Base Load Power Hub (BLPH)

AIR RELEASE VALVES

MANUFACTURERS RECORD BOOK (FINAL DOSSIER)

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Base Load Power Hub (BLPH)

AIR RELEASE VALVES

MANUFACTURERS RECORD BOOK (FINAL DOSSIER) – INDEX

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Base Load Power Hub (BLPH)

AIR RELEASE VALVES

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data / *dated:*	14/06/2024		Codice F./ *S. Code:*	09768050156	
Commessa / *Job:*	123A90		Indirizzo/ *address* :	Via dei Lavoratori, 15/19 20092 Cinisello Balsamo - Milan - Italy	
Descrizione / *Description*	AIR RELEASE VALVES		Persona di riferim./ *contact person:*	Laura Antonelli <l.antonelli@erredisrl.it>	
Macrofase / *Phase*					

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1	1724001062-MD-LIS-00001	00	1724001062-MD-LIS-00001	00	SMIR OC1645-24	00	SUPPLIER MASTER INDEX REGISTER (SMIR)	PIP		A3	20/06/2024				I
							QUALITY DOCUMENTS								
2	1724001062-QC-ITP-00002	00	1724001062-QC-ITP-00002	00	ITP OC1645-24	00	INSPECTION AND TEST PLAN	QUA		A4	20/06/2024				A
							ENGINEERING DOCUMENTS								
3	1724001062-PP-DA-00003	00	1724001062-PP-DA-00003	00	DWG OC1645-24	00	GENERAL ARRANGEMENT DRAWINGS	PIP		A4	20/06/2024		X		A
4	1724001062-QC-PRO-00004	00	1724001062-QC-PRO-00004	00	TEST OC1645-24	00	FACTORY ACCEPTANCE TEST PROCEDURE	QUA		A4	20/06/2024				A
							CERTIFICATES								
5	1724001062-QC-DB-00005	00	1724001062-QC-DB-00005	00	MDB OC1645-24	00	MANUFACTURERS RECORD BOOK (FINAL DOSSIER)	CERT		A4	30/09/2024				A
6	1724001062-QC-LIS-00006	00	1724001062-QC-LIS-00006	00	MDB INDEX OC1645-24	00	MANUFACTURERS RECORD BOOK (FINAL DOSSIER) - INDEX	QUA		A4	10/08/2024				A
							SPARES & MAINTENANCE DATA								
7	1724001062-PP-MAN-00007	00	1724001062-PP-MAN-00007	00	IOM OC1645-24	00	INSTALLATION, OPERATION AND MAINTENANCE MANUAL	PIP		A4	15/07/2024				I
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9	1724001062-COM-LIS-00009	00	1724001062-COM-LIS-00009	00	SPIR OC1645-24	00	SPARE PART INDEX REGISTER	COMM		A4	15/07/2024				A

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A4, A3, A1 (Supplier)

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Diagrams

PFD (NOT APPLICABLE)

P&ID (NOT APPLICABLE)

ESD (NOT APPLICABLE)

Isometrics (NOT APPLICABLE)

Systems diagrams (NOT APPLICABLE)

Block diagrams (NOT APPLICABLE)

Computer Systems Architectural Diagrams (NOT APPLICABLE)

Drawings

General arrangement drawings

Base Load Power Hub (BLPH)

AIR RELEASE VALVES

Document Number: **1724001062-PP-DA-00003**

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Mauro Liberato	20.11.24

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BASE LOAD POWER HUB (BLPH)

VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED

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TITLE : BASE LOAD POWER HUB (BLPH)
VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED
FRONT PAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724001062-PP-DA-00003

SHEET 001

REV. 04

File Name : 1724001062-PP-DA-00003 Rev. 00

1724001062-PP-DA-00003_04

F.to UNI A3: 420mmx297mm

REV.	SHEET NUMBER	DESCRIPTION	REF. CODE
04	001	FRONT PAGE	
04	002	SUMMARY and GENERAL NOTES	
04	003	VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED	DWG OC1645-24

GENERAL NOTES

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01	11/07/24	SC	LA	BV	ACCEPTED FOR CONSTRUCTION (AFC)
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1724001062-QC-DB-00005_02

TITLE : BASE LOAD POWER HUB (BLPH)
VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED
SUMMARY and GENERAL NOTES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

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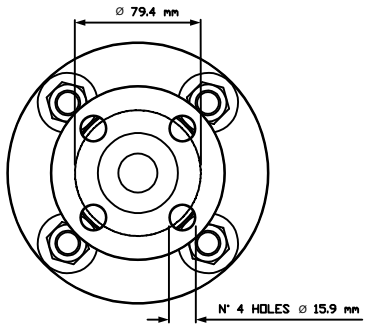
SHEET 002

REV. 04

File Name : 1724001062-PP-DA-00003 Rev. 00

1724001062-PP-DA-00003_04

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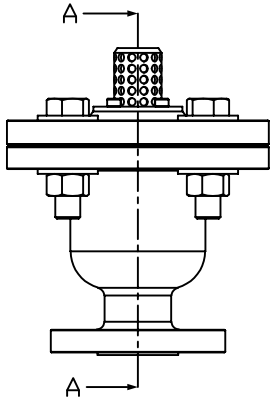


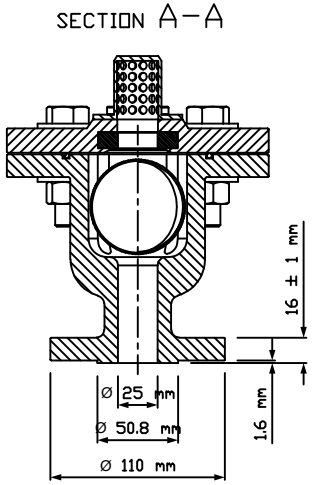
DESIGN CONDITION	OPERATIVE CONDITION
Temperature: 80 °C	Temperature: 22 °C
Pressure: 7.6 barg	Pressure: 5.6 barg

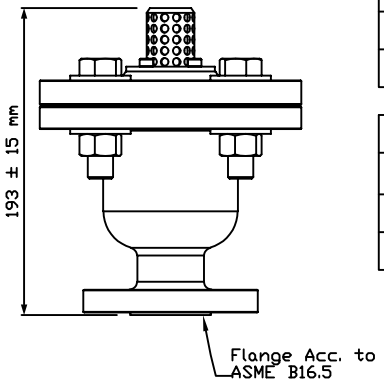
ID	Tag
80021	SP-0043
80021	SP-0044

Note: Flange thickness in accordance to ASME B16.5_2020

Pos.	Description	Material
1	Body Air Release 1" 150RF	ASTM A182 F55
2	Cover Seal Air Release 1" 150	ASTM A182 F55
3	Gasket ball D50 x 25 x 10 mm	NBR 70 Sh.
4	O-Ring 4350	NBR 70 Sh
5	Floater	ASTM A240 UNS 32760
6	Screen Perf. Plate	ASTM A240 UNS 32760
7	Bolt Ex. 5/8" UNC x 65 mm ANSI B1.1 (Q.ty 4)	ASTM A193 B8
8	Washer 5/8" UNC ANSI B18.22.1 (Q.ty8)	STAINLESS STEEL
9	Nut 5/8" UNC ANSI B18.22.1 (Q.ty 4)	ASTM A194 Gr. 8
10	Bolt Ex. Socket M6 x 14 mm UNI EN 1515-1:2002 (Q.ty 4)	ASTM A193 B8





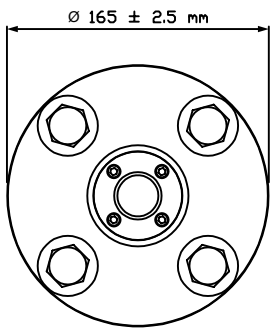


HYDROSTATIC SHALL TESTING VALUES

Item Description	Tag N°	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release / Vacuum Valve	SP-0043	ASTM A182 F55	7.6	11.4
Air Release / Vacuum Valve	SP-0044	ASTM A182 F55	7.6	11.4

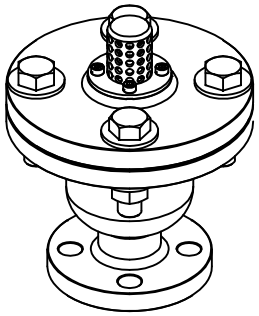
HYDROSTATIC SEAT TESTING VALUES

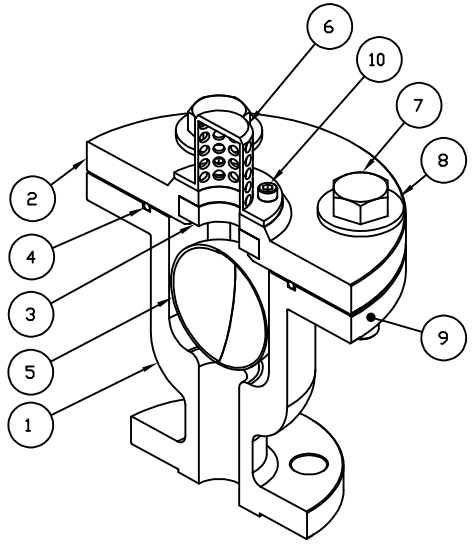
Item Description	Tag N°	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release / Vacuum Valve	SP-0043	ASTM A182 F55	7.6	8.4
Air Release / Vacuum Valve	SP-0044	ASTM A182 F55	7.6	8.4



ERRE DI

Description	AIR RELEASE & VACUUM VALVE
Size	DN25 – 1"
Flange Rating	ASME B16.5 150LB RF
Body	ASTM A182 F55
Floater	ASTM A240 UNS 32760
Job N°	OC 1645.24
Date	2024
Tag N.	(ONE FOR EACH TAG)
Installation:	VERTICAL ONLY
	Made in Italy





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TITLE : BASE LOAD POWER HUB (BLPH)
VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : N/A

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File Name : 1724001062-PP-DA-00003 Rev. 00

1724001062-PP-DA-00003_04

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Plot Plans (NOT APPLICABLE)

Layouts (NOT APPLICABLE)

Discipline Drawings (Structure, Piping…) (NOT APPLICABLE)

Detail shop drawings (excluding detailed machining drawings) (NOT APPLICABLE)

Project Procedures and Specification

Project Management (NOT APPLICABLE)

Engineering (NOT APPLICABLE)

Procurement/Supply (NOT APPLICABLE)

Construction (NOT APPLICABLE)

Manufacturing and Testing procedures (refer to HYDROSTATIC TEST PROCEDURE)

Base Load Power Hub (BLPH)

AIR RELEASE VALVES

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1. PURPOSE

SCOPE

The scope of this procedure is to carry out hydraulic testing in compliance with the ASME B16.34 Last Ed., API 598 Last Ed., API 6D Last Ed., AWWA C512 Last Ed., by using rust water.

2 TESTING PERCENTAGE

2.1 Unless agreed with customer, the percentage of pieces tested for each item will be:
100% for casted pieces,
100% for welded pieces.

2.2 The tested pieces not OK shall be replaced.

3 HYDRAULIC TESTS PROCEDURES

The air release/vacuum valve is subject to hydrostatic testings: shell and seat test.

Preliminary requirements for Shell test:

The air release/vacuum valve shall be assembled without the internal parts.
Protective coatings, such as paint, shall not be applied to any air release/vacuum valve surface before pressure tests are completed.

1 ST Step) The water is used as test fluid, its maximum chloride content shall be 30 ppm (mg/kg) and the pH shall be within the range 6 to 8.
2 ND Step) The pressure is increased by a pneumatic pump.
3 RD Step) Visual inspection to defect leakage, if any, while the particular is water pressure.
4 TH Step) Immediately after hydrostatic test, the air release/vacuum valve shall be drained and then completely dried using compressed air and soft cloths, a visual checking will be performed.

- Instrument and gauges used for testing shall be calibrate prior the test.
- Minimum stabilization period before testing: 60 sec.
- Testing time: 15 sec. for size (NPS) < = 2" according to API 598 tab. 4
  60 sec. for size (NPS) 2.1/2"÷6" according to API 598 tab. 4
  120 sec. for size (NPS) 8"÷12" according to API 598 tab. 4
  300 sec. for size (NPS) >= 14" according to API 598 tab. 4

- Hydraulic shall testing will be satisfactory where no leakage (0%) is detected
- Test pressure values are given in Table 1 of this procedure.

Iussed by:	Signed	Hydrostatic Test Procedure	Revision N.01
Elena Villa			
Approved by:	Signed	Page	Date: 28/06/2022
Bruno Villa			

4 HYDROSTATIC SHALL TESTING VALUES

See Table 1 for Air release/vacuum valve

TABLE 1				
Air Release/Vacuum Valve				
Item Description	Tag nr	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release/Vacuum Valve	SP-0043	ASTM A182 F55	7.6	11.4
Air Release/Vacuum Valve	SP-0044	ASTM A182 F55	7.6	11.4

Preliminary requirements for the Seat test:

The air release/vacuum valve shall be assembled with the internal parts.
Protective coatings, such as paint, shall not be applied to any air release/vacuum valve surface before pressure tests are completed.
All areas shall be clean and free from any trace of oil, grease or dirt.

1 ST Step) The water is used as test fluid, its maximum chloride content shall be 30 ppm (mg/kg) and the pH shall be within the range 6 to 8.
2 ND Step) The pressure is increased by a pneumatic pump.
3 RD Step) Visual inspection to defect leakage, if any, while the particular is water pressure.

- Instrument and gauges used for testing shall be calibrate prior the test.
- Minimum stabilization period before testing: 60 sec.

Testing time: 2 min. for size (NPS) ¼" to 4" according to API 6D tab. 11
5 min. for size (NPS) >= 6" according to API 6D tab. 11

- Hydraulic seat testing will be satisfactory where no leakage (0%) is detected

Test pressure values are given in Table 2 of this procedure.

5 HYDROSTATIC SEAT TESTING VALUES

See Table 2 for Air release/vacuum valve

TABLE 2				
Air Release/Vacuum Valve				
Item Description	Tag nr	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release/Vacuum Valve	SP-0043	ASTM A182 F55	7.6	8.4
Air Release/Vacuum Valve	SP-0044	ASTM A182 F55	7.6	8.4

6 CERTIFICATION

The quality control department will issue a test certificate that is controlled and signed by the quality control manager.
Test certificate to be attached (see ANNEX 1).

ANNEX 1 – EXAMPLE OF FINAL ACCEPTANCE TEST

ERRE DI

CERTIFICATE FOR FINAL ACCEPTANCE TEST OF		DOC. N.:
COMBINATION AIR VALVE		
DRAWING/Disegno: QUANTITY/Quantità: Item:		Date: Erredi Ref.
Client/Cliente Project/Progetto: Order/Ordine		

	INSPECTION/Descrizione	QUALITY RECORD/Dati		RESULT/Risultato		
PRESSURE	Shell Test Pressatura Corpo	Pressure Pressione	Time Durata	Passed ☐	Not passed ☐	N.A. ☐
	Seat Test Tenuta Corpo	Pressure Pressione	Time Durata	Passed ☐	Not passed ☐	N.A. ☐
	Functional Test Prova Funzionale			Passed ☐	Not passed ☐	N.A. ☐
APPEARANCE	INTERNAL PAINTING Verniciatura Interna			Passed ☐	Not passed ☐	N.A. ☐
	EXTERNAL PAINTING Verniciatura Esterna			Passed ☐	Not passed ☐	N.A. ☐
	DIMENSIONAL CHECK Controllo Dimensionale			Passed ☐	Not passed ☐	N.A. ☐
	COMPLIANCE OF FLANGE Controllo Flange			Passed ☐	Not passed ☐	N.A. ☐
	VISUAL EXAMINATION Controllo Visivo			Passed ☐	Not passed ☐	N.A. ☐
The Tested Equipment is in compliance with the Project Specification L'apparecchiatura collaudata risulta conforme alle specifiche di progetto				Passed ☐	Not passed ☐	N.A. ☐

Note/Remarks

Erredi srl	Client	TPI

Note: Calibration gauges certificates and quality water certificate will be provided to inspector during the test

Installation -Transportation (refer to IOM)

Base Load Power Hub (BLPH)

AIR RELEASE VALVES

Document Number: 1724001062-PP-MAN-00007

Document Class: 3

3	17/02/2025	Issued For Information (IFI)	LA	AM	BV
2	15/11/2024	Issued For Information (IFI)	LA	AM	BV
1	20/09/2024	Issued For Information (IFI)	LA	AM	BV
0	06/08/2024	Issued For Information (IFI)	LA	AM	BV
Rev.	Date	Description	Prepared	Reviewed	Approved

ERRE DI

INSTALLATION, OPERATION AND MAINTENANCE MANUAL FOR AUTOMATIC AIR VALVE



This document has the purpose of assisting the personnel in charge of the installation, use, maintenance and repair of the air release/vacuum valve.
It is therefore recommended to read it before performing any work on the aforesaid valve.

WARNING

The valve cannot be used for pressures (working and/or transient pressures) and temperatures outside the design range and/or for fluids other than the ones they have initially been designed for.

PACKAGING AND WAREHOUSING

Unless otherwise specified, the standard ERREDI packaging is suitable for protecting the valves during shipment in closed trucks and/or containers.
Furthemore, it fully protects the equipment at the site, when stored in roofed warehouses for short periods of time running from consigment to the putting commission.
Special precautions should be adopted if the valves are to be kept inactive and exposed to atmospheric agents for long period of time.
The valves should not be exposed to direct sunlight or placed close to heat sources and in excessively dry and hot environmental conditions.
In any case, in order to prevent undue stress on the seal, the floater of the valve should be kept in any position other than fully closed.
In case of long warehousing periods, it is recommended to spred the seal ring with a protective product that does not attack the rubber chemically (Vaseline orsuitable powders) in order to prevent cracks and or breakage due to the “ageing” of the seal.

HANDLING

The valves should be handled with the utmost care.
They should be moved using lifting equipment suitable for the weight of the valves and using the special eyebolts (if any) or the holes in the flanges or in the stiffening ribs.

INSTALLATION

The air valves should always be installed in a vertical-upright position.

An on /off maintenance valve, fitted between the air valve and the transmission (pipeline) system is recommended for maintenance purpose.

OPERATION

The Air Valves, depending from the type, can work in different conditions.

Combined Vacuum Air release valve:

a) Allows large volume of air to escape to the exhaust port when the transmission system is being filled on start up and shall close waterthight when the liquid floods the valve.
During the standard exercise, by an usefull internal pressure, the floater shall remain closed regardless of the water presence in the valve.

b) When the transmission system is being drained and/or the pressure value decreases under the room value during the transient phenomena, the same floater (without pin) shall open and admit large volumes of air through the exhaust port into the transmission system to avoid vacuum and to prevent column separation.

c) when under pressure during the standard operating condition, the “secondary” floater (with pin) shall release the air which had been dissolved in the water.

MAINTENANCE

INSPECTIONS

The air valve is automatic in operation and requires little or no maintenance.

However it is recommended to carry out the following inspections and check.

A) Visual examination for external leakage (monthly)
Before to carry out the inspection, it required to dry completely the wetted external surface.
The inspection should include a visual examination for leakage at the valve body and on pipe connection.

B) Check of Painting (monthly)
Visual examination of the external surface to identify the presence of possible defect (see the paragraph below related to the Painting Repair).

C) Visual examination from main seal leakage (semi-annual)
For precaution, we recommended a semi-annual visual inspection for leakage at the main seal and to carry out a cleaning operation of any environmental debris accumulated around the mesh and attached to the valve seat (if any).

To do it shall perform the following steps:

1) Shut off the isolation valve on the inlet pipe
2) Loosen bolts to remove the valve cover; never remove the bolts and nuts completely while the valve is under pressure
3) Inspect exhaust port on top. If any foreign matter or dirty is preventing ball floater from seating properly against the seat. Clean as necessary
4) Check the main seal status; if a new one is required, refer to the next chapter
5) Assembly the valve cover (and the mesh) by tightening the bolts and nuts diagonally opposite each other in rotation
6) Perform a seat test by slowly filling the body by opening the inlet pipe isolation valve
7) If there is not leakage, you can fully open the isolation valve.

WELDING REPAIR (IF REQUESTED by the customer)

If there is same leakage from the valve body, you can try to stop it by carring out a welding repair.

It shall been performed conforming the ASME VIII Div. 1 and ASME IX indications and then checked on 100% basis by non destructive examination according to the following indication:

- Ultrasonic Test for butt welding in according with ASME V;

- Liquid Penetrant or Magnetic Particles examination for fillet welding in according with ASME V.

Obviously you shall take care about the compatibility between the valve material and the used weld materials.
Perform a seat test by slowly filling the body by opening the inlet pipe isolation valve.
If there is not leakage, you can fully open the isolation valve.

PAINTING REPAIR

After a visual inspection of the external surface, if there are slight defects, you can try to proceed to the painting repair performing the following steps:

1) remove the damaged surface portion in situ and restore the required thickness in according to the painting procedure.

If the retouch is not enough due to the more consistent damaged surface, you can try to proceed to the painting repair performing the following steps:

1) Shut off the isolation valve on the inlet pipe
2) Loosen bolts to remove the valve; never remove the bolts and nuts completely while the valve is under pressure
3) Take the valve to the workshop to repair the painting where necessary in according to the painting procedure, remove the damaged surface portion and restore the required thickness
4) Take back the valve where is installed
5) Assembly the valve with the flange connection pipe and open the isolation valve.

TIGHTNESS REPAIR (MAIN SEAL)

If a malfunction of the valve is evident by seepage of media through the exhaust port and/or a new main seal required after a check of it (see previous chapter), the following steps need to be performed:

1) Shut off the upstream isolation valve on the inlet pipe
2) Remove the valve cover (with the mesh)
3) Loosen bolts of flange seal (never remove the bolts completely while the valve is under pressure)
4) Remove the flange, the flange seat and the main seal
5) Check seal for damage and replace if necessary

Lift out ball floater and check for damage and/or bruises; replace it if necessary

1) Visual inspect the valve body and remove any internal debris from inside the body and clean if necessary
2) Then, after fit new flange seals, assembly the valve in reverse mode
3) Perform a seat test by slowly filling the body by opening the inlet pipe isolation valve
4) If there is not leakage, you can fully open the isolation valve.

NAMEPLATE INFORMATION

Here below it is indicated the various mark meaning stamped on the sample nameplate attached to the body of the Air Valve and on the reference drawing.

DESCRIPTION

SIZE

FLANGE RATING

JOB NUMBER

DATE

TAG NUMBER

VALVE LIST:

ID	Tag
80021	SP-0043
80021	SP-0044



Note:

CLAMPING TORQUE

COLUMN 1) Material according to ASTM A193 B7 / ASTM A193 B7M.
COLUMN 2) Material according to ASTM A193 B8 / ASTM A193 B8M.

ISO (R262)				***ANSI (B 1.1)***			
D x pitch (mm)	**Clamping Torque (Nm)**			**D x Filet (inch)**	**Clamping Torque (Nm)**		
	1	***2***			***1***	***2***	
M6x1	11	6		1/4"UNC	12	6	
M8x1.25	26	13		5/16"UNC	24	13	
M10x1.5	52	27		3/8"UNC	43	23	
M12x1.75	88	46		1/2"UNC	103	54	
M14x2	140	74		9/16"UNC	148	78	
M16x2	213	112		5/8"UNC	199	105	
M18x2.5	294	155		3/4"UNC	352	185	
M20x2.5	415	218		7/8"UNC	554	292	
M22x2.5	552	291		1"UNC	850	447	
M24x3	718	378		1.1/8"UN	1205	634	
M27x3	1050	553		1.1/4"UN	1697	893	
M30x3.5	1426	750		1.3/8 UN	2227	1172	

Hook-up (NOT APPLICABLE)

Start-Up (NOT APPLICABLE)

Piping Classes

Calculation Notes

Discipline Calculation notes/sheets (process, structural, piping…)
(NOT APPLICABLE)

Activities Calculation notes/sheets (supports, sail-away, transportation, installation…) (NOT APPLICABLE)

Weight and centre of gravity reports (NOT APPLICABLE)

Equipment requisitions (NOT APPLICABLE)

Data Sheets (refer to GAD)

PART 2 – CERTIFICATION DOSSIER

Acceptance

Derogations and queries registers with signed copies (NOT APPLICABLE)

Internal and External Inspection certificates/reports (Vendors) (NOT APPLICABLE)

Conformity with technical specification certificates (NOT APPLICABLE)

Acceptance qualifications list (equipment/construction) (NOT APPLICABLE)

Documents confirming Takeover/Hand over between parties (NOT APPLICABLE)

Manufacturing and testing Record

Authorities and Third parties' acceptance and release certificates/reports (NOT APPLICABLE)

Materials certificates (including consumables, such as electrodes and paint) (EN10204 3.1 Cert.and 2.1 Cert.)

ERRE DI	**CERTIFICATE ACCORDING TO: EN 10204/3.1** **CUSTOMER: ROSETTI MARINO S.P.A.** **PROJECT: Hollandse Kust Noord Wind Park**	**CERTIFICATE** OC1645-C.3.1-00 **DATE** 28/11/2024 **SHEET** 1 **CUSTOMER P.O.: 1724001062** **JOB:** 1645.24 **PART.** **BAL.** **X**

ITEM/POS.	Q.TY	DESCRIPTION	DIMENS.	TAG	APPLICABLE STANDARD
1	1	Air Release/Vacuum Valve	DN25 ANSI150#RF	SP-0043	ASME B31.3, ASME VIII, ASME V, AWWA C512, ASME B16.5

ITEM	COMPONENTS	HEAT	SUPPLIER	CERT. No.	CONTROL	Ref. doc.
1	BODY	269108	ACCIAIERIE VALBRUNA	MEST205328/2018	Dimensional and Visual Check	Drawing ARV025A15TS6L
	SEAT FLANGE (COVER SEAL)	269108	ACCIAIERIE VALBRUNA	MEST205328/2018		
	FLOATER	541003-4	OUTOKUMPU	92920-EN-1		FAT Certificate nr. ARV-1645.24_150
	SCREEN PERF.PLATE	580552	OUTOKUMPU	2502137-EN		PMI Certificate nr. PMI-1645.24.01
	BOLTS/NUTS	327726 / 272-0162	COMVITEA	1369660		

CUSTOMER'S INSPECTOR	QUALITY ASSURANCE	QUALITY CONTROL
DE:	***Q.A. ELENA VILLA***	

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ERRE DI	**CERTIFICATE ACCORDING TO: EN 10204/3.1** **CUSTOMER: ROSETTI MARINO S.P.A.** **PROJECT: Hollandse Kust Noord Wind Park**	**CERTIFICATE** OC1645-C.3.1-00 **DATE** 28/11/2024 **SHEET** 1 **CUSTOMER P.O.: 1724001062** **JOB:** 1645.24 **PART.** **BAL.** **X**

ITEM/POS.	Q.TY	DESCRIPTION	DIMENS.	TAG	APPLICABLE STANDARD
2	1	Air Release/Vacuum Valve	DN25 ANSI150#RF	SP-0044	ASME B31.3, ASME VIII, ASME V, AWWA C512, ASME B16.5

ITEM	COMPONENTS	HEAT	SUPPLIER	CERT. No.	CONTROL	Ref. doc.
2	BODY	269108	ACCIAIERIE VALBRUNA	MEST205328/2018	Dimensional and Visual Check	Drawing ARV025A15TS6L
	SEAT FLANGE (COVER SEAL)	269108	ACCIAIERIE VALBRUNA	MEST205328/2018		
	FLOATER	541003-4	OUTOKUMPU	92920-EN-1		FAT Certificate nr. ARV-1645.24_150 PMI Certificate nr. PMI-1645.24.01
	SCREEN PERF.PLATE	580552	OUTOKUMPU	2502137-EN		
	BOLTS/NUTS	327726 / 272-0162	COMVITEA	1369660		

CUSTOMER'S INSPECTOR	QUALITY ASSURANCE	QUALITY CONTROL
DE:	***Q.A. ELENA VILLA***	

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Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Telefono 0444.968211 - Fax 0444.963836
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37
Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a / Nach/According to/Selon: EN 10204 (2004) , 3.1 / ISO 10474 (2013) , 3.1

Certificato nr. / Prüfung/Test/Essai: MEST205328 / 2018 /

Cliente / Besteller/Purchaser/Client:
ERRE. DI. SRL
VIA DEI LAVORATORI, 15
20092 - CINISELLO BALSAMO - MI

Ordine nr: ORDINE 245/OF
Bestell / Your order / Commande

Conferma ordine nr: MI18001047
Werks/Our Order/Ref nr.

Avviso di Spedizione: A-MI18001099
Lieferanzeige/Packing list/B.L.

Stato di fornitura: Fucinato - Solubilizzato Pelato
Lieferzustand / Delivery state / Etat de livraison

Tipo di Elaborazione: E+AOD
Erschmelzungsart / Melting process / Mode d'elaboration

Qualità: F55
Werkstoff/Grade/Nuance

Marca: V257MWU
Markenbezeichnung / Brand / Nuance

Produttore / Hersteller/Item/Usine productrice:
ACCIAIERIE VALBRUNA S.P.A.

Marchi di Fabbrica: AV
Zeichen des Lieferwerkes / Trade marks / Sigles de l'usine productrice

Punzone del Collaudatore: MR
Stempel des Werkssachverständigen / Inspector's stamp/Poinçon de l'assayeur

Punzonatura: F55
Kennzeichnung / Marking / Marquage

SPECIFICHE : / Anforderungen / Requirements / Exigences

Note: / Aufzeichnungen / Notes / Notes

VAL STOCK 2012 S32760 A
ASME SA182 2015 S32760 A (0)
ASME SA276 2015 S32760 A (1)
ASME SA479 2015 S32760 A (2)
ASTM A182 2016 S32760 A (3)
ASTM A276 2017 S32760 A
ASTM A479 2017 S32760 A
ASTM E562 2005 .
NACE MR0175 2009 S32760 A (4)

(0)SECTION II PT.A 2015 EDITION For products machined directly from bar refer to ASME SA479.
(1)SECTION II PT.A 2015 EDITION
(2)SECTION II PT.A 2015 EDITION
(3)For products machined directly from bar refer also to ASTM A479.
(4)ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15 Technical circular 1:2011 Published 2011-06-14

Tolleranza: k12 / Tolleranza/Allowance/Tolerance

Pos. nr. / Pos. nr. / Item nr. / Nr. de poste	Oggetto / Gegenstand / Product description / Descrip. du produit	Dimensioni - mm / Abmessungen / Dimension / Dimension	Lunghezza - mm / Länge / Length / Longueur	Colata / Schmelze / Heat / Coulée	Pezzi / Stückzahl / Pieces / Pieces	Peso - KG / Gewicht / Weight / Poids	Lotto nr. / Losnr. / Lot nr. / Lot nr.
0030	Tondo	184,150	880/ 880	269108		182,0	513907890

TEST ALLO STATO DI FORNITURA
Test on delivery condition / Prüefung auf lieferbereitem produkt / test a l'etat de fourniture / Prueba sobre el material así come entregado

1) L=longitudinale/längs, T=trasversale/quer, Q=Tangenziale/tangential

TEST	Provetta / Probestab / Speciman/Eprouvette: Larg.diam Spess. / Breite Diam. Dicke / Width Diam. Thickness / Larg. diam. epais. mm	°C	Posiz. Saggio / Probenlage / Location / Emplacement 1)	Snervamento / Streckgrenze / Yield Stress / Limite elastique Rp 0,2% N/mm2	Snervamento / Streckgrenze / Yield Stress / Limite elastique	Resistenza / Zugfestigkeit / Tensile strength / Resistance à traction Rm N/mm2	Allungamento / Bruchdehnung / Elongation / Allongement E 4d %		Strizione / Einschnürung / Reduction of area / Striction %	RA %	Resilienza / Kerbschlagarbeit / Impact Value / Resilience			Durezza / Haerte / Hardness / Durete HB		
Valori richiesti / Anforderungen/Required values / Valeurs demandées		min		550	-	750	-	25	-	45	-			-		
		max				895									290	
A	12.5	20	L	614		783		36		67				265		

TEST ALLO STATO DI FORNITURA
Test on delivery condition / Prüefung auf lieferbereitem produkt / Test a l'etat de fourniture / Prueba sobre el material así come entregado

TEST		min	max	
A	Ferrite delta %	35	55	52 %

Ferrite content tested according to ASTM E562.

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Analisi chimica
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata /Heat / Schmelze/Coulée		PRE	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	W %	P %	S %	N %			
	min 40,00	-	-	-	-	24,00	3,00	0,50	6,00	0,500	-	-	0,200	-	-	-
	max 45,00	0,030	1,00	1,00	26,00	4,00	1,00	8,00	1,000	0,030	0,010	0,300	-	-	-
269108		41,66	0,018	0,49	0,54	26,00	3,77	0,60	6,84	0,665	0,023	0,001	0,201			

Reduction ratio = 7,6 : 1

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind it. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le materiel a été trouvé conforme aux exigences

Controllo antimescolanza: OK
Verwechslungprüfung: spectralanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimelange fait: r.a.s.

Controllo visivo e dimensionale: soddisfa le esigenze
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks:satisfactory
Contrôle visuel et dimensions: satisfaisant

Vicenza, 20/02/18
BBL006 - MEST205328
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine
M.RIZZOTTO

Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Telefono 0444.968211 - Fax 0444.963836
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37
Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a / Nach/According to/Selon: EN 10204 (2004) , 3.1 / ISO 10474 (2013) , 3.1

Certificato nr. / Prüfing/Test/Essai: MEST205328 / 2018 /

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Ordine nr: ORDINE 245/OF
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Stato di fornitura: Fucinato - Solubilizzato Pelato
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Tipo di Elaborazione: E+AOD
Erschmelzungsart / Melting process / Mode d'elaboration

Qualità: F55
Werkstoff/Grade/Nuance

Marca: V257MWU
Markenbezeichnung / Brand / Nuance

Produttore:
Hersteller/Item/Usine productrice
ACCIAIERIE VALBRUNA S.P.A.

Marchi di Fabbrica: AV
Zeichen des Liefernwerkes / Trade marks / Sigles de l'usine productrice

Punzone del Collaudatore: MR
Stempel des Werkssachverständigen / Inspector's stamp/Poinçon de l'assayeur

Punzonatura: F55
Kennzeichnung / Marking / Marquage

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2008, IATF 16949 : 2016, AS 9100C

The Quality Management System is Certified acc. Pressure Equipment Directive '['97/23/EC']' Annex 1,s.,4.3 and 2014/68/EU by TUEV and LLOYD`S

Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.

Maxival and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/ or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

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QUALITY VR ASSURANCE

outokumpu
high performance stainless steel

CERTIFICATE – ZEUGNIS – CERTIFICAT

EN10204/3.1

No.Nr.N° 92920-EN-1

Invoice No. / Rechnung Nr. / N° du facturation: 1001221541

Business Unit / QCM	Date Datum Date	Load / Ladung / Chargement	Acknowledged ID, Bestätigung, Commande ID
NYBY OPERATIONS	26-Apr-2024	250433	300704430

Buyers's reference / Käufer's referenz / Acheteur's référence
09 240031

Buyer, Besteller, Acheteur
NICHELCROM ACCIAI INOX S.P.A.
VIA TRENTO, 96/100
IT 20099, SESTO SAN GIOVANNI
Italy

Consignee, Empfänger, Lieu de livraison
NICHELCROM S.P.A.

Requirements, Anforderungen, Exigences
EN 10028-7 (PED 2014/68/EU)-16
EN 10088-2-14
EN 10088-4-2009
ASME SA-240M Code Sect. II. Part A-2023
NACE MR0103 / ISO 17945-2015
ASTM A240M / NACE MR0175/ ISO 15156-3-20/2015
ENISO9445-2

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poicon de l'expert	Grade, Werkstoff, Nuance	
outokumpu	E+AOD	BJS	1.4410	UNS S32750

Product, Erzeugnisform, Produit
Cold Rolled Stainless , Coil , EN 2E, ASTM 2D, Trimmed Edges

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / unit, Menge / Einheit, Quantité / unité
1	1	541003-4	1,00 X 1250,0 mm	1	11970 KG

CHEMICAL COMPOSITION / CHEMISCHE ZUSAMMENSETZUNG % (P after Heat No means product analysis. P nach schmelze nr ist Produkt Analyse)

Heat/Schmelze	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Co	N
541003	0.014	0.34	0.74	0.026	0.001	25.79	7.19	3.920	0.30	0.130	0.30

RESULT OF TESTING / ERGEBNIS DER PRÜFUNG (B: Beginning/Anfang/Debut. E: End Ende/Fin L: Längs der Walzrichtung/In the rolling direction. T:Quer der Walzrichtung/Across the rolling direction)

Sample / Probe	Loc/Dir / Ort/Dir / Lieu/Dir	RP 0.2 N/mm²	RP 1.0 N/mm²	RM N/mm²	A50 %	A80 %	HB N/A
Min		550	0	795	15	20	0
Max				1000			310
1	BT	704	777	950	33	27	264
1	ET	729	790	958	34	27	272

541003-4 BT : Ferrite measured content = 47 %
541003-4 ET : Ferrite measured content = 46 %
541003-4 : PRE = 43,5
Grade verification (spectroscope) OK
Strauss Test, ASTM A 262-E OK
Solution annealed
Annealing Temperature > 1040 °C

True Verify Copy

The products comply with the terms of the order contract.
Die Lieferung entspricht den Vereinbarungen der Bestellannahme.

Insp. and gauge measurement
Besichtigung und Ausmessung
SATISFACTORY

OUTOKUMPU STAINLESS AB
NYBY OPERATIONS
SE-644 80 TORSHÄLLA
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748

Telephone: +46 (0)16 349000
Fax: +46 16 349013
V.A.T no: SE556001874801

Certified acc.Pressure Equipment Directive 2014/68 /EU by TÜV CERT-Certification body for pressure equipment of the TÜV NORD GROUP notified body, reg.no. 0045.

CE 10 0045-CPR-0558 EN 10088-4

QC Dip/Qualitätsstelle
Jonny Andersson

outokumpu
high performance stainless steel

CERTIFICATE – ZEUGNIS – CERTIFICAT

EN10204/3.1

No.Nr.N° 92920-EN-1

Invoice No. / Rechnung Nr. / N° du facturation: 1001221541

Business Unit / QCM	Date Datum Date	Load / Ladung / Chargement	Acknowledged ID, Bestätigung, Commande ID
NYBY OPERATIONS	26-Apr-2024	250433	300704430

Package Number		IndividNo - PartNo / Quantity
1284558	-	253406-1 / 1

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QUALITY VR ASSURANCE

OUTOKUMPU STAINLESS AB
NYBY OPERATIONS
SE-644 80 TORSHÄLLA

SWEDEN

Regoffice: Stockholm SWEDEN, Regno: 556001-8748

Telephone: +46 (0)16 349000
Fax: +46 16 349013
V.A.T no: SE556001874801

Certified acc.Pressure Equipment Directive 2014/68 /EU by TÜV CERT-Certification body for pressure equipment of the TÜV NORD GROUP notified body, reg.no. 0045.

CE 10 0045-CPR-0698 EN 10204-4

QC Dip/Qualitätsstelle

Declaration of Performance	DoP No.: Nyby4410
according to Annex III Construction Products Regulation (305/2011/EU)	
for the construction product	Cold Rolled Coil and Plate from Coil
1. Unique identification code for product type:	1.4410 – EN 10088-4:2009
2. Batch No./Serial No.: acc. to article 11 par. 4	see marking / label / inspection certificate
3. Intended use for construction product:	plate for steel construction
4. Contact address of manufacturer: acc. to article 11 par. 5	Outokumpu Stainless AB Special Coil Nyby SE-644 80 Torshälla Sweden
5. Contact address of authorised representative: acc. article 12 par. 2	(where relevant: name and address of authorised representative / foreign agency)
6. Assessment system and verification for constancy of performance: acc. to annex V	EN 10088-4, annex ZA, System 2+
7. The notified body : has conducted the first inspection and continuous surveillance according to the system: and issued the certificate: as a confirmation of conformity for the factory production control.	TÜV NORD Systems GmbH & Co. KG, Hamburg, identification no.: 0045 2+ 0045-CPR-0668
8. Construction product with European Technical Assessment:	No

9. Declared performance:

Essential characteristics	Performance	Harmonised technical specification
Limiting dimension and shape tolerance	Tolerances acc. to ISO 9445-2	EN 10088-4:2009, Annex B
yield point Rp0,2 tensile strength Rm elongation A and A80	550 MPa 750-1000 MPa Min. 20 %	EN 10088-4:2009, section 6.5.1
Weldability	(proven by chemical composition)	EN 10088-4:2009; section 6.3
Durability	(proven by chemical composition)	EN 10088-4:2009, section 6.3 and 6.4
Fracture toughness/ brittle fracture	NA	
Cold formability	(proven by elongation)	EN 10088-4:2009 Section 6.8

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Torshälla, 21 June 2016



Signed for and on behalf of the manufacturer by: Pete Bamforth, Quality/Technical Manager

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outokumpu
high performance stainless steel

CERTIFICATE - ZEUGNIS - CERTIFICAT

EN 10204-3.1
2502137-EN

Invoice No. / Rechnung Nr. / N° de facture: 6610/1000665845
Page / Seite / Page: 1/1

Business Unit / OCM	Date / Datum / Date	Load. Ladung, Charge No	Acknowledged ID, Bestätigung, Commande ID
Avesta Works / Johan Nordström	02-May-2018	IT/169751	6610/300477694

Your ref. Ihre Ref., Votre ref
422689

Buyer, Besteller, Acheteur
OUTOKUMPU SPA
VIA AGNELLO, 8
IT 20121, MILANO
ITALY

Consignee, Empfänger, Lieu de livraison
OUTOKUMPU S.P.A.

Requirements, Anforderungen, Exigences
ASTM A 240M-17
ASME BPVC SEC II PART A SA-240/SA-240M Ed 2017
EN 10088-2:2014
EN 10028-7:2016
NACE MR0175 / ISO 15156-3:2015
EN 10088-4:2009
EN ISO 9445-2 / ASTM A480M

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poinçon de l'expert	Grade, Werkstoff, Nuance
outokumpu	E+AOD	AJA	Outokumpu Forta SDX 2507 UNS S32750 1.4410

Product, Erzeugnisform, Produit
Stainless Steel Cold Rolled, Coil
finish 2E, pickled, cut edge

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / Unit / Menge / Einheit / Quantité / Unité
1	1	580552-002	3,00 X 1500 mm	1	10860 KG

Chemical composition – Chemische Zusammensetzung – Composition chimiques

	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N
Heat	.019	.35	.75	.027	.001	25.00	6.96	3.83	.30	.261

Radioactive contamination check acc. IAEA recommendations: Approved

Test results – Prüfergebnisse – Results essais (1N/mm² = 1 MPa) F = Front – Anfang – Début B = Back – Ende – Fin T = Transverse – Quer – Travers

Test Ref	Temp °C	RP 0.2 N/MM2	RP 1.0 N/MM2	RM N/MM2	A5 %	2" %	HB HB	FEH %
Min	+20	550		795	20	15		
Max				1000			310	
F T	+20	714	804	930	33	32	270	46.0
B T		708	800	922	30	29	271	

Corrosion acc. EN ISO 3651-2C: Approved
PREN: Cr + 3,3Mo + 16N = 41.8
Material conforms to NACE MR0175 / ISO 15156-3 in supplied condition
Heat treatment / Solution annealed: Material temp minimum 1040 °C / Quenched (forced air + water)
Steel grade verification (PMI-spectroscopic): Approved
Marking, visual insp. and gauge measurement: Approved
Certified acc. Pressure Equipment Directive (2014/68/EU) by TÜV CERT-Certification body for pressure equipment of the TÜV NORD Systems; notified body, reg-no. 0045.

Vs. Ord. A2018 350 SSS
Ns. Bolla 389291
del 130619

COPY CONFORMING TO THE ORIGINAL
OUTOKUMPU S.p.A.
NAME
SIGNATURE

CERTIFIED COPY
SpecialSteelStock
C.S.C. SpA

Outokumpu Stainless AB
Business Area Europe
AVESTA WORKS
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748

Telephone: + 46 (0)226 811 73
Fax: + 46 (0)226 816 46
V.A.T no: SE556001874801

This material is found to comply with order requirements

Joakim Johansson
Authorized Inspector

QUALITY VR ASSURANCE

CE 10

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COMVITEA s.r.l.
VITERIA - BULLONERIA - PARTICOLARI A DISEGNO - TIRANTERIA ASTM
Via Isonzo 32/C - 20078 Turate (CO) Tel 02.9697121 - Fax 02 96754113

CERTIFICATO DI COLLAUDO EN 10204
INSPECTION CERTIFICATE EN 10204

Azienda CERTIFICATA - UNI EN ISO 9001:2015
AD 2000 MERKBLATT W0 - PED Directive 2014/68/EU

Certificato/Certificate N°	**1369660**	Pag. **1 / 1**	Cliente/Customer	**ERRE.DI. SRL**	
Data cert /Date cert.	**25/07/2024**		Vs. ordine/Order.	**977/of**	
d.d.t./Delivery note n.	**4916**	**25/07/2024**	Ns.rif./Int. ref.	**4366**	**17/07/2024**

Descrizione Materiale / Material Description

Item	Qty	Articolo / Article	Materiale / Material	Pos-Rifer / Your pos-ref.
1	16	Dado es. ASTM/ASME A/SA 194 2H Ch. pes. alto UNC 5/8"	ASTM/ASME A/SA 194 2H	
2	16	Dado es. ASTM/ASME A/SA 194 gr.8 Ch. pes. alto UNC 5/8"	ASTM/ASME A/SA 194 gr.8	
3	32	Rondella A2 UNI 6592 / DIN 125 A M16	A2	
4	32	Vite ASTM/ASME A/SA 193 B8 cl.1 UNI 5931 / DIN 912 M6x14	ASTM/ASME A/SA 193 B8 cl.1	
5	16	Vite ASTM/ASME A/SA 193 B7 TE Ch. pes. UNC tutto filetto 5/8"x65	ASTM/ASME A/SA 193 B7	
6	16	Vite ASTM/ASME A/SA 193 B8 cl.1 TE Ch. pes. UNC tutto filetto 5/8"x65	ASTM/ASME A/SA 193 B8 cl.1	

COLATA-ANALISI CHIMICA come da certificato di acciaieria / HEAT-CHEMICAL ANALYSIS according to mill certificate

Item	Colata/Heat	C	Cr	Mn	Mo	Ni	P	S	Si
1	72851	0,4300		0,7000			0,0200	0,0200	0,2500
2	272-0162	0,0240	18,1500	1,1400		8,0700	0,0330	0,0040	0,4500
3	Y152-1581	0,0700	18,5000	1,8100		8,2000	0,0300	0,0200	0,9500
4	E71629	0,0180	18,2700	1,4100		9,2300	0,0340	0,0020	0,2530
5	R10800613XX	0,4200	0,9700	0,8100	0,1900		0,0130	0,0130	0,2200
6	327726	0,0210	18,0000	1,4800		8,0000	0,0270	0,0270	0,4300

NORME/STANDARDS

ASME II Part A ed. 2021
ASME II Part A ed. 2021
ASME II Part A ed. 2021
ASME II Part A ed. 2021
ASME II Part A ed. 2021

PROPRIETA' MECCANICHE / MECHANICAL PROPERTIES

	OTTENUTE / OBTAINED							RICHIESTE / REQUIRED							
	Rm	Re	A	Z	Dur/hard.		Resilienza/Impact test	Rm (N/mm²)		Re (N/mm²)		A %	Z %	Dur/hard. HB		Resilienza/Impact test	
Item	N/mm²	N/mm²	%	%	HB		KV - Joule °C	min	max	min	max	min	min	min	max	KV - Joule	°C
1					291	310	20								327		20
2					259	286	20							126	300		20
3					215	250	20										20
4	652	325	38,00	56,60	192	196	20	515		205		30	50		223		20
5	920	825	19,00	55,00	270	290	20	860		720		16	50		321		20
6	707	452	50,00	72,00	209	212	20	515		205		30	50		223		20

Item	Trattamento Termico Tempering - °C	Dur./Hard. HB dadi/nuts h	°C	>=	HB	Prova allarg. per dadi Cone stripping on nuts		ESAME VISIVO-VIS.EXAM
1	Quenched and tempered macro etch examination: positive 455°	24h	540		228	Positive	Proof load positive	Positivo / Positive
2	Carbide solution treated					Positive	Proof load positive	Positivo / Positive
3								Positivo / Positive
4	Carbide solution treated 1050°							Positivo / Positive
5	Quenched and tempered macro etch examination: positive 593°							Positivo / Positive
6	Carbide solution treated 1050°							Positivo / Positive

Note:

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Certifichiamo che i materiali sono stati fabbricati, campionati, testati e ispezionati in conformità alle specifiche e conformi alle prescrizioni degli ordini.
We certify that the fasteners were manufactured, sampled, tested and inspected in accordance with the specification and are consistent with order prescriptions.

Oscar Uboldi - Quality Assurance

ERRE DI

CERTIFICATE FOR FINAL ACCEPTANCE TEST OF	DOC. N.: ARV1615.24-150
AIR VALVE SIZE 1" ANSI150RF	
DRAWING/Disegno: 1724001062-PP-DA-00003 REV.03 QUANTITY/Quantità: 2 Item: SP-0044; SP-0043 Tag/ID:	Date: 23/09/2024 Erredi Ref. OC1645-24
Client/Cliente: ROSETTI MARINO Project/Progetto: HOLLANDSE KUST NOORD WIND PARK Order/Ordine: 1724001062	

Pressure Gauge N. 338365

	INSPECTION/Descrizione	QUALITY RECORD/Dati		RESULT/Risultato		
PRESSURE	**Shell Test** Pressatura Corpo	**Pressure** 11,4 Pressione	Time 15 SEC. Durata	Passed ☒	Not passed ☐	N.A. ☐
	Seat Test Tenuta Corpo	**Pressure** 8,4 Pressione	Time 2 MIN. Durata	Passed ☒	Not passed ☐	N.A. ☐
	Functional Test Prova Funzionale			Passed ☐	Not passed ☐	N.A. X

APPEARANCE	**INTERNAL PAINTING** Verniciatura Interna		Passed ☐	Not passed ☐	N.A. ☒
	EXTERNAL PAINTING Verniciatura Esterna		Passed ☐	Not passed ☐	N.A. ☒
	DIMENSIONAL CHECK Controllo Dimensionale	in compliance with the Ref. Drawing 1724001062-PP-DA-00003 REV03	Passed ☒	Not passed ☐	N.A. ☐
	COMPLIANCE OF FLANGE Controllo Flange	In according to ASME B16.5	Passed ☒	Not passed ☐	N.A. ☐
	VISUAL EXAMINATION Controllo Visivo	in compliance with the Ref. Drawing 1724001062-PP-DA-00003 REV03	Passed ☒	Not passed ☐	N.A. ☐

The Tested Equipment is in compliance with the Project Specification L'apparecchiatura collaudata risulta conforme alle specifiche di progetto	Passed ☒	Not passed ☐	N.A. ☐

Note/Remarks

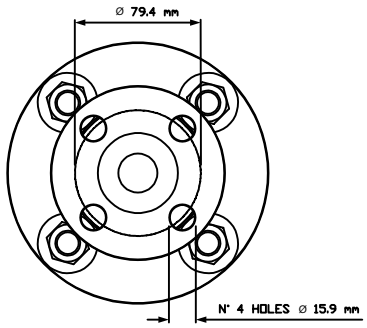
Hydrotest body in according to ASME B 16.34, AWWA C512, API 598, API 6D performed on 23/09/2024

Erredi srl	Client	TPI

x CROSSWIND 27/09/24 R

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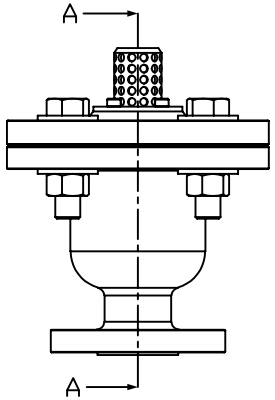


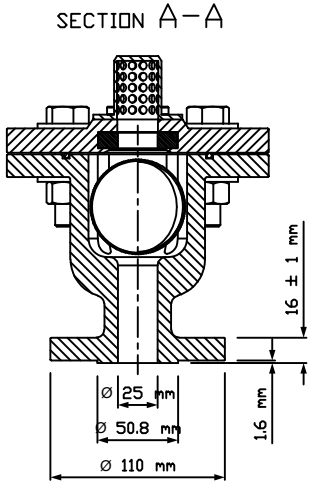
DESIGN CONDITION	OPERATIVE CONDITION
Temperature: 80 °C	Temperature: 22 °C
Pressure: 7.6 barg	Pressure: 5.6 barg

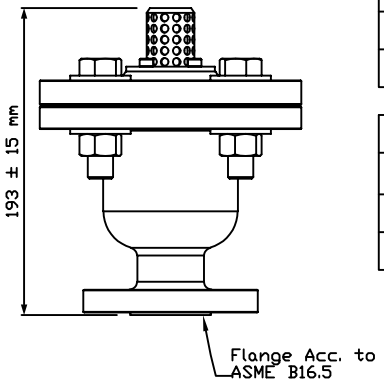
ID	Tag
80021	SP-0043
80021	SP-0044

Note: Flange thickness in accordance to ASME B16.5_2020

Pos.	Description	Material
1	Body Air Release 1" 150RF	ASTM A182 F55
2	Cover Seal Air Release 1" 150	ASTM A182 F55
3	Gasket ball D50 x 25 x 10 mm	NBR 70 Sh.
4	O-Ring 4350	NBR 70 Sh
5	Floater	ASTM A240 UNS 32760
6	Screen Perf. Plate	ASTM A240 UNS 32760
7	Bolt Ex. 5/8" UNC x 65 mm ANSI B1.1 (Q.ty 4)	ASTM A193 B8
8	Washer 5/8" UNC ANSI B18.22.1 (Q.ty8)	STAINLESS STEEL
9	Nut 5/8" UNC ANSI B18.22.1 (Q.ty 4)	ASTM A194 Gr. 8
10	Bolt Ex. Socket M6 x 14 mm UNI EN 1515-1:2002 (Q.ty 4)	ASTM A193 B8





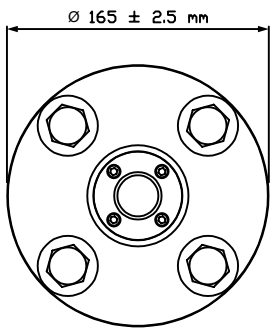


HYDROSTATIC SHALL TESTING VALUES

Item Description	Tag N°	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release / Vacuum Valve	SP-0043	ASTM A182 F55	7.6	11.4
Air Release / Vacuum Valve	SP-0044	ASTM A182 F55	7.6	11.4

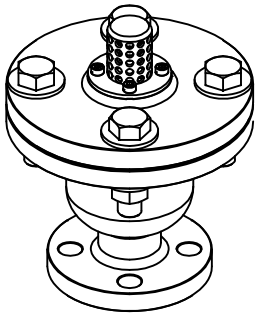
HYDROSTATIC SEAT TESTING VALUES

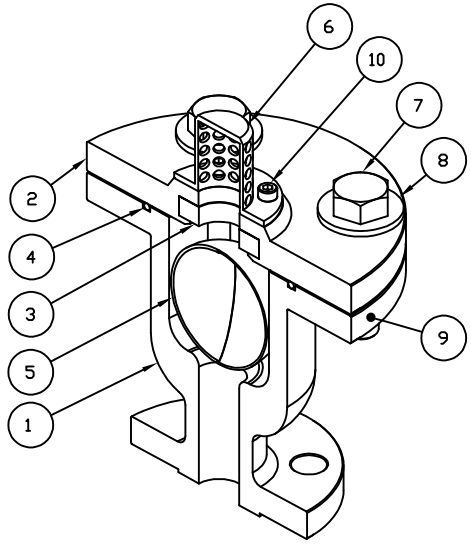
Item Description	Tag N°	Material	Design Pressure [barg]	Body Pressure Test [barg]
Air Release / Vacuum Valve	SP-0043	ASTM A182 F55	7.6	8.4
Air Release / Vacuum Valve	SP-0044	ASTM A182 F55	7.6	8.4



ERRE DI

Description	AIR RELEASE & VACUUM VALVE
Size	DN25 – 1"
Flange Rating	ASME B16.5 150LB RF
Body	ASTM A182 F55
Floater	ASTM A240 UNS 32760
Job N°	OC 1645.24
Date	2024
Tag N.	(ONE FOR EACH TAG)
Installation:	VERTICAL ONLY
	Made in Italy





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	18/11/24	SC	LA	BV	ACCEPTED FOR CONSTRUCTION (AFC)
03	23/09/24	SC	LA	BV	ACCEPTED FOR CONSTRUCTION (AFC)
02	22/07/24	SC	LA	BV	ACCEPTED FOR CONSTRUCTION (AFC)
01	11/07/24	SC	LA	BV	ACCEPTED FOR CONSTRUCTION (AFC)
00	17/06/24	SC	LA	BV	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
VALVE AIR RELEASE AND VACUUM 1" ANSI 150 RF ASSEMBLED

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : N/A

A3 | DRAWING NO. 1724001062-PP-DA-00003 | SHEET 003 | REV. 04

ERRE DI
CROSSWIND
ROSETTI MARINO

File Name : 1724001062-PP-DA-00003 Rev. 00

ERRE.DI SRL VR

RAPPORTO DI TARATURA INTERNO

Calibration report

Strumento *Instrument*	**MANOMETRO**
Costruttore *Manufacturer*	**Tagliabue**
Campo di misura *Measuring Range*	**0÷16 bar**
Matricola *Serial number*	**998369**
Data misure *Date of measurements*	**21/06/2024**
Riferimenti normativi *Reference standards*	**UNI EN 837-1**
Periodicità prevista *Calibration Periodicity*	12 mesi
Precisione	**1,6 bar**
Procedura operativa *Measurement procedure*	**INTERNA**
Campione di riferimento *Reference masters*	**MANOMETRO B17**
Certificati dei campioni *Tests report of masters*	**LAT 034 0034P23**
Condizioni ambientali *Environmental condition*	**T=20°C**

Valore impostato sul campione bar	**Misura Rilevata salita bar**	**Misura Rilevata discesa bar**	**NOTE** ***(Remarks)***
0,00	0,00	0,00	
5,00	5,00	5,00	
10,00	10,00	10,00	
15,00	15,00	15,00	
16,00	16,00	16,00	

ESITO TARATURA **POSITIVO**

Incertezza di misura= **0.5 bar**

Operatore / Operator	**Approvato da / Approved by**	**Emesso il / issued**	**Scadenza/expirind date**
		21/06/2024	**21/06/2025**

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PMI TEST REPORT

CUSTOMER: ROSETTI MARINO S.P.A.
CUSTOMER P.O. : 1724001062 **ERREDI JOB:** OC1645.24
DOCUMENT: PMI-1645.24.01
DATE: 04/09/2024

TAGs Nr.	ITEMs	DESCRIPTION	SIZE (INCH)	RATING #	MATERIAL	HEAT	Q.TY	Cr	Ni	Mo	Result
SP 0043 / SP 0044	1/2	AIR RELEASE VALVE	1''	150RF	ASTM A182 F55	269108	2	25,81	6,90	3,46	POSITIVE

NOTES:
PMI PERFORMED TO AIR VALVES BODY
REPORTED VALUES ARE AVERAGES
REFERENT VALUES:

ASTM A182 F55

	Cr	Ni	Mo
Min	24,00	6,0	3,00
Max	28,00	8,0	4,00

Elena Villa
Quality Dept. Manager

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guarnizioni industriali
di Maffietti G. & C. s.n.c.

SEDE LEGALE
Via T. Tasso, 4 – 20032 Cormano (MI)

PRODUZIONE E MAGAZZINO
Via L. Cadorna, 31 – 20032 Cormano (MI)
Tel. (02) 66504494 – Fax (02) 66508369
www.mgguarnizioni.it – info@mgguarnizioni.it

CERTIFICATO UNI EN 10204 2.1

CLIENTE: ERRE.DI. SRL

RIF. ORDINE N.1385/OC DEL 26/10/2023

NS DDT N. 822 DEL 17/11/2023

Si dichiara che la totalità dei prodotti e dei servizi sotto indicati sono conformi in ogni loro parte alle specifiche e ai disegni e, quando applicabile, agli standard internazionali di riferimento.

CODICE	DESCRIZIONE	U.M.	QTA
	ORD.1385		
OR6437/194N	OR 6437 NBR	PZ.	50
GB65X49X7N	PART. 65X49X7 NBR 70 SH	PZ.	65
OR4093/131N	OR 4093 NBR	PZ.	25
OR8900/244N	OR 8900 NBR	PZ.	15
GB175X149X10N	PART. 175X149X10 NBR 70 SH	PZ.	15
RD150X200X2N+F	ROND. 150X200X2 NBR 70 SH CON 4 FORI	PZ.	15
OR6437/194N	OR 6437 NBR	PZ.	54
OR4350/3.5N	**OR 4350 NBR**	PZ.	40
GB50X25X10N	**PART. 50X25X10 NBR 70 SH**	PZ.	40
RD52X80X2N+F	ROND. 52X80X2 NBR 70 SH CON 4 FORI	PZ.	40
GB160X134X10N	PART. 160X134X10 NBR 70 SH	PZ.	19
OR8775/238N	OR 8775 NBR	PZ.	19
RD125X165X2N+F	ROND. 125X165X2 NBR 70 SH CON 4 FORI	PZ.	19



Cormano, 18/01/2024

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Weighing and Centre Of Gravity certificates (NOT APPLICABLE)

Warranty Surveyor’s certificates (NOT APPLICABLE)

Floating and Marine Registrations (Classifications) (NOT APPLICABLE)

Quality Control plan /Inspection & test Plan / Inspection Reports

Base Load Power Hub (BLPH)

AIR RELEASE VALVES

Document Number: **1724001062-QC-ITP-00002**

ROSETTI MARINO	
1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.	
Sign	Date
ROSETTI MARINO S.p.A.	07/11/24

Document Class: **2**

02	11/10/2024	Accepted for Construction (AFC)	LA	AM	BV
01	11/07/2024	Accepted for Construction (AFC)	LA	AM	BV
00	14/06/2024	Issue for Review (IFR)	LA	AM	BV
Rev.	Date	Description	Prepared	Reviewed	Approved

ERRE DI

This document undergoes an issuance cycle within EDMS Fusionlive". Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

Client: ROSETTI MARINO SPA	***P.O.: 1724001062***	***Our Ref:*** *OC.1645-24*
Project: *HOLLANDSE KUST NOORD WIND PARK*	***Destination:*** *Netherlands*	
Equipment: *AIR RELEASE/VACUUM VALVE*	***Reference document*** *ASME B31.3, API 6D, API598, AWWA C512, ERREDI Procedures approved by the customer, Doc.Nr.123A90-DDL-PP-MR-70065, Doc. nr.123A90-DDL-PP-DS-70007_00, Doc. nr. 123A90-DDL-PP-SP-70030_03*	

SP NUMBER	Qty	Line Number	P&ID	Description	PMC
SP-0043 SP-0044	2	1”-SWS-222-01SD-E 1”-SWS-221-01SD-E	80021	1"Air Release Valve	01SD

Rev.	*Date*	*Description*	*Issued by*	*Approved by*	*Clients approval*	*Date*
00	06/06/2024	ISSUED FOR APPROVAL	L. ANTONELLI	B. VILLA		
01	11/07/2024	ACCEPTED FOR CONSTRUCTION	L. ANTONELLI	B. VILLA		
02	11/10/2024	ACCEPTED FOR CONSTRUCTION	L. ANTONELLI	B. VILLA		

LEGEND		
COLUMN 1	*COLUMN 2*	*COLUMN 3*
A Raw material **B** Machined pieces **C** Finished products	**H** Hold point **W** Witness point **F** First of a kind **M** Monitoring of activity **R** Review of records / reports	**D** Raw material certificate **E** Final material and test certificate

STEP	DESCRIPTION	APPLICABLE DOCUMENT / SPECIFICATION	ACCEPTANCE CRITERIA	Manu. STEP -1-	QTY %	INSPECTION AND DELIVERY -2-								CERTIFICATE -3-	
						ERREDI		ROSETTI MARINO		CROSSWIND					
1	**BEFORE FABRICATION**														
1.1	SUBORDER CHECK	ERREDI docs approved by Customer	ERREDI docs approved by Customer		100	H		R		R					
1.2	MATERIAL TEST CERTIFICATES	ASTM *Doc. nr. 123A90-DDL-PP-SP-70030_03*	ASTM *Doc. nr. 123A90-DDL-PP-SP-70030_03*		100	H		R		R				D	UNI EN10204-3.1 Certificate
1.3	MATERIAL RECEIPT ACTIVITY AND COMPONENT TO BE CHECKED/VERIFIED	ASTM, ERREDI docs approved by Customer	ASTM, ERREDI docs approved by Customer		100	H		R		R					
2	**DURING FABRICATION**														
2.1	WELDERS & NDE OPERATORS' QUALIFICATIONS	ASME IX	ASME IX			NA		NA		NA					Welders & NDE operator's certificates
2.2	WELDING BOOK (WPS, PQR)	ERREDI W.B. approved by Customer ASME IX	ASME IX			NA		NA		NA					

STEP	DESCRIPTION	APPLICABLE DOCUMENT / SPECIFICATION	ACCEPTANCE CRITERIA	Manu. STEP -1-	QTY %	INSPECTION AND DELIVERY -2-				CERTIFICATE -3-							
						ERREDI		ROSETTI MARINO		CROSSWIND							
3	**FINAL TESTS**																
3.1	VALVE ASSEMBLY	ERREDI DWGs approved by Customer, Doc. nr.123A90-DDL-PP-DS-70007_00	ERREDI DWGs approved by Customer, Doc. nr.123A90-DDL-PP-DS-70007_00		100	H		R		R					E	TORQUE Value 105Nm	
3.2	VISUAL & DIMENSIONAL CHECK	ERREDI DWGs approved by Customer,doc. nr. 1724001062-PP-DA-00003 approved by Customer, Doc. nr.123A90-DDL-PP-DS-70007_00	ERREDI DWGs approved by Customer,doc. nr. 1724001062-PP-DA-00003 approved by Customer, Doc. nr.123A90-DDL-PP-DS-70007_00		100	H		W		W					E	Visual & Dimensional Test Report	
3.3	POSITIVE MATERIAL IDENTIFICATION (P.M.I.) Material verification	ERREDI PMI Procedure approved by Customer, Doc. nr. 123A90-DDL-PP-SP-70030_03, Doc. nr. 1724001062-QCITP-00002 approved by Customer	ERREDI PMI Procedure approved by Customer, Doc. nr. 123A90-DDL-PP-SP-70030_03, Doc. nr. 1724001062-QCITP-00002 approved by Customer		100	H		R		R					E	PMI Cert.	
3.4	PRESSURE TEST Seat Test Shell Hydrostatic test	ERREDI Hydrostatic Procedure & DWGs approved by Customer doc. nr.1724001062-QC-PRO-00004 API598, ASME B.31.3, API 6D, AWWA C512	ERREDI Hydrostatic Procedure approved by Customer doc. nr.1724001062-QC-PRO-00004 API598, ASME B31.3 API 6D, AWWA C512		100	H		W		W					E	Hydrostatic Test Report	
3.5	CHECK FOR MARKING	Doc. nr. 123A90-DDL-PP-SP-70030_03	Doc. nr. 123A90-DDL-PP-SP-70030_03		100	H		R		R							
3.6	PACKING	Erredi Packing Procedure approved by Customer	Erredi Packing Procedure approved by Customer		100	M		R		R							
4	**FINAL DOCUMENTATION**																
4.1	MDRB	*Doc. nr. 123A90-DDL-PPSP-70030_03, doc. nr. 1724001062-QC-DB-00005 approved by Customer*	*Doc. nr. 123A90-DDL-PP-SP-70030_03, doc. nr. 1724001062-QC-DB-00005 approved by Customer*		100	H		R		R							

Marking drawings and associated traceability (NOT APPLICABLE)

Non-Destructive Testing certificates/reports (NOT APPLICABLE)

Dimensional control certificates/reports (NOT APPLICABLE)

Painting certificates (NOT APPLICABLE)

NCR’s and Waivers reports (NOT APPLICABLE)

Welding and preheating book/procedures (NOT APPLICABLE)

Painting procedures (NOT APPLICABLE)

Workers qualifications (welders, painters) (NOT APPLICABLE)

Compliance with CE Marking, ATEX, and PED requirements as relevant to the scope of supply (NOT APPLICABLE)

Relevant equipment Design IRCs (where applicable) (NOT APPLICABLE)

Pressure & Function Test Reports

ERRE DI

CERTIFICATE FOR FINAL ACCEPTANCE TEST OF	DOC. N.: ARV1645.24_150
AIR VALVE SIZE 1" ANSI150RF	
DRAWING/Disegno: 1724001062-PP-DA-00003 REV.03 QUANTITY/Quantità: 2 Item: SP-0044; SP-0043 Tag/ID:	Date: 23/09/2024 Erredi Ref. OC1645-24
Client/Cliente: ROSETTI MARINO Project/Progetto: HOLLANDSE KUST NOORD WIND PARK Order/Ordine: 1724001062	

Pressure Gauge N. 338369

	INSPECTION/Descrizione	QUALITY RECORD/Dati		RESULT/Risultato		
PRESSURE	**Shell Test** Pressatura Corpo	**Pressure** 11,4 Pressione	Time 15 SEC. Durata	Passed ☒	Not passed ☐	N.A. ☐
	Seat Test Tenuta Corpo	**Pressure** 8,4 Pressione	Time 2 MIN. Durata	Passed ☒	Not passed ☐	N.A. ☐
	Functional Test Prova Funzionale			Passed ☐	Not passed ☐	N.A. X

APPEARANCE	**INTERNAL PAINTING** Verniciatura Interna		Passed ☐	Not passed ☐	N.A. ☒
	EXTERNAL PAINTING Verniciatura Esterna		Passed ☐	Not passed ☐	N.A. ☒
	DIMENSIONAL CHECK Controllo Dimensionale	in compliance with the Ref. Drawing 1724001062-PP-DA-00003 REV03	Passed ☒	Not passed ☐	N.A. ☐
	COMPLIANCE OF FLANGE Controllo Flange	In according to ASME B16.5	Passed ☒	Not passed ☐	N.A. ☐
	VISUAL EXAMINATION Controllo Visivo	in compliance with the Ref. Drawing 1724001062-PP-DA-00003 REV03	Passed ☒	Not passed ☐	N.A. ☐

The Tested Equipment is in compliance with the Project Specification L'apparecchiatura collaudata risulta conforme alle specifiche di progetto	Passed ☒	Not passed ☐	N.A. ☐

Note/Remarks

Hydrotest body in according to ASME B 16.34, AWWA C512, API 598, API 6D performed on 23/09/2024

Erredi srl	Client	TPI

x CROSSWIND 27/09/24 R

QUALITY VR ASSURANCE

True Verify Copy

ERRE.DI SRL VR

RAPPORTO DI TARATURA INTERNO

Calibration report

Strumento *Instrument*	**MANOMETRO**
Costruttore *Manufacturer*	**Tagliabue**
Campo di misura *Measuring Range*	**0÷16 bar**
Matricola *Serial number*	**998369**
Data misure *Date of measurements*	**21/06/2024**
Riferimenti normativi *Reference standards*	**UNI EN 837-1**
Periodicità prevista *Calibration Periodicity*	12 mesi
Precisione	**1,6 bar**
Procedura operativa *Measurement procedure*	**INTERNA**
Campione di riferimento *Reference masters*	**MANOMETRO B17**
Certificati dei campioni *Tests report of masters*	**LAT 034 0034P23**
Condizioni ambientali *Environmental condition*	**T=20°C**

Valore impostato sul campione bar	**Misura Rilevata salita bar**	**Misura Rilevata discesa bar**	**NOTE** ***(Remarks)***
0,00	0,00	0,00	
5,00	5,00	5,00	
10,00	10,00	10,00	
15,00	15,00	15,00	
16,00	16,00	16,00	

ESITO TARATURA **POSITIVO**

Incertezza di misura= **0.5 bar**

Operatore / Operator	**Approvato da / Approved by**	**Emesso il / issued**	**Scadenza/expirind date**
		21/06/2024	**21/06/2025**

QUALITY VR ASSURANCE

True Verify Copy

Spare Parts Index Register

Base Load Power Hub (BLPH)

SPARE PART INDEX REGISTER

AIR RELEASE VALVE

Document Number: 1724001062-COM-LIS-00009

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
Mauro Liberato	20.11.24

Document Class: 2

02	20/11/2024	Accepted for Construction (AFC)	NA	LA	BV
01	13/11/2024	Accepted for Construction (AFC)	NA	LA	BV
00	25/10/2024	Issue for Review (IFR)	NA	LA	BV
Rev.	Date	Description	Prepared	Reviewed	Approved

ERRE DI

This document undergoes an issuance cycle within EDMS Fusionlive". Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

Revision / Change Log

Rev.	Description
00	Issue for Review (IFR)
01	Accepted for Construction (AFC)
02	Accepted for Construction (AFC)

HOLDS LIST

No.	Description
1	
2	
3	
4	

ROSETTI MARINO

SPARE PARTS LIST

CROSSWIND

Document Title	Commissioning and 2 years spare parts list				
The document relates to	HOLLANDSE KUST NOORD WIND PARK Project - Base Load Power Hub (BLPH)			Contract CW-I-WP4-2023-05	
Project ID	123A90	Doc. n°	1724001062-COM-LIS-00009	Rev. Accepted for Construction	Rev. Date 20-Nov-24
				Status AFC	Class 2

The equipment consists of the following units/components

1	Tag no.	SP-0043	SP-0044			
2	Tag description	Air Release/Vacuum Valve 1"	Air Release/Vacuum Valve 1"			
3	Manufacturer model/type no.	OC 1645-24	OC 1645-24			
4	Manufacturer serial no.	ARV025A15LSDC	ARV025A15LSDC			
5	No. of units	1	1			

Supplier: ERRE.DI. SRL	PO Number: 1724001062	PO description: AIR RELEASE/VACUUM VALVES	Contact name: MRS LAURA ANTONELLI
Address: VIA DEI LAVORATORI, 15/19 20092 CINISELLO BALSAMO (MI) ITALY		Supplier telephone no: +39 02 66047168	Contact mobile no: 0039-349-3112061
		E-mail: l.antonelli@erredisrl.it	WEBSITE www.erredisrl.it
General Information:			

6 Quantity of parts FITTED / INSTALLED per unit/component

MATERIALS DATA

SP-0043	SP-0044				Item Number	Total number of identical spares installed	Description of recommended spare parts	Parts/drawing ref.: Project Datasheet no.	Project Detail dwg. no.	Item ref.	Material	Certiciate Type (if applicable)	Certiciate Reference (if applicable)	Shelf life (years)	Weight (net)	Weight (gross)	Volume	HS Code	ECCN Code	% US Content	Country of origin	Supplier part no.	Manufacturer part no.	Manufacturername	Commissioning spares: Quantity ordered	2 Years spares: Quantity ordered	Remarks
						7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	1				1	1	FLOATER		1724001062-PP-DA-00003	5	ASTM A240 UNS 32760													LM PROFETA	1	1	
1	1				2	1	BOLTS AND NUTS		1724001062-PP-DA-00003	7/9	ASTM A193 Gr. B8/A194 Gr. 8													COMVITEA	1	1	
1	1				3	1	GASKET		1724001062-PP-DA-00003	3	NBR 70 Sh.													MG GUARNIZIONI	1	1	
					4																						
					5																						
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Test Record

Test records included any qualification testing that has been performed when applicable (refer to FAT)

Production test result records (NOT APPLICABLE)

Mechanical Completion records (NOT APPLICABLE)

FAT reports (refer to Pressure & Function Test Reports)

IRN (Inspection Release Note)

ROSETTI MARINO	RELEASE NOTE	Nr. RN-1062-ERD-01	Sheet 1 of 1
		Date 07/10/2024	Rev. 00

PROGETTO *Project*	CLIENTE *Client*	COMMESSA *Job*
HOLLANDSE KUST NOORD WIND PARK	CROSSWIND	*123A90*

FORNITORE *Vendor*	NUMERO D' ORDINE *Purchase Order No.*
ERRE.DI.	*1724001062*

Release Note	☐ FOR PAYMENT	☒ FOR SHIPMENT

RELEASE NOTE FOR PAYMENT

PO Art.	

RELEASE NOTE FOR SHIPMENT

POS. Item	Q.TA' Quantity	DESCRIZIONE Description	Nr. TAG TAG No.	TIPO DI ISPEZIONE / Kind of Inspection	ESITO / Result
10	1	Air Release Valve FLG ø1" 150LB RF SP-0043	TAG: SP-0043	FAT	POSITIVE
20	1	Air Release Valve FLG ø1" 150LB RF SP-0044	TAG: SP-0044	FAT	POSITIVE
30	1	SPARE PARTS - N°1 Floater for Air Valve, N°1 Bolts/nuts, N°1 Seat Gasket	NA	NA	NA
40	1	Spare Parts for 2 Years Operations - N°1 Floater for Air Valve, N°1 Bolts/nuts, N°1 Seat Gasket	NA	NA	NA

Warehouse open Monday to Friday From 08.00 to12.00 and from 13.00 to 17.00.
Contact Mr Rota +39 3451608099

DOCUMENTI APPLICABILI / *APPLICABLE DOCUMENTS*

POSIZIONE *Items*	TIPO DI DOCUMENTO *Type of Document*	NUMERO DI DOCUMENTO *Document Number*	Rev.	COD. DI APPROV. *Approv. Code*

PUNCH LIST: ☐ SI / *YES* VEDI PUNCH LIST ALLEGATA N° / *REFER TO ATTACHED PUNCH LIST N°*
☒ NO/ *NO*

CONTROLLO VALIDITA' FIDEJUSSIONE / *PERFORMANCE or WARRANTY BOND expiration date check*
Estensione Fidejussione Richiesta *(Performance or Warranty Bond Extension of Validity required)*
☐ SI / *YES* ☒ NO/ *NO*
Acceptance Method: *Performance or Warranty Bond valid if actually delivery date it's not greater than two weeks from contractual delivery date.*

RELEASE NOTE

RISULTATO / *RESULT*	FORNITURA / *SUPPLY*	DISTRIBUZIONE A: / *DISTRIBUTION TO:*	
☒ POSITIVO / *POSITIVE*	☒ COMPLETA / *COMPLETE*	☒ Project Manager	☒ Administration
☐ NEGATIVO / *NEGATIVE*	☐ PARZIALE / *PARTIAL*	☒ Project Quality Manager	☒ Project Eng-/Procurement Coord
☐ PUNTI PENDENTI / *PUNCH-LIST*	☐ ULTIMA / *FINAL*	☐ Warehouse	☐ Supplier

NOTE / *NOTES*

Note:
Refer to attached PL

L' INCARICATO /*Person in charge* ROSETTI MARINO *Supply Management dept.*		IL RAPPR. DEL CLIENTE / *Client Representative*	IL FORNITORE /*Vendor*	CONSTRUCTION MANAGER *Only requested for Punch List to be closed at Yard*
Nome Cognome *Name Surname*	**Firma** *Signature*			
Vincent Zwaan		N.A.	N.A.	N.A.

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO / *The present RELEASE NOTE does not relieve the Supplier of the responsibility of any possible defects and/or malfunctioning arising during the utilisation.*