material in accordance with
ANSI/NACE MR0175/ISO 15156-2:2015 Annex A sec. A.2.1.2 - A.2.1.3 a
ANSI/NACE MR0103/ISO 17495-1:2016 sec. 13.1.1 A) C)
ISO 15156-2:2015 ANNEX A sec. A.2.1.2 - A.2.1.3 a)
AD 2000-Merkblatt W 10 - Stress category II PED 2014/68/UE Annex I

Es wird bestätigt, dass die Lieferung den vereinbarten Lieferbedinggungen
entspricht Manufacturing requirements are satisfied
Besichtigung und Ausmessung: o. B.
Surface and dimensional inspection without objection

Timbro e Firma Responsabile Zetamec s.r.l. Unipersonale

ZETAMEC
ZETAMEC srl unipersonale
Via Fiorolle, 28/30 Tel. 0424 30801
36060 ROMANO D'EZZELINO (VI)
Part.IVA IT02226530240

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2391 QTA 5,000

ITEM 7 DESCRIZIONE FLANGIA ANSI BLIND FF ASTM A 105 Serie 150lbs da 1"

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204 MODEL 3.1

Certificate No.: 230928
Invoice No.: 139/2023
Date: Jan 16th, 2024

ITEM	Description	Codice	Material	Size	Rating	Thickness	Conn.	HEAT NO.	QTY	VISUAL DIMENSIONAL INSPECTION	BEND TEST FORMER (1.5) RESULT 180°	HEAT TREATMENT CONDITION (note 1)	HARDNESS 187 (max)	CHEMICAL COMPOSITION(%)										MECHANICAL			
														C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CE	Y. S (MPa)	T.S (MPa)	RA (%)	E (%)
														≤0.35	0.60-1.05	≤0.035	≤0.040	0.10-0.35	≤0.040	≤0.040	≤0.030	≤0.120	≤0.080		≥250	≥485	≥30	≥22
49	WN FLANGE	150XSWF250I	A105N	10"	150	Sch XS	RF	2369	20	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
50	WN FLANGE	150XSWF300I	A105N	12"	150	Sch XS	RF	2369	10	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
51	WN FLANGE	150XSWF400I	A105N	16"	150	Sch XS	RF	2369	30	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
52	WN FLANGE	150XSWF600I	A105N	24"	150	Sch XS	RF	2369	2	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
53	WN FLANGE	150XSWF850I	A105N	34"	150	Sch XS	RF	2369	1	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
54	WN FLANGE	150XSWFF100I	A105N	4"	150	Sch XS	FF	2369	10	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
55	WN FLANGE	150XSWFF150I	A105N	6"	150	Sch XS	FF	2369	10	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
56	WN FLANGE	150XSWFF200I	A105N	8"	150	Sch XS	FF	2369	10	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
57	WN FLANGE	150XXSWF040I	A105N	1"1/2	150	Sch XXS	RF	2369	20	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
58	WN FLANGE	150XXSWF050I	A105N	2"	150	Sch XXS	RF	2369	20	GOOD	GOOD	N	172	0.23	0.69	0.029	0.032	0.21	0.034	0.025	0.016	0.069	0.061	0.378	278	503	33	30
59	BLIND FLANGE	150BRF050I	A105N	2"	150		RF	2392	200	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
60	BLIND FLANGE	150BRF065I	A105N	2"1/2	150		RF	2392	10	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
61	BLIND FLANGE	150BRF080I	A105N	3"	150		RF	2392	200	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
62	BLIND FLANGE	150BRF100I	A105N	4"	150		RF	2392	100	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
63	BLIND FLANGE	150BRF150I	A105N	6"	150		RF	2392	100	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
64	BLIND FLANGE	150BRF200I	A105N	8"	150		RF	2392	50	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
65	BLIND FLANGE	150BRF250I	A105N	10"	150		RF	2392	30	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
66	BLIND FLANGE	150BRF400I	A105N	16"	150		RF	2392	20	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
67	BLIND FLANGE	150BRF450I	A105N	18"	150		RF	2392	50	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
68	BLIND FLANGE	150BRF650AI	A105N	26"	150		RF	2392	1	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
69	BLIND FLANGE	150BRF700AI	A105N	28"	150		RF	2392	1	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
70	BLIND FLANGE	150BRF750AI	A105N	30"	150		RF	2392	5	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
71	BLIND FLANGE	150BRF800AI	A105N	32"	150		RF	2392	1	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
72	BLIND FLANGE	150BRF900AI	A105N	36"	150		RF	2392	1	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
73	BLIND FLANGE	150BFF025I	A105N	1"	150		FF	2391	20	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
74	BLIND FLANGE	150BFF050I	A105N	2"	150		FF	2391	20	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
75	BLIND FLANGE	150BFF080I	A105N	3"	150		FF	2391	20	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
76	BLIND FLANGE	150BFF350I	A105N	14"	150		FF	2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
77	BLIND FLANGE	150BFF400I	A105N	16"	150		FF	2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
78	BLIND FLANGE	150BFF450I	A105N	18"	150		FF	2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
79	BLIND FLANGE	150BFF500I	A105N	20"	150		FF	2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
80	LAP JOINT FLANGE	150LPJ065I	A105N	2"1/2	150			2367	10	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
81	LAP JOINT FLANGE	150LPJ080I	A105N	3"	150			2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
82	LAP JOINT FLANGE	150LPJ100I	A105N	4"	150			2367	30	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
83	LAP JOINT FLANGE	150LPJ150I	A105N	6"	150			2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
84	LAP JOINT FLANGE	150LPJ200I	A105N	8"	150			2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
85	LAP JOINT FLANGE	150LPJ250I	A105N	10"	150			2367	10	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
86	LAP JOINT FLANGE	150LPJ300I	A105N	12"	150			2367	5	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
87	LAP JOINT FLANGE	150LPJ350I	A105N	14"	150			2367	5	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
88	LAP JOINT FLANGE	150LPJ050I	A105N	2"	150			2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
89	LAP JOINT FLANGE	150LPJ050ZCI	A105N	2"	150		HDG GALVANIZED	2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
90	LAP JOINT FLANGE	150LPJ080ZCI	A105N	3"	150		HDG GALVANIZED	2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
91	LAP JOINT FLANGE	150LPJ150ZCI	A105N	6"	150		HDG GALVANIZED	2367	20	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
92	LAP JOINT FLANGE	150LPJ200ZCI	A105N	8"	150		HDG GALVANIZED	2367	10	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
93	NPT THREADED FLANGE	150FRF015ZCI	A105N	1/2"	150		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
94	NPT THREADED FLANGE	150FRF020ZCI	A105N	3/4"	150		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
95	NPT THREADED FLANGE	150FRF025ZCI	A105N	1"	150		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
96	NPT THREADED FLANGE	150FRF040ZCI	A105N	1"1/2	150		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2391 QTA 5,000

ITEM 7 DESCRIZIONE FLANGIA ANSI BLIND FF ASTM A 105 Serie 150lbs da 1"

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204 MODEL 3.1

Certificate No.: 230928
Invoice No.: 139/2023
Date: Jan 16th, 2024

ITEM	Description	Codice	Materia l	Size	Rating	Thickness	Conn.	HEAT NO.	QTY	VISUAL DIMENSIONAL INSPECTION	BEND TEST FORMER (1.5) RESULT 180°	HEAT TREATMENT CONDITION (note 1)	HARDNESS 187 (max)	CHEMICAL COMPOSITION(%)										MECHANICAL			
														C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CE	Y. S (MPa)	T.S (MPa)	RA (%)	E (%)
														≤0.35	0.60-1.05	≤0.035	≤0.040	0.10-0.35	≤0.040	≤0.040	≤0.030	≤0.120	≤0.080		≥250	≥485	≥30	≥22
241	BLIND FLANGE	600BRF350I	A105N	14"	600		RF	2393	5	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
242	BLIND FLANGE	600BRF500I	A105N	20"	600		RF	2393	2	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
243	BLIND FLANGE	600BFF040I	A105N	1"1/2	600		FF	2391	20	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
244	BLIND FLANGE	600BRJ020I	A105N	3/4"	600		RJ	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
245	BLIND FLANGE	600BRJ025I	A105N	1"	600		RJ	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
246	BLIND FLANGE	600BRJ040I	A105N	1"1/2	600		RJ	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
247	BLIND FLANGE	600BRJ050I	A105N	2"	600		RJ	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
248	BLIND FLANGE	600BRJ080I	A105N	3"	600		RJ	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
249	BLIND FLANGE	600BRJ150I	A105N	6"	600		RJ	2393	5	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
250	BLIND FLANGE	600BRJ300I	A105N	12"	600		RJ	2393	2	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
251	NPT THREADED FLANGE	600FRF015I	A105N	1/2"	600		RF	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
252	NPT THREADED FLANGE	600FRF025I	A105N	1"	600		RF	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
253	NPT THREADED FLANGE	600FRF040I	A105N	1"1/2	600		RF	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
254	NPT THREADED FLANGE	600FRF015ZCI	A105N	1/2"	600		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
255	NPT THREADED FLANGE	600FRF020ZCI	A105N	3/4"	600		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
256	NPT THREADED FLANGE	600FRF025ZCI	A105N	1"	600		RF - HDG GALVANIZED	2367	50	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
257	NPT THREADED FLANGE	600FRF040ZCI	A105N	1"1/2	600		RF - HDG GALVANIZED	2367	30	GOOD	GOOD	N	177	0.23	0.65	0.029	0.032	0.26	0.035	0.031	0.024	0.110	0.073	0.384	260	520	38	33
258	WN FLANGE	600STDWF015I	A105N	1/2"	600	Sch STD	RF	2386	50	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
259	WN FLANGE	600STDWF020I	A105N	3/4"	600	Sch STD	RF	2386	100	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
260	WN FLANGE	600STDWF025I	A105N	1"	600	Sch STD	RF	2386	100	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
261	WN FLANGE	600STDWF032I	A105N	1"1/4	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
262	WN FLANGE	600STDWF040I	A105N	1"1/2	600	Sch STD	RF	2386	100	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
263	WN FLANGE	600STDWF050I	A105N	2"	600	Sch STD	RF	2386	50	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
264	WN FLANGE	600STDWF080I	A105N	3"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
265	WN FLANGE	600STDWF100I	A105N	4"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
266	WN FLANGE	600STDWF150I	A105N	6"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
267	WN FLANGE	600STDWF200I	A105N	8"	600	Sch STD	RF	2386	10	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
268	WN FLANGE	600STDWJ100I	A105N	4"	600	Sch STD	RJ	2386	10	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
269	WN FLANGE	600XSWF015I	A105N	1/2"	600	Sch XS	RF	2390	50	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
270	WN FLANGE	600XSWF020I	A105N	3/4"	600	Sch XS	RF	2390	50	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
271	WN FLANGE	600XSWF025I	A105N	1"	600	Sch XS	RF	2390	50	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
272	WN FLANGE	600XSWF040I	A105N	1"1/2	600	Sch XS	RF	2390	50	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
273	WN FLANGE	600XSWF050I	A105N	2"	600	Sch XS	RF	2390	30	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
274	WN FLANGE	600XSWF080I	A105N	3"	600	Sch XS	RF	2390	20	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
275	WN FLANGE	600XSWF100I	A105N	4"	600	Sch XS	RF	2390	20	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
276	WN FLANGE	600XSWF150I	A105N	6"	600	Sch XS	RF	2390	20	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
277	WN FLANGE	600XSWF200I	A105N	8"	600	Sch XS	RF	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
278	WN FLANGE	600XSWF250I	A105N	10"	600	Sch XS	RF	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
279	WN FLANGE	600XSWF300I	A105N	12"	600	Sch XS	RF	2390	2	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
280	WN FLANGE	600XSWJ050I	A105N	2"	600	Sch XS	RJ	2390	20	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
281	WN FLANGE	600XSWJ100I	A105N	4"	600	Sch XS	RJ	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
282	WN FLANGE	600XSWJ200I	A105N	8"	600	Sch XS	RJ	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
283	WN FLANGE	600XSWJ300I	A105N	12"	600	Sch XS	RJ	2390	5	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
284	WN FLANGE	600XXSWF015I	A105N	1/2"	600	Sch XXS	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
285	WN FLANGE	600XXSWF020I	A105N	3/4"	600	Sch XXS	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
286	WN FLANGE	600XXSWF025I	A105N	1"	600	Sch XXS	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
287	WN FLANGE	600XXSWF040I	A105N	1"1/2	600	Sch XXS	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
288	WN FLANGE	600XXSWF050I	A105N	2"	600	Sch XXS	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2391 QTA 5,000

ITEM 7 DESCRIZIONE FLANGIA ANSI BLIND FF ASTM A 105 Serie 150lbs da 1"

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204 MODEL 3.1

Certificate No.: 230928
Invoice No.: 139/2023
Date: Jan 16th, 2024

ITEM	Description	Codice	Material	Size	Rating	Thickness	Conn.	HEAT NO.	QTY	VISUAL DIMENSIONAL INSPECTION	BEND TEST FORMER (1.5) RESULT 180°	HEAT TREATMENT CONDITION (note 1)	HARDNESS 187 (max)	CHEMICAL COMPOSITION(%)										MECHANICAL			
														C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CE	Y. S (MPa)	T.S (MPa)	RA (%)	E (%)
														≤0.35	0.60-1.05	≤0.035	≤0.040	0.10-0.35	≤0.040	≤0.040	≤0.030	≤0.120	≤0.080		≥250	≥485	≥30	≥22
289	SLIP ON FLANGE	600SRF150I	A105N	6"	600		RF	2399	20	GOOD	GOOD	N	161	0.22	0.63	0.029	0.036	0.21	0.030	0.032	0.026	0.150	0.050	0.374	312	541	41	35
290	SW FLANGE	600XSSWF020I	A105N	3/4"	600	Sch XS	RF	2366	500	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
291	SW FLANGE	600XSSWF025I	A105N	1"	600	Sch XS	RF	2366	300	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
292	SW FLANGE	600XSSWF040I	A105N	1"1/2	600	Sch XS	RF	2366	300	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
293	SW FLANGE	600XSSWF050I	A105N	2"	600	Sch XS	RF	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
294	SW FLANGE	600XSSWJ015I	A105N	1/2"	600	Sch XS	RJ	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
295	SW FLANGE	600XSSWJ020I	A105N	3/4"	600	Sch XS	RJ	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
296	SW FLANGE	600XSSWJ040I	A105N	1"1/2	600	Sch XS	RJ	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
297	SW FLANGE	600XSSWJ050I	A105N	2"	600	Sch XS	RJ	2366	10	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
298	SW FLANGE	600XSSWFF040I	A105N	1"1/2	600	Sch XS	FF	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
299	SW FLANGE	600XSSWFF025I	A105N	1"	600	Sch XS	FF	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
300	BLIND FLANGE TYPE 05/A	FC92A100200I	A105N	8"	PN 10			2391	10	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
301	BLIND FLANGE TYPE 05/A	FC92A100250I	A105N	10"	PN 10			2391	10	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
302	BLIND FLANGE TYPE 05/A	FC92A100300I	A105N	12"	PN 10			2391	5	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
303	BLIND FLANGE TYPE 05/A	FC92A100350I	A105N	14"	PN 10			2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
304	BLIND FLANGE TYPE 05/A	FC92A100500I	A105N	20"	PN 10			2391	2	GOOD	GOOD	N	173	0.24	0.61	0.021	0.033	0.26	0.032	0.029	0.023	0.113	0.079	0.389	260	500	35	25
305	FLAT FLANGE TYPE 01/A	FP92A100200I	A105N	8"	PN 10			2396	50	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
306	FLAT FLANGE TYPE 01/A	FP92A160080I	A105N	3"	PN 16			2396	500	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
307	FLAT FLANGE TYPE 01/A	FP92A160125I	A105N	5"	PN 16			2396	100	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
308	FLAT FLANGE TYPE 01/A	FP92A160350I	A105N	14"	PN 16			2396	10	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
309	LOOSE FLANGE TYPE 02/A	FLIB92A160020ZI	A105N	3/4"	PN 16		ELECTRO ZINC PLATED	2396	50	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
310	LOOSE FLANGE TYPE 02/A	FLIB92A100200ZI	A105N	8"	PN 10		ELECTRO ZINC PLATED	2396	10	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
311	LOOSE FLANGE TYPE 02/A	FLIB92A100250ZI	A105N	10"	PN 10		ELECTRO ZINC PLATED	2396	10	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
312	LOOSE FLANGE TYPE 02/A	FLIB92A100300ZI	A105N	12"	PN 10		ELECTRO ZINC PLATED	2396	10	GOOD	GOOD	N	169	0.22	0.85	0.034	0.036	0.26	0.030	0.026	0.024	0.015	0.070	0.387	300	568	67	39
313	WN FLANGE	LF2150I3,96WF100I	A105N	4"	150	3,96 mm	RF	2368	20	GOOD	GOOD	N	167	0.22	0.69	0.023	0.025	0.25	0.025	0.025	0.021	0.074	0.057	0.369	283	519	40	35
314	WN FLANGE	LF2150STDWF050I	A105N	2"	150	Sch STD	RF	2380	20	GOOD	GOOD	N	171	0.21	0.77	0.032	0.036	0.33	0.036	0.034	0.021	0.065	0.063	0.373	301	521	39	28
315	WN FLANGE	LF2150STDWF080I	A105N	3"	150	Sch STD	RF	2380	20	GOOD	GOOD	N	171	0.21	0.77	0.032	0.036	0.33	0.036	0.034	0.021	0.065	0.063	0.373	301	521	39	28
316	WN FLANGE	LF2150STDWF100I	A105N	4"	150	Sch STD	RF	2380	20	GOOD	GOOD	N	171	0.21	0.77	0.032	0.036	0.33	0.036	0.034	0.021	0.065	0.063	0.373	301	521	39	28
317	WN FLANGE	LF2150STDWF150I	A105N	6"	150	Sch STD	RF	2380	20	GOOD	GOOD	N	171	0.21	0.77	0.032	0.036	0.33	0.036	0.034	0.021	0.065	0.063	0.373	301	521	39	28
318	SW FLANGE	LF2150XSSWF025I	A105N	1"	150	Sch XS	RF	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
319	SW FLANGE	LF2150XSSWF040I	A105N	1"1/2	150	Sch XS	RF	2366	30	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
320	BLIND FLANGE	LF2150BRF025I	A105N	1"	150		RF	2392	20	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
321	BLIND FLANGE	LF2150BRF050I	A105N	2"	150		RF	2392	20	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
322	WN FLANGE	LF2300I4,78WF080I	A105N	3"	300	4,78 mm	RF	2381	20	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
323	WN FLANGE	LF2300I5,56WF150I	A105N	6"	300	5,56 mm	RF	2381	10	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
324	WN FLANGE	LF2300I20WF200I	A105N	8"	300	Sch 20	RF	2381	5	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
325	WN FLANGE	LF2300STDWF050I	A105N	2"	300	Sch STD	RF	2381	50	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
326	WN FLANGE	LF2300STDWF080I	A105N	3"	300	Sch STD	RF	2381	20	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
327	WN FLANGE	LF2300STDWF100I	A105N	4"	300	Sch STD	RF	2381	20	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
328	WN FLANGE	LF2300STDWF150I	A105N	6"	300	Sch STD	RF	2381	10	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
329	WN FLANGE	LF2300STDWF200I	A105N	8"	300	Sch STD	RF	2381	10	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
330	WN FLANGE	LF2300STDWF250I	A105N	10"	300	Sch STD	RF	2381	10	GOOD	GOOD	N	166	0.21	0.68	0.034	0.037	0.26	0.031	0.032	0.028	0.116	0.072	0.371	260	360	46	30
331	WN FLANGE	LF2300XSWF080I	A105N	3"	300	Sch XS	RF	2382	10	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32
332	WN FLANGE	LF2300XSWF150I	A105N	6"	300	Sch XS	RF	2382	10	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32
333	WN FLANGE	LF2300XSWF200I	A105N	8"	300	Sch XS	RF	2382	5	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32
334	WN FLANGE	LF2300XSWF250I	A105N	10"	300	Sch XS	RF	2382	5	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32
335	WN FLANGE	LF2300XSWF300I	A105N	12"	300	Sch XS	RF	2382	5	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32
336	WN FLANGE	LF2300XSWJ050I	A105N	2"	300	Sch XS	RJ	2382	10	GOOD	GOOD	N	177	0.22	0.61	0.031	0.036	0.25	0.034	0.036	0.024	0.112	0.073	0.368	330	536	42	32

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2391 QTA 5,000

ITEM 7 DESCRIZIONE FLANGIA ANSI BLIND FF ASTM A 105 Serie 150lbs da 1"

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204 MODEL 3.1

Certificate No.: 230928
Invoice No.: 139/2023
Date: Jan 16th, 2024

ITEM	Description	Codice	Material	Size	Rating	Thickness	Conn.	HEAT NO.	QTY	VISUAL DIMENSIONAL INSPECTION	BEND TEST FORMER (1.5) RESULT 180°	HEAT TREATMENT CONDITION (note 1)	HARDNESS 187 (max)	CHEMICAL COMPOSITION(%)											MECHANICAL			
														C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CE	Y. S (MPa)	T.S (MPa)	RA (%)	E (%)
														≤0.35	0.60-1.05	≤0.035	≤0.040	0.10-0.35	≤0.040	≤0.040	≤0.030	≤0.120	≤0.080		≥250	≥485	≥30	≥22
337	BLIND FLANGE	LF2300BRF015I	A105N	1/2"	300		RF	2392	50	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
338	BLIND FLANGE	LF2300BRF020I	A105N	3/4"	300		RF	2392	50	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
339	BLIND FLANGE	LF2300BRF050I	A105N	2"	300		RF	2392	20	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
340	BLIND FLANGE	LF2300BRF080I	A105N	3"	300		RF	2392	20	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
341	BLIND FLANGE	LF2300BRF100I	A105N	4"	300		RF	2392	10	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
342	BLIND FLANGE	LF2300BRF150I	A105N	6"	300		RF	2392	10	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
343	BLIND FLANGE	LF2300BRF250I	A105N	10"	300		RF	2392	5	GOOD	GOOD	N	169	0.22	0.73	0.032	0.039	0.26	0.023	0.033	0.026	0.116	0.070	0.388	340	534	36	36
344	SW FLANGE	LF2300XSSWF020I	A105N	3/4"	300	Sch XS	RF	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
345	SW FLANGE	LF2300XSSWF025I	A105N	1"	300	Sch XS	RF	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
346	WN FLANGE	LF2600160WJ300I	A105N	12"	600	Sch 60	RJ	2386	2	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
347	WN FLANGE	LF2600160WF015I	A105N	1/2"	600	Sch 160	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
348	WN FLANGE	LF2600160WF020I	A105N	3/4"	600	Sch 160	RF	2389	20	GOOD	GOOD	N	163	0.21	0.77	0.034	0.029	0.33	0.036	0.033	0.026	0.112	0.060	0.383	310	522	40	45
349	BLIND FLANGE	LF2600BRF015I	A105N	1/2"	600		RF	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
350	BLIND FLANGE	LF2600BRF020I	A105N	3/4"	600		RF	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
351	BLIND FLANGE	LF2600BRF025I	A105N	1"	600		RF	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
352	BLIND FLANGE	LF2600BRF0401	A105N	1"1/2	600		RF	2393	20	GOOD	GOOD	N	177	0.20	0.63	0.026	0.036	0.21	0.030	0.035	0.190	0.106	0.060	0.381	260	541	50	36
353	WN FLANGE	LF2600STDWF015I	A105N	1/2"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
354	WN FLANGE	LF2600STDWF020I	A105N	3/4"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
355	WN FLANGE	LF2600STDWF025I	A105N	1"	600	Sch STD	RF	2386	20	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
356	WN FLANGE	LF2600STDWF100I	A105N	4"	600	Sch STD	RF	2386	10	GOOD	GOOD	N	165	0.19	0.83	0.025	0.031	0.27	0.036	0.031	0.025	0.113	0.074	0.375	300	512	35	24
357	WN FLANGE	LF2600XSWF080I	A105N	3"	600	Sch XS	RF	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
358	WN FLANGE	LF2600XSWJ080I	A105N	3"	600	Sch XS	RJ	2390	10	GOOD	GOOD	N	176	0.23	0.62	0.026	0.028	0.24	0.033	0.029	0.022	0.116	0.070	0.379	270	533	36	40
359	SW FLANGE	LF2600XSSWF015I	A105N	1/2"	600	Sch XS	RF	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
360	SW FLANGE	LF2600XSSWF020I	A105N	3/4"	600	Sch XS	RF	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
361	SW FLANGE	LF2600XSSWF025I	A105N	1"	600	Sch XS	RF	2366	50	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29
362	SW FLANGE	LF2600XSSWF0401	A105N	1"1/2	600	Sch XS	RF	2366	20	GOOD	GOOD	N	166	0.23	0.62	0.029	0.030	0.26	0.036	0.034	0.026	0.110	0.070	0.379	260	500	34	29

Note 1: Normalized at 920 C - Cooled in still air

We hereby certify that the product described in the certificate has been manufactured in accordance with the appropriate specifications of the basic material and the test results shown herein are correct.

MCV Pipes & Fittings Trading L.L.C.
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INSPECTION BY:

Q.A. MANAGER:

industrial valves, pipes & fittings

IQSCERT ISO 9001:2015

PED certified

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 8,000

ITEM 8 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 2

MCV
industrial valves, pipes & fittings

SCERT ISO 9001:2015

PED certified

MILL TEST CERTIFICATE

EN 10204:2004/3.1

CUSTOMER: PANTALONE S.R.L.

INVOICE N. 50-2024
P.O. 2024-OMAG-0000066 / 2024-OMAG-0000067

PRODUCTS: CARBON STEEL FORGED FLANGES

Date: May 06, 2024

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
1	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 40 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
2	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 80 PN06	PCS	100	2031	SATISFACTION	SATISFACTION	-
3	FLANGE EN FLAT 01/A A 105N EN1092-1 DN200 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
4	FLANGE EN FLAT 01/A A 105N EN1092-1 DN250 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
5	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
6	FLANGE EN FLAT 01/A A105N EN1092-1 DN 250 PN10	PCS	50	2031	SATISFACTION	SATISFACTION	-
7	FLANGE EN FLAT 01/A A105N EN1092-1 DN 300 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
8	FLANGE EN FLAT 01/A A105N EN1092-1 DN 350 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
9	FLANGE EN FLAT 01/A A105N EN1092-1 DN 450 PN10	PCS	5	2031	SATISFACTION	SATISFACTION	-
10	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 25 PN40	PCS	500	2031	SATISFACTION	SATISFACTION	-
11	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 32 PN40	PCS	100	2031	SATISFACTION	SATISFACTION	-
12	FLANGE EN FLAT 01/A A105N EN1092-1 DN 50 PN16	PCS	500	2031	SATISFACTION	SATISFACTION	-
13	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 4 fori	PCS	150	2031	SATISFACTION	SATISFACTION	-
14	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 8 fori	PCS	100	2031	SATISFACTION	SATISFACTION	-
15	FLANGE EN FLAT 01/A A105N EN1092-1 DN 80 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
16	FLANGE EN FLAT 01/A A105N EN1092-1 DN100 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
17	FLANGE EN FLAT 01/A A105N EN1092-1 DN125 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
18	FLANGE EN FLAT 01/A A105N EN1092-1 DN150 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
19	FLANGE EN FLAT 01/A ASTM A 105 EN1092-1 DN300 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
20	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN16	PCS	10	2031	SATISFACTION	SATISFACTION	-
21	FLANGE EN FLAT 01/A A 105N EN1092-1 DN450 PN16	PCS	2	2031	SATISFACTION	SATISFACTION	-
22	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 80 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
23	FLANGE EN BLIND 05/A A 105N EN1092-1 DN125 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
24	FLANGE EN BLIND 05/A A 105N EN1092-1 DN200 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
25	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 15 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
26	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 20 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 8,000

ITEM 8 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 2

mcv
industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
27	FLANGE EN BLIND 05/A A105 EN1092-1 DN 65 PN16 8 FORI	PCS	50	2035	SATISFACTION	SATISFACTION	-
28	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 25 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
29	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 40 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-
30	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 80 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
31	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN100 PN16	PCS	100	2035	SATISFACTION	SATISFACTION	-
32	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN125 PN16	PCS	30	2035	SATISFACTION	SATISFACTION	-
33	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN150 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
34	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN200 PN16	PCS	20	2035	SATISFACTION	SATISFACTION	-
35	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN400 PN16	PCS	3	2035	SATISFACTION	SATISFACTION	-
36	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 300 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	15	2035	SATISFACTION	SATISFACTION	-
37	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	5	2035	SATISFACTION	SATISFACTION	-
38	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (THICKNESS 3,91 mm)	PCS	50	2035	SATISFACTION	SATISFACTION	-
39	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 80 PN06 (HDG GALVANIZED)	PCS	10	2031	SATISFACTION	SATISFACTION	-
40	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 32 PN40 (HDG GALVANIZED)	PCS	50	2031	SATISFACTION	SATISFACTION	-
41	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	PCS	100	2038	SATISFACTION	SATISFACTION	-
42	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"	PCS	200	2038	SATISFACTION	SATISFACTION	-
43	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"1/2	PCS	10	2038	SATISFACTION	SATISFACTION	-
44	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 4"	PCS	100	2038	SATISFACTION	SATISFACTION	-
45	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 8"	PCS	50	2038	SATISFACTION	SATISFACTION	-
46	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 10"	PCS	50	2038	SATISFACTION	SATISFACTION	-
47	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 24"	PCS	5	2038	SATISFACTION	SATISFACTION	-
48	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 32" B16.47 A	PCS	2	2038	SATISFACTION	SATISFACTION	-
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,18 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sp. 3,96 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sp. 8,74 mm	PCS	10	2038	SATISFACTION	SATISFACTION	-
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sp. 11,13 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
57	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sp. 11,13 mm	PCS	20	2038	SATISFACTION	SATISFACTION	-
58	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	100	2040	SATISFACTION	SATISFACTION	-
59	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	50	2040	SATISFACTION	SATISFACTION	-
60	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
61	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
62	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 30	PCS	20	2040	SATISFACTION	SATISFACTION	-
63	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch 30	PCS	30	2040	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 8,000

ITEM 8 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 2

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
64	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 60	PCS	20	2040	SATISFACTION	SATISFACTION	-
65	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1"1/2 Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
66	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
67	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	PCS	30	2040	SATISFACTION	SATISFACTION	-
68	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
69	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 32" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
70	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sch XS	PCS	100	2040	SATISFACTION	SATISFACTION	-
71	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 20" Sch XS	PCS	5	2040	SATISFACTION	SATISFACTION	-
72	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch 160	PCS	50	2040	SATISFACTION	SATISFACTION	-
73	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	40	2040	SATISFACTION	SATISFACTION	-
74	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	2	2040	SATISFACTION	SATISFACTION	-
75	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 6" Sch Std	PCS	20	2040	SATISFACTION	SATISFACTION	-
76	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
77	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
78	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2	PCS	50	2042	SATISFACTION	SATISFACTION	-
79	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 2"	PCS	100	2042	SATISFACTION	SATISFACTION	-
80	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 4"	PCS	50	2042	SATISFACTION	SATISFACTION	-
81	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 8"	PCS	20	2042	SATISFACTION	SATISFACTION	-
82	FLANGE ANSI BLIND RF ASTM A 105 Serie 300lbs da 24"	PCS	2	2042	SATISFACTION	SATISFACTION	-
83	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3" Sp. 3,96 mm	PCS	50	2042	SATISFACTION	SATISFACTION	-
84	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sp. 3,96 mm	PCS	30	2042	SATISFACTION	SATISFACTION	-
85	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sp. 5,56 mm	PCS	20	2042	SATISFACTION	SATISFACTION	-
86	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sp. 11,13 mm	PCS	5	2042	SATISFACTION	SATISFACTION	-
87	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sch 20	PCS	10	2042	SATISFACTION	SATISFACTION	-
88	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 24" Sch Std	PCS	2	2042	SATISFACTION	SATISFACTION	-
89	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
90	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch 160	PCS	50	2042	SATISFACTION	SATISFACTION	-
91	FLANGE ANSI SO RF ASTM A 105 Serie 300lbs da 4"	PCS	20	2042	SATISFACTION	SATISFACTION	-
92	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
93	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
94	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	300	2042	SATISFACTION	SATISFACTION	-
95	FLANGE ANSI SW RF ASTM A 105 Serie 600lbs da 1/2" Sch XS	PCS	1000	2042	SATISFACTION	SATISFACTION	-
			7453				

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 8,000

ITEM 8 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 2

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

CHEMICAL COMPOSITION AND MECHANICAL PROPERTY OF THE RAW MATERAL

	BATCH NO.	CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY			HARDNESS
		C %	Si %	Mn %	S %	P %	Cr %	Mo %	V %	Ni %	Cu %	-	-	Tensile Strength	Yield Strength	Rate of reduction in area	
A105N	MIN		0,100	0,600										485	250	20	
	MAX	0,350	0,350	1,050	0,040	0,035	0,300		0,080	0,400	0,400			620			
	2031	0,190	0,180	0,780	0,010	0,011	0,080		0,020	0,110	0,120			585	268	25	
A105	MIN		0,100	0,600										485	250	30	137
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,120	0,080	0,400	0,400	-	-				187
	2035	0,170	0,160	0,750	0,011	0,012	0,090	0,080	0,030	0,009	0,110			560	265	32	168
	2038	0,180	0,180	0,760	0,012	0,010	0,100	0,070	0,040	0,010	0,120			565	264	31	169
	2040	0,170	0,200	0,680	0,011	0,013	0,080	0,060	0,020	0,011	0,100			550	268	33	170
	2042	0,190	0,200	0,720	0,010	0,011	0,090	0,065	0,022	0,013	0,090			555	269	32	165

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

MCV Pipes & Fittings Trading LLC.
Trn 104051413000003
commercial license 1084407

1009, Block B, Youssef Zahra Building,
Al Ghaz Third
P.O. Box 124371, Dubai, UAE

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MCV industrial valves, pipes & fittings

INSPECTION BY:

REVIEWED BY:

Q.A.MANAGER:

MCV Pipes & Fittings Trading L.L.C.
no. 1009, Block B, Youssef Zahra Building,
Al Ghaz Third, P.O. Box 124328, Dubai, UAE

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

OFFICINE SANTAFEDE
FLANGES MADE IN ITALY
OFFICINE SANTAFEDE S.R.L.
VIA FREGERA, 1 - 23819 PRIMALUNA - LC - ITALY
TEL. + 39.0341.988411 - FAX + 39.0341.979919
INFO@OFFICINESANTAFEDE.COM
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WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100
DATA/DATE 14/05/2024	CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0004 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 4

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
78190	A/SA 105N	RIVA	70	ASME B16.5 A/SA 105N 150 BL RF 3"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,190	1,050	0,290	0,010	0,005	0,120	0,070	0,020	0,004	0,015	0,160	0,029	0,008	0,001	0,010	0,002	0,0000	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
386	551	34,3	73	KV (J)	0	54,0	62,0	58,0	58,0	164 165

Note

Item 0008 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 8

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
815554	A/SA 105N	ABS SISAK D.O.O.	13	ASME B16.5 A/SA 105N 150 BL RF 10"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,178	1,150	0,240	0,014	0,002	0,110	0,100	0,020	0,003	0,011	0,180	0,026	0,013	0,002	0,008	0,003	0,0001	0,416

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
335	507	33,0	69	KV	0	51,0	60,0	55,0	55,3	145 147 147

Note

Item 0008 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 8

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
289835	A/SA 105N	VENETE	2	ASME B16.5 A/SA 105N 150 BL RF 10"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,170	1,031	0,233	0,010	0,002	0,180	0,156	0,029	0,002	0,023	0,155	0,025	0,007	0,004	0,007	0,001	0,0002	0,408

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
313	492	36,7	74	KV	0	52,0	59,0	56,0	55,7	146 147 145

Note

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER M.FACCHI	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

OFFICINE SANTAFEDE
FLANGES MADE IN ITALY
OFFICINE SANTAFEDE S.R.L.
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INFO@PEC.OFFICINESANTAFEDE.COM
WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100
DATA/DATE 14/05/2024	CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0024 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 25

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
79200	A/SA 105N	RIVA	30	ASME B16.5 A/SA 105N 300 BL RF 3"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,190	1,050	0,250	0,011	0,005	0,120	0,070	0,020	0,005	0,018	0,150	0,024	0,006	0,001	0,010	0,002	0,0000	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
343	506	36,5	68	KV(J)	0	54,0	51,0	53,0	52,7	146 147

Note

Item 0025 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 26

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
38270	A/SA 105N	RIVA ACCIAIO S.P.A.	15	ASME B16.5 A/SA 105N 300 BL RF 6"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,195	1,050	0,250	0,011	0,005	0,100	0,060	0,010	0,007	0,021	0,170	0,026	0,011	0,001	0,009	0,002	0,0002	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
349	506	38,0	70	KV (J)	0	54,0	60,0	58,0	57,3	144 144 141

Note

Item 0028 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 29

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
5023684	A/SA 105N	VENETE	50	ASME B16.5 A/SA 105N 300 WN RF 3" SCH STD	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,181	1,052	0,204	0,012	0,003	0,123	0,154	0,025	0,001	0,012	0,142	0,030	0,007	0,001	0,009	0,002	0,0002	0,408

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
380	534	37,0	75	KV	0	62,0	55,0	59,0	58,7	168 164 166

Note

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER M.ROSSI	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

OFFICINE SANTAFEDE
FLANGES MADE IN ITALY
OFFICINE SANTAFEDE S.R.L.
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WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100
DATA/DATE 14/05/2024	CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0032 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 33

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
022301550	A/SA 105N	CALVISANO	20	ASME B16.5 A/SA 105N 300 WN RF 6" SCH XS	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,200	1,100	0,250	0,015	0,002	0,110	0,090	0,020	0,002	0,016	0,130	0,026		0,001	0,008	0,003	0,0004	0,427

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
344	500	32,0	69	KV	0	52,0	58,0	55,0	55,0	145 146 148

Note

Item 0036 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 37

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
71003	A/SA 105N	RIVA	20	ASME B16.5 A/SA 105N 600 BL RF 2"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,200	1,030	0,290	0,021	0,003	0,120	0,100	0,020	0,005	0,016	0,150	0,021	0,007	0,002	0,010	0,002	0,0000	0,419

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
324	506	34,0	70	KV	0	54,0	59,0	51,0	54,7	145 148 146

Note

Item 0040 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 41

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
807850	A/SA 105N	A.B.S. S.P.A.	10	ASME B16.5 A/SA 105N 600 WN RF 8" SCH XS	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,183	1,160	0,220	0,010	0,004	0,130	0,170	0,020	0,003	0,003	0,160	0,025	0,010	0,002	0,005	0,002	0,0001	0,428

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
289	515	59,6	51	KV(J)	0	61,0	56,0	59,0	58,7	151 161

Note

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

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WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582 DATA/DATE 14/05/2024	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100 CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0043 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 44

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
78190	A/SA 350 LF2 CL.1	RIVA	20	ASME B16.5 A/SA 350 LF2 CL.1 150 BL RF 3"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,190	1,050	0,290	0,010	0,005	0,120	0,070	0,020	0,004	0,015	0,160	0,029	0,008	0,001	0,010	0,002	0,0000	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
329	521	31,7	57	KV(J)	-46	52,8	55,5	56,4	54,9	161 162

Note

Item 0046 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 47

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
71003	A/SA 350 LF2 CL.1	RIVA	60	ASME B16.5 A/SA 350 LF2 CL.1 150 WN RF 3" SCH STD	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,200	1,030	0,290	0,021	0,003	0,120	0,100	0,020	0,005	0,016	0,150	0,021	0,007	0,002	0,010	0,002	0,0000	0,419

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
330	506	36,0	71	KV	-46	65,8	51,2	73,4	63,5	146 144 145

Note

Item 0049 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 50

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
274728	A/SA 350 LF2 CL.1	VENETE	4	ASME B16.5 A/SA 350 LF2 CL.1 150 WN RF 10" SCH STD	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,171	1,171	0,216	0,010	0,008	0,129	0,130	0,024	0,002	0,005	0,122	0,025	0,007	0,002	0,009			0,414

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
286	513	40,4	52	KV(j)	-46	85,0	94,0	99,0	92,7	154 167

Note

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

OFFICINE SANTAFEDE
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INFO@PEC.OFFICINESANTAFEDE.COM
WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582 DATA/DATE 14/05/2024	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100 CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0049 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 50

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
265434	A/SA 350 LF2 CL.1	A.B.S. S.P.A.	6	ASME B16.5 A/SA 350 LF2 CL.1 150 WN RF 10" SCH STD	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,181	1,150	0,180	0,010	0,003	0,080	0,130	0,020	0,003	0,004	0,140	0,024	0,006	0,003	0,010	0,001	0,0001	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
329	504	33,0	68	KV	-46	55,8	87,1	63,9	68,9	146 147 145

Note

Item 0050 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 51

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
79200	A/SA 350 LF2 CL.1	RIVA	60	ASME B16.5 A/SA 350 LF2 CL.1 150 WN RF 2" SCH XS	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,190	1,050	0,250	0,011	0,005	0,120	0,070	0,020	0,005	0,018	0,150	0,024	0,006	0,001	0,010	0,002	0,0000	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
343	506	36,5	68	KV(J)	-46	78,3	49,4	67,7	65,1	146 145 144

Note

Item 0054 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 55

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
022105811	A/SA 350 LF2 CL.1	CALVISANO	15	ASME B16.5 A/SA 350 LF2 CL.1 300 SO RF 6"	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,180	1,080	0,250	0,010	0,002	0,150	0,110	0,030	0,002	0,017	0,200	0,028		0,001	0,009	0,002	0,0003	0,420

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	ROTTURA TS - Rm [MPa]	ALLUNGAMENTO E - A [%]	STRIZIONE RA - Z [%]	IMPACT TEST TYPE	TEMP [°C]	TEST 1 [J]	TEST 2 [J]	TEST 3 [J]	MEDIA AV [J]	DUREZZA HARDNESS [HB]
418	554	35,0	75	KV(J)	-46	93,0	95,0	97,0	95,0	168 169

Note

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER M.FACCHI	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA
ITEM 9 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 6 COLATA 38270 QTA 6,000

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WWW.OFFICINESANTAFEDE.COM

DESCRIZIONE/DESCRIPTION

CERTIFICATO DI COLLAUDO TEST CERT. EN 10204/3.1	Cliente/Customer
N. D034582 DATA/DATE 14/05/2024	PANTALONE S.R.L. UNIPERSONALE VIA DON PRIMO MAZZOLARI, 21 - ZONA IND.LE SELVAIEZZI CHIETI SCALO 66100 CH

MATERIAL CONFORMING TO ASME SECTION II PART A ED. 2023 AND TO NACE MR0175/ISO 15156 -2020 & NACE MR0103-2016

Item 0055 Commessa 24C0146 Ordine/Order 2024-OMAG-0000073 C/DEPOSITO Item Cli./Cust.Item 56

COLATA/HEAT	MATERIALE/MATERIAL	ACCIAIERIA/STEEL PLANT	N/QTY	DESCRIZIONE/DESCRIPTION	TT/HT
38270	A/SA 350 LF2 CL.1	RIVA ACCIAIO S.P.A.	30	ASME B16.5 A/SA 350 LF2 CL.1 300 WN RF 3" SCH STD	1

Analisi Chimiche / Chemical tests

C	Mn	Si	P	S	Cr	Ni	Mo	Ti	V	Cu	Al	Sn	Nb	N	Ca	B	C.Eq.
0,195	1,050	0,250	0,011	0,005	0,100	0,060	0,010	0,007	0,021	0,170	0,026	0,011	0,001	0,009	0,002	0,0002	0,411

Prove Meccaniche / Mechanical Tests

SNERVAMENTO YS - Rp 0.2% [MPa]	*ROTTURA TS - Rm [MPa]*	*ALLUNGAMENTO E - A [%]*	*STRIZIONE RA - Z [%]*	*IMPACT TEST TYPE*	*TEMP [°C]*	*TEST 1 [J]*	*TEST 2 [J]*	*TEST 3 [J]*	*MEDIA AV [J]*	*DUREZZA HARDNESS [HB]*
337	505	34,0	67	KV	-46	59,5	40,5	90,3	63,4	144 145 144

Note

MANUFACTURER APPROVED PED 2014/68/EU SECTION 4.3

ALL MATERIAL DELIVERED AS PER THE ABOVE PO IS IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

a) Trattamento termico / *Heat treatment*
1) Normalizzato a 920°C e raffreddato in aria calma
Normalized at 920°C and cooled in still air
2) Solubilizzato / *Solution treated and quenched*
3) Bonificato / *Quenched and tempered*
4) Normalizzato e rinvenuto / *Normalized and tempered*
5) Vedi descrizione / *See description*

b) I valori delle analisi chimiche sono ricavati dal certificato di Acciaieria
Chemical analisys values are taken from base certificate
c) C. E. = C + Mn/6+ (Cr+ Mo+V)/5+ (Ni + Cu)/15
d) Prove secondo ASTM A 370 / *Test conforming to ASTM A 370*
e) Diametro provino 12,5 mm. / *Specimen diameter 12,5 mm.*
Lunghezza provino 50 mm / *Specimen length 50 mm*
Reduced specimens may be used when necessary
f) Dimensioni del provino 10x10x55 mm.
Specimen dimensions 10x10x55 mm.

CONTROLLO VISIVO E DIMENSIONALE: SODDISFACENTE/VISUAL AND DIMENSIONAL CHECK: SATISFACTORY
Acciaio elaborato al forno elettrico a calmato / Killed steel made by electric furnace

TRADE MARK	REDATTO DA/ PRINTED BY	APPROVATO DA/ APPROVED BY	ENTE COLLAUDATORE/ INSPECTING AGENCY
SF	M.BENEDETTI	QA/QC MANAGER	

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A COLATA 21A02988 ROSETTI MARINO SPA QTA 8,000
ITEM 10 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 3/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU, Annex1,Paragraph 4.3 by TüV NORD Group (Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU, Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe (Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-21-Y084 Page: 1/16

Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
INVOICE NO:DXBC-Y084-2021	2021-04-27	2021-Y084	A105N	ASME/ASTM A105:2018/NACE MR0175
Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch		Specification/Anforderung:	ASME B16.5:2017
State of delivery/Lieferzustand:	HOT FORGED		Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. [redacted]			
Stamp of Manufacturer/Herstellerzeichen:			Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr	Code
6	200	A105N B16.5 150# BL RF 1-1/2"	21A02988	BC21Y08401	150BRF040I
7	300	A105N B16.5 150# BL RF 2"	21A02988	BC21Y08401	150BRF050I
8	200	A105N B16.5 150# BL RF 3"	21A02988	BC21Y08401	150BRF080I
9	200	A105N B16.5 150# BL RF 4"	21A02988	BC21Y08401	150BRF100I
27	500	A105N B16.5 150# WN RF STD 3"	21A02988	BC21Y08401	150STDWF080I

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	21A02988	0.18	0.24	0.89	0.009	0.002	0.050	0.002	0.011				0.018		0.002		0.34

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-20℃) J				Hardness/Haerte HB
									Σ/N (≧27J)	
	BC21Y08401	333	500	30.5	63.5	123	130	145	133	144/148/148

Visual and dimensional inspection/Besichtigung und Ausmessung: without complaint/ohne Beanstandung

Place/Ort: DINGXIANG Date/Datum: 2021-6-6

Works Inspector/Werkssachverstaendiger

DINGXIANG BEICHENG FLANGE CO., LTD

PANTALONE SRL ITEM 10 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 3/4 Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A COLATA 21A02988 ROSETTI MARINO SPA QTA 8,000

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

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Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU, Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe (Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-21-Y084 Page: 2/16

Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
INVOICE NO:DXBC-Y084-2021	2021-04-27	2021-Y084	A105N	ASME/ASTM A105:2018/NACE MR0175

Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch	Specification/Anforderung:	ASME B16.5:2017
State of delivery/Lieferzustand:	HOT FORGED	Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. [redacted]		
Stamp of Manufacturer/Herstellerzeichen:		Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr	Code
31	200	A105N B16.5 150# SW RF SCHXS 1/2"	21A02988	BC21Y08401	150XSSWF015I
32	200	A105N B16.5 150# SW RF SCHXS 3/4"	21A02988	BC21Y08401	150XSSWF020I
33	300	A105N B16.5 150# SW RF SCHXS 1"	21A02988	BC21Y08401	150XSSWF025I
34	100	A105N B16.5 150# WN RF SCHXS 1-1/2"	21A02988	BC21Y08401	150XSWF040I
35	50	A105N B16.5 150# WN RF SCHXS 3"	21A02988	BC21Y08401	150XSWF080I

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	21A02988	0.18	0.24	0.89	0.009	0.002	0.050	0.002	0.011				0.018		0.002		0.34

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-20℃) J				Hardness/Haerte HB
									Σ/N (≧27J)	
	BC21Y08401	333	500	30.5	63.5	123	130	145	133	144/148/148

Visual and dimensional inspection/Besichtigung und Ausmessung: without complaint/ohne Beanstandung

Place/Ort: DINGXIANG Date/Datum: 2021-6-6 Works Inspector/Werkssachverstaendiger

DINGXIANG BEICHENG FLANGE CO.,LTD

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A COLATA 21A02988 QTA 8,000
ITEM 10 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 3/4 ROSETTI MARINO SPA

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU,
Annex1,Paragraph 4.3 by TüV NORD Group
(Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU,
Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe
(Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-21-Y084 Page: 3/16
Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
INVOICE NO:DXBC-Y084-2021	2021-04-27	2021-Y084	A105N	ASME/ASTM A105:2018/NACE MR0175

Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch	Specification/Anforderung:	ASME B16.5:2017
State of delivery/Lieferzustand:	HOT FORGED	Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. [redacted]		
Stamp of Manufacturer/Herstellerzeichen:		Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr	Code
39	300	A105N B16.5 300# BL RF 3/4"	21A02988	BC21Y08401	300BRF020I
40	200	A105N B16.5 300# BL RF 1"	21A02988	BC21Y08401	300BRF025I
41	100	A105N B16.5 300# BL RF 1-1/2"	21A02988	BC21Y08401	300BRF040I
47	20	A105N B16.5 300# WN RF STD 2-1/2"	21A02988	BC21Y08401	300STDWF065I
55	200	A105N B16.5 600# SW RF SCHXS 3/4"	21A02988	BC21Y08401	600XSSWF020I

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	21A02988	0.18	0.24	0.89	0.009	0.002	0.050	0.002	0.011				0.018		0.002		0.34

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-20℃)				Hardness/Haerte HB
						1			Σ/N (≧27J)	
	BC21Y08401	333	500	30.5	63.5	~~123~~	130	145	133	144/148/148

Visual and dimensional inspection/Besichtigung und Ausmessung: without complaint/ohne Beanstandung

Place/Ort: DING XIANG **Date/Datum: 2021-6-6** **Works Inspector/Werkssachverstaendiger**

DINGXIANG BEICHENG FLANGE CO.,LTD

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A COLATA 21A02988 ROSETTI MARINO SPA QTA 8,000
ITEM 10 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 3/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU, Annex1,Paragraph 4.3 by TüV NORD Group (Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU, Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe (Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-21-Y084 Page: 4/16

Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
INVOICE NO:DXBC-Y084-2021	2021-04-27	2021-Y084	A105N	ASME/ASTM A105:2018/NACE MR0175

Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch	Specification/Anforderung:	ASME B16.5:2017/EN1092-1:2018
State of delivery/Lieferzustand:	HOT FORGED	Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. [redacted]		
Stamp of Manufacturer/Herstellerzeichen:		Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr	Code
56	50	A105N B16.5 600# SW RF SCHXS 1"	21A02988	BC21Y08401	600XSSWF025I
58	100	A105N B16.5 600# SW RF SCHXS 1-1/2"	21A02988	BC21Y08401	600XSSWF040I
59	10	A105N B16.5 600# SW RF SCHXS 2"	21A02988	BC21Y08401	600XSSWF050I
60	50	A105N EN1092-1 TYPE05/A PN16 DN50	21A02988	BC21Y08401	FC92A160050I
63	100	A105N EN1092-1 TYPE05/A PN6 DN50	21A02988	BC21Y08401	FC92A60050I

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	21A02988	0.18	0.24	0.89	0.009	0.002	0.050	0.002	0.011				0.018		0.002		0.34

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-20℃) J				Hardness/Haerte HB
									Σ/N (≥27J)	
	BC21Y08401	333	500	30.5	63.5	123	130	145	133	144/148/148

Visual and dimensional inspection/Besichtigung und Ausmessung: without complaint/ohne Beanstandung

Place/Ort: DING XIANG **Date/Datum: 2021-6-6**

Works Inspector/Werkssachverstaendiger

宁晋北诚法兰有限公司 DINGXIANG BEICHENG FLANGE CO.,LTD

PANTALONE SRL | Doc.. N° 2024-DDTO-0000254 | Data 14.10.2024 | Rif. Vs. Ordine 1724001850 123A90A | COLATA 21A02988 | ROSETTI MARINO SPA | QTA 8,000
ITEM 10 | DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 3/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

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Certificate No.: BC-21-Y084 Page: 5/16

Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
INVOICE NO:DXBC-Y084-2021	2021-04-27	2021-Y084	A105N	ASME/ASTM A105:2018/NACE MR0175

Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch	Specification/Anforderung:	EN1092-1:2018
State of delivery/Lieferzustand:	HOT FORGED	Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. [redacted]		
Stamp of Manufacturer/Herstellerzeichen:		Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr	Code
64	500	A105N EN1092-1 TYPE01/A PN16 DN50	21A02988	BC21Y08401	FP92A160050I
65	400	A105N EN1092-1 TYPE01/A PN16 4HOLES DN65	21A02988	BC21Y08401	FP92A160065I
66	500	A105N EN1092-1 TYPE01/A PN16 DN80	21A02988	BC21Y08401	FP92A160080I
67	400	A105N EN1092-1 TYPE01/A PN16 DN100	21A02988	BC21Y08401	FP92A160100I
72	500	A105N EN1092-1 TYPE01/A PN40 DN40	21A02988	BC21Y08401	FP92A400040I

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	21A02988	0.18	0.24	0.89	0.009	0.002	0.050	0.002	0.011				0.018		0.002		0.34

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-20℃) J				Hardness/Haerte HB
									Σ/N (≥27J)	
	BC21Y08401	333	500	30.5	63.5	123	130	145	133	144/148/148

Visual and dimensional inspection/Besichtigung und Ausmessung: **without complaint/ohne Beanstandung**

Place/Ort: DING XIANG **Date/Datum: 2021-6-6** **Works Inspector/Werkssachverstaendiger**

DINGXIANG BEICHENG FLANGE CO., LTD

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 10,000

ITEM 11 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 4

MCV
industrial valves, pipes & fittings

AQSCERT ISO 9001:2015

PED certified

MILL TEST CERTIFICATE

EN 10204:2004/3.1

CUSTOMER: PANTALONE S.R.L.

INVOICE N. 50-2024
P.O. 2024-OMAG-0000066 / 2024-OMAG-0000067

PRODUCTS: CARBON STEEL FORGED FLANGES

Date: May 06, 2024

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
1	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 40 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
2	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 80 PN06	PCS	100	2031	SATISFACTION	SATISFACTION	-
3	FLANGE EN FLAT 01/A A 105N EN1092-1 DN200 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
4	FLANGE EN FLAT 01/A A 105N EN1092-1 DN250 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
5	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
6	FLANGE EN FLAT 01/A A105N EN1092-1 DN 250 PN10	PCS	50	2031	SATISFACTION	SATISFACTION	-
7	FLANGE EN FLAT 01/A A105N EN1092-1 DN 300 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
8	FLANGE EN FLAT 01/A A105N EN1092-1 DN 350 PN10	PCS	10	2031	SATISFACTION	SATISFACTION	-
9	FLANGE EN FLAT 01/A A105N EN1092-1 DN 450 PN10	PCS	5	2031	SATISFACTION	SATISFACTION	-
10	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 25 PN40	PCS	500	2031	SATISFACTION	SATISFACTION	-
11	FLANGE EN FLAT 01/A A 105N EN1092-1 DN 32 PN40	PCS	100	2031	SATISFACTION	SATISFACTION	-
12	FLANGE EN FLAT 01/A A105N EN1092-1 DN 50 PN16	PCS	500	2031	SATISFACTION	SATISFACTION	-
13	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 4 fori	PCS	150	2031	SATISFACTION	SATISFACTION	-
14	FLANGE EN FLAT 01/A A105N EN1092-1 DN 65 PN16 8 fori	PCS	100	2031	SATISFACTION	SATISFACTION	-
15	FLANGE EN FLAT 01/A A105N EN1092-1 DN 80 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
16	FLANGE EN FLAT 01/A A105N EN1092-1 DN100 PN16	PCS	300	2031	SATISFACTION	SATISFACTION	-
17	FLANGE EN FLAT 01/A A105N EN1092-1 DN125 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
18	FLANGE EN FLAT 01/A A105N EN1092-1 DN150 PN16	PCS	200	2031	SATISFACTION	SATISFACTION	-
19	FLANGE EN FLAT 01/A ASTM A 105 EN1092-1 DN300 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
20	FLANGE EN FLAT 01/A A 105N EN1092-1 DN400 PN16	PCS	10	2031	SATISFACTION	SATISFACTION	-
21	FLANGE EN FLAT 01/A A 105N EN1092-1 DN450 PN16	PCS	2	2031	SATISFACTION	SATISFACTION	-
22	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 80 PN06	PCS	50	2031	SATISFACTION	SATISFACTION	-
23	FLANGE EN BLIND 05/A A 105N EN1092-1 DN125 PN06	PCS	10	2031	SATISFACTION	SATISFACTION	-
24	FLANGE EN BLIND 05/A A 105N EN1092-1 DN200 PN06	PCS	5	2031	SATISFACTION	SATISFACTION	-
25	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 15 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
26	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 20 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 10,000

ITEM 11 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 4

MCV industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
27	FLANGE EN BLIND 05/A A105 EN1092-1 DN 65 PN16 8 FORI	PCS	50	2035	SATISFACTION	SATISFACTION	-
28	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 25 PN40	PCS	50	2035	SATISFACTION	SATISFACTION	-
29	FLANGE EN BLIND 05/A A 105N EN1092-1 DN 40 PN40	PCS	50	2031	SATISFACTION	SATISFACTION	-
30	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN 80 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
31	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN100 PN16	PCS	100	2035	SATISFACTION	SATISFACTION	-
32	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN125 PN16	PCS	30	2035	SATISFACTION	SATISFACTION	-
33	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN150 PN16	PCS	50	2035	SATISFACTION	SATISFACTION	-
34	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN200 PN16	PCS	20	2035	SATISFACTION	SATISFACTION	-
35	FLANGE EN BLIND 05/A ASTM A 105 EN1092-1 DN400 PN16	PCS	3	2035	SATISFACTION	SATISFACTION	-
36	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 300 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	15	2035	SATISFACTION	SATISFACTION	-
37	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 350 PN16 Sch Std (THICKNESS 9,52 mm)	PCS	5	2035	SATISFACTION	SATISFACTION	-
38	FLANGE EN WELDING NECK 11/B A 105 EN1092-1 DN 50 PN40 Sch Std (THICKNESS 3,91 mm)	PCS	50	2035	SATISFACTION	SATISFACTION	-
39	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 80 PN06 (HDG GALVANIZED)	PCS	10	2031	SATISFACTION	SATISFACTION	-
40	FLANGE EN THREADED 13/B A 105N ZNB EN1092-1 DN 32 PN40 (HDG GALVANIZED)	PCS	50	2031	SATISFACTION	SATISFACTION	-
41	FLANGE ANSI BLIND RF ASTMA105 Serie 150lbs da 1"	PCS	100	2038	SATISFACTION	SATISFACTION	-
42	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"	PCS	200	2038	SATISFACTION	SATISFACTION	-
43	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 2"1/2	PCS	10	2038	SATISFACTION	SATISFACTION	-
44	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 4"	PCS	100	2038	SATISFACTION	SATISFACTION	-
45	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 8"	PCS	50	2038	SATISFACTION	SATISFACTION	-
46	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 10"	PCS	50	2038	SATISFACTION	SATISFACTION	-
47	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 24"	PCS	5	2038	SATISFACTION	SATISFACTION	-
48	FLANGE ANSI BLIND RF ASTM A 105 Serie 150lbs da 32" B16.47 A	PCS	2	2038	SATISFACTION	SATISFACTION	-
49	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,18 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
50	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
51	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 3,96 mm	PCS	100	2038	SATISFACTION	SATISFACTION	-
52	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 6" Sp. 3,96 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
53	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 3" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
54	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sp. 4,78 mm	PCS	200	2038	SATISFACTION	SATISFACTION	-
55	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sp. 8,74 mm	PCS	10	2038	SATISFACTION	SATISFACTION	-
56	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sp. 11,13 mm	PCS	50	2038	SATISFACTION	SATISFACTION	-
57	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sp. 11,13 mm	PCS	20	2038	SATISFACTION	SATISFACTION	-
58	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	100	2040	SATISFACTION	SATISFACTION	-
59	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	50	2040	SATISFACTION	SATISFACTION	-
60	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 14" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
61	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch 20	PCS	20	2040	SATISFACTION	SATISFACTION	-
62	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch 30	PCS	20	2040	SATISFACTION	SATISFACTION	-
63	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 10" Sch 30	PCS	30	2040	SATISFACTION	SATISFACTION	-

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 10,000

ITEM 11 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 4

MCV industrial valves, pipes & fittings

PED certified

IQSCERT ISO 9001:2015

NO.	PRODUCT NAME	UNIT	QUANTITY	HEAT NO.	SURFACE QUALITY	GEOMETRY DIMENSION	-
64	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 12" Sch 60	PCS	20	2040	SATISFACTION	SATISFACTION	-
65	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1"1/2 Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
66	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	100	2040	SATISFACTION	SATISFACTION	-
67	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 16" Sch Std	PCS	30	2040	SATISFACTION	SATISFACTION	-
68	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
69	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 32" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
70	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 4" Sch XS	PCS	100	2040	SATISFACTION	SATISFACTION	-
71	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 20" Sch XS	PCS	5	2040	SATISFACTION	SATISFACTION	-
72	FLANGE ANSI WN RF ASTM A 105 Serie 150lbs da 1" Sch 160	PCS	50	2040	SATISFACTION	SATISFACTION	-
73	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch 20	PCS	40	2040	SATISFACTION	SATISFACTION	-
74	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 12" Sch 20	PCS	2	2040	SATISFACTION	SATISFACTION	-
75	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 6" Sch Std	PCS	20	2040	SATISFACTION	SATISFACTION	-
76	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 8" Sch Std	PCS	10	2040	SATISFACTION	SATISFACTION	-
77	FLANGE ANSI WN FF ASTM A 105 Serie 150lbs da 18" Sch Std	PCS	5	2040	SATISFACTION	SATISFACTION	-
78	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/2	PCS	50	2042	SATISFACTION	SATISFACTION	-
79	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 2"	PCS	100	2042	SATISFACTION	SATISFACTION	-
80	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 4"	PCS	50	2042	SATISFACTION	SATISFACTION	-
81	FLANGE ANSI BLIND RF ASTMA105 Serie 300lbs da 8"	PCS	20	2042	SATISFACTION	SATISFACTION	-
82	FLANGE ANSI BLIND RF ASTM A 105 Serie 300lbs da 24"	PCS	2	2042	SATISFACTION	SATISFACTION	-
83	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 3" Sp. 3,96 mm	PCS	50	2042	SATISFACTION	SATISFACTION	-
84	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 4" Sp. 3,96 mm	PCS	30	2042	SATISFACTION	SATISFACTION	-
85	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 6" Sp. 5,56 mm	PCS	20	2042	SATISFACTION	SATISFACTION	-
86	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sp. 11,13 mm	PCS	5	2042	SATISFACTION	SATISFACTION	-
87	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 10" Sch 20	PCS	10	2042	SATISFACTION	SATISFACTION	-
88	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 24" Sch Std	PCS	2	2042	SATISFACTION	SATISFACTION	-
89	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
90	FLANGE ANSI WN RF ASTM A 105 Serie 300lbs da 2" Sch 160	PCS	50	2042	SATISFACTION	SATISFACTION	-
91	FLANGE ANSI SO RF ASTM A 105 Serie 300lbs da 4"	PCS	20	2042	SATISFACTION	SATISFACTION	-
92	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1/2" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
93	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 3/4" Sch XS	PCS	100	2042	SATISFACTION	SATISFACTION	-
94	FLANGE ANSI SW RF ASTM A 105 Serie 300lbs da 1" Sch XS	PCS	300	2042	SATISFACTION	SATISFACTION	-
95	FLANGE ANSI SW RF ASTM A 105 Serie 600lbs da 1/2" Sch XS	PCS	1000	2042	SATISFACTION	SATISFACTION	-
			7453				

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2042 QTA 10,000

ITEM 11 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 4

mcv industrial valves, pipes & fittings

PED certified

AQSCERT ISO 9001:2015

CHEMICAL COMPOSITION AND MECHANICAL PROPERTY OF THE RAW MATERAL

	BATCH NO.	CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY			HARDNESS
		C %	Si %	Mn %	S %	P %	Cr %	Mo %	V %	Ni %	Cu %	-	-	Tensile Strength	Yield Strength	Rate of reduction in area	
A105N	MIN		0,100	0,600										485	250	20	
	MAX	0,350	0,350	1,050	0,040	0,035	0,300		0,080	0,400	0,400			620			
	2031	0,190	0,180	0,780	0,010	0,011	0,080		0,020	0,110	0,120			585	268	25	
A105	MIN		0,100	0,600										485	250	30	137
	MAX	0,350	0,350	1,050	0,040	0,035	0,300	0,120	0,080	0,400	0,400	-	-				187
	2035	0,170	0,160	0,750	0,011	0,012	0,090	0,080	0,030	0,009	0,110			560	265	32	168
	2038	0,180	0,180	0,760	0,012	0,010	0,100	0,070	0,040	0,010	0,120			565	264	31	169
	2040	0,170	0,200	0,680	0,011	0,013	0,080	0,060	0,020	0,011	0,100			550	268	33	170
	2042	0,190	0,200	0,720	0,010	0,011	0,090	0,065	0,022	0,013	0,090			555	269	32	165

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

MCV Pipes & Fittings Trading L.L.C.
trn 1040614133000003
commercial license 1084407

1009, Block B, Youssef Zahra Building,
Al Ghaz Third
P.O. Box 124328, Dubai, UAE

UAE office: +971 (0)4 299 0285
UAE mobile: +971 (0)56 6657277
ITA mobile: +39 393 91 65 707
info@mcvbruker.com
www.mcvtrading.ae

mcv industrial valves, pipes & fittings

INSPECTION BY:

REVIEWED BY:

Q.A.MANAGER:

MCV Pipes & Fittings Trading L.L.C.
no. 1009, Block B, Youssef Zahra Building,
Al Ghaz Third [illegible] P.O. Box 124328, Dubai, UAE

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 20101258 QTA 1,000

ITEM 13 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU,
Annex1,Paragraph 4.3 by TüV NORD Group
(Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU,
Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe
(Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-20-Y069 Page: 19/81
Pruef-Nr. Seite

Customer/Besteller:					
Order No./Bestell Nr.:		dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
DXBC-Y069-2020		08/04/2020	2020-Y069	A105N	ASTM A105:2018/NACE MR0175
Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch			Specification/Anforderung:	ASME B16.5:2017
State of delivery/Lieferzustand:	HOT FORGED			Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. 				
Stamp of Manufacturer/Herstellerzeichen:				Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-N	Test No/ProbeNr	Code
183	100	A105N B16.5 300LBS WN RF THK3.18mm 2"	20101258	BC20Y06902	3003,18WF050
191	200	A105N B16.5 300LBS BL RF 1/2"	20101258	BC20Y06902	300BRF015
192	200	A105N B16.5 300LBS BL RF 3/4"	20101258	BC20Y06902	300BRF020
193	200	A105N B16.5 300LBS BL RF 1"	20101258	BC20Y06902	300BRF025
194	20	A105N B16.5 300LBS BL RF 1 1/4"	20101258	BC20Y06902	300BRF032

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	20101258	0,20	0,23	1,03	0,014	0,002	0,014	0,002	0,012				0,009		0,001		0,38

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-15℃) J			Σ/N (≧27J)	Hardness/Haerte HB
	BC20Y06902	293	510	36,5	65,0	132	134	160	142	146/148/150

Visual and dimensional inspection/Besichtigung und Ausmessung: **without complaint/ohne Beanstandung**

Place/Ort: DING XIANG **Date/Datum: 2020-5-16** **Works Inspector/Werkssachverstaendiger**

PANTALONE SRL Doc. N° 2024-DDTO-0000254 Data 14.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 20101258 QTA 1,000
ITEM 13 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 300lbs da 1"1/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU,
Annex1,Paragraph 4.3 by TüV NORD Group
(Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU,
Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe
(Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-20-Y069 Page: 19/81
Pruef-Nr. Seite

Customer/Besteller:

Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend
DXBC-Y069-2020	08/04/2020	2020-Y069	A105N	ASTM A105:2018/NACE MR0175

Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch	Specification/Anforderung:	ASME B16.5:2017
State of delivery/Lieferzustand:	HOT FORGED	Heat Treatment/Erschmelzungsart:	NORMALIZED
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No. 		
Stamp of Manufacturer/Herstellerzeichen:		Inspector's stamp/Pruefstempel:	

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-N	Test No/ProbeNr	Code
183	100	A105N B16.5 300LBS WN RF THK3.18mm 2"	20101258	BC20Y06902	3003,18WF050
191	200	A105N B16.5 300LBS BL RF 1/2"	20101258	BC20Y06902	300BRF015
192	200	A105N B16.5 300LBS BL RF 3/4"	20101258	BC20Y06902	300BRF020
193	200	A105N B16.5 300LBS BL RF 1"	20101258	BC20Y06902	300BRF025
194	20	A105N B16.5 300LBS BL RF 1 1/4"	20101258	BC20Y06902	300BRF032

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	20101258	0,20	0,23	1,03	0,014	0,002	0,014	0,002	0,012				0,009		0,001		0,38

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-15℃) J			Σ/N (≧27J)	Hardness/Haerte HB
	BC20Y06902	293	510	36,5	65,0	132	134	160	142	146/148/150

Visual and dimensional inspection/Besichtigung und Ausmessung: **without complaint/ohne Beanstandung**

Place/Ort: DING XIANG **Date/Datum: 2020-5-16** **Works Inspector/Werkssachverstaendiger**

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001850	123A90A	Q012400887

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani **21.10.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA N240 QTA 20,000

ITEM 9 DESCRIZIONE RACCORDO "T" UGU.NPT A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA N240 QTA 20,000

ITEM 9 DESCRIZIONE RACCORDO "T" UGU.NPT A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA N240 QTA 20,000

ITEM 9 DESCRIZIONE RACCORDO "T" UGU.NPT A 182 F316L Serie 6000lbs da 1/2

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA NK1 QTA 1,000

ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA NK1 QTA 1,000

ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA NK1 QTA 1,000

ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K994 QTA 10,000

ITEM 2 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 1

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K994 QTA 10,000

ITEM 2 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 1

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST01532623	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K994 QTA 10,000

ITEM 2 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 1

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA ST6 QTA 9,000

ITEM 3 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA ST6 QTA 9,000

ITEM 3 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18- ANSI B1.20.1-13- Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA ST6 QTA 9,000

ITEM 3 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA PS7 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA PS7 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA PS7 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 3/4

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K128 QTA 15,000

ITEM 5 DESCRIZIONE MANICOTTO RIDOTTO NPT A 182F316L Serie 6000lbs da 3/4" x 1/2

omsa

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K128 QTA 15,000

ITEM 5 DESCRIZIONE MANICOTTO RIDOTTO NPT A 182F316L Serie 6000lbs da 3/4" x 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300.1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA K128 QTA 15,000

ITEM 5 DESCRIZIONE MANICOTTO RIDOTTO NPT A 182F316L Serie 6000lbs da 3/4" x 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610 -	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA RRO QTA 1,000

ITEM 6 DESCRIZIONE GOMITO A 90° NPT FF A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA RRO QTA 1,000

ITEM 6 DESCRIZIONE GOMITO A 90° NPT FF A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL MANUFACTURER APPROVED BY LR QA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA RRO QTA 1,000

ITEM 6 DESCRIZIONE GOMITO A 90° NPT FF A 182 F316L Serie 6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA TF5 QTA 50,000

ITEM 7 DESCRIZIONE NIPPLO TUBO UGUALE 316L NPTxNPT da 1/2" x Lg= 100,00 Sch 160

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	1	CAP 6000 3/4" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	NK1	280087	VALBRUNA	MEST481793/19	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.5400	0.4700	0.0300	0.0270	10.0600	16.8600	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
582	268	57	70				169	171	189	175	182	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0 103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
002	10	CAP 6000 1" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	K994	281635	VALBRUNA	MEST537212	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	1.4300	0.4900	0.0310	0.0260	10.1300	16.8400	2.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
613	329	60	68				178	175	181	187	188	-196	SOLUTION TREAT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0 103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
003	9	COUPLING 6000 1/2" NPT F316/L	ASTM/ASME S/A 182 F316/F316L	ST6	292211	ACCIAIERIE VALBRUNA SPA	MEST148668/2023	Italy

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0160	1.4700	0.4600	0.0280	0.0270	10.0600	16.8000	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
569	316	35	79				172	175	59	68	71	-196	Solution annealed at 1060°C - Water quenched below 260°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS 3799-74, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0 103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300.1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA TF5 QTA 50,000

ITEM 7 DESCRIZIONE NIPPLO TUBO UGUALE 316L NPTxNPT da 1/2" x Lg= 100,00 Sch 160

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
004	5	COUPLING 6000 3/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	PS7	530105	OLARRA	480435	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0250	1.6100	0.3100	0.0360	0.0230	10.0200	16.7100	2.0700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.2300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
603	327	51	73				170	173	227	225	230	20	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
005	15	COUPLING 6000 3/4"x1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	K128	265489	ACC. VALBRUNA	622397/2015	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0110	1.4600	0.5500	0.0320	0.0300	10.0200	16.8400	2.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
618	302	51	70				180	185	236	240	246	20	SOLUTION AT 1070°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
006	1	ELBOW 90 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	RR0	282732	VALBRUNA	MEST015326/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0180	1.4900	0.5800	0.0290	0.0280	10.0000	16.7700	2.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
533	289	35	79				170	173	36	56	49	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21 & BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300.1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA TF5 QTA 50,000

ITEM 7 DESCRIZIONE NIPPLO TUBO UGUALE 316L NPTxNPT da 1/2" x Lg= 100,00 Sch 160

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003802
DDT/Delivery note/Packing list: 2024/DDT/003888

Certificate N°: 003888
Omsa Job: 2024/ODV/015236
Data/Date: 01/10/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
007	50	P.NIPPLE 160 1/2"x4"(100mm) NPT TP316/L	ASTM/ASME S/A312 TP316L	TF5	59392	SCHOELLER BLECKMANN E. GmbH	747354	Austria

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0150	1.4700	0.3700	0.0300	0.0100	11.1400	16.6200	2.2000	0.0090	0.0000	0.0500	0.2300	0.0170	0.0750	0.0000	0.0700	0.0000	0.0000	0.0000	0.0000	0.0000	25.0870

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
610	323	38			OK		175	178					Solution annealed at 1100°C - rapid cooling

RACCORDI SECONDO / FITTINGS IN ACC. TO

Accoding with BS3799-74, ANSI B36.10-22, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
008	150	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
009	20	TEE 6000 1/2" NPT F316/L	ASTM/ASME S/A182 F316/F316L	N240	291557	VALBRUNA	MEST088902	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0130	1.4800	0.3800	0.0320	0.0280	10.0100	16.7700	2.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
559	341	46	64				185	183	59	64	66	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 003001 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA SN8 QTA 150,000

ITEM 8 DESCRIZIONE TAPPO MASCHIO TE NPT A 182 F316L Serie 3/6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0002514 del 14/06/2024
DDT/Delivery note/Packing list: 2024/DDT/003746

Certificate N°: 003746
Omsa Job: 2024/ODV/005366
Data/Date: 23/09/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
018	4	P. NIPPLE XXS 1"x6"(150mm) NPT A333/6	SA-A333 GR.6	NU3	123247	TUBOS REUNIDOS	348064/1	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.1370	1.2900	0.2600	0.0060	0.0016	0.0825	0.0820	0.0959	0.0020	0.0320	0.0630	0.1373	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4100	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
527	328	49					169	168	115	129	198	-50	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice. Visual & dimensional check: OK

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
019	8	P. NIPPLE XXS 3/4"x6"(150mm) NPT A333/6	SA-A333 GR.6	NU4	121082	TUBOS REUNIDOS	343997/1	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.1320	1.1900	0.1600	0.0070	0.0028	0.0906	0.0800	0.0282	0.0199	0.0280	0.0670	0.2319	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3900	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
500	382	48				20.70	169	165	99	70	100	-57	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice. Visual & dimensional check: OK

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
020	10	P. NIPPLE XXS 1/2"x6"(150mm) NPT A333/6	SA-A333 GR.6	PT3	121255	TUBOS R.	345189/1	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.1400	0.7900	0.2200	0.0080	0.0011	0.0900	0.0700	0.0200	0.0020	0.0270	0.0020	0.2400	0.0050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3100	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
462	318	46					138	140	83	86	86	-50	NORMALIZED AT 900°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ANSI B1.20.1-13 - UNI EN ISO 148-1-2016, Carbon steel fully killed & fine grained practice. Visual & dimensional check: OK

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

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MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA SN8 QTA 150,000

ITEM 8 DESCRIZIONE TAPPO MASCHIO TE NPT A 182 F316L Serie 3/6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003652
DDT/Delivery note/Packing list: 2024/DDT/003746

Certificate N°: 003746
Omsa Job: 2024/ODV/014090
Data/Date: 23/09/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	10	P.NIPPLE 40 1/2"x4"(100mm) PBE TP304/L	ASTM/ASME S/A312 TP304L	PD7	56505	TUBACEX	709077	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	SB%	P%	S%	NB%	Cr%	Mo%	TB%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0040	1.5700	0.2700	0.0270	0.0010	10.1500	18.2000	0.3900	0.0100	0.0000	0.0650	0.4200	0.0880	0.0675	0.0000	0.0900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
619	315	50					175	178					SOLUTION ANN AT 1100°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with BS3799-74, ANSI B36.10-22, Marking in acc. with MSSSP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled. Visual & dimensional check: OK

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA SN8 QTA 150,000

ITEM 8 DESCRIZIONE TAPPO MASCHIO TE NPT A 182 F316L Serie 3/6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003659
DDT/Delivery note/Packing list: 2024/DDT/003746

Certificate N°: 003746
Omsa Job: 2024/ODV/015567
Data/Date: 23/09/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	34	HEX HD PLUG 1/2" NPT F316/L B16	ASTM/ASME S/A182 F316/F316L	SN8	291027	VALBRUNA	MEST138930/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0170	1.4700	0.4600	0.0290	0.0280	10.0800	16.8700	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.0000	0.1330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
673	536	37	66				231	234	138	140	147	-196	SOLUTION ANN AT 1060°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ASME B16.11-21& BS 3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO 15156-18, NACE MR0103-18 - ASME B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled. Visual & dimensional check OK

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA SN8 QTA 150,000

ITEM 8 DESCRIZIONE TAPPO MASCHIO TE NPT A 182 F316L Serie 3/6000lbs da 1/2

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2024-OF-0003666
DDT/Delivery note/Packing list: 2024/DDT/003746

Certificate N°: 003746
Omsa Job: 2024/ODV/015620
Data/Date: 23/09/2024

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	10	FM COUPLING 3000 1/2"x1/4" NPT F316/L	ASTM/ASME S/A182 F316/F316L	SI8	292074	VALBRUNA SPA	MEST120264/23	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0120	1.5100	0.5000	0.0290	0.0270	10.0500	16.8100	2.0300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
678	454	48	69				228	223	185	190	191	-196	SOLUTION ANN AT 1040°C

RACCORDI SECONDO / FITTINGS IN ACC. TO

According with ANSI B16.11-21& BS3799-74, Marking in acc. with MSS SP25-18, NACE MR0175/ISO15 156-18, NACE MR0103-18 - ANSI B1.20.1-13 - Intergranular corrosion test acc. with ASTM A-262 PR.E satisfactory, Material pickled. Visual & dimensional check: OK

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR: 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A. SRL
Barbara Orlandi

Barbara Orlandi

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA

ITEM 10 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 3/4 COLATA QTA 12,000

P.L.P. Petrochemical and Marine Supply SRL
TIRANTI E RACCORDI PER L'INDUSTRIA PETROLCHIMICA

Via Renata Bianchi 75
16152 Genova ITALY
Tel 0039 010 8602672
FAX 0039 010 8680853
C. Fiscale e P.IVA 03459460105
e.mail: qualita@plp-pipingservice.it

Member of CISQ Federation
RINA CERTIFIED MANAGEMENT SYSTEM ISO 9001

CLIENTE:
PANTALONE SRL

VIA P. MAZZOLARI N21 Z.I. SELVAIEZZI
66100 CHIETI SCALO CH

Dettagli Certificati

Numero DDT:	001638	Data DDT:	02/10/24
Numero Certificato:	001638	Data Certificato:	02/10/24

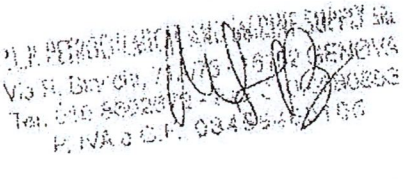
Inspection certificate acc.to EN10204 - 3.1

This is certify that theunder mentioned pipe fitting are made in accordance with the last applicable normative : ASME/ANSI MSS-SP
The result of chemical analysis and mechanical test are a true and correct copy of the mill certicate , issued by the manufacture and/or supplier.

Dettagli Prodotto	Analisi Chimica	Prova Meccanica
Codice Prodotto: TTFF606F16L Descrizione : TAPPI FEMMINA NPT 6M 3/4 A182 F316-F316L Quantita: 12 Numero Colata: 4B627 Codice Colata HT0627 Vostro Ordine: 2024-OF-0003804 Posizione: 1 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,017 Si(%):0,360 Mn(%):1,740 S(%):0,029 P(%):0,028 Cr(%)17,010 Ni(%):10,090 Mo(%):2,000 Ti(%):0,000 Cu(%):0,000 V(%):0,000 Nb(%):0,000 N(%):0,050 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 227,700 Rottura (N/mmq):564,420 Allungamento (%):60,600 Contrazione (%):76,500 Durezza (HBW):163-164 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000
Codice Prodotto: MANF604F16L Descrizione : MANICOTTI NPT 6M 1/2" A 182 F316-316L Quantita: 11 Numero Colata: H7EW Codice Colata 331M Vostro Ordine: 2024-OF-0003804 Posizione: 2	C(%): 0,023 Si(%):0,344 Mn(%):1,439 S(%):0,024 P(%):0,029 Cr(%)16,550 Ni(%):10,500 Mo(%):2,031 Ti(%):0,006 Cu(%):0,476 V(%):0,000 Nb(%):0,000 N(%):0,000 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 363,000 Rottura (N/mmq):605,000 Allungamento (%):55,300 Contrazione (%):72,800 Durezza (HBW):164/169 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):-10,000 1°KVJ: 198,000 2°KVJ: 205,000 3°KVJ:205,000
Codice Prodotto: G90F604F16L Descrizione : GOMITI 90 NPT 6M 1/2 A 182 F316-316L Quantita: 9 Numero Colata: 5W582 Codice Colata HT0616 Vostro Ordine: 2024-OF-0003804 Posizione: 3 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,021 Si(%):0,370 Mn(%):1,700 S(%):0,026 P(%):0,028 Cr(%)16,790 Ni(%):10,090 Mo(%):2,020 Ti(%):0,000 Cu(%):0,570 V(%):0,000 Nb(%):0,000 N(%):0,053 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 231,840 Rottura (N/mmq):547,860 Allungamento (%):65,000 Contrazione (%):79,000 Durezza (HBW):158-161 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000

Materiale in accordo a:
A) ASTM A182-14b Gr F316-F316L
B) ASTM A182-14b Gr F304-F304L
C) ASTM A105-15b MATERIAL FULLY KILLED & FINE GRAIN PRACTICED - A350 - 04a GR LF2 CL1
D) ASTM A106/A106M-14 Gr.b API 5l ed 2013
E) ASTM A234 / A234M-14 Gr. WPB
E1) ASTM A182/A182M-14b F5 cl.3-F11 cl.3 - Gr.F22 cl.3
F) ASTM A320/A320M-07a Gr. L7 - L7M
G) ASTM A194/A194M-07a Gr. 4
P) ASTM A193/193M-06a Gr. B7
I) ASTM A194/A194M-06a Gr. 2H 2HM
L) ASTM A193/A193M-05 Gr. B16
M) ASTM A193/A193M 08a Gr. B8 - B8cl2 - B8M - B8Mcl2 - B8T
N) ASTM A194 Gr8 Gr8A - Gr8M - Gr8MA - Gr8T
O) ASTM A194/M 98a PROOF LOAD TEST UP TO 1" - SATISFACTORY ASME
B31.1-05 NACE - ANSI/NACE MR0175 - ISO 15156 Ed 2015
NACE MR0103 Ed 2012

Trattamento termico:
A-B) SOLUTION TREATED AT 1050 C° AND W-Q
C-D-E) NORMALIZED AT 880°C-900°C AIR COOL
E1) NORMALIZED AT 900°C MIN A/C AND TEMPERED AT 725°C MIN
F) QUENCHED AND TEMPERED AT 620°C MIN
G) QUENCHED AND TEMPERED AT 595°C HB after 24h H.T.T. at 590°C=240
H) QUENCHED AND TEMPERED AT 593°C MIN
I) QUENCHED AND TEMPERED AT 455°C AT 24h H.T.T. AT 540°C=230
L) QUENCHED AND TEMPERED AT 650°C MIN
M) CARBIDE SOLUTION TREADED AND STRAIN HARDENED



PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA

ITEM 11 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2 COLATA QTA 11,000

P.L.P. Petrochemical and Marine Supply SRL
TIRANTI E RACCORDI PER L'INDUSTRIA PETROLCHIMICA

Via Renata Bianchi 75
16152 Genova ITALY
Tel 0039 010 8602672
FAX 0039 010 8680853
C. Fiscale e P.IVA 03459460105
e.mail: qualita@plp-pipingservice.it

Member of CISQ Federation
RINA CERTIFIED MANAGEMENT SYSTEM ISO 9001

CLIENTE:
PANTALONE SRL

VIA P. MAZZOLARI N21 Z.I. SELVAIEZZI
66100 CHIETI SCALO CH

Dettagli Certificati

Numero DDT:	001638	Data DDT:	02/10/24
Numero Certificato:	001638	Data Certificato:	02/10/24

Inspection certificate acc.to EN10204 - 3.1

This is certify that theunder mentioned pipe fitting are made in accordance with the last applicable normative : ASME/ANSI MSS-SP
The result of chemical analysis and mechanical test are a true and correct copy of the mill certicate , issued by the manufacture and/or supplier.

Dettagli Prodotto	Analisi Chimica	Prova Meccanica
Codice Prodotto: TTFF606F16L Descrizione : TAPPI FEMMINA NPT 6M 3/4 A182 F316-F316L Quantita: 12 Numero Colata: 4B627 Codice Colata HT0627 Vostro Ordine: 2024-OF-0003804 Posizione: 1 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,017 Si(%):0,360 Mn(%):1,740 S(%):0,029 P(%):0,028 Cr(%)17,010 Ni(%):10,090 Mo(%):2,000 Ti(%):0,000 Cu(%):0,000 V(%):0,000 Nb(%):0,000 N(%):0,050 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 227,700 Rottura (N/mmq):564,420 Allungamento (%):60,600 Contrazione (%):76,500 Durezza (HBW):163-164 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000
Codice Prodotto: MANF604F16L Descrizione : MANICOTTI NPT 6M 1/2" A 182 F316-316L Quantita: 11 Numero Colata: H7EW Codice Colata 331M Vostro Ordine: 2024-OF-0003804 Posizione: 2	C(%): 0,023 Si(%):0,344 Mn(%):1.439 S(%):0,024 P(%):0,029 Cr(%)16,550 Ni(%):10,500 Mo(%):2,031 Ti(%):0,006 Cu(%):0,476 V(%):0,000 Nb(%):0,000 N(%):0,000 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 363,000 Rottura (N/mmq):605,000 Allungamento (%):55,300 Contrazione (%):72,800 Durezza (HBW):164/169 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):-10,000 1°KVJ: 198,000 2°KVJ: 205,000 3°KVJ:205,000
Codice Prodotto: G90F604F16L Descrizione : GOMITI 90 NPT 6M 1/2 A 182 F316-316L Quantita: 9 Numero Colata: 5W582 Codice Colata HT0616 Vostro Ordine: 2024-OF-0003804 Posizione: 3 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,021 Si(%):0,370 Mn(%):1,700 S(%):0,026 P(%):0,028 Cr(%)16,790 Ni(%):10,090 Mo(%):2,020 Ti(%):0,000 Cu(%):0,570 V(%):0,000 Nb(%):0,000 N(%):0,053 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 231,840 Rottura (N/mmq):547,860 Allungamento (%):65,000 Contrazione (%):79,000 Durezza (HBW):158-161 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000

Materiale in accordo a:
A) ASTM A182-14b Gr F316-F316L
B) ASTM A182-14b Gr F304-F304L
C) ASTM A105-15b MATERIAL FULLY KILLED & FINE GRAIN PRACTICED - A350 - 04a GR LF2 CL1
D) ASTM A106/A106M-14 Gr.b API 5l ed 2013
E) ASTM A234 / A234M-14 Gr. WPB
E1) ASTM A182/A182M-14b F5 cl.3-F11 cl.3 - Gr.F22 cl.3
F) ASTM A320/A320M-07a Gr. L7 - L7M
G) ASTM A194/A194M-07a Gr. 4
H) ASTM A193/193M-06a Gr. B7
I) ASTM A194/A194M-06a Gr. 2H 2HM
L) ASTM A193/A193M-05 Gr. B16
M) ASTM A193/A193M 06a Gr. B8 - B8cl2 - B8M - B8Mcl2 - B8T
N) ASTM A194 Gr8 Gr8A - Gr8M - Gr8MA - Gr8T
O) ASTM A194/M 98a PROOF LOAD TEST UP TO 1" SATISFACTORY ASME
B31.3-05 NACE - ANSI/NACE MR0175 - ISO 15156 Ed 2015
NACE MR0103 Ed 2012

Trattamento termico:
A-B) SOLUTION TREATED AT 1050 C° AND W-Q
C-D-E) NORMALIZED AT 880°C-900°C AIR COOL
E1) NORMALIZED AT 900°C MIN A/C AND TEMPERED AT 725°C MIN
F) QUENCHED AND TEMPERED AT 620°C MIN
G) QUENCHED AND TEMPERED AT 595°C HB after 24h H.T.T. at 590°C=240
H) QUENCHED AND TEMPERED AT 593°C MIN
I) QUENCHED AND TEMPERED AT 455°C AT 24h H.T.T. AT 540°C=230
L) QUENCHED AND TEMPERED AT 650°C MIN
M) CARBIDE SOLUTION TREADED AND STRAIN HARDENED

P.L.P. PETROCHEMICAL & MARINE SUPPLY SRL
Via R. Bianchi, 75 - 16152 GENOVA
Tel. 010 8602672
P. IVA e C.F. 03459460105

PANTALONE SRL Doc. N° 2024-DDTC-0012094 Data 07.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA
ITEM 12 DESCRIZIONE GOMITO A 90° NPT FF A 182 F316L Serie 6000lbs da 1/2 COLATA QTA 9,000

P.L.P. Petrochemical and Marine Supply SRL
TIRANTI E RACCORDI PER L'INDUSTRIA PETROLCHIMICA

Via Renata Bianchi 75
16152 Genova ITALY
Tel 0039 010 8602672
FAX 0039 010 8680853
C. Fiscale e P.IVA 03459460105
e.mail: qualita@plp-pipingservice.it

Member of CISQ Federation
CERTIFIED MANAGEMENT SYSTEM ISO 9001

CLIENTE:
PANTALONE SRL

VIA P. MAZZOLARI N21 Z.I. SELVAIEZZI
66100 CHIETI SCALO CH

Dettagli Certificati

Numero DDT:	001638	Data DDT:	02/10/24
Numero Certificato:	001638	Data Certificato:	02/10/24

Inspection certificate acc.to EN10204 - 3.1

This is certify that theunder mentioned pipe fitting are made in accordance with the last applicable normative : ASME/ANSI MSS-SP
The result of chemical analysis and mechanical test are a true and correct copy of the mill certicate , issued by the manufacture and/or supplier.

Dettagli Prodotto	Analisi Chimica	Prova Meccanica
Codice Prodotto: TTFF606F16L Descrizione : TAPPI FEMMINA NPT 6M 3/4 A182 F316-F316L Quantita: 12 Numero Colata: 4B627 Codice Colata HT0627 Vostro Ordine: 2024-OF-0003804 Posizione: 1 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,017 Si(%):0,360 Mn(%):1,740 S(%):0,029 P(%):0,028 Cr(%)17,010 Ni(%):10,090 Mo(%):2,000 Ti(%):0,000 Cu(%):0,000 V(%):0,000 Nb(%):0,000 N(%):0,050 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 227,700 Rottura (N/mmq):564,420 Allungamento (%):60,600 Contrazione (%):76,500 Durezza (HBW):163-164 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000
Codice Prodotto: MANF604F16L Descrizione : MANICOTTI NPT 6M 1/2" A 182 F316-316L Quantita: 11 Numero Colata: H7EW Codice Colata 331M Vostro Ordine: 2024-OF-0003804 Posizione: 2	C(%): 0,023 Si(%):0,344 Mn(%):1,439 S(%):0,024 P(%):0,029 Cr(%)16,550 Ni(%):10,500 Mo(%):2,031 Ti(%):0,006 Cu(%):0,476 V(%):0,000 Nb(%):0,000 N(%):0,000 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 363,000 Rottura (N/mmq):605,000 Allungamento (%):55,300 Contrazione (%):72,800 Durezza (HBW):164/169 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):-10,000 1°KVJ: 198,000 2°KVJ: 205,000 3°KVJ:205,000
Codice Prodotto: G90F604F16L Descrizione : GOMITI 90 NPT 6M 1/2 A 182 F316-316L Quantita: 9 Numero Colata: 5W582 Codice Colata HT0616 Vostro Ordine: 2024-OF-0003804 Posizione: 3 P.E.D. 2014/68/EU ANNEX 1 PAR 4.3	C(%): 0,021 Si(%):0,370 Mn(%):1,700 S(%):0,026 P(%):0,028 Cr(%)16,790 Ni(%):10,090 Mo(%):2,020 Ti(%):0,000 Cu(%):0,570 V(%):0,000 Nb(%):0,000 N(%):0,053 Al(%):0,000 Ce(%):0,000	Sezione Provetta (mmq): 0,000 Lunghezza Provetta (mm): 0,000 Snervamento (N/mmq): 231,840 Rottura (N/mmq):547,860 Allungamento (%):65,000 Contrazione (%):79,000 Durezza (HBW):158-161 Durezza (HRC): Piega(): Schiacciamento ():0,000 Gradi (C°):0,000 1°KVJ: 0,000 2°KVJ: 0,000 3°KVJ:0,000

Materiale in accordo a:
A) ASTM A182-14b Gr F316-F316L
B) ASTM A182-14b Gr F304-F304L
C) ASTM A105-15b MATERIAL FULLY KILLED & FINE GRAIN PRACTICED - A350 - 04a GR LF2 CL1
D) ASTM A106/A106M-14 Gr.b API 5l ed 2013
E) ASTM A234 / A234M-14 Gr. WPB
E1) ASTM A182/A182M-14b F5 cl.3-F11 cl.3 - Gr.F22 cl.3
F) ASTM A320/A320M-07a Gr. L7 - L7M
G) ASTM A194/A194M-07a Gr. 4
H) ASTM A193/193M-06a Gr. B7
I) ASTM A194/A194M-06a Gr. 2H 2HM
L) ASTM A193/A193M-05 Gr. B16
M) ASTM A193/A193M-08a Gr. B8 - B8ci2 - B8M - B8Mcl2 - B8T
N) ASTM A194 Gr8 Gr8A - Gr8M - Gr8MA - Gr8T
O) ASTM A194/M 98a PROOF LOAD TEST UP TO 1" - SATISFACTORY ASME
B16.11-05 NACE - ANSI/NACE MR0175 - ISO 15156 Ed 2015
NACE MR0103 Ed 2012

Trattamento termico:
A-B) SOLUTION TREATED AT 1050 C° AND W-Q
C-D-E) NORMALIZED A1 880°C-900°C AIR COOL
E1) NORMALIZED AT 900°C MIN A/C AND TEMPERED AT 725°C MIN
F) QUENCHED AND TEMPERED AT 620°C MIN
G) QUENCHED AND TEMPERED AT 595°C HB after 24h H.T.T. at 590°C=240
H) QUENCHED AND TEMPERED AT 593°C MIN
I) QUENCHED AND TEMPERED AT 455°C AT 24h H.T.T. AT 540°C=230
L) QUENCHED AND TEMPERED AT 650°C MIN
M) CARBIDE SOLUTION TREADED AND STRAIN HARDENED

P.L.P. PETROCHEMICAL AND MARINE SUPPLY SRL
Via R. Bianchi, 75 - 16152 GENOVA
Tel. 010 8602672
P. IVA e C.F. 03459460105

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001850	123A90A	Q012400897

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

21.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-028435-22-0003	**Issued on** / **Revised on**	07/06/2022	**Customer** / Cliente	PANTALONE SRL VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -
Revision / Revisione	0	**According to** / In accordo a	EN 10204:2004 UNI EN 10204:2005	**Type** / Tipo	3.1
Job n. / Com. n.	28435	**Page n./** Pagina n.	5 of 13		
Purchase order and project/Ordine e progetto	2022-OMAG-0000154				

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
ARMC	89	50		ASTM A182-21 F316/316L	W7VW	CAP S.3000 NPT A/SA182 F316/L 1
AYEW	92	60		ASTM A182-21 F316/316L	0TTW	CAP S.6000 NPT A/SA182 F316/L 1/2
AYRC	94	200		ASTM A182-21 F316/316L	515387	HEX. NIPPLE S.3000 NPT A/SA182 F316/L 1/2
AKZP	101	20		ASTM A182-21 F316/316L	274115	UNION S.3000 NPT A/SA182 F316/L 1 male
APYR	101	20		ASTM A182-21 F316/316L	475657	UNION S.3000 NPT A/SA182 F316/L 1 female

Test Prova	STEEL MELTING AND HEAT TREATMENT DATA Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
ARMC	ELECT.FURN.-SOLUT.ANNEALED at 1050 C-WATER QUENCHED CERT 2019/020218 ROLDAN	ES	19/020218 by ROLDAN / by ACERINOX ITALIA srlUT:OK	MC-000000-20-0005
AYEW	ELECT.FURN.-SOLUT.ANNEALED at 1050 C-WATER QUENCHED CERT 2021/010952 ROLDAN	ES	2021/010952 by ROLDAN / by ACERINOX ITALIA srl	MC-000000-21-0851
AYRC	ELECT.FURN.-SOLUT.ANNEALED at 1060°C-WATER QUENCHED CERT 171396 RODACCIAI	IT	171396 by RODACCIAI / by RODACCIAI S.p.A.	MC-000000-21-0851
AKZP	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 5425 MEGA	IT	112632/17 by VALBRUNA / FC-010592-18-0192 by M.E.G.A. S.P.A.	MC-000000-19-0016
APYR	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 6164 MEGA	ES	384790 by OLARRA / by M.E.G.A. S.P.A.	MC-000000-19-0304

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [$HBW_{2.5/187.5}$]	Grain Size Dimens. grano
			Specimen / Provino			Yield strength Sner. [Mpa]	Tensile strength Rottura [Mpa]	Elongation Allung. [%]	Red. Of Area Contraz. [%]	Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]			
			Shape Forma	A Sez.[mm^2]	Gage Length Lungh.[mm]	Min:	Min:	Min:	Min:								
ARMC	T/2	LONG	Round	122.600	50.000	269.800	602.800	54.300	70.000	10x10x55	0	174-178-178	--	--		155-156	
AYEW	T/2	LONG	Round	122.600	50.000	321.600	592.500	52.200	70.400	10x10x55	0	172-176-186	--	--		162-162	
AYRC	T/2	LONG	Round	122.600	50.000	378.300	601.400	50.600	72.500	10x10x55	0	205-219-225	--	--		175-180	
AKZP	T/2	TRANS	Round	31.500	25.000	286.300	580.700	52.900	74.100				--	--		155-160	
APYR	T/2	TRANS	Round	30.100	25.000	290.100	588.300	56.200	74.100				--	--		156-159	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE[A] [%]	PREN[B] [%]	CEs[E] [%]	J fact.[D] [%]
ARMC	0.0150	0.4220	1.4290	0.0240	0.0350	16.6350	10.4350	2.0560	0.0050	0.3410					0.0470							24.1718		
AYEW	0.0230	0.3780	1.4410	0.0270	0.0290	16.8450	10.3450	2.0500	0.0050	0.4310					0.0480							24.3780		
AYRC	0.0240	0.2700	1.5700	0.0290	0.0380	16.5800	10.1700	2.0000		0.3700					0.0340							23.7240		
AKZP	0.0110	0.5200	1.5900	0.0230	0.0310	16.8600	10.0600	2.0300							0.0820							24.8710		
APYR	0.0240	0.4500	1.5300	0.0270	0.0340	16.5300	10.0700	2.0100							0.0325							23.6830		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2015

2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N

C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm

D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'ARMC': Co 0.1720 | 'AYEW': Co 0.2260 | 'AYRC': Co 0.2400 | 'APYR': Co 0.1600 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850
ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 1/2 COLATA AYEW ROSETTI MARINO SPA QTA 30,000

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. Rapporto N.	**TC-028435-22-0003**	**Issued on** **Revised on**	**07/06/2022**	**Customer** Cliente	PANTALONE SRL	**Job n. / Com. n.**	**28435**
Revision Revisione	**0**	**According to** In accordo a	**EN 10204:2004** **UNI EN 10204:2005**	**Type** Tipo	**3.1**	VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -	**Purchase order and project**/Ordine e progetto **2022-OMAG-0000154**

Page n./ Pagina n. 13 of 13

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2016; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and MSS SP 97 Ed. 2019
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2018 or B36.19 Ed. 2018
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

Quality Control Inspector **Certification department** Ispettore controllo qualità	Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail inspection@mega-fittings.com

PANTALONE SRL
ITEM 1 | DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 1/2 | Doc. N° 2024-DDTC-0011913 | Data 02.10.2024 | Rif. Vs. Ordine 1724001850 | COLATA AYEW | QTA ROSETTI MARINO SPA 30,000

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA

ITEM 2 DESCRIZIONE TAPPO FEMMINA TT NPT A 182 F316L Serie 6000lbs da 3/4 COLATA 3019 QTA 2,000

ADDRESS Via Arno, 3
20029 **TURBIGO (MI)** ITALIA
PHONE 0331 871111 (3 linee r.a.)
FAX 0331 871468
WEB SITE www.turozzi.it
E-MAIL turozzi@turozzi.it

AZIENDA CON SISTEMA QUALITA' CERTIFICATO — COMPANY WITH QUALITY SYSTEM CERTIFIED

turozzi fratelli S.r.l.

Raccordi in acciaio per impianti ad alta pressione
Steel fitting for high pressure plants

CLIENTE / *Purchaser*		CERTIFICATO DI COLLAUDO *Works certificate*			FOGLIO *Sheet*
PANTALONE S.r.l.			EN 10204 3.1		
ORDINE / *Order*					
1192	ns.DdT 566	N. 58101	DEL / *Of*	02/05/2017	1/1

ITEM *Item*	Q.TA' *Q.ty*	DESCRIZIONE / *Description*	COD.COLATA *Heat Code*	COLATA *Heat*	MATERIALE *Material*	CERTIF. ORIG. *Mill Certificate*	RIF.INT. *Record*	ACCIAIERIA / FORNITORE *Steel plant / Supplier*
1	5	RID.ESAG.M/F 2x1 NPT F304L	B4ED	B4ED	A182 F304L/304	2013/008253	4144	ROLDAN - Spain
2	7	TAPPO FEMMINA 3/4 6000 NPT F316L	3019	473019	A182 F316/316L	2014058233	2799.3	COGNE - Italy
3	21	TAPPO FEMMINA 3/4 6000 NPT A105	79686	16/79686	A105	25553	1191.1	RIVA - Italy

ANALISI CHIMICA - *Chemical Analysis*

COD.COLATA *Heat Code*	C %	Mn %	Si %	P %	S %	Ni %	Cr %	Mo %	Ti %	V %	Cu %	Al %	Nb %	N %	%	%	C.E. %
B4ED	0,021	1,404	0,397	0,033	0,026	8,076	18,174							0,059			
3019	0,016	1,740	0,320	0,031	0,029	10,100	16,740	2,050						0,077			
79686	0,200	0,940	0,220	0,015	0,009	0,060	0,110	0,010	0,023	0,020	0,170	0,025	0,001				0,400

CARATTERISTICHE MECCANICHE - *Mechanical Test*

COD.COLATA *Heat Code*	R Tens.Str. N/mmq	S Yield Point N/mmq	A : 2" Elongation %	C Recuction of area %	Bending Test	Flattening Test	Hydraulic Test	HB Hardness test	Kv Impact test J	Temp. °C	STATO DI FORNIT. (TRATT. TERM.) Supply cond. (heat treatment)	TEMP. °C	NOTE Remarks
B4ED	622	326	53,0	70,0							SOLUT. TREATED	1050	
3019	614	280	58,3	72,2							SOLUT. ANNEALED	1050	
79686	522	323	32,1	56,2				154 160					

NATURA DEL MATERIALE / *Kind of material*	NORMA DI RIFERIMENTO *Referenced standard*	NOTE / *Remarks*
Acciaio elaborato al forno elettrico Steel made by electric furnace	Material: ASTM latest edition. Dimensions: ASME B16.11-2014 and /or MSS SP83-95-97 and/or ASTM A733	Materiale in accordo a / Material according to PED 2014/68/UE, annex 1, para 4.3 & 7.5.

COLLAUDI INTERNI / *Works inspection*	RISULT. *Result.*	COLLAUDI SUPPLEMENTARI / *Supplementary tests*	RISULT. *Result.*
Dimensionale/Visivo	Ok	Effett. prove durezza / Carried out Hardness Tests.	
Dimensional/Visual	Ok	Risultati inferiori a / Results lower than: 22HRC.	
		Mat.conforme a / Mat. complies with NACE MR0175-ISO15156.	Ok

RESPONSABILE QUALITA' / *Quality Manager*	ENTE COLLAUDATORE / *Inspection agency*	turozzi fratelli

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-027408-21-0001	Issued on / Revised on	22/07/2021	Customer / Cliente	PANTALONE SRL VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 UNI EN 10204:2005	Type / Tipo	3.1
Job n. / Com. n.	27408	Page n./ Pagina n.	4 of 10		
Purchase order and project/Ordine e progetto	2021-OMAG-0000604				

DESCRIPTION / DESCRIZIONE

Test / Prova	Item / Pos.	Qty / Q.tà	Customer code / Codice cliente	Material / Materiale	Heat / Colata	Product / Prodotto
AMIR	18	60		ASTM A182/21 F304/304L	V8TP	CAP S.3000 SW A/SA182 F304/L 1
AHSG	20	60		ASTM A182/21 F316/316L	457119	COUPLING S.6000 NPT A/SA182 F316/L 1/2
AJJJ	21	75		ASTM A182/21 F316/316L	464529	HALF COUPLING S.3000 NPT A/SA182 F316/L 1
AHEE	22	20		ASTM A182/21 F316/316L	E72081	HEX. NIPPLE S.3000 NPT A/SA182 F316/L 3/4
APZC	23	29		ASTM A182/21 F316/316L	481283	UNION S.3000 NPT A/SA182 F316/L 3/4 male

Test / Prova	STEEL MELTING AND HEAT TREATMENT DATA / Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
AMIR	ELECT.FURN.-SOLUT.ANNEALED at 1050 C-WATER QUENCHED CERT 2019/004401 ROLDAN	ES	19/004401 by ROLDAN / by ACERINOX ITALIA srl	MC-000000-19-0021
AHSG	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 353476 OLARRA	ES	353476 by OLARRA	
AJJJ	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 364716 OLARRA	ES	364716 by OLARRA	
AHEE	ELECT.FURN.-SOLUT.ANNEALED at 1060^C WATER QUENCHED CERT 059338 RODACCIAI	IT	059338 by RODACCIAI	
APZC	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 6202 MEGA	ES	395866 by OLARRA / FC-010592-18-0463 by M.E.G.A. S.P.A.	MC-000000-19-0308

Test / Prova	Test loc. / Preso a	Orient. / Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [$HBW_{2,5/187,5}$]	Grain Size Dimens. grano
			Specimen / Provino			Yield strength Sner. [Mpa]	Tensile strength Rottura [Mpa]	Elongation Allung. [%]	Red. Of Area Contraz. [%]	Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]			
			Shape Forma	A Sez.[mm^2]	Gage Length Lungh.[mm]	Min:	Min:	Min:	Min:								
AMIR	T/2	LONG	Round	122.600	50.000	296.600	630.200	54.200	70.200	10x10x55	0	196-198-216	--	--		160-160	
AHSG	T/2	TRANS	Round	30.600	25.000	315.000	599.000	53.400	73.000				--	--		171-174	
AJJJ	T/2	LONG	Round	122.600	50.000	301.100	572.900	52.300	70.100	10X10X55	0	216-224-228	--	--		168-168	
AHEE	T/2	LONG	Round	122.600	50.000	344.200	631.100	46.100	65.300	10x10x55	0	202-204-224	--	--		177-178	
APZC	T/2	TRANS	Round	30.100	25.000	290.400	592.500	55.200	78.200				--	--		155-160	

Test / Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE^A [%]	$PREN^B$ [%]	CEs^E [%]	J fact.^{D} [%]
AMIR	0.0250	0.4790	1.4060	0.0270	0.0320	18.1750	8.0150	0.4020	0.0040	0.3800					0.0860							20.8776		
AHSG	0.0210	0.3100	1.6000	0.0270	0.0310	16.6000	10.1000	2.0500							0.0390							23.9890		
AJJJ	0.0210	0.4400	1.5900	0.0250	0.0350	16.5300	10.0700	2.0200							0.0365							23.7800		
AHEE	0.0230	0.5700	1.4700	0.0280	0.0330	16.7900	10.1200	2.0700		0.5800					0.0510							24.4370		
APZC	0.0260	0.3900	1.7300	0.0280	0.0360	16.5300	10.1300	2.0300							0.0350							23.7890		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2015
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'AHSG': Co 0.3000 | 'AJJJ': Co 0.1700 | 'AHEE': Co 0.2630 | 'APZC': Co 0.3100 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Umberto Moretti

Moretti Umberto

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-1

PANTALONE SRL | Doc. N° 2024-DDTC-0011913 | Data 02.10.2024 | Rif. Vs. Ordine 1724001850 | ITEM 3 | DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2 | COLATA AHSG | ROSETTI MARINO SPA | QTA 5,000

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-027408-21-0001	Issued on / Revised on	22/07/2021	Customer / Cliente	PANTALONE SRL	Job n. / Com. n. 27408	Page n./ Pagina n. 10 of 10
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 UNI EN 10204:2005	Type / Tipo	3.1	VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -	Purchase order and project/Ordine e progetto 2021-OMAG-0000604

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2016; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and MSS SP 97 Ed. 2019
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2018 or B36.19 Ed. 2018
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

Quality Control Inspector Certification department Ispettore controllo qualità	Umberto Moretti Moretti Umberto

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail inspection@mega-fittings.com

PANTALONE SRL | Doc. N° 2024-DDTC-0011913 | Data 02.10.2024 | Rif. Vs. Ordine 1724001850 | COLATA AHSG | QTA 5,000
ITEM 3 | DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2 | ROSETTI MARINO SPA

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA 1215 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

MCV Pipes & Fittings Trading L.L.C.
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Tel: [illegible]
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info@mcvtrading.ae
www.mcvtrading.ae

industrial valves, pipes & fittings

MILL TEST CERTIFICATE
EN 10204:2004/3.1

MANUFACTURER: M.C.V. PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE S.R.L.
PRODUCTS: CARBON STEEL & STAINLESS STEEL HIGH PRESSURE FITTINGS

INVOICE NO. 62-2024
DATE: MAY 20, 2024

CONTENT OF THE DELIVERY								CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY								
NO.	DESCRIPTION	Q.TY	SURF.	GEOM. DIM.	DIM. CHECK	HEAT	MATERIAL	C	Si	Mn	S	P	Cr	Mo	V	Ni	Cu	N	Ti	Tensile Strength	Yield Strength	Rate of Reduction in Area	Elongation	Hardness	Impact Test, ISO-V Specimen KV2 J @-20°C			
																									1	2	3	Av.
							A182 F316L	≤0.035	≤1.00	≤2.00	≤0.030	≤0.045	16.0-18.0	2.0-3.0		10.0-15.0		≤0.10		≥485	≥170	≥50	≥30					≥27
18	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
19	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 1"1/2	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
20	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 1/2	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
21	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 1/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
22	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 3/4	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
23	CAP FEMALE ROUND HEAD NPT A182F316L Serie 3000lbs da 3/8	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
58	ELBOW 90 SW INOX A 182F316L Serie 3000lbs da 1"1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
59	ELBOW 90 SW INOX A 182F316L Serie 3000lbs da 1"1/2	40	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
77	ELBOW A 45 SW INOX A182F316L Serie 3000lbs da 1	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
78	ELBOW A 45 SW INOX A182F316L Serie 3000lbs da 1"1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
79	ELBOW A 45 SW INOX A182F316L Serie 3000lbs da 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
80	ELBOW A 45 SW INOX A182F316L Serie 3000lbs da 3/4	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
81	ELBOW A 45 SW INOX A182F316L Serie 3000lbs da 3/4	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
86	ELBOW A 45° SW INOX A 182F316L Serie 3000lbs da 1"1/4	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
118	ELBOW A 90 NPT FF A 182 F316L Serie 3000 lbs da 1	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
119	ELBOW A 90 NPT FF A 182 F316L Serie 3000 lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
120	ELBOW A 90 NPT FF A 182 F316L Serie 3000 lbs da 1/2	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
121	ELBOW A 90 NPT FF A 182 F316L Serie 3000 lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
122	ELBOW A 90 NPT FF A 182 F316L Serie 3000 lbs da 3/4	15	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
127	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 1	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
128	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 1	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
129	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
130	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
131	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
132	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
133	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 3/4	25	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
134	ELBOW A 90 SW INOX A182F316L Serie 3000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
135	ELBOW A 90° NPT FF A 182 F316L Serie 3000lbs da 1/4	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
154	ELBOW A 90° SW INOX A 182F316L Serie 6000lbs da 1/2	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
237	TEE EQUAL NPT A 182 F316L Serie 3000lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
238	TEE EQUAL NPT A 182 F316L Serie 3000lbs da 1/2	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
241	TEE EQUAL NPT A182F316L Serie 3000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
242	TEE EQUAL NPT A182F316L Serie 3000lbs da 3/8	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA 1215 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

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MILL TEST CERTIFICATE
EN 10204:2004/3.1

MANUFACTURER: M.C.V. PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE S.R.L.
PRODUCTS: CARBON STEEL & STAINLESS STEEL HIGH PRESSURE FITTINGS

INVOICE NO. 62-2024
DATE: MAY 20, 2024

CONTENT OF THE DELIVERY								CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY								
NO.	DESCRIPTION	Q.TY	SURF.	GEOM. DIM.	DIM. CHECK	HEAT	MATERIAL	C	Si	Mn	S	P	Cr	Mo	V	Ni	Cu	N	Ti	Tensile Strength	Yield Strength	Rate of Reduction in Area	Elongation	Hardness	Impact Test, ISO-V Specimen KV2 J @-20°C			
																									1	2	3	Av.
243	TEE EQUALSW A 182F316L Serie 3000lbs da 2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
244	TEE EQUALSW A 182F316L Serie 6000lbs da 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
245	TEE EQUALSW A 182F316L Serie 6000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
250	TEE EQUALSW A182F316L Serie 3000lbs da 1	300	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
251	TEE EQUALSW A182F316L Serie 3000lbs da 1	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
252	TEE EQUALSW A182F316L Serie 3000lbs da 1"1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
253	TEE EQUALSW A182F316L Serie 3000lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
254	TEE EQUALSW A182F316L Serie 3000lbs da 1/2	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
255	TEE EQUALSW A182F316L Serie 3000lbs da 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
256	TEE EQUALSW A182F316L Serie 3000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
278	TEE RID.NPT A 182 F316L Serie 3000lbs da 1" x 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
287	TEE RID.SW A182F316L Serie 3000lbs da 1" x 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
288	TEE RID.SW A182F316L Serie 3000lbs da 1" x 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
289	TEE RID.SW A182F316L Serie 3000lbs da 1" x 3/4	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
290	TEE RID.SW A182F316L Serie 3000lbs da 1"1/2 x 3/4	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
291	TEE RID.SW A182F316L Serie 3000lbs da 3/4" x 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
293	TEE UGUAL. NPT A 182 F316L Serie 3000lbs da 1/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
330	EXAGONAL REDUCER MFNPT A 182F316L Serie 3/6000lbs da 1/4 x 1/8	120	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
331	EXAGONAL REDUCER MFNPT A 182F316L Serie 3/6000lbs da 3/4 x 1/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
333	EXAGONAL REDUCER NPT A182F316L Serie 3/6000lbs da 3/4 x 1/2	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
334	EXAGONAL REDUCERMF NPT A 182 F316L Serie 3/6000lbs da 1/2 x 1/4	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
335	EXAGONAL REDUCERMF NPT A 182 F316L Serie 3/6000lbs da 3/8 x 1/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
353	MIDDLE SOCKET SW A182F316L Serie 3000lbs da 1/2	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
354	MIDDLE SOCKET SW A182F316L Serie 3000lbs da 1/2	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
355	MIDDLE SOCKET SW A182F316L 3000 da 1"1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
356	MIDDLE SOCKET SW A182F316L Serie 3000lbs da 1	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
357	MIDDLE SOCKET SW A182F316L Serie 3000lbs da 3/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
423	NIPOLET PE INOX A 182F316L3000 SCH 80S da 1/2" Range 36"- 8"	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
673	PLUG MALE EXAGONAL HEAD NPT A 182 F316L Serie 3/6000lbs da 1/8	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
682	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
683	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1/2	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
684	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1/2	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
685	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
686	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA 1215 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

MCV Pipes & Fittings Trading L.L.C.
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industrial valves, pipes & fittings

ISO 9001:2015 1354

MILL TEST CERTIFICATE
EN 10204:2004/3.1

MANUFACTURER: M.C.V. PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE S.R.L.
PRODUCTS: CARBON STEEL & STAINLESS STEEL HIGH PRESSURE FITTINGS

INVOICE NO. 62-2024
DATE: MAY 20, 2024

CONTENT OF THE DELIVERY								CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY								
NO.	DESCRIPTION	Q.TY	SURF.	GEOM. DIM.	DIM. CHECK	HEAT	MATERIAL	C	Si	Mn	S	P	Cr	Mo	V	Ni	Cu	N	Ti	Tensile Strength	Yield Strength	Rate of Reduction in Area	Elongation	Hardness	Impact Test, ISO-V Specimen KV2 J @-20°C			
																									1	2	3	Av.
687	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 1/4	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
688	PLUG MALE EXAGONAL HEAD NPT A182F316L Serie 3/6000lbs da 3/8	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
702	PLUG MALE ROUND HEAD NPT A 182 F316L Serie 3/6000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
703	PLUG MALE ROUND HEAD NPT A 182 F316L Serie 3/6000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
704	PLUG MALE ROUND HEAD NPT A 182 F316L Serie 3/6000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
711	REDUCED INSERT MF PExSW A182F316L Serie 3000lbs da 3/4 x 1/2	25	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
712	REDUCED NIPPLE NPT A 182 F316L Serie 3000lbs da 1/2" x 1/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
721	SOCKET EQUAL NPT A 182 F316L Serie 6000lbs da 1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
726	SOCKET EQUAL NPT A182F316L Serie 3000lbs da 1	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
727	SOCKET EQUAL NPT A182F316L Serie 3000lbs da 1"1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
728	SOCKET EQUAL NPT A182F316L Serie 3000lbs da 1/2	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
729	SOCKET EQUAL NPT A182F316L Serie 3000lbs da 1/4	150	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
730	SOCKET EQUAL NPT A182F316L Serie 3000lbs da 3/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
785	SOCKET REDUCED NPT A 182F316L Serie 3000lbs da 1/2" x 1/4	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
786	SOCKET REDUCED NPT A 182F316L Serie 3000lbs da 3/4" x 1/2	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
793	SOCKET REDUCED SW A 182F316L Serie 3000lbs da 1" x 3/4	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
794	SOCKET REDUCED SW A182F316L S.3000 da 1 1/2 x 1	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
804	SOCKET RID.SW A 182 F316L 3000 1 1/2x 1/2	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
807	SOCKET SW A 182 F 316L 3000 da 1/4	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
808	SOCKET SW A 182 F 316L 3000 da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
809	SOCKET SW A 182 F 316L 3000 da 3/4	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
810	SOCKET SW A 182 F 316L 3000 da 1"1/4	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
811	SOCKET SW A 182 F 316L Serie 3000 da 1"1/2	400	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
812	SOCKET SW INOX A 182 F316L Serie 6000lbs da 1/2	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
813	SOCKET SW INOX A 182 F316L Serie 3000lbs da 1/2	200	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
868	SOCKOLET SW INOX A 182F316L 3000 da 1" Range 2"1/2 - 1"1/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
869	SOCKOLET SW INOX A 182F316L 3000 da 1" Range 2"1/2 - 1"1/4	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
870	SOCKOLET SW INOX A 182F316L 3000 da 1" Range 3" - 3"1/2	10	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
871	SOCKOLET SW INOX A 182F316L 3000 da 1" Range 12" - 10"	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
872	SOCKOLET SW INOX A 182F316L 3000 da 1"1/2 Range 2	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
873	SOCKOLET SW INOX A 182F316L 3000 da 1"1/2 Range 12" - 10"	5	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
874	SOCKOLET SW INOX A 182F316L 3000 da 1/2" Range 36" - 1"	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
875	SOCKOLET SW INOX A 182F316L 3000 da 3/4" Range 36" - 3"1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
877	CAP CYLINDRIC HEAD FEMMINA SW A 182F316L Serie 3000lbs da 1	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA 1215 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

M.C.V. Pipes & Fittings Trading L.L.C.
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Commercial Licence [illegible]
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MILL TEST CERTIFICATE
EN 10204:2004/3.1

MANUFACTURER: M.C.V. PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE S.R.L.
PRODUCTS: CARBON STEEL & STAINLESS STEEL HIGH PRESSURE FITTINGS

INVOICE NO. 62-2024
DATE: MAY 29, 2024

CONTENT OF THE DELIVERY								CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY								
NO.	DESCRIPTION	Q.TY	SURF.	GEOM. DIM.	DIM. CHECK	HEAT	MATERIAL	C	Si	Mn	S	P	Cr	Mo	V	Ni	Cu	N	Ti	Tensile Strength	Yield Strength	Rate of Reduction in Area	Elongation	Hardness	Impact Test, ISO-V Specimen KV2 J @-20°C			
																									1	2	3	Av.
878	CAP CYLINDRIC HEAD FEMMINA SW A 182F316L Serie 3000lbs da 1"1/2	15	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
879	CAP CYLINDRIC HEAD FEMMINA SW A 182F316L Serie 3000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
880	CAP CYLINDRIC HEAD FEMMINA SW A 182F316L Serie 3000lbs da 3/4	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
892	UNION NPT F/F A 182F316L Serie 3000lbs da 1	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
893	UNION NPT F/F A 182F316L Serie 3000lbs da 1"1/2	40	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
894	UNION NPT F/F A 182F316L Serie 3000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
895	UNION NPT F/F A 182F316L Serie 3000lbs da 3/4	60	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
896	UNION NPT FE/FE A 182F316L Serie 3000lbs da 1/4	80	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
897	UNION NPT FE/FE A 182F316L Serie 3000lbs da 3/8	100	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
908	UNION SW A 182 F316L S.3000 da 1/2	15	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
909	UNION SW A 182 F316L S.3000 da 1	30	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
910	UNION SW A 182 F316L S.3000 da 3/4	20	SATISF.	SATISF.	SATISF.	1215	A182 F316L	0,012	0,540	0,940	0,009	0,013	17,000	2,100		13,000		0,005		530	190	53	34		33	34	32	33
							A182 F22	0.05-0.15	≤0.50	0.30-0.60	≤0.040	≤0.040	2.00-2.50	0.87-1.13						≥415	≥205	≥35	≥20	≤170				≥27
60	ELBOW 90° ASTM A182 Gr.F22 3000 SW da 3/4"	10	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
161	ELBOW A 90° SW A 182 Grado F22 Serie 6000lbs da 1	10	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
162	ELBOW A 90° SW A 182 Grado F22 Serie 6000lbs da 3/4	10	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
228	TEE EQUAL SW A 182 F22 Serie 6000lbs da 1/2	50	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
420	NIPOLET BW ASTM A182 F22 GRZ 6000 da 1" Range 10"- 3" Sch 160	5	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
772	SOCKET EQUAL SW A 182 Gr.F22 Serie 6000lbs da 1"	20	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
773	SOCKET EQUAL SW A 182 Gr.F22 Serie 6000lbs da 3/4"	20	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
774	SOCKET EQUAL SW A 182 Gr.F22 Serie 6000lbs da 3/8"	20	SATISF.	SATISF.	SATISF.	1218	A182 F22	0,080	0,220	0,390	0,014	0,015	2,200	0,960						458	255	40	26	155	32	31	32	32
							A182 F9	≤0.15	0.50-1.00	0.30-0.60	≤0.030	≤0.030	8.0-10.0	0.90-1.10						≥585	≥380	≥40	≥20	179-217				≥27
165	ELBOW A 90° SW A 182 Grado F9 Serie 3000lbs da 1	10	SATISF.	SATISF.	SATISF.	1220	A182 F9	0,008	0,650	0,460	0,014	0,013	9,000	0,920						610	425	44	24	196	31	33	32	32
166	ELBOW A 90° SW A 182 Grado F9 Serie 3000lbs da 1"1/2	15	SATISF.	SATISF.	SATISF.	1220	A182 F9	0,008	0,650	0,460	0,014	0,013	9,000	0,920						610	425	44	24	196	31	33	32	32
167	ELBOW A 90° SW A 182 Grado F9 Serie 3000lbs da 3/4	10	SATISF.	SATISF.	SATISF.	1220	A182 F9	0,008	0,650	0,460	0,014	0,013	9,000	0,920						610	425	44	24	196	31	33	32	32
338	MIDDLE SOCKET SW A 182 F9 Serie 3000lbs da 1"1/2	100	SATISF.	SATISF.	SATISF.	1220	A182 F9	0,008	0,650	0,460	0,014	0,013	9,000	0,920						610	425	44	24	196	31	33	32	32
							304	≤0.08	≤1.00	≤2.00	≤0.030	≤0.045	18.0-20.0	-	-	8.0-11.0				515	205	-	25	-				≥27
424	NIPPLE FROM TUBE EQUAL 304 NPTxNPT da 1"1/2 x Lg= 100 Schedula 80S	50	SATISF.	SATISF.	SATISF.	1223	304	0,030	0,520	0,890	0,011	0,009	19,000			10,000				565	235		28		32	32	33	32
425	NIPPLE FROM TUBE EQUAL 304 NPTxNPT da 3/4" x Lg= 100 Schedula 80S	50	SATISF.	SATISF.	SATISF.	1223	304	0,030	0,520	0,890	0,011	0,009	19,000			10,000				565	235		28		32	32	33	32
426	NIPPLE FROM TUBE EQUAL 304 NPTxNPT da 3/4" x Lg= 100 Schedula 80S	30	SATISF.	SATISF.	SATISF.	1223	304	0,030	0,520	0,890	0,011	0,009	19,000			10,000				565	235		28		32	32	33	32
427	NIPPLE FROM TUBE EQUAL 304 NPTxNPT da 1" x Lg= 100,00 Sch 40S	5	SATISF.	SATISF.	SATISF.	1223	304	0,030	0,520	0,890	0,011	0,009	19,000			10,000				565	235		28		32	32	33	32

PANTALONE SRL Doc. N° 2024-DDTC-0011913 Data 02.10.2024 Rif. Vs. Ordine 1724001850 ROSETTI MARINO SPA COLATA 1215 QTA 5,000

ITEM 4 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1/2

MCV Pipes & Fittings Trading L.L.C.
P.O. Box 124328, Dubai, U.A.E.
info@mcvtrading.ae
www.mcvtrading.ae

ISO 9001:2015 TI PED certified ECM 1354

industrial valves, pipes & fittings

MILL TEST CERTIFICATE
EN 10204:2004/3.1

MANUFACTURER: M.C.V PIPES & FITTINGS TRADING L.L.C
CUSTOMER: PANTALONE S.R.L.
PRODUCTS: CARBON STEEL & STAINLESS STEEL HIGH PRESSURE FITTINGS

INVOICE NO. 62-2024
DATE: MAY 20, 2024

CONTENT OF THE DELIVERY								CHEMICAL COMPOSITION (%)												MECHANICAL PROPERTY								
NO.	DESCRIPTION	Q.TY	SURF.	GEOM. DIM.	DIM. CHECK	HEAT	MATERIAL	C	Si	Mn	S	P	Cr	Mo	V	Ni	Cu	N	Ti	Tensile Strength	Yield Strength	Rate of Reduction in Area	Elongation	Hardness	Impact Test, ISO-V Specimen KV2 J @-20°C			
																									1	2	3	Av.
652	NIPPLE FROM TUBE REDUCED A 333 G6 PE xPE da 1" x 1/2" Sch XS	30	SATISF.	SATISF.	SATISF.	1232	A333 GR.6	0,170	0,210	0,560	0,010	0,008	0,130	0,007	0,002	0,110	0,120			524	268		28		32	31	32	32
653	NIPPLE FROM TUBE REDUCED A 333 G6 PE xPE da 1"1/2 x 1" Sch STD	5	SATISF.	SATISF.	SATISF.	1232	A333 GR.6	0,170	0,210	0,560	0,010	0,008	0,130	0,007	0,002	0,110	0,120			524	268		28		32	31	32	32
654	NIPPLE FROM TUBE REDUCED A 333 G6 PE xPE da 1"1/2 x 3/4" Sch STD	5	SATISF.	SATISF.	SATISF.	1232	A333 GR.6	0,170	0,210	0,560	0,010	0,008	0,130	0,007	0,002	0,110	0,120			524	268		28		32	31	32	32
655	NIPPLE FROM TUBE REDUCED A 333 G6 PExPE da 2" x 1"1/2 Sch XS	10	SATISF.	SATISF.	SATISF.	1232	A333 GR.6	0,170	0,210	0,560	0,010	0,008	0,130	0,007	0,002	0,110	0,120			524	268		28		32	31	32	32
							A335 P22	0.05-0.15	≤0.50	0.30-0.60	≤0.025	≤0.025	1.90-2.60	0.87-1.13						≥415	≥205	≥30						≥27
555	NIPPLE FROM TUBE EQUALA 335 P22 PE xNPT da 1" x Lg= 100,00 Sch XXS	50	SATISF.	SATISF.	SATISF.	1234	A335 P22	0,090	0,200	0,420	0,008	0,009	2,110	0,950						460	260	34			33	30	31	31
							A335 P11	0.05-0.15	0.50-1.00	0.30-0.60	≤0.025	≤0.025	1.00-1.50	0.44-0.65						≥415	≥205		≥22					≥27
556	NIPPLE FROM TUBE EQUALA 335P11 PE xNPT da 3/4" x Lg= 100,00 Sch XS	10	SATISF.	SATISF.	SATISF.	1235	A335 P11	0,070	0,690	0,480	0,011	0,009	1,210	0,500						515	255		27		33	30	33	32
557	NIPPLE FROM TUBE EQUALA 335P11 PE xNPT da 1/2" x Lg= 100,00 Sch 160	50	SATISF.	SATISF.	SATISF.	1235	A335 P11	0,070	0,690	0,480	0,011	0,009	1,210	0,500						515	255		27		33	30	33	32
558	NIPPLE FROM TUBE EQUALA 335P11 PE xNPT da 3/4" x Lg= 100,00 Sch 160	30	SATISF.	SATISF.	SATISF.	1235	A335 P11	0,070	0,690	0,480	0,011	0,009	1,210	0,500						515	255		27		33	30	33	32
							A182 F11	0.05-0.15	0.5-1.0	0.30-0.60	≤0.030	≤0.030	1.00-1.50	0.44-0.65						≥415	≥205	≥45	≥20	121-174				≥27
660	NIPPLE FROM TUBE REDUCED F11 PExNPT da 1" x 1/2" Sch. XXS	20	SATISF.	SATISF.	SATISF.	1237	A182 F11	0,100	0,630	0,390	0,011	0,012	1,200	0,530						438	250	50	25	156	31	30	33	31
661	NIPPLE FROM TUBE REDUCED F11 PExNPT da 1" x 1/2" Sch. XXS	20	SATISF.	SATISF.	SATISF.	1237	A182 F11	0,100	0,630	0,390	0,011	0,012	1,200	0,530						438	250	50	25	156	31	30	33	31
662	NIPPLE FROM TUBE REDUCED F11 PExNPT da 1" x 3/4" Sch. XXS	20	SATISF.	SATISF.	SATISF.	1237	A182 F11	0,100	0,630	0,390	0,011	0,012	1,200	0,530						438	250	50	25	156	31	30	33	31
663	NIPPLE FROM TUBE REDUCED F11 PExPE da 1" 1/2 x 3/4" Sch. 160	20	SATISF.	SATISF.	SATISF.	1237	A182 F11	0,100	0,630	0,390	0,011	0,012	1,200	0,530						438	250	50	25	156	31	30	33	31
664	NIPPLE FROM TUBE REDUCED F11 PExPE da 1" x 3/4" Sch. XXS	20	SATISF.	SATISF.	SATISF.	1237	A182 F11	0,100	0,630	0,390	0,011	0,012	1,200	0,530						438	250	50	25	156	31	30	33	31

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

industrial valves, pipes & fittings

MCV Pipes & Fittings Trading L.L.C.
no. 1009, Block B, Youssef Zahra Building,
Al Quoz Third, P.O. Box 124328, Dubai, U.A.E.
info@mcvbroker.com www.mcvbroker.com

SIGNED

QUALITY DEPARTMENT

M.E.G.A.

INSPECTION CERTIFICATE
Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N.	TC-028435-22-0003	Issued on / Revised on	07/06/2022	Customer / Cliente	PANTALONE SRL VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -
Revision / Revisione	0	According to / In accordo a	EN 10204:2004 UNI EN 10204:2005	Type / Tipo	3.1
Job n. / Com. n.	28435	Page n. / Pagina n.	4 of 13	Purchase order and project / Ordine e progetto	2022-OMAG-0000154

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
ZBFC	80	20		ASTM A182-21 F316/316L	269720	COUPLING S.6000 NPT A/SA182 F316/L 1
AVHR	82	50		ASTM A182-21 F316/316L	502856	HALF COUPLING S.3000 NPT A/SA182 F316/L 1/2
AAYJ	85	10		ASTM A182-21 F316/316L	429753	CAP S.3000 NPT A/SA182 F316/L 1/4
AARD	86	15		ASTM A182-21 F316/316L	429753	CAP S.3000 NPT A/SA182 F316/L 3/8
AVHR	87	80		ASTM A182-21 F316/316L	502856	CAP S.3000 NPT A/SA182 F316/L 1/2

Test Prova	STEEL MELTING AND HEAT TREATMENT DATA Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES Certificati di acclaleria/forgia	Ref. to MEGA-LAB Mechanical Test
ZBFC	ELECT.FURN.-SOLUT.ANNEALED at 1040 C min-WATER QUENCHED CERT.MEST880432/2016.VALBRUNA	IT	880432/16 by VALBRUNA	
AVHR	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 432403 OLARRA	ES	432403 by OLARRA / by ACEROS INOXIDABLE OLARRA	MC-000000-20-0733
AAYJ	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 306093 OLARRA	ES	306093 by OLARRA	
AARD	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 303685 OLARRA	ES	303685 by OLARRA	
AVHR	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT 432403 OLARRA	ES	432403 by OLARRA / by ACEROS INOXIDABLE OLARRA	MC-000000-20-0733

Test	Test loc.	Orient.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B] Flatt. [F]	Hardness	Grain Size
			Specimen / Provino			Yield strength	Tensile strength	Elongation	Red. Of Area	Dimens.	T	Abs. Energy	Shear A	Lat Exp			
Prova	Preso a	Direz.	Shape Forma	A Sez.[mm²]	Gage Length Lungh.[mm]	Sner. [Mpa] Min:	Rottura [Mpa] Min:	Allung. [%] Min:	Contraz. [%] Min:	Dimens. [mm]	Temp. [°C]	Energia ass. [J]	Area d [%]	Esp. Lat. [mm]	Piega Schiacc.	Durezza [$HBW_{2.5/187.5}$]	Dimens. grano
ZBFC	T/2	TRANS	Round	60.100	35.000	274.000	590.000	56.700	71.500				--	--		182-183	
AVHR	T/2	LONG	Round	122.600	50.000	348.800	626.800	52.600	70.400	10X10X55	0	182-186-198	--	--		179-180	
AAYJ	T/2	LONG	Round	122.600	50.000	408.900	612.400	49.100	71.000	10X10X55	0	212-224-228	--	--		192-194	
AARD	T/2	LONG	Round	122.600	50.000	422.400	621.900	48.200	72.200	10X10X55	0	202-218-228	--	--		202-203	
AVHR	T/2	LONG	Round	122.600	50.000	348.800	626.800	52.600	70.400	10X10X55	0	182-186-198	--	--		179-180	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE[A] [%]	PREN[B] [%]	CES[E] [%]	J fact.[D] [%]
ZBFC	0.0190	0.4800	1.4800	0.0250	0.0300	16.8800	10.0000	2.0000							0.0600							24.4400		
AVHR	0.0230	0.3500	1.5100	0.0260	0.0350	16.5800	10.0900	2.0600							0.0335							23.9140		
AAYJ	0.0190	0.3600	1.5600	0.0280	0.0330	16.6000	10.0500	2.0400							0.0375							23.9320		
AARD	0.0190	0.3600	1.5600	0.0280	0.0330	16.6000	10.0500	2.0400							0.0375							23.9320		
AVHR	0.0230	0.3500	1.5100	0.0260	0.0350	16.5800	10.0900	2.0600							0.0335							23.9140		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2015
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'AVHR': Co 0.3200 | 'AAYJ': Co 0.1600 | 'AARD': Co 0.1600 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

PANTALONE SRL | Doc. N° 2024-DDTC-0011913 | Data 02.10.2024 | Rif. Vs. Ordine 1724001850 | ITEM 5 | DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1 | COLATA ZBFC | ROSETTI MARINO SPA | QTA 5,000

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. Rapporto N.	TC-028435-22-0003	**Issued on** 07/06/2022 **Revised on**		**Customer** Cliente	PANTALONE SRL	**Job n. / Com. n.** 28435	**Page n./ Pagina n.** 13 of 13
Revision Revisione	0	**According to** In accordo a	EN 10204:2004 UNI EN 10204:2005	**Type** Tipo	3.1	VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) -	**Purchase order and project**/Ordine e progetto 2022-OMAG-0000154

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.
The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.
All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:
- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2016; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and MSS SP 97 Ed. 2019
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2018 or B36.19 Ed. 2018
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2020, B.31.3 Ed. 2020 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.
The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.
When the Edition/Revision of the listed standards is not mentioned, it is the latest.
Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.
M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.
- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

The product are manufactured in Italy.

Quality Control Inspector **Certification department** Ispettore controllo qualità	Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

PANTALONE SRL
ITEM 5 DESCRIZIONE MANICOTTO UGUALE NPT A 182 F316L Serie 6000lbs da 1
Doc. N° 2024-DDTC-0011913
Data 02.10.2024
Rif. Vs. Ordine 1724001850
COLATA ZBFC
ROSETTI MARINO SPA
QTA 5,000

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
PANTALONE SRL	1725000394	123A90	Q012501028

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Matteo Ceccarelli **20.03.2025**

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2025-DDTC-0001287 Data 07.02.2025 Rif. Vs. Ordine 1725000394 ROSETTI MARINO SPA COLATA MA2 QTA 2,000

ITEM 1 DESCRIZIONE TAPPO TT FEMMINA NPT A 182 F55 Serie 3000lbs da 3/4"

CERTIFICATO DI COLLAUDO / TEST CERTIFICATE IN ACC. TO EN 10204 3.1 - 2004

Cliente/Customer: PANTALONE SRL
Ordine cliente/Customer order n°: 2025-OF-0000460
DDT/Delivery note/Packing list: 2025/DDT/000555

Certificate N°: 000555
Omsa Job: 2025/ODV/002460
Data/Date: 07/02/2025

Item	Quantity	Description	Material	Heat code	Heat n.	Steel mill	Mill cert	Country of origin
001	2	CAP3000 3/4" NPT F55	SA-A182 F55	MA2	770071	COGNE	2017043119	

ANALISI CHIMICA DI ACCIAIERIA / STEEL MILL CHEMICAL ANALYSIS

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Ti%	Al%	V%	Cu%	Nb%	N%	Zr%	Co%	Pb%	Fe%	Sn%	W%	C.E%	Pre%
0.0140	0.5900	0.3500	0.0190	0.0008	6.8500	25.1200	3.6800	0.0000	0.0000	0.0000	0.5500	0.0000	0.2600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	41.0000

CARATTERISTICHE MECCANICHE / MECHANICAL PROPERTIES

R Tens. strengh N/mmq	S Yeld point N/mmq	A Elongation %	C Reduction od Area %	Bending T.	Flatting T.	Hydraulic T.	1^HBW Hardness	2^HBW Hardness	1^ Impact/cm2	2^ Impact/cm2	3^ Impact/cm2	Impact test temp °C	Heat treatment
810	557	43.20	78.50				235	235	296	296	296	-50	SOLUTION ANN AT 1100°C

RACCORDI SECONDO / FITTINGS IN ACC.TO

Visual & dimensional check: OK

The values of chemical analysis are a true and correct copy of the steel mill test certificate.
The mechanical tests are the correct records of the certificate issued from the company that has executed the last transformation of the material.
We declare that the certified material complies with the above standards and to the client's order requirements.

ANNUAL BOOK OF ASTM STANDARDS - 2024
MATERIAL DUAL CERTIFIED ASTM/ASME SEC. II PART A ED. 2023
MATERIAL MANUFACTURER APPROVED BY LRQA CERT. NR. 00300 1 PED 2014/68/EU ANNEX I CHAPTER 4.3

ENTE COLLAUDO / TPI INSPECTOR

C. QUALITA' / QUALITY CONTROL
O.M.S.A S.r.l
Barbara Orlandi

Barbara Orlandi

O.M.S.A. S.r.l - Via Caronno Varesino, snc - 21048 Solbiate Arno (VA) - Italy | VAT number: IT01217860129 | www.omsafittings.it

M.E.G.A.

INSPECTION CERTIFICATE
Certificato d'ispezione

REPORT N. / Rapporto N. TC-032362-24-0001	Issued on 08/11/2024 / Revised on	PANTALONE SRL	Job n. / Com. n. 32362	Page n./ Pagina n. 3 of 10	
Revision / Revisione 0	According to / In accordo a EN 10204:2004 UNI EN 10204:2005	Type / Tipo 3.1	VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) - ITALY	Purchase order and project/Ordine e progetto 2024-OMAG-659	

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
BDKC	7	54		ASTM A182/24c F316/316L	541441	HEX. HEAD PLUG NPT A/SA182 F316/L 1/2
AGUA	8	50		ASTM A182/24c F316/316L	2N0H	HEX. HEAD PLUG NPT A/SA182 F316/L 3/4
BGRN	9	20		ASTM A182/24c F316/316L	555458	CAP S.3000 NPT A/SA182 F316/L 1/2
BGXH	10	30		ASTM A182/24c F316/316L	558189	CAP S.3000 NPT A/SA182 F316/L 3/4
BEBB	11	20		ASTM A182/24c F316/316L	546697	TEE S.6000 NPT A/SA182 F316/L 1/2

Test Prova	STEEL MELTING AND HEAT TREATMENT DATA Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
BDKC	ELECT.FURN.-SOLUT.ANNEALED at 1060°C-WATER QUENCHED	IT	159255 by RODACCIAI by RODACCIAI S.p.A.	
AGUA	ELECT.FURN.-SOLUT.ANNEALED at 1050 C WATER QUENCHED	ES	2023/002944 by ROLDAN by ACERINOX ITALIA srl	
BGRN	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED	ES	521259 by OLARRA by ACEROS INOXIDABLE OLARRA	
BGXH	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED	ES	524062 by OLARRA by ACEROS INOXIDABLE OLARRA	
BEBB	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED	ES	508247 by OLARRA / FC-012121-22-0011 by M.E.G.A. S.P.A.	

Test	Test loc.	Orient.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente							CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B]	Hardness	Grain
			Specimen / Provino			Yield strength	Tensile strength	Elongation	Red. Of Area	Dimens.	T	Abs. Energy	Shear A	Lat Exp			Size
Prova	Prelo a	Direz.	Shape Forma	A Sez.[mm²]	Gage Length Lungh.[mm]	Sner. [Mpa] Min:	Rottura [Mpa] Min:	Allung. [%] Min:	Contraz. [%] Min:	Dimens. [mm]	Temp. [°C]	Energia ass. [J]	Area d [%]	Esp. Lat. [mm]	Piega Schiacc.	Durezza [MBW$_{2.5/187.5}$]	Dimens. grano
BDKC	T/2	LONG	Round	122.500	50.000	310.300	645.400	54.100	65.700				-	-		216-225	
AGUA	T/2	LONG	Round	122.900	50.000	259.300	558.600	50.100	75.500				-	-		170-171	
BGRN	T/2	LONG	Round	122.700	50.000	315.200	578.800	52.700	73.500				-	-		183-185	
BGXH	T/2	LONG	Round	122.500	50.000	304.600	594.800	53.300	71.600				-	-		211-216	
BEBB	T/2	LONG	Round	31.500	25.000	261.900	570.600	52.900	70.500				-	-		161-164	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE[A] [%]	PREN[B] [%]	CEs[E] [%]	J fact.[D] [%]
BDKC	0.0270	0.4000	1.5600	0.0250	0.0350	16.6300	10.0500	2.0000		0.4100					0.0345							23.7820		
AGUA	0.0140	0.3880	1.5300	0.0300	0.0330	16.7650	10.3750	2.0860	0.0040	0.3640					0.0420							24.3208		
BGRN	0.0220	0.4200	1.5600	0.0300	0.0350	16.5400	10.1900	2.0300							0.0320							23.7510		
BGXH	0.0230	0.4500	1.6000	0.0280	0.0350	16.6300	10.1000	2.0200							0.0315							23.8000		
BEBB	0.0250	0.4300	1.5500	0.0270	0.0360	16.5900	10.0700	2.0200							0.0355							23.8240		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2020

2: MATERIAL ACCORDING TO ASME Sect. II Part A 2023 Edition.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N

C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm

D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'BDKC': Co 0.1700 | 'AGUA': Co 0.1420 | 'BGRN': Co 0.1400 | 'BGXH': Co 0.1800 | 'BEBB': Co 0.2500 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Umberto Moretti

Moretti Umberto

PANTALONE SRL Doc. N° 2025-DDTC-0001282 Data 07.02.2025 Rif. Vs. Ordine 1725000394 ROSETTI MARINO SPA
ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A182F316L Serie 3000lbs da 3/4 COLATA BGXH QTA 4,000

M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

REPORT N. / Rapporto N. TC-032362-24-0001		Issued on / Revised on 08/11/2024	PANTALONE SRL	Job n. / Com. n. 32362	Page n./ Pagina n. 10 of 10
Revision / Revisione 0	According to / In accordo a	EN 10204:2004 / UNI EN 10204:2005 Type / Tipo 3.1	VIA DON PRIMO MAZZOLARI 21 66100 CHIETI SCALO (CH) - ITALY	Purchase order and project/Ordine e progetto 2024-OMAG-659	

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.

The chemical and mechanical values shown on this EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined them.

All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2018.

Manufacturing standards:

- 45° and 90° elbows, tees, crosses, full and half couplings, caps, square, hexagonal and round plugs, hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2021; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013 (R 2018)
- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2024, B.31.3 Ed. 2022 and MSS SP 97 Ed. 2019 and ASME B.31.8 Ed. 2022
- Seamless swage nipples are manufactured in accordance with: BS 3799-74 or MSS SP 95 Ed. 2018
- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2022 or B36.19 Ed. 2022
- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2024, B.31.3 Ed. 2022 and B.16.5 Ed. 2020
- Unions are manufactured in accordance with: BS 3799-74 or MSS SP 83 Ed. 2018

When the length of flanged nipolet is not specified in the description, it is 150 mm.

The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.

When the Edition/Revision of the listed standards is not mentioned, it is the latest.

Austenitic, duplex stainless steels and nickel alloy have been pickled and passivated. Machined surfaces do not require pickling and passivation.

M.E.G.A. is approved with certificate DGR-0036-QS-W 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Test results are relevant only to the specimens belonging to the indicated heat, batch and material.

- Tensile test: ASTM A370 paragraph 6. Elongation determined after fracture, Yield strength determined by 0.2% off-set method
- Impact test: ASTM A370 Paragraph 20 / ASTM E23
- Hardness test: ASTM E10 (HBW); ASTM E92 (HV10); ASTM E18 (HRC)
- Chemical analysis: ASTM E415 and E1086
- Grain size determined according to ASTM E112

Carbon steel materials (A105 / A350 LF2) have been produced with fine grain practice, fully killed and vacuum degassed

The product are manufactured in Italy.

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Quality Control Inspector Certification department Ispettore controllo qualità	Umberto Moretti Moretti Umberto

PANTALONE SRL Doc. N° 2025-DDTC-0001282 Data 07.02.2025 Rif. Vs. Ordine 1725000394
ITEM 1 DESCRIZIONE TAPPO FEMMINA TT NPT A182F316L Serie 3000lbs da 3/4 ROSETTI MARINO SPA COLATA BGXH QTA 4,000

RosettiMarino

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order	Job	Barcode
PANTALONE SRL	1725000262	123A90	Q012501019

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

20.03.2025

Matteo Ceccarelli

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2025-DDTC-0001066 Data 03.02.2025 Rif. Vs. Ordine 1725000262 123A90A ROSETTI MARINO SPA
ITEM 1 DESCRIZIONE RIDUZIONE CONCENT.SS A 420WPL6 mm. 114,30 x 60,32 Sch XS COLATA 15D3307 QTA 1,000

I.R.C. S.p.A.
SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy
STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it
EEC. CODE: IT01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate
EN 10204-2004 3.1

Document no.	8468-P29	10/10/2024
Purchaser	030206016170 - PANTALONE SRL	
Order	Ord.C/oVendReint601	

	Item	Quantity	Heat Id.
29	R.C. 4" x 2" XS WPL6	10,00	15D3307

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 780° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,120	1,300	0,250	0,013	0,002	0,020	0,120	0,010	0,020	0	0

CE_{IIW} 0,37

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	321	478	33

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
7.5 X 10	0,6	Base Mat.	141	158	151	150

Hardness Test

Base Metal Avg 138 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

PANTALONE SRL Doc. N° 2025-DDTC-0001066 Data 03.02.2025 Rif. Vs. Ordine 1725000262 123A90A ROSETTI MARINO SPA

ITEM 2 DESCRIZIONE RIDUZIONE CONCENT.SS A 420WPL6 mm. 60,32 x 33,40 Sch XS COLATA 433876 QTA 1,000

I.R.C. S.p.A.

SEDE LEGALE:
Via Guarneri del Gesù, 3 - I-26100 Cremona (CR) - Italy

STABILIMENTO E UFFICI:
Via E. Fermi, 7 - 29016 Cortemaggiore (PC) - Italy
Telefono: 0039 - 0523-839600 - Telefax: 0039 - 0523-836132
Web: www.ircbwf.it - E-mail: irc@ircbwf.it

EEC. CODE: IT01224220192
Cod. Fisc./Reg.Imprese: 00150030336 - P.IVA/EORI IT01224220192
REA CR 152967 - Export CR 011012 - Cap. Soc. EURO 20.134.400 I.V.

FITTING CONNECTIONS
Quality Management System Certified Company

Inspection Certificate

EN 10204-2004 3.1

Document no.	9466-P35	23/10/2023
Purchaser	030206016170 - PANTALONE SRL	
Order	Ord.C/oVendReint731	

	Item	Quantity	Heat Id.
35	R.C. 2" x 1" XS WPL6	10,00	433876

Specification	ASTM A 420/A 420M-20 / ASME SA-420/SA-420M-21 WPL6
Method of Fabrication	HOT FORMED BTW 760° - 980° C, COOLED IN STILL AIR
Heat Treatment	NORMALIZED AT 920°C [1 MIN / MM; 30 MINUTES MINIMUM] AND COOLING IN STILL AIR
Type of construction	SEAMLESS MANUFACTURED FROM PIPE (FULLY KILLED STEEL AND FINE GRAIN PRACTICE)
Manufacture standard	ASME B16.9 - 2018 / ASME B16.25 - 2018 FIG.2A/3A (AS APPLICABLE)

Ladle Analysis

C%	Mn%	Si%	P%	S%	Ni%	Cr%	Mo%	Cu%	V%	Nb%
0,220	0,620	0,260	0,025	0,016	0,046	0,044	0,015	0,070	0,016	0,0020

CE_{IIW} 0,35

Legenda: CE_{IIW} = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 Pcm = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5*B J-Factor = (Si+Mn)*(P+Sn)*10000 CE = C+F*(Mn/6+Si/24+Cu/15+Ni/20+(Cr+Mo+V+Nb)/5+5*B)

Tensile Test

Base Metal Direction L

Unit	Y.S.	T.S.	Elongation %
MPA	298	523	36

Impact Test

Direction L Test Temperature -46 °C Test Type KV

Size (mm)	Section (cm2)		Impact Value (J) (1)	(2)	(3)	Avg
5 X 10	0,4	Base Mat.	87	91	79	86

Hardness Test

Base Metal Avg 140 HBW

NACE MR0175/ISO15156-2:2015 A.2 / NACE MR0103/ISO17945:2015, 13.1 & 15
Visual and dimensional check with satisfactory result - Marking: Manufacturer / Size / Wall thickness / Material / Heat Id.
Quality Assurance System in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex I, Paragraph 4.3, certified by TÜV Italia S.r.l. (No.Bo. 0948)

The products were manufactured, sampled, tested and inspected in accordance with the specifications and purchase order and were found to meet the requirements.

Mfr Authorized Inspector	Quality Department	Official Designated Inspector	Purchaser Authorized Inspector
Luca Alessandrini			

This certificate is issued by a computerized system and is valid without stamp and signature
This certificate is not a declaration of origin nor may it be used as a declaration of origin

Legenda: RC=Concentric Reducer RE=Eccentric Reducer TEE=Tee Curva=Elbow Fondello=Cap Croce=Cross Tubo=Pipe

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001850	123A90A	Q012400966

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **15.11.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 7,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV
CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ⌀ 12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
15	20	ANSI SO RF ASTM A 105 Serie 300lbs da 6	35226	265	508	35	39	166
16	10	ANSI SO RF ASTM A 105 Serie 300lbs da 8	35226	265	508	35	39	166
17	10	ANSI SO RF ASTM A 105 Serie 300lbs da 10	35227	266	509	36	38	167
18	30	ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4	35227	266	509	36	38	167
19	50	ANSI BLIND RF ASTMA105 Serie 150lbs da 1	35227	266	509	36	38	167
20	50	ANSI BLIND RF ASTMA105 Serie 150lbs da 1^1/2	35227	266	509	36	38	167
21	50	ANSI BL. RF ASTM A 105 Serie 150lbs da 3	35227	266	509	36	38	167

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35226	0.153	0.231	0.625	0.011	0.009	0.011	0.011	0.01	0.01	0.001	0.001	
35226	0.153	0.231	0.625	0.011	0.009	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 7,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV

CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ⌀ 12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
22	50	ANSI BL. RF ASTM A 105 Serie 150lbs da 8	35227	266	509	36	38	167
23	30	ANSI BL RF ASTM A 105 Serie 150lbs da 12	35227	266	509	36	38	167
24	10	ANSI BLIND RF ASTMA105 Serie 150lbs da 14	35227	266	509	36	38	167
25	50	ANSI BLIND RF ASTMA105 Serie 300lbs da 4	35227	266	509	36	38	167
26	20	ANSI BLIND RF ASTMA105 Serie 300lbs da 6	35227	266	509	36	38	167
27	20	ANSI BLIND RF ASTMA105 Serie 300lbs da 8	35227	266	509	36	38	167
28	200	ANSI SW RF ASTM A105 150lbs da 3/4 Sch Std	35227	266	509	36	38	167

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 7,000

ITEM 1 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV
CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ⌀ 12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
29	200	ANSI SW RF ASTM A105 150lbs da 1 Sch Std	35227	266	509	36	38	167
30	200	ANSI WN RF ASTM A105 150lbs da 3/4^ Sch Std	35227	266	509	36	38	167
31	400	ANSI WN RF ASTM A105 150lbs da 1" Sch Std	35227	266	509	36	38	167
32	300	ANSI WN RF ASTM A105 150lbs da 1^1/2 Sch Std	35227	266	509	36	38	167
33	400	ANSI WN RF ASTM A105 150lbs da 2^ Sch Std	35227	266	509	36	38	167
34	700	ANSI WN RF ASTM A105 150lbs da 3^ Sch Std	35228	268	510	37	39	169
35	100	ANSI WN RF ASTM A105 150lbs da 2^ Sch XS	35230	267	508	36	38	168

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35228	0.153	0.232	0.625	0.011	0.010	0.011	0.011	0.01	0.01	0.001	0.001	
35230	0.150	0.233	0.625	0.011	0.011	0.010	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 20101258 QTA 1,000
ITEM 1 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4

DINGXIANG BEICHENG FLANGE CO.,LTD

Yangfang Development Area Dingxiang Shanxi P.R. China

Inspection Certificate

Abnahmepruefzeugnis

EN10204-3.1

Certified in accordance to Pressure Equipment Directive 2014/68/EU,
Annex1,Paragraph 4.3 by TüV NORD Group
(Notified Body Identification NO.0045)

Zertifiziert nach Druckgeraete-Richtlinie 2014/68/EU,
Anhang 1,Abschnitt 4.3 durch TüV NORD Gruppe
(Benannte Stelle Kenn-Nr.0045)

Certificate No.: BC-20-Y069 Page: 11/81
Pruef-Nr. Seite

Customer/Besteller:					
Order No./Bestell Nr.:	dated/vom	Works No/Werks Nr.	Material/Werkstoff	according to/entsprechend	
DXBC-Y069-2020	08/04/2020	2020-Y069	A105N	ASTM A105:2018/NACE MR0175	
Article/Gegenstand:	Hot Forged Flange/geschmiedeter Flansch		Specification/Anforderung:	ASME B16.5:2017	
State of delivery/Lieferzustand:	HOT FORGED		Heat Treatment/Erschmelzungsart:	NORMALIZED	
Marking/Kennzeichnung:	Standard Size TYPE Class Material Heat-No.				
Stamp of Manufacturer/Herstellerzeichen:			Inspector's stamp/Pruefstempel:		

Content of the Delivery/Lieferumfang:

No.	Pieces/stueckzahl	Description/Bezeichnung	Heat No/Schmelze-N	Test No/ProbeNr	Code
57	200	A105N B16.5 150LBS BL RF 3/4"	20101258	BC20Y06902	150BRF020
58	200	A105N B16.5 150LBS BL RF 1"	20101258	BC20Y06902	150BRF025
59	50	A105N B16.5 150LBS BL RF 1 1/4"	20101258	BC20Y06902	150BRF032
60	100	A105N B16.5 150LBS BL RF 1 1/2"	20101258	BC20Y06902	150BRF040
61	200	A105N B16.5 150LBS BL RF 2"	20101258	BC20Y06902	150BRF050

Chemical analysis/Chemische Analyse:

NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Ta	%Nb	%Cu	%Al	%V	%N	%CE
	20101258	0,20	0,23	1,03	0,014	0,002	0,014	0,002	0,012				0,009		0,001		0,38

Mechanical tests/Mechanische Pruefungen:

NO.	Test No/ProbeNr	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation %	Reduction of Area %	Charpy-impact Test, ISO-V Specimen Kerbschlagversuch,ISO-V-Probe(-15℃) J				Hardness/Haerte HB
									Σ/N (≥27J)	
	BC20Y06902	293	510	36,5	65,0	132	134	160	142	146/148/150

Visual and dimensional inspection/Besichtigung und Ausmessung: **without complaint/ohne Beanstandung**

Place/Ort: DING XIANG **Date/Datum: 2020-5-16** **Works Inspector/Werkssachverstaendiger**

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 10,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1^1/2

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV

CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ⌀12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
15	20	ANSI SO RF ASTM A 105 Serie 300lbs da 6	35226	265	508	35	39	166
16	10	ANSI SO RF ASTM A 105 Serie 300lbs da 8	35226	265	508	35	39	166
17	10	ANSI SO RF ASTM A 105 Serie 300lbs da 10	35227	266	509	36	38	167
18	30	ANSI BLIND RF ASTMA105 Serie 150lbs da 3/4	35227	266	509	36	38	167
19	50	ANSI BLIND RF ASTMA105 Serie 150lbs da 1	35227	266	509	36	38	167
20	50	ANSI BLIND RF ASTMA105 Serie 150lbs da 1^1/2	35227	266	509	36	38	167
21	50	ANSI BL. RF ASTM A 105 Serie 150lbs da 3	35227	266	509	36	38	167

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35226	0.153	0.231	0.625	0.011	0.009	0.011	0.011	0.01	0.01	0.001	0.001	
35226	0.153	0.231	0.625	0.011	0.009	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 10,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1^1/2

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV

CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ∅12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
22	50	ANSI BL. RF ASTM A 105 Serie 150lbs da 8	35227	266	509	36	38	167
23	30	ANSI BL RF ASTM A 105 Serie 150lbs da 12	35227	266	509	36	38	167
24	10	ANSI BLIND RF ASTMA105 Serie 150lbs da 14	35227	266	509	36	38	167
25	50	ANSI BLIND RF ASTMA105 Serie 300lbs da 4	35227	266	509	36	38	167
26	20	ANSI BLIND RF ASTMA105 Serie 300lbs da 6	35227	266	509	36	38	167
27	20	ANSI BLIND RF ASTMA105 Serie 300lbs da 8	35227	266	509	36	38	167
28	200	ANSI SW RF ASTM A105 150lbs da 3/4 Sch Std	35227	266	509	36	38	167

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 35227 QTA 10,000

ITEM 2 DESCRIZIONE FLANGIA ANSI BLIND RF ASTMA105 Serie 150lbs da 1^1/2

MILL TEST CERTIFICATE

BS EN 10204 3.1

Certificate n.: 57-2024 - date 20 of May 2024

MANUFACTURER: MCV
CUSTOMER: PANTALONE S.R.L.

MATERIAL: ASTM A105 REQUIREMENTS: ANSI B16.5

CERTIFICATE OF ANALYSIS (ACCORDING TO STEEL PRODUCER)

ITEM NO.	QTY	DESCRIPTION	CAST NO.	Yield	Lo=50mm ⌀12.50mm			HARDNESS HB
				N/MM2	TENSILE N/MM2 tang.	ELONG %	Reduction	
29	200	ANSI SW RF ASTM A105 150lbs da 1 Sch Std	35227	266	509	36	38	167
30	200	ANSI WN RF ASTM A105 150lbs da 3/4^ Sch Std	35227	266	509	36	38	167
31	400	ANSI WN RF ASTM A105 150lbs da 1" Sch Std	35227	266	509	36	38	167
32	300	ANSI WN RF ASTM A105 150lbs da 1^1/2 Sch Std	35227	266	509	36	38	167
33	400	ANSI WN RF ASTM A105 150lbs da 2^ Sch Std	35227	266	509	36	38	167
34	700	ANSI WN RF ASTM A105 150lbs da 3^ Sch Std	35228	268	510	37	39	169
35	100	ANSI WN RF ASTM A105 150lbs da 2^ Sch XS	35230	267	508	36	38	168

IMPACT TEST: -20°C: 32/35/35, AVG.>27J HEAT TREATMENT: for 30min per 25.4mm thickness and air cooled: fine grain practiced

CAST NO.	C%	Si%	Mn%	P%	S%	Cu%	Ni%	Cr%	Mo%	Ti%	Nb%	
	≦0.35	0.10-0.35	0.6-1.05	≦0.035	≦0.040	≦0.4	≦0.4	≦0.3	≦0.30	≤0.02	≤0.02	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35227	0.151	0.231	0.628	0.011	0.011	0.011	0.011	0.01	0.01	0.001	0.001	
35228	0.153	0.232	0.625	0.011	0.010	0.011	0.011	0.01	0.01	0.001	0.001	
35230	0.150	0.233	0.625	0.011	0.011	0.010	0.011	0.01	0.01	0.001	0.001	

industrial valves, pipes & fittings

DIMENSIONAL CHECK- SATISFACTORY

SIGNED

QUALITY DEPARTMENT

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA

ITEM 4 DESCRIZIONE FLANGIA ANSI BLIND RF ASTM A 105 Serie 300lbs da 1 COLATA 75485 QTA 30,000

FAD FLANGE ACCIAIO & DERIVATI s.p.a.

SEDE LEGALE: VIA BONESCHI ,1 - 20040 CAMBIAGO (MI) ITALIA
TEL. :+39 02 959420 FAX : + 39 02 95942323 INTERNET: www.fadflange.it - E-MAIL: info@fadflange.it
CAPITALE SOCIALE/ SHARE EQUITY € 3.000.000,00 REG.IMP. MONZA BRIANZA /C.F. 03840060158
PARTITA IVA / V.A.T. No. IT 00763980968 - REA MI975057 - N.MECCANOGRAFICO MI 100012

CERTIFICATO PROVE MATERIALI N.7610/24 1- 1

Test certificate - Certificat d'epreuves - Werksbescheinigung
EN 10204 / 3.1

CLIENTE / Customer - Client - Kunde
PANTALONE SRL

VIA P. MAZZOLARI, 21 ZI SELVAIEZZI

66100 CHIETI SCALO CH ITALIA

DATA / Date - Date - Datum 26/09/2024
COMMESSA / Mill order / Cont. de commande / Komm 2416697
ORDINE / Order / Commande/ Auftrag 2024-OF-0003712 - 3708 - 3701
D.D.T. / Delivery note / Bulletin de livraison / Lieferschein 7.610

CODICE / Line code / Code / Kode	COLATA / Heat / Coulé / Schmelze	CERTIFICATO ORIGINE / Certificate of origin / Certificat d'usine / Werkszeugniss	NORMA / MAT. / DESCRIZIONE / Standard / Material / Description / Norme / Matériel / Description / Standard / Werkstoff / Gegenstand	POS.ORD. / Item order / Pos. de comm / Auftragsabe	QUANTITA / Quantity / Quantité / Stuckzahl
	75485	RIVA-75495	F.FLG ASME B16.5 A/SA105-21 BL 300 1" RF	2	30

ANALISI CHIMICA / Chemical analysis / Analyse chemique / Chemische zusammensetzung (5)

C %	Mn %	P %	S %	Si %	Cr %	Ni %	Mo %	Ti %	Cu %	Nb %	N %	V %	Al %	Sn %	CE %
0,145	0,960	0,012	0,005	0,190	0,150	0,060	0,020	0,003	0,160	0,001	0,009	0,002	0,020	0,006	0,350

B %	Ca %	H2 %	O2 %	W %	Sb %	As %	Fe %	Co %	PRE %
0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,0000

CARATTERISTICHE MECCANICHE / Mechanical test / Epreuves mechaniques / Mechanische eigenschafte

MPA Tensile strenght / Rupture / Zugfestigkeit	MPA Yield point / Limite elastique / Streckgrenze	4D % Elongation / Allongement / Dehnung	Reduction of area / Striction % / Einschnürung	HB Hardness / Dureté / Harte	Impact test / Resilience / Kerbschlagzähigkeit	(1)	(2)	(3)	(4)
498,0	308,0	33,0	62,0	155 157	10/10 KV 0°C 72 67 68 J	A	A	X	X

CODICE / Line code / Code / Kode	COLATA / Heat / Coulé / Schmelze	CERTIFICATO ORIGINE / Certificate of origin / Certificat d'usine / Werkszeugniss	NORMA / MAT. / DESCRIZIONE / Standard / Material / Description / Norme / Matériel / Description / Standard / Werkstoff / Gegenstand	POS.ORD. / Item order / Pos. de comm / Auftragsabe	QUANTITA / Quantity / Quantité / Stuckzahl
	34225	RIVA	F.FLG ASME B16.5 A/SA105-21 SW 300 1.1/2" S.160 RF	3	5

ANALISI CHIMICA / Chemical analysis / Analyse chemique / Chemische zusammensetzung (5)

C %	Mn %	P %	S %	Si %	Cr %	Ni %	Mo %	Ti %	Cu %	Nb %	N %	V %	Al %	Sn %	CE %
0,175	0,970	0,009	0,005	0,220	0,170	0,070	0,010	0,007	0,140	0,001	0,010	0,001	0,028	0,014	0,390

B %	Ca %	H2 %	O2 %	W %	Sb %	As %	Fe %	Co %	PRE %
0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,0000

CARATTERISTICHE MECCANICHE / Mechanical test / Epreuves mechaniques / Mechanische eigenschafte

MPA Tensile strenght / Rupture / Zugfestigkeit	MPA Yield point / Limite elastique / Streckgrenze	4D % Elongation / Allongement / Dehnung	Reduction of area / Striction % / Einschnürung	HB Hardness / Dureté / Harte	Impact test / Resilience / Kerbschlagzähigkeit	(1)	(2)	(3)	(4)
508,0	315,0	34,0	60,0	156 156	10/10 KV 0°C 64 68 72 J	A	A	X	X

CODICE / Line code / Code / Kode	COLATA / Heat / Coulé / Schmelze	CERTIFICATO ORIGINE / Certificate of origin / Certificat d'usine / Werkszeugniss	NORMA / MAT. / DESCRIZIONE / Standard / Material / Description / Norme / Matériel / Description / Standard / Werkstoff / Gegenstand	POS.ORD. / Item order / Pos. de comm / Auftragsabe	QUANTITA / Quantity / Quantité / Stuckzahl
	33784	RIVA	F.FLG ASME B16.5 A/SA105-21 WN 1500 3/4" S.XS RJ	4	1

ANALISI CHIMICA / Chemical analysis / Analyse chemique / Chemische zusammensetzung (5)

C %	Mn %	P %	S %	Si %	Cr %	Ni %	Mo %	Ti %	Cu %	Nb %	N %	V %	Al %	Sn %	CE %
0,195	0,990	0,012	0,010	0,230	0,130	0,050	0,010	0,016	0,160	0,001	0,000	0,010	0,026	0,000	0,400

B %	Ca %	H2 %	O2 %	W %	Sb %	As %	Fe %	Co %	PRE %
0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,0000

CARATTERISTICHE MECCANICHE / Mechanical test / Epreuves mechaniques / Mechanische eigenschafte

MPA Tensile strenght / Rupture / Zugfestigkeit	MPA Yield point / Limite elastique / Streckgrenze	4D % Elongation / Allongement / Dehnung	Reduction of area / Striction % / Einschnürung	HB Hardness / Dureté / Harte	Impact test / Resilience / Kerbschlagzähigkeit	(1)	(2)	(3)	(4)
518,0	328,0	31,0	65,0	160 162	10/10 KV 0°C 76 85 73 J	A	A	X	X

NACE MR 0103 ED16

Material manufactured in accordance with PED 2014/68/UE PAR.4.3 under quality assurance system ISO 9001 cert. 206967 issued by Bureau Veritas

(1) PRODUZIONE ACCIAIO / Steel production / Production acier / Stahl produktion
- A - COLATO E ELABORATO AL FORNO ELETTRICO / Killed steel made by electric furnace / Acier calme produit au four electrique / Beruhigt stahl ausgearbeitet im elektrofen.
- B - EL.ABBORATO AL FORNO ELETTRICO / Made by electric furnace / Produit au four electrique / Ausgearbeitet im elektrofen.

(2) TRATT. TERMICO / Heat treatment / Traitement thermique / Warmebehandlung
- A - NORMALIZZATO / Normalized / Normalisé / Normalgeglüht
- B - NORMALIZZATO E RINVENUTO / Normalized and tempered / Normalisé et revenu / Normalisiert angelassen
- C - BONIFICATO / Quenched and tempered / Bonifié / Harten und anlassen
- D - SOLUBILIZZATO / Solution treated and quench / Solubilisé / Lösungsgeglüht

(3) X - CERTIFICATO SECONDO ASME SA/EN 21 AD: ____

(4) X - CONTROLLO VISIVO E DIMENSIONALE SODDISFACENTE / Satisfactory visual and dimensional check / Inspection et controle dimensionnel satisfaisant / Befriedigung und maßkontrolle bestanden

(5) CE = C + Mn/6 + Cr+Mo+V/5 + Cu+Ni/15

X NACE MR 01-75 ED: 15

- I VALORI DELLE ANALISI CHIMICHE SONO RICAVATI DAL CERTIFICATO DI FERRIERA / Chemical analytical values are taken from mill certificate / Les valeurs de l'analyse chimique sont tirés du certificat d'usine / Die Werte des chemischen Analysen sind vom Original Werksbescheinigung erhalten.

(5) DOUBLE CERTIFICATION: C.S.A/SA105/SA350LF2-1 - S.S.A/SA182F316/316L & A/SA182F304/304L

RESP. CONTROLLO CERTIFICATI / Issued by / Cert. contrôle / Zeugnisprüfung cert.	ENTE UFFICIALE DI COLLAUDO / Inspection authority / Service inspection officiel / Abnahmeverein	CAPO COLLAUDO / Chief inspector / Chef de la réception / Chef der abnahmestellung

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

industrial valves, pipes & fittings

MILL TEST CERTIFICATE

EN 10204 MODEL 3.1

Certificate No.: 23163
Invoice NO.: 90/2023
Date: July 30th, 2023
Contract No.: 230617

ITEM	SIZE	HEAT NO.	QTY	VISUAL DIMENSIONAL INSPECTION	BEND TEST FORMER (1.5) RESULT 180°	HARDNESS 187 (max.)	CHEMICAL COMPOSITION(%)											MECHANICAL PROPERTY			
							C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CE	Y.S (MPa)	T.S (MPa)	RA (%)	E (%)
							≤0.35	0.60-1.05	≤0.035	≤0.040	0.10-0.35	≤0.040	≤0.040	≤0.030	≤0.120	≤0.080		≥250	≥485	≥30	≥22
1	FLANGE ANSI B LIND RF ASTM A 105 class 150lbs da 1/2"	2302	30	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
2	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 2"	2302	100	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
3	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 3"	2302	100	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
4	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 4"	2302	100	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
5	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 6"	2302	80	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
6	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 8"	2302	50	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
7	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 10"	2302	30	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
8	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 12"	2302	30	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
9	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 16"	2302	10	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
10	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 18"	2302	4	GOOD	GOOD	176	0.26	0.84	0.022	0.026	0.18	0.025	0.023	0.018	0.086	0.071	0.438	305	506	44	34
11	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 1"1/4	2303	50	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
12	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 1"1/2	2303	100	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
13	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 3"	2303	200	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
14	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 4"	2303	150	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
15	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 6"	2303	100	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
16	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 8"	2303	100	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
17	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 10"	2303	100	GOOD	GOOD	173	0.27	0.85	0.017	0.025	0.29	0.028	0.024	0.017	0.083	0.072	0.450	289	509	45	33
9	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 12"	2305	80	GOOD	GOOD	163	0.24	0.92	0.019	0.028	0.21	0.031	0.026	0.020	0.079	0.074	0.432	299	510	43	32
10	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 14"	2305	10	GOOD	GOOD	163	0.24	0.92	0.019	0.028	0.21	0.031	0.026	0.020	0.079	0.074	0.432	299	510	43	32
11	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 16"	2305	10	GOOD	GOOD	163	0.24	0.92	0.019	0.028	0.21	0.031	0.026	0.020	0.079	0.074	0.432	299	510	43	32
12	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 18"	2305	4	GOOD	GOOD	163	0.24	0.92	0.019	0.028	0.21	0.031	0.026	0.020	0.079	0.074	0.432	299	510	43	32
13	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 20"	2305	10	GOOD	GOOD	163	0.24	0.92	0.019	0.028	0.21	0.031	0.026	0.020	0.079	0.074	0.432	299	510	43	32
14	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1" Sch Std	2306	80	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
15	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1"1/4 Sch Std	2306	50	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
16	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 2" Sch Std	2306	200	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
17	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 3" Sch Std	2306	250	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
18	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 4" Sch Std	2306	250	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
19	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 6" Sch Std	2306	100	GOOD	GOOD	166	0.21	0.91	0.023	0.029	0.27	0.035	0.036	0.021	0.080	0.073	0.401	279	502	42	29
20	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 8" Sch Std	2307	80	GOOD	GOOD	164	0.18	0.88	0.028	0.027	0.28	0.032	0.035	0.023	0.081	0.072	0.366	274	527	36	27
21	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 10" Sch Std	2307	50	GOOD	GOOD	164	0.18	0.88	0.028	0.027	0.28	0.032	0.035	0.023	0.081	0.072	0.366	274	527	36	27
22	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 16" Sch Std	2307	12	GOOD	GOOD	164	0.18	0.88	0.028	0.027	0.28	0.032	0.035	0.023	0.081	0.072	0.366	274	527	36	27
23	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 18" Sch Std	2307	6	GOOD	GOOD	164	0.18	0.88	0.028	0.027	0.28	0.032	0.035	0.023	0.081	0.072	0.366	274	527	36	27
24	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 20" Sch Std	2307	12	GOOD	GOOD	164	0.18	0.88	0.028	0.027	0.28	0.032	0.035	0.023	0.081	0.072	0.366	274	527	36	27
25	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 1/2" Sch Std	2308	30	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
26	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 3/4" Sch Std	2308	30	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
27	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 1" Sch Std	2308	30	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
28	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 1/2" Sch XS	2308	50	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
29	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 3/4" Sch XS	2308	50	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
30	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 1"1/2 Sch XS	2308	50	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
31	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 2" Sch XS	2308	50	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
32	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 3" Sch XS	2308	50	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
33	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 4" Sch XS	2308	20	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
34	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 5" Sch XS	2308	10	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
35	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 6" Sch XS	2308	10	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
36	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 3"	2309	15	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34

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ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

37	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 12"	2309	5	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
38	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 14"	2309	2	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
39	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 18"	2309	2	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
40	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 20"	2309	2	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
41	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 1"1/4	2310	6	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
42	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 1^1/2	2310	10	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
43	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 2 1/2	2310	10	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
44	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 3	2310	20	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
45	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 4	2310	10	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
46	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 6	2310	10	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
47	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1" Sch Std	2312	60	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
48	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1 1/4 Sch Std	2312	30	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
49	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1^1/2 Sch Std	2312	50	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
50	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 5" Sch Std	2312	10	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
51	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 6" Sch Std	2312	40	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
52	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 10" Sch Std	2312	25	GOOD	GOOD	161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	515	39	29
53	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1" Sch XS	2311	20	GOOD	GOOD	154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	524	37	36
54	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 4" Sch XS	2311	5	GOOD	GOOD	154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	524	37	36
55	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 3/4	2309	30	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
56	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 1	2309	50	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
57	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 1^1/4	2309	20	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
58	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 1^1/2	2309	50	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
59	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 5	2309	20	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
60	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 14	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
61	FLANGE ANSI BLIND RF ASTM A 105 class 150lbs da 20	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
62	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 1/2	2310	100	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
63	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 3/4	2310	100	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
64	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 1	2310	100	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
65	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 2	2310	200	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
66	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 2^1/2	2310	100	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
67	FLANGE ANSI SO RF ASTM A 105 class 150lbs da 5	2310	30	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
68	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 12" Sch Std	2308	20	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
69	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 14" Sch Std	2308	10	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
70	FLANGE ANSI SW RF ASTM A 105 class 150lbs da 1" Sch XS	2308	100	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
71	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1/2" Sch XS	2308	20	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
72	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 3/4" Sch XS	2308	20	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
73	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1" Sch XS	2308	30	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
74	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1^1/4 Sch XS	2308	15	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
75	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1^1/2 Sch XS	2308	20	GOOD	GOOD	171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	517	42	28
76	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 1/2	2309	20	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
77	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 3/4	2309	20	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
78	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 1	2309	20	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
79	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 1^1/4	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
80	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 1^1/2	2309	15	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
81	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 2	2309	30	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
82	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 2^1/2	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
83	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 4	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
84	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 6	2309	10	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
85	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 8	2309	6	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
86	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 10	2309	6	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
87	FLANGE ANSI BLIND RF ASTM A 105 class 300lbs da 16	2309	5	GOOD	GOOD	169	0.19	0.81	0.026	0.031	0.25	0.027	0.029	0.026	0.084	0.067	0.364	290	523	44	34
88	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 1/2	2310	20	GOOD	GOOD	159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
89	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 3/4	2310	20			159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
90	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 1	2310	20			159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30
91	FLANGE ANSI SO RF ASTM A 105 class 300lbs da 2	2310	20			159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	511	41	30

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

92	FLANGE ANSI S O RF ASTM A 105 class 300lbs da 8	2310	5			159	0.26	0.77	0.018	0.024	0.24	0.028	0.027	0.025	0.077	0.068	0.426	291	5 11	41	30
93	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1/2^ Sch Std	2312	20			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
94	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 3/4^ Sch Std	2312	20			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
95	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 2^ Sch Std	2312	30			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
96	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 2^1/2 Sch Std	2312	10			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
97	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 3^ Sch Std	2312	50			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
98	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 4^ Sch Std	2312	50			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
99	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 8^ Sch Std	2312	20			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
100	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 12^ Sch Std	2312	10			161	0.23	0.79	0.019	0.026	0.17	0.023	0.022	0.023	0.068	0.065	0.396	292	5 15	39	29
101	FLANGE ANSI SW RF ASTM A 105 class 300lbs da 1/2^ Sch XS	2311	50			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
102	FLANGE ANSI SW RF ASTM A 105 class 300lbs da 3/4^ Sch XS	2311	50			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
103	FLANGE ANSI S W RF ASTM A 105 class 300lbs da 1^ Sch XS	2311	50			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
104	FLANGE ANSI SW RF ASTM A 105 class 300lbs da 1^1/2 Sch XS	2311	15			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
105	FLANGE ANSI S W RF ASTM A 105 class 300lbs da 2^ Sch XS	2311	20			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
106	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1/2^ Sch XS	2311	20			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
107	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 3/4^ Sch XS	2311	15			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
108	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 1^1/2 Sch XS	2311	10			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
109	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 2^ Sch XS	2311	50			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
110	FLANGE ANSI WN RF ASTM A 105 class 300lbs da 3^ Sch XS	2311	10			154	0.16	0.89	0.027	0.032	0.27	0.031	0.032	0.024	0.082	0.069	0.348	286	5 24	37	36
111	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1/2^ Sch Std	2308	20			171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	5 17	42	28
112	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 3/4^ Sch Std	2308	20			171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	5 17	42	28
113	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 1^1/2 Sch Std	2308	20			171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	5 17	42	28
114	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 2^1/2 Sch Std	2308	10			171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	5 17	42	28
115	FLANGE ANSI WN RF ASTM A 105 class 150lbs da 5^ Sch Std	2308	10			171	0.22	0.86	0.021	0.027	0.18	0.024	0.023	0.022	0.069	0.060	0.397	284	5 17	42	28

Note1: Normalized at 920 C – Cooled in still air

We hereby certify that the product described in the certificate has been manufactured in accordance with the appropriate specifications of the basic material and the test results shown herein are correct.
Material compliant to NACE MR0103 and NACE MR0175

MCV Pipes & Fittings Trading L.L.C.
tin: 104051412000000
commercial license: 1064401

1006, Block B, Yousef Zahra Building,
Al Qusais Third
P.O. Box 124338, Dubai, UAE

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ITA mobile +39 333 91 65 707

info@mcvtrader.com
www.mcvtrader.com

industrial valves, pipes & fittings

INSPECTION BY:

Q.A. MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

MCV Pipes & Fittings Trading L.L.C.
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commercial license 1084401

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www.mcvbroker.com

industrial valves, pipes & fittings

M C V PIPES & FITTINGS TRADING L.L.C

IMPACT TEST CERTIFICATE

Certificate No. : 23163

		Test Date:	30/07/2023
Material:	A105N	Test Temperature (°C)	-20°C
Original Gauge Length (mm)	50		
Final gauge length (mm)	64		
Ower yield strength (Mpa)	365	Size	All Sizes
Post-break expansion rate (%)	28		

Productions No.: 230616;230617;230801
Date: July 30th, 2023
Contract No.: 230616;230617;230801

Ref.

MCV Invoices:
89-90-106

Pantalone P.O.:
2023-OMAG-0000400
2023-BOMAG-0000061
2023-OMAG-0000593

IMPACT TEST: -20°C: 32/ 35/ 35, AVG.>27J
IMPACT TEST: -20°C: 32/ 35/ 35, AVG.>27J
IMPACT TEST: -20°C: 36/ 39/ 39, AVG.>27J
IMPACT TEST: -20°C: 31/ 33/ 35, AVG.>27J
IMPACT TEST: -20°C: 32/ 34/ 34, AVG.>27J
IMPACT TEST: -20°C: 37/ 39/ 41, AVG.>27J
IMPACT TEST: -20°C: 31/ 37/ 37, AVG.>27J
IMPACT TEST: -20°C: 32/ 35/ 35, AVG.>27J
IMPACT TEST: -20°C: 32/ 35/ 35, AVG.>27J
IMPACT TEST: -20°C: 36/ 37/ 37, AVG.>27J
IMPACT TEST: -20°C: 32/ 35/ 35, AVG.>27J
IMPACT TEST: -20°C: 34/ 38/ 39, AVG.>27J

We hereby certify that the product described in the certificate has been manufactured in accordance with the approperiate specifications of the basic material and the test results shown herein are correct.

industrial valves, pipes & fittings

INSPECTION BY:

Q.A.MANAGER:

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

Technická inšpekcia, a.s.

Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

CERTIFICATE
no. 1586/5/2023

Technická inšpekcia, a. s.,

based on the inspection results of specific assessment for materials

confirms, that

M C V PIPES & FITTINGS TRADING L.L.C.
no. 1008, Block B, Youssef Zahra Building, Al Goze Third,
P.O. Box 124328, Dubai, UAE
(Registered Office)

North Loop Industrial Zone, Jinghai County, Tianjin, China
(Workshop)

has implemented and applies quality assurance system for materials

according to point 4.3 of Annex I to the Directive 2014/68/EU on pressure equipment

Scope of materials:
Seamless pipe fittings
Forged flanges
(refer to the Annex 1 and 2 to the Certificate for details)

Inspection report no. 1586/5/2023.

Manufacturer will inform Technická inšpekcia, a. s. about every modification in quality assurance system that can affect quality of materials.

The Certificate validity is conditioned with performing of surveillance by Technická inšpekcia, a.s. for minimum 1 periodic audit per 12 months. Audit Report proves performing of periodic audit.

Certificate is valid until November 8, 2026

Date of initial certification: November 9, 2023

Bratislava, November 9, 2023

JUDr. Vladimír Jurík
General Director

CST 3-190

A 019091

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

Annex no. 1 to the Certificate no. 1586/5/2023

Scope of materials for fittings

Product form	Standard	Nominal size	Wall thickness
ELBOW	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
TEE	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
CROSS	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
BEND	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm
REDUCER	ASME B16.9 GB/T12459 EN 10253-1, EN 10253-2 EN 10253-3, EN 10253-4	DN 10 – DN1050	2mm–100mm

Specification	Material Grade	Product type
EN10216-2	P265GH, 10CrMo9-10, 15NiCuMoNb5-6-4, X10CrMoVNb9-1, X10CrWMoVNb9-2	all products form referred in Annex
EN10216-5	X2CrNi18-9, X2CrNiN18-10, X6CrNiNb18-10, X6CrNiMoTi17-12-2, X6CrNiMoNb17-12-2	
ASTM A 106	B	
ASTM A 234	WP5, WP9, WP11 CL1, WP11 CL2, WP91	
ASME SA 335	P5, P22, P36,P91, P92	
ASTM A 312	TP304, TP304L, TP316, TP316L, TP321	
ASTM A 420	WPL3, WPL6, WPI 8, WPI 9	
API 6L	X42, X60, X65, X70	
EN 10253-2	P235GH, X10CrMoVNb9-1, 13CrMo4-5, 10CrMo9-10	
EN 10253-4	X6CrNiTi18-10	
GB/T 6810	20G, 15CrMoG, 12Cr1MoVG,	
GB/T 8163	10, 20, Q345	
GB/T 9948	1Cr5Mo	

TECHNICKÁ INŠPEKCIA SLOVENSKÁ REPUBLIKA TI 6

JUDr. Vladimír Jurík
General Director

TI

Technická inšpekcia, a.s., Trnavská cesta 56, 821 01 Bratislava, Slovenská republika 0063 33

PANTALONE SRL Doc. N° 2024-DDTO-0000273 Data 28.10.2024 Rif. Vs. Ordine 1724001850 123A90A ROSETTI MARINO SPA COLATA 2302 QTA 2,000

ITEM 5 DESCRIZIONE FLANGIA ANSI BL. RF ASTM A 105 Serie 150lbs da 6

Annex no. 2 to the Certificate no. 1586/5/2023

Scope of materials for flanges

Specification	Standard	Pressure rating (PN)	Nominal diameter (DN)
Forged flange (weld neck)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (socket weld)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (hubbed threaded)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (plate loose)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (slip on)	ASME B16.5 ASME B16.47 EN 1092-1	6 to 420	15 - 1050
Forged flange (blind)	ASME B16.5 ASME B16.47 ASME B16.48 EN 1092-1	6 to 420	15 - 1050

Material:

Specification	Material Grade	Product type
NB/T 47008	16Mn, 20#, 20MnMo, 20MnMoNb, 15CrMo, 12CrMoV 12Cr5Mo, 35CrMo	Flanges
NB/T 47009	16MnD, 09MnNiD	
NB/T 47010	S30408, S31608, S30403, S31603	
ASME SA 105	—	
ASME SA 182	F304, F304L, F316, F316L, F5, F9, F11, F12, F22	
GB/T 700	Q235B	
GB/T 713	Q245R, Q345R	
EN 10025	1.0037, 1.0038	
EN 10222-2	1.0352, 1.0426	
EN 10222-4	1.0487, 1.0565	
EN 10028-5	1.4307, 1.4301, 1.4541, 1.4404, 1.4401	

JUDr. Vladimír Jurík
General Director

TECHNICKÁ INŠPEKCIA SLOVENSKÁ REPUBLIKA

TI

Technická inšpekcia, a.s., Trnavská cesta 56, 821 01 Bratislava, Slovenská republika

č. 006332

HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

MILL TEST CERTIFICATE

EN10204 3.1

MANUFACTURER: HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD
North Round Industrial District Mencun County Cangzhou City, Hebei Pro.- China

TO: PANTALONE SRL

PROFORMA INVOICE NR. 2023-BOMAG-0000009

STANDARD: ANSI B16.5 NACE MR0175 IN ACCODANCE WITH PED 2014/68/EU. Material: A105N

CERTIFICATE NO.: 23-172
Invoice No.: 0000009
Date: May.28,2023

ITEM	Code	DESCRIPTIONS	Rating	Size	Thickness	Q'TY (pcs)	HEAT NO.	VISUAL DIMENSION INSPECTION	MECHANICAL PROPERTY					Heat Treatment condition (note1)	Impact test @ -20°C min(J) specimen(mm) - 10*10*55	Chemical composition										
									Y.S (Mpa) ≥250	T.S (Mpa) ≥485	E δ(%) ≥22	R.A Ψ(%) ≥30	Hard ness(HB) ≤187			C % ≤0.25	Si % 0.10-0.35	Mn % 0.60-1.05	P % ≤0.035	S % ≤0.040	Cu % ≤0.40	Ni % ≤0.40	Cr % ≤0.30	Mo % ≤0.12	V % ≤0.08	CE
1	150BRF0151	BLIND FLANGE ASTM A105N	150lbs	1/2"	/	30	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
2	150BRF0501	BLIND FLANGE ASTM A105N	150lbs	2"	/	100	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
3	150BRF0801	BLIND FLANGE ASTM A105N	150lbs	3"	/	70	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
4	150BRF1001	BLIND FLANGE ASTM A105N	150lbs	4"	/	40	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
5	150BRF1501	BLIND FLANGE ASTM A105N	150lbs	6"	/	60	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
6	150BRF2001	BLIND FLANGE ASTM A105N	150lbs	8"	/	20	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
7	150BRF2501	BLIND FLANGE ASTM A105N	150lbs	10"	/	30	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
8	150BRF3001	BLIND FLANGE ASTM A105N	150lbs	12"	/	20	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
9	150BRF4001	BLIND FLANGE ASTM A105N	150lbs	16"	/	10	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
10	150BRF4501	BLIND FLANGE ASTM A105N	150lbs	18"	/	2	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
45	300BRF0801	BLIND FLANGE ASTM A105N	300lbs	3"	/	15	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
46	300BRF3001	BLIND FLANGE ASTM A105N	300lbs	12"	/	5	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
47	300BRF3501	BLIND FLANGE ASTM A105N	300lbs	14"	/	2	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
48	300BRF4501	BLIND FLANGE ASTM A105N	300lbs	18"	/	2	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
49	300BRF5001	BLIND FLANGE ASTM A105N	300lbs	20"	/	2	2322	GOOD	322	502	37	70	132	N	150	0.222	0.266	0.724	0.0125	0.0082	0.0020	0.0280	0.0241	0.0094	0.0010	0.352
TOTAL						408																				

Note 1 Normalized at 920C -Cooled in still air.

WE HEREBY CERTIFY THAT THE ABOVE PRODUCTS MEET THE REQUIREMENTS. THE MATERIAL WAS MANUFACTURED,SAMPLED, TESTED AND INSPECTD ACCORDING TO THE STANDARD.

HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

Inspector of Q.A Section

河北鑫越高压法兰管件有限公司 HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

MILL TEST CERTIFICATE

EN10204 3.1

MANUFACTURER: HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD
North Round Industrial District Mencun County Cangzhou City, Hebei Pro.- China

TO: PANTALONE SRL

PROFORMA INVOICE NR. 2023-BOMAG-0000009

STANDARD: ANSI B16.5 NACE MR0175 IN ACCODANCE WITH PED 2014/68/EU. Material: A105N

CERTIFICATE NO.: 23-172
Invoice No.: 0000009
Date: May.28,2023

ITEM	Code	DESCRIPTIONS	Rating	Size	Thickness	Q'TY (pcs)	HEAT NO.	VISUAL DIMENSION INSPECTION	MECHANICAL PROPERTY							Chemical composition										
									Y.S (Mpa) ≥250	T.S (Mpa) ≥485	E δ(%) ≥22	R.A Ψ(%) ≥30	Hard ness(HB) ≤187	Heat Treatment condition (note1)	Impact test @ -20°C min(J) specimen(mm) - 10*10*55	C % ≤0.25	Si % 0.10-0.35	Mn % 0.60-1.05	P % ≤0.035	S % ≤0.040	Cu % ≤0.40	Ni % ≤0.40	Cr % ≤0.30	Mo % ≤0.12	V % ≤0.08	CE
11	150SRF0321	SLIP-ON FLANGE ASTM A105N	150lbs	1"1/4	/	5	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
12	150SRF0401	SLIP-ON FLANGE ASTM A105N	150lbs	1"1/2	/	40	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
13	150SRF0801	SLIP-ON FLANGE ASTM A105N	150lbs	3"	/	200	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
14	150SRF1001	SLIP-ON FLANGE ASTM A105N	150lbs	4"	/	150	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
15	150SRF1501	SLIP-ON FLANGE ASTM A105N	150lbs	6"	/	100	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
16	150SRF2001	SLIP-ON FLANGE ASTM A105N	150lbs	8"	/	25	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
17	150SRF2501	SLIP-ON FLANGE ASTM A105N	150lbs	10"	/	60	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
18	150SRF3001	SLIP-ON FLANGE ASTM A105N	150lbs	12"	/	30	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
19	150SRF3501	SLIP-ON FLANGE ASTM A105N	150lbs	14"	/	5	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
20	150SRF4001	SLIP-ON FLANGE ASTM A105N	150lbs	16"	/	15	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
21	150SRF4501	SLIP-ON FLANGE ASTM A105N	150lbs	18"	/	2	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
22	150SRF5001	SLIP-ON FLANGE ASTM A105N	150lbs	20"	/	10	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
34	150SWF015	SW FLANGE ASTM A105N	150lbs	1/2"	Sch Std	20	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
35	150SWF020	SW FLANGE ASTM A105N	150lbs	3/4"	Sch Std	20	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
36	150SWF025	SW FLANGE ASTM A105N	150lbs	1"	Sch Std	20	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
37	150XSSWF015I	SW FLANGE ASTM A105N	150lbs	1/2"	Sch XS	80	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
38	150XSSWF020I	SW FLANGE ASTM A105N	150lbs	3/4"	Sch XS	120	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
39	150XSSWF040I	SW FLANGE ASTM A105N	150lbs	1"1/2	Sch XS	60	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
50	300SRF0321	SLIP-ON FLANGE ASTM A105N	300lbs	1"1/4	/	4	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
51	300SRF0401	SLIP-ON FLANGE ASTM A105N	300lbs	1"1/2	/	5	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
52	300SRF0651	SLIP-ON FLANGE ASTM A105N	300lbs	2"1/2	/	4	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
53	300SRF0801	SLIP-ON FLANGE ASTM A105N	300lbs	3"	/	15	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
54	300SRF1001	SLIP-ON FLANGE ASTM A105N	300lbs	4"	/	10	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
55	300SRF1501	SLIP-ON FLANGE ASTM A105N	300lbs	6"	/	10	2325	GOOD	328	491	33	67	130	N	160	0.218	0.266	0.732	0.0129	0.0081	0.0020	0.0280	0.0239	0.0046	0.001	0.347
						1010																				

Note 1: Normalized at 920C-Cooled in still air.

WE HEREBY CERTIFY THAT THE ABOVE PRODUCTS MEET THE REQUIREMENTS, THE MATERIAL WAS MANUFACTURED,SAMPLED, TESTED AND INSPECTD ACCORDING TO THE STANDARD

HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

Inspector of Q.A Section

河北金域高压法兰零件有限公司
HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

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MILL TEST CERTIFICATE

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									Y.S (Mpa) ≥250	T.S (Mpa) ≥485	E δ(%) ≥22	R.A Ψ(%) ≥30	Hardness(HB) ≤187			C % ≤0.25	Si % 0.10-0.35	Mn % 0.60-1.05	P % ≤0.035	S % ≤0.040	Cu % ≤0.40	Ni % ≤0.40	Cr % ≤0.30	Mo % ≤0.12	V % ≤0.08	CE
23	150STDWF025I	WELDING NECK FLANGE ASTM A105N	150lbs	1"	Sch Std	70	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
24	150STDWF032I	WELDING NECK FLANGE ASTM A105N	150lbs	1"1/4	Sch Std	10	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
25	150STDWF050I	WELDING NECK FLANGE ASTM A105N	150lbs	2"	Sch Std	100	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
26	150STDWF080I	WELDING NECK FLANGE ASTM A105N	150lbs	3"	Sch Std	200	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
27	150STDWF100I	WELDING NECK FLANGE ASTM A105N	150lbs	4"	Sch Std	250	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
28	150STDWF150I	WELDING NECK FLANGE ASTM A105N	150lbs	6"	Sch Std	80	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
29	150STDWF200I	WELDING NECK FLANGE ASTM A105N	150lbs	8"	Sch Std	30	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
30	150STDWF250I	WELDING NECK FLANGE ASTM A105N	150lbs	10"	Sch Std	30	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
31	150STDWF400I	WELDING NECK FLANGE ASTM A105N	150lbs	16"	Sch Std	12	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
32	150STDWF450I	WELDING NECK FLANGE ASTM A105N	150lbs	18"	Sch Std	2	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
33	150STDWF500I	WELDING NECK FLANGE ASTM A105N	150lbs	20"	Sch Std	12	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
40	150XSWF050I	WELDING NECK FLANGE ASTM A105N	150lbs	2"	Sch XS	160	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
41	150XSWF080I	WELDING NECK FLANGE ASTM A105N	150lbs	3"	Sch XS	40	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
42	150XSWF100I	WELDING NECK FLANGE ASTM A105N	150lbs	4"	Sch XS	5	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
43	150XSWF125I	WELDING NECK FLANGE ASTM A105N	150lbs	5"	Sch XS	4	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
44	150XSWF150I	WELDING NECK FLANGE ASTM A105N	150lbs	6"	Sch XS	4	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
56	300STDWF025I	WELDING NECK FLANGE ASTM A105N	300lbs	1"	Sch Std	60	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
57	300STDWF032	WELDING NECK FLANGE ASTM A105N	300lbs	1"1/4	Sch Std	5	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
58	300STDWF040I	WELDING NECK FLANGE ASTM A105N	300lbs	1"1/2	Sch Std	15	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
59	300STDWF125I	WELDING NECK FLANGE ASTM A105N	300lbs	5"	Sch Std	5	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
60	300STDWF150I	WELDING NECK FLANGE ASTM A105N	300lbs	6"	Sch Std	40	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
61	300STDWF250I	WELDING NECK FLANGE ASTM A105N	300lbs	10"	Sch Std	25	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
62	300XSWF025I	WELDING NECK FLANGE ASTM A105N	300lbs	1"	Sch XS	20	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
63	300XSWF100I	WELDING NECK FLANGE ASTM A105N	300lbs	4"	Sch XS	5	2327	GOOD	420	588	38	68	132	N	176	0.22	0.27	0.732	0.0133	0.0081	0.002	0.0280	0.0239	0.0046	0.001	0.347
TOTAL						1184																				

Note 1 Normalized at 920C-Cooled in still air.

WE HEREBY CERTIFY THAT THE ABOVE PRODUCTS MEET THE REQUIREMENTS. THE MATERIAL WAS MANUFACTURED,SAMPLED, TESTED AND INSPECTD ACCORDING TO THE STANDARD.

HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

Inspector,Q.C.A Section

河北鑫悦高压法兰管件有限公司 HEBEI XINYUE HIGH PRESSURE FLANGE CO.,LTD

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
PANTALONE SRL	1724001949	123A90A	Q012400933

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma / MTSMD Signature — Data / Date

Sonia Emiliani

04.11.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

PANTALONE SRL Doc. N° 2024-DDTC-0012741 Data 21.10.2024 Rif. Vs. Ordine 1724001949 123A90A ROSETTI MARINO SPA

ITEM 1 DESCRIZIONE FLANGIA ANSI SO RF A 350 LF2 Serie 150lbs da 24" COLATA 231484 QTA 1,000

RACCORVENETA
FLANGE CURVE VALVOLE RACCORDI
Raccorveneta S.r.l. - Via Ghebbo 2/B - 30034 Cà Noghera di Mira (VE) - C.F. e P.Iva 02555690279
tel. 041 5631230 fax 041 5631235 e-mail: info@raccorveneta.com www.raccorveneta.com

CERTIFICATO DI COLLAUDO

DIN 50049/3.1 EN10204/3.1

CERT.N. 2644 DATA 10/10/2024
cliente RACCORVENETA SRL
ordine cliente 450-367-470-475-482-464
d.d.t. n. 2644 / F del 10/10/24

colata	quantità		materiale	descrizione
6007	11		ASTM A105	ASA 150 BL DN 8"
32 15	2		ASTM A105	ASA 150 SO DN 14"
6028	2		ASTM A105	ASA 300 BL D21/2"
C1050	2		A182 AISI 316L	PIA. UNI 2278 DN 50/29
23HK1	1		ASTM A105	EN 1092-1 32 ANE DN 200 THK20
5803	2		SA 105	EN 1092-1 01A PIA. UNI 6084 DN 100
5803	2		SA 105	EN 1092-1 01A PIA. UNI 6084 DN 200 THK36
5805	1		SA 105	EN 1092-1 01A PIA. UNI 6084 DN 80
32G19	1		ASTM A105	EN 1092-1 02 LIB. UNI 6090 DN 200
32G320	1		ASTM A105	EN 1092-1 02 LIB. UNI 6090 DN 250
21HS2	1		ASTM A105	EN 1092-1 05A CIE. UNI 6093 DN 15 PN16-40
5549	5		ASTM A105	EN 1092-1 05A CIE. UNI 6093 DN 25pn16-40
5809	2		SA 105	EN 1092-1 05A CIE. UNI 6093 DN 300
4ED41	2		SA 105	EN 1092-1 05A CIE. UNI 6095 DN 200
84311	60		P245GH	EN 1092-1 01A PIA. UNI 2276 DN 15
6813	28		ASTM A105	EN 1092-1 01A PIA. UNI 2276 DN 25
5520	2		ASTM A105	EN 1092-1 01A PIA. UNI 2277 DN 80 4h
5767	32		ASTM A105	EN 1092-1 01A PIA. UNI 2278 DN 15 PN 16-40
5802	6		SA 105	EN 1092-1 01B PIA. UNI 2278 DN 150/29
5802	6		SA 105	EN 1092-1 01B PIA. UNI 2278 DN 200/29
23AB17	4		ASTM A105	EN 1092-1 01A PIA. UNI 2278 DN 25 PN16-40
5532	22		ASTM A105	EN 1092-1 01A PIA. UNI 2278 DN 25 pn16-40
S40306	5		SA A105	EN 1092-1 01A PIA. UNI 2278 DN 300
A241	20		ASTM A105	EN 1092-1 01B PIA. UNI 2278 DN 32/29 PN16-40
5767	16		ASTM A105	EN 1092-1 01A PIA. UNI 2278 DN 50 PN16-40
23HK32	2		ASTM A105	EN 1092-1 01B PIA. UNI 2278 DN 50/29 PN16-40
22AB17	6		ASTM A105	EN 1092-1 01B PIA. UNI 2278 DN 80/29
5537	1		ASTM A105	EN 1092-1 11B COL UNI 2281 DN 250
5773	2		ASTM A105	EN 1092-1 11B COL UNI 2282 DN 200 SCH 40
5772	4		ASTM A105	EN 1092-1 11B COL UNI 2282 DN 25 PN 16-40 SCH 40
4ED84	1		SA 105	EN 1092-1 11B COL UNI 2282 DN 250
5773	2		ASTM A105	EN 1092-1 11B COL UNI 2282 DN 300
5773	1		ASTM A105	EN 1092-1 11B COL UNI 2282 DN 400
5539	15		ASTM A105	EN 1092-1 11B COL UNI 2282 DN 65 4h
5807	2		SA 105	EN 1092-1 11B COL UNI 2283 DN 250 THK32 SCH 40
23AB33	1		ASTM A105	EN 1092-1 11B COL UNI 2284 DN 100 SCH 40
ND69	2		ASTM A105	EN 1092-1 11B COL UNI 2284 DN 100 SCH XS
5543	1		ASTM A105	EN 1092-1 11B COL UNI 2284 DN 125 SCH 40
5774	1		ASTM A105	EN 1092-1 11B COL UNI 2284 DN 250 THK38
5808	2		ASTM A105	EN 1092-1 11B COL UNI 2284 DN 50 SCH 40
5546	1		ASTM A105	EN 1092-1 11B COL UNI 2286 DN 80 SCH 40
5792	3		ASTM A105	EN 1092-1 01A PIA. UNI 2277 DN 400
224417	3		ASTM A105	EN 1092-1 01B PIA. UNI 2278 DN 300/29
5809	23		ASTM A105	EN 1092-1 05A CIE. UNI 6093 DN 40
231484	1		A350LF2	ASA 150 SO DN 24"
5996	2		AISI 316	EN 1092-1 11B COL UNI 2284 DN 200
422417	4		A350LF2	EN 1092-1 11B COL UNI 2285 DN 50
T16860	4		A350LF2	EN 1092-1 11B COL UNI 2285 DN 40
422579	11		A350LF2	EN 1092-1 11B COL UNI 2285 DN 15
6219	1		AISI 316	EN 1092-1 05B CIE. UNI 6093 DN 400/29
6310	1		SA 105	EN 1092-1 01A PIA. UNI 2278 DN 80
5795	5		SA 105	EN 1092-1 01A PIA. UNI 2278 DN 40
481434	8		SA 105	EN 1092-1 01A PIA. UNI 2276 DN 50
231484	1		SA 105	EN 1092-1 05A CIE. UNI 6093 DN 400
5774	3		SA 105	EN 1092-1 11B COL UNI 2284 DN 200
232431	5		SA 105	EN 1092-1 11B COL UNI 2284 DN 150 SCH 40
232431	4		SA 105	EN 1092-1 11B COL UNI 2284 DN 150 SCH XS
T49593	2		SA 105	EN 1092-1 11B COL UNI 2284 DN 80 SCH 40
5806	2		SA 105	EN 1092-1 11B COL UNI 2282 DN 300

ANALISI CHIMICA

colata	C%	Mn%	Si%	P%	S%	Cr%	Ni%	Mo%	Ti%	Cu%	V%	Al%	C.Eq.	N%	Nb%	Co%	Sn%
6007	0,150	0,930	0,200	0,015	0,020	0,170	0,210	0,065		0,240	0,045		0,318				
32 15	0,140	0,810	0,100	0,019	0,017	0,150	0,200	0,001		0,200	0,041		0,230				
6028	0,180	0,660	0,220	0,020	0,022	0,200	0,220	0,050		0,210	0,050						
C1050	0,035	1,010	0,410	0,025	0,034	16,720	10,070	2,040						0,075			
23HK1	0,160	0,710	0,200	0,014	0,015	0,060	0,120	0,100		0,090	0,080						
5803	0,170	0,630	0,160	0,017	0,015	0,240	0,190	0,061		0,160	0,044		0,368				
5803	0,170	0,240	0,160	0,017	0,015	0,240	0,190	0,061		0,160	0,044		0,368				
5803	0,170	0,630	0,160	0,017	0,015	0,240	0,190	0,061		0,160	0,044		0,368				
32G19	0,160	0,830	0,240	0,015	0,019	0,060	0,120	0,090		0,090	0,080						
32G320	0,180	0,720	0,200	0,018	0,016	0,100	0,110	0,100		0,070	0,080						
21HS2	0,190	0,740	0,230	0,016	0,014	0,110	0,120	0,100		0,060	0,080						
5549	0,130	0,610	0,200	0,019	0,020	0,170	0,210	0,065		0,240	0,045		0,318				
5809	0,160	0,650	0,200	0,022	0,240	0,190	0,190	0,063		0,220	0,052		0,357				
4ED41	0,170	0,750	0,210	0,018	0,015	0,100	0,010	0,010		0,050	0,000						
84311	0,180	0,550	0,210	0,017	0,011	0,008	0,013	0,008	0,002	0,013	0,002	0,023			0,004		
6813	0,220	0,820	0,210	0,025	0,010	0,270	0,200	0,050		0,110	0,044		0,453				

PANTALONE SRL Doc. N° 2024-DDTC-0012741 Data 21.10.2024 Rif. Vs. Ordine 1724001949 123A90A ROSETTI MARINO SPA

ITEM 1 DESCRIZIONE FLANGIA ANSI SO RF A 350 LF2 Serie 150lbs da 24" COLATA 231484 QTA 1,000

RACCORVENETA
FLANGE CURVE VALVOLE RACCORDI

CERTIFICATO DI COLLAUDO

DIN 50049/3.1 EN10204/3.1

CERT.N. 2644 DATA 10/10/2024
cliente RACCORVENETA SRL
ordine cliente 450-367-470-475-482-464
d.d.t. n. 2644 / F del 10/10/24

5520	0,150	0,690	0,190	0,018	0,018	0,110	0,210	0,065		0,230	0,045		0,352				
5767	0,160	0,640	0,170	0,018	0,019	0,150	0,210	0,063		0,180	0,058		0,351				
5802	0,150	0,620	0,170	0,015	0,022	0,200	0,180	0,061		0,170	0,041		0,337				
5802	0,150	0,620	0,170	0,015	0,022	0,200	0,180	0,061		0,170	0,041		0,337				
21AB17	0,220	0,880	0,250	0,014	0,018	0,080	0,080	0,080		0,070	0,060						
5532	0,150	0,720	0,190	0,018	0,019	0,180	0,210	0,065		0,230	0,045		0,357				
540306	0,250	0,760	0,250	0,015	0,019	0,140	0,025	0,003	0,004	0,210	0,003	0,027	0,407	0,005	0,006		
A241	0,180	0,840	0,240	0,015	0,015	0,110	0,080	0,100		0,070	0,080						
5767	0,160	0,640	0,170	0,018	0,019	0,150	0,210	0,063		0,180	0,058		0,351				
23HK32	0,160	0,700	0,200	0,018	0,017	0,100	0,120	0,100		0,070	0,060						
22AB17	0,220	0,700	0,250	0,015	0,018	0,100	0,080	0,100		0,090	0,090						
5537	0,180	0,680	0,220	0,020	0,023	0,210	0,220	0,078		0,190	0,048		0,388				
5773	0,180	0,640	0,190	0,018	0,021	0,190	0,190	0,063		0,200	0,037		0,371				
5772	0,160	0,640	0,170	0,021	0,018	0,190	0,190	0,053		0,200	0,039		0,349				
4ED34	0,160	0,780	0,210	0,015	0,014	0,110	0,120	0,100		0,060	0,090						
5773	0,180	0,640	0,190	0,018	0,021	0,190	0,190	0,063		0,200	0,037		0,371				
5773	0,180	0,640	0,190	0,018	0,021	0,190	0,190	0,063		0,200	0,037		0,371				
5539	0,160	0,630	0,190	0,018	0,019	0,180	0,210	0,065		0,230	0,045		0,342				
5807	0,180	0,850	0,220	0,021	0,022	0,180	0,210	0,062		0,170	0,053		0,352				
21AB33	0,180	0,840	0,230	0,017	0,047	0,080	0,100	0,080		0,070	0,080						
P069	0,160	0,750	0,290	0,020	0,018	0,600	0,090	0,080		0,060	0,060						
5543	0,150	0,630	0,190	0,018	0,019	0,180	0,210	0,065		0,230	0,045		0,342				
5774	0,170	0,650	0,290	0,017	0,016	0,250	0,180	0,053		0,210	0,037		0,372				
5808	0,140	0,630	0,190	0,017	0,021	0,220	0,190	0,071		0,260	0,037		0,341				
5545	0,160	0,640	0,190	0,018	0,023	0,170	0,210	0,066		0,230	0,054		0,354				
5792	0,200	0,680	0,290	0,019	0,018	0,140	0,220	0,045		0,210	0,041		0,387				
224417	0,171	1,000	0,250	0,008	0,001	0,100	0,100	0,030	0,004	0,200	0,004	0,027	0,355		0,001	0,005	0,005
5809	0,160	0,850	0,200	0,022	0,240	0,150	0,150	0,063		0,220	0,052		0,357				
231484	0,176	1,000	0,230	0,009	0,002	0,110	0,100	0,030	0,003	0,150	0,003	0,022	0,391		0,002	0,008	0,01
5996	0,022	1,900	0,660	0,023	0,022	17,100	10,500	2,600									
422417	0,171	1,020	0,230	0,012	0,002	0,150	0,100	0,030	0,003	0,200	0,004	0,029			0,001	0,009	0,01
T16860	0,200	1,130	0,217	0,017	0,001	0,070	0,030	0,010	0,002	0,050	0,005	0,032	0,410		0,001		0,004
422579	0,182	0,960	0,230	0,010	0,002	0,150	0,100	0,030	0,003	0,150	0,004	0,028			0,002	0,008	0,008
6219	0,023	1,250	0,340	0,024	0,022	10,700	10,500	2,400									
8310	0,180	0,710	0,250	0,018	0,016	0,170	0,170	0,058		0,180	0,046		0,377				
5795	0,160	0,680	0,250	0,020	0,019	0,170	0,170	0,070		0,240	0,048		0,350				
481434	0,193	0,970	0,270	0,013	0,003	0,170	0,110	0,030	0,028	0,100	0,003	0,026			0,003	0,011	0,007
231484	0,170	1,000	0,230	0,009	0,002	0,110	0,100	0,0300	0,0028	0,150	0,003	0,022	0,391		0,002	0,008	0,010
5774	0,170	0,650	0,290	0,017	0,016	0,250	0,180	0,053		0,210	0,037		0,372				
232431	0,180	1,000	0,240	0,011	0,002	0,100	0,050	0,020	0,0022	0,150	0,005	0,023	0,350		0,003	0,008	0,010
232431	0,180	1,000	0,240	0,011	0,002	0,100	0,050	0,020	0,0022	0,150	0,005	0,023	0,350		0,005	0,008	0,010
T49593	0,200	1,170	0,225	0,012	0,008	0,070	0,030	0,008	0,001	0,030	0,003	0,035		0,0047	0,001		0,004
5806	0,150	0,640	0,170	0,018	0,021	0,150	0,210	0,067		0,210	0,055		0,347				

CARATTERISTICHE MECCANICHE

colata	rottura N/mm^	snerv. N/mm^	allungam. %	contraz. %	durezza HB	resilienza .	°C.		
6007	512	288	39,00	41,00	180				
8235	511	290	31,00	40,00	157				
8128	458	259	28	38	180				
C1036	493,57	298,54	62,4	70,37	168				
23HK1	557	358	31	45	156				
5803	506	279	38	39	155				
5803	506	279	38	39	155				
5803	506	275	38	35	155				
32G19	518	345	31	45	154				
32G20	556	348	32	48	157				
21H52	570	361	30	45	161				
5549	459	284	35	41	155				
5809	506	272	37	42	168				
4ED41	515	300	30	45	158				
84311	429	258	31						
6813	485	270	26,00	35,00	162				
5530	513	272	32,00	39,00	155				
5767	508	274	35,00	40,00	156				
5802	505	275	38,00	39,00	160				
5802	505	275	38,00	39,00	160				
21AB17	518	348	31,00	45,00	148				
5532	525	288	33,00	37,00	158				
540306	520	331	38,12	66,06	176				
A241	547	304	31,00	45,00	145				
5767	508	274	35,00	40,00	156				
23HK32	570	351	32	40	148				
22AB17	550	360	31	45	155				
5537	511	273	35	39	159				
5773	512	274	36	39	159				
5772	530	271	35	40	154				
4ED34	549	347	32	40	141				
5773	512	274	38	35	159				
5773	512	274	36	39	159				

PANTALONE SRL Doc. N° 2024-DDTC-0012741 Data 21.10.2024 Rif. Vs. Ordine 1724001949 123A90A ROSETTI MARINO SPA

ITEM 1 DESCRIZIONE FLANGIA ANSI SO RF A 350 LF2 Serie 150lbs da 24" COLATA 231484 QTA 1,000

RACCORVENETA

FLANGE CURVE VALVOLE RACCORDI

Raccorveneta S.r.l. - Via Ghebbo A/1/E - 30034 Cologna di Mira (VE) - C.F. e P.Iva 02555690279

Tel 041 5631230 Fax 041 5631235 certificati@raccorveneta.com www.raccorveneta.com

Copia conforme all'originale

CERTIFICATO DI COLLAUDO

DIN 50049/3.1 EN 10204/3.1

CERT.N. 2644 DATA 10/10/2024

cliente RACCORVENETA SRL

ordine cliente 450-367-470-475-482-464

d.d.t. n. 2644 / F del 10/10/24

5639	513	272	38	38	155				
5807	514	268	36,00	37,00	155				
231433	550	347	31,00	45,00	152				
10 05	545	344	31,00	45,00	149				
5643	513	272	37,00	39,00	156				
5774	509	275	37,00	38,00	159				
5808	497	269	39,00	42,00	158				
5646	498	265	35,00	38,00	156				
5792	513	282	39	40	161				
224417	497	285	30,800	66,000	170				
5809	506	272	37,00	42,00	963				
231484	488	253	32,200	68,000	145	155	153	310	-50
5996	488	152	40,00	57,00	154				
422417	524	349	31,50	72,00	161	143	130	127	-50
T16880	513	358	34,00	68,20	146	53	34	38	-50
422579	558	399	30,10	68,00	160	151	140	147	-50
6219	450	310	36,00	57,00	170				
8810	450	208	35,00	40,00	155				
5795	510	208	36,00	40,00	159				
481434	533	352	27,10	65,00	157				
231484	488	253	32,20	68,00	149				
5774	509	275	37	38	159				
232431	534	350	32,50	69,00	149				
232431	534	350	32,20	69,00	148				
T49593	540	409	33,80	67,10	130				
5806	450	208	36	35	153				

note copia conforme all'originale

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
FERRARI SRL	1724001319	123A90A	Q012400514

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. PO

According to the spc.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani 03/07/2024

Sonia Emiliani

☒ REVIEW

☐ WITNESS

CUSTOMER

NOTE

FERRARI
Via Achille Grandi n. 29 (Zona Bassette) 48123 Ravenna - ITALIA
P.IVA 01134740396 Tel. 0544/608311 - Fax 0544 451801
CF e Iscr.Reg.Impr. 01134740396
Cod.ident. CEE IT 01134740396 M. RA 003417 - R.E.A. RA 122802
CAP. SOC. Euro 46.800,00 www.ferrari-ra.it info@ferrari-ra.it

LAB01 Rev.5

(A04) **MATERIAL TEST CERTIFICATE**

- ☐ UNI/EN 10204:2004 2.2 - EN 10168:2004
- ☒ UNI/EN 10204:2004 3.1 - EN 10168:2004
- ☐ UNI/EN 10204:2004 3.2 - EN 10168:2004

Azienda con sistema di gestione certificato da IGQ secondo UNI EN ISO 9001
IGQ system quality certified company according to UNI EN ISO 9001

(A03) Cert.N°: 2.753 Rev.:
Page: 1 of 1
(Z02) Date: 02/07/2024
Ddt N°: AB1 / 2.079

(A06) CUSTOMER / CONSIGNEE:	ROSETTI MARINO S.p.A.	(A08) Job N°:	1.762
(A07) PURCHASE ORDER:	1724001319 123A90A	(B02) Steel Designation:	A/SA350M LF2 Cl1

Item	(B08) Qty	(A09/B01 - B09 - B11) Description Material - Product	(B07) Heat No.	Supplier
10	2,00	FLG LWN 150 RF 1" Id=25,4 L=230 A/SA350 LF2 Cl1	.248307	12246-ACC. VENETE

CHEMICAL ANALYSIS % (C71 - C92)

(B07) Heat N.	C	Si	Ni	Cu	P	V	V+Nb	As	Sb	Ti	O_2	N_2	Ceq	Co	Cr+Mo	V+Nb+Ti	J fact.	(C01)
	Mn	Cr	Mo	Ca	S	Nb	Fe	Sn	Al	W	H_2	B	Ceq(SF)	Nb+Ta	Cr+Mo+N	Cr+Ni+Cu+Mo	X fact.	
.248307	0,164	0,185	0,112	0,138	0,0070	0,0040	0,0060	0,0030		0,0150		0,0107	0,38		0,142	0,0210	181	L
	1,020	0,119	0,023		0,0030	0,0020		0,0080	0,0300		0,0001	0,0002	0,33	0,0020	0,153	0,392	0	

MECHANICAL TESTS (C01 - C69)

(B07) Heat N.	(C01) Location	(C02) Direction	(C10) Shape	(C03) Temp C°	(C11) Yield Stress	(C12) Tensile Strength	(C13) Elongation on 2"	(C14) Reduction of Area	(C30) Test Method	(C31) Hardness	(C01) Location	(C02) Direction	Impact Test (J) (C49)10x10 mm.				(C03) Temp C°	(B05) Heat Treatment
													(C42) Obtained			(C43)Mean		
			mm		N/mm²	N/mm²	%	%										
.248307	T/2	L	8,75x35	20	350,0	491,3	41,0	70,0	HB	155 157	T/2	T	98	102	99	100	-46	N

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched And Tempered	S=Solution Treat & Quench
(C01) Location:	F=Full thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 thk.	L=Ladle Analysis P=Product Analysis
(C02) Direction:	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential	

NOTE:
- Material Fully Killed & fine grain
- Material according to ASTM A350/A350M-23
  Material according to ASME II Part.A SA-350/SA-350M Ed.2023
- Material normalized at 920°C
- Material in compliance with specification and order
  Where not indicate content of V & Nb less than 0,001%
- For more than one forging shipped per heat, hardness test is performed on two different forgings

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI s.r.l. Luca Ravagli		

This document has been prepared electronically and is valid without signature

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
FERRARI SRL	1724001998	123A90A	Q012400869

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani — 09.10.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

FERRARI
Via Achille Grandi n. 29 (Zona Bassette) 48123 Ravenna - ITALIA
P.IVA 01134740396 Tel. 0544/608311 - Fax 0544 451801
CF e Iscr.Reg.Impr. 01134740396
Cod.ident. CEE IT 01134740396 M. RA 003417 - R.E.A. RA 122802
CAP. SOC. Euro 46.800,00 www.ferrari-ra.it info@ferrari-ra.it

(A04) MATERIAL TEST CERTIFICATE

- [ ] UNI/EN 10204:2004 2.2 - EN 10168:2004
- [x] UNI/EN 10204:2004 3.1 - EN 10168:2004
- [ ] UNI/EN 10204:2004 3,2 - EN 10168:2004

Azienda con sistema di gestione certificato da IGQ secondo UNI EN ISO 9001
IGQ system quality certified company according to UNI EN ISO 9001

(A03) Cert.N°: 3.849 Rev.:
Page: 1 of 1
(Z02) Date: 08/10/2024
Ddt N°: AB1 / 2.950

(A06) CUSTOMER / CONSIGNEE:	ROSETTI MARINO S.p.A.	(A08) Job N°:	2.539
(A07) PURCHASE ORDER:	1724001998 123A90A	(B02) Steel Designation:	A/SA350M LF2 Cl1

Item	(B08) Qty	(A09/B01 - B09 - B11) Description Material - Product	(B07) Heat No.	Supplier
10	1,00	10-FLG BL 150 RF 24" A/SA350 LF2 Cl1 B16.5	.289098	15896-ACC.VENETE

CHEMICAL ANALYSIS % (C71 - C92)

(B07) Heat N.	C	Si	Ni	Cu	P	V	V+Nb	As	Sb	Ti	O_2	N_2	Ceq	Co	Cr+Mo	V+Nb+Ti	J fact.	(C01)
	Mn	Cr	Mo	Ca	S	Nb	Fe	Sn	Al	W	H_2	B	Ceq(SF)	Nb+Ta	Cr+Mo+N	Cr+Ni+Cu+Mo	X fact.	
.289098	0,167	0,217	0,110	0,148	0,0140	0,0060	0,0070	0,0040		0,0010		0,0093	0,40	0,0080	0,123	0,0080	317	L
	1,163	0,104	0,019	0,0011	0,0050	0,0010		0,0090	0,0300			0,0002	0,36	0,0010	0,132	0,381	18	

MECHANICAL TESTS (C01 - C69)

(B07) Heat N.	(C01) Location	(C02) Direction	(C10) Shape	(C03) Temp C°	(C11) Yield Stress	(C12) Tensile Strength	(C13) Elongation on 2"	(C14) Reduction of Area	(C30) Test Method	(C31) Hardness		(C01) Location	(C02) Direction	Impact Test (J) (C49)10x10 mm.				(C03) Temp C°	(B05) Heat Treatment
														(C42) Obtained			(C43)Mean		
			mm		N/mm²	N/mm²	%	%											
.289098		Q		20	307,0	491,0	35,5	73,0	HB	141	144		Q	75	99	91	88	-46	N

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched And Tempered	S=Solution Treat & Quench
(C01) Location:	F=Full thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 thk.	L=Ladle Analysis P=Product Analysis
(C02) Direction:	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential	

NOTE:
- Material Fully Killed & fine grain
- Material according to ASTM A350/A350M-23
  Material according to ASME II Part.A SA-350/SA-350M Ed.2023
- Material normalized at 920°C
- Material in compliance with specification and order
  Where not indicate content of V & Nb less than 0,001%
- For more than one forging shipped per heat, hardness test is performed on two different forgings

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI s.r.l. Luca Ravagli		

This document has been prepared electronically and is valid without signature

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
FERRARI SRL	1724001966	123A90A	Q012400863

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani **08.10.2024**

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

FERRARI
Via Achille Grandi n. 29 (Zona Bassette) 48123 Ravenna - ITALIA
P.IVA 01134740396 Tel. 0544/608311 - Fax 0544 451801
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Cod.ident. CEE IT 01134740396 M. RA 003417 - R.E.A. RA 122802
CAP. SOC. Euro 46.800,00 www.ferrari-ra.it info@ferrari-ra.it

(A04) # MATERIAL TEST CERTIFICATE

- ☐ UNI/EN 10204:2004 2.2 - EN 10168:2004
- ☒ UNI/EN 10204:2004 3.1 - EN 10168:2004
- ☐ UNI/EN 10204:2004 3.2 - EN 10168:2004

Azienda con sistema di gestione certificato da IGQ secondo UNI EN ISO 9001
IGQ system quality certified company according to UNI EN ISO 9001

(A03) Cert.N°: 3.825 Rev.:
Page: 1 of 1
(Z02) Date: 07/10/2024
Ddt N°: AB1 / 2.932

(A06) CUSTOMER / CONSIGNEE:	ROSETTI MARINO S.p.A.	(A08) Job N°:	2.460
(A07) PURCHASE ORDER:	1724001966 123A90A - JOB : 123A90A	(B02) Steel Designation:	A/SA182 F316/316L

Item	(B08) Qty	(A09/B01 - B09 - B11) Description Material - Product	(B07) Heat No.	Supplier
10	2,00	FLG LWN 150 RF 2" Id=50,8 L=230 A/SA182 F316/316L	E230125	12246-OUTOKUMPU

CHEMICAL ANALYSIS % (C71 - C92)

(B07) Heat N.	C Mn	Si Cr	Ni Mo	Cu Ca	P S	V Nb	V+Nb Fe	As Sn	Sb Al	Ti W	O_2 H_2	N_2 B	Ceq Ceq(SF)	Co Nb+Ta	Cr+Mo Cr+Mo+N	V+Nb+Ti Cr+Ni+Cu+Mo	J fact. X fact.	(C01)
E230125	0,018 1,660	0,330 17,880	10,860 2,120		0,0300 0,0010							0,0690	5,02 0,29		20,000 20,069	30,860	597 30	L

MECHANICAL TESTS (C01 - C69)

(B07) Heat N.	(C01) Location	(C02) Direction	(C10) Shape	(C03) Temp C°	(C11) Yield Stress	(C12) Tensile Strength	(C13) Elongation on 2"	(C14) Reduction of Area	(C30) Test Method	(C31) Hardness	(C01) Location	(C02) Direction	Impact Test (J) (C49)10x10 mm.				(C03) Temp C°	(B05) Heat Treatment
													(C42) Obtained			(C43)Mean		
			mm		N/mm²	N/mm²	%	%										
E230125	T/2	Q	12,5x50	20	272,8	560,1	61,8	76,6	HB	170 173							20	S

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched And Tempered	S=Solution Treat & Quench
(C01) Location:	F=Full thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 thk.	L=Ladle Analysis P=Product Analysis
(C02) Direction:	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential	

NOTE:
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- Material according to ASTM A182/A182M-23
  Material according to ASME II Part.A SA-182/SA-182M Ed.2023
- Material solution annealing at 1100°C and water cooling
- Material in compliance with specification and order

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI s.r.l. Luca Ravagli		

This document has been prepared electronically and is valid without signature

ROSETTI MARINO

MATERIAL CERTIFICATES BOOK

Supplier	Purchase Order nr.	job	Barcode
FERRARI SRL	1724001716	123A90A	Q012400709

ROSETTI MARINO

ROSETTI MARINO

Conforme alla spec. **PO**

According to the spc.----------.

TMUGF Firma — Data

MTSMD Signature — Date

Sonia Emiliani

05.09.2024

Emiliani Sonia

[X] REVIEW

[ ] WITNESS

CUSTOMER

NOTE

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(A04) MATERIAL TEST CERTIFICATE

LAB01 Rev.5

- [ ] UNI/EN 10204:2004 2.2 - EN 10168:2004
- [x] UNI/EN 10204:2004 3.1 - EN 10168:2004
- [ ] UNI/EN 10204:2004 3.2 - EN 10168:2004

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(A03) Cert.N°: 3.377 Rev.:
Page: 1 of 1
(Z02) Date: 04/09/2024
Ddt N°: AB1 / 2.578

(A06) CUSTOMER / CONSIGNEE:	ROSETTI MARINO S.p.A.	(A08) Job N°:	2.227
(A07) PURCHASE ORDER:	1724001716 123A90A	(B02) Steel Designation:	A/SA350M LF2 Cl1

Item	(B08) Qty	(A09/B01 - B09 - B11) Description Material - Product	(B07) Heat No.	Supplier
10	3,00	FLG LWN 150 RF 1" Id=25,4 L=230 A/SA350 LF2 Cl1	.248307	12246-ACC. VENETE
15	1,00	FLG LWN 150 RF 3" Id=76,2 L=305 A/SA350 LF2 Cl1	.290963	12246-ACC-VENETE
15	1,00	FLG LWN 150 RF 3" Id=76,2 L=305 A/SA350 LF2 Cl1	.456878	12246-ABS
20	1,00	FLG LWN 150 RF 2" Id=50,8 L=230 A/SA350 LF2 Cl1	.295027	12246-ACC.VENETE

CHEMICAL ANALYSIS % (C71 - C92)

(B07) Heat N.	C Mn	Si Cr	Ni Mo	Cu Ca	P S	V Nb	V+Nb Fe	As Sn	Sb Al	Ti W	O_2 H_2	N_2 B	Ceq Ceq(SF)	Co Nb+Ta	Cr+Mo Cr+Mo+N	V+Nb+Ti Cr+Ni+Cu+Mo	J fact. X fact.	(C01)
.248307	0,164	0,185	0,112	0,138	0,0070	0,0040	0,0060	0,0030		0,0150		0,0107	0,38		0,142	0,0210	181	L
	1,020	0,119	0,023		0,0030	0,0020		0,0080	0,0300		0,0001	0,0002	0,33	0,0020	0,153	0,392	0	
.290963	0,179	0,215	0,212	0,145	0,0120	0,0060	0,0190	0,0040		0,0010		0,0053	0,41		0,173	0,0200	234	L
	1,014	0,122	0,051	0,0009	0,0030	0,0130		0,0070	0,0300		0,0002	0,0001	0,35	0,0130	0,178	0,530	15	
.295027	0,186	0,219	0,222	0,151	0,0090	0,0080	0,0240	0,0040		0,0060		0,0055	0,42		0,171	0,0300	185	L
	1,017	0,126	0,045		0,0030	0,0160		0,0060	0,0290		0,0002	0,0001	0,36	0,0160	0,177	0,544	12	
.456878	0,209	0,270	0,100	0,110	0,0050	0,0030	0,0050	0,0060	0,0010	0,0018	0,0007	0,0076	0,40	0,0090	0,200	0,0068	120	L
	0,820	0,170	0,030	0,0011	0,0020	0,0020		0,0060	0,0320		0,0001	0,0001	0,35	0,0020	0,208	0,410	9	

MECHANICAL TESTS (C01 - C69)

(B07) Heat N.	(C01) Location	(C02) Direction	(C10) Shape	(C03) Temp C°	(C11) Yield Stress	(C12) Tensile Strength	(C13) Elongation on 2"	(C14) Reduction of Area	(C30) Test Method	(C31) Hardness		(C01) Location	(C02) Direction	Impact Test (J) (C49)10x10 mm.				(C03) Temp C°	(B05) Heat Treatment
														(C42) Obtained			(C43)Mean		
			mm		N/mm²	N/mm²	%	%											
.248307	T/2	L	8,75x35	20	350,0	491,3	41,0	70,0	HB	155	157	T/2	T	98	102	99	100	-46	N
.290963	T/2	T	12,5x50	20	355,7	513,8	35,2	68,4	HB	145	147	T/2	T	96	104	100	100	-46	N
.295027	T/2	T	12,5x50	20	342,1	497,2	37,0	70,2	HB	144	148	T/2	T	92	67	76	78	-50	N
.456878	T/2	T	12,5x50	20	301,8	529,4	34,6	67,2	HB	153	156	T/2	T	51	53	59	54	-46	N

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched And Tempered	S=Solution Treat & Quench
(C01) Location:	F=Full thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 thk.	L=Ladle Analysis P=Product Analysis
(C02) Direction:	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential	

NOTE:
- Material Fully Killed & fine grain
- Material according to ASTM A350/A350M-23
  Material according to ASME II Part.A SA-350/SA-350M Ed.2023
- Material normalized at 920°C
- Material in compliance with specification and order
  Where not indicate content of V & Nb less than 0,001%
- For more than one forging shipped per heat, hardness test is performed on two different forgings

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI s.r.l. Luca Ravagli		

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