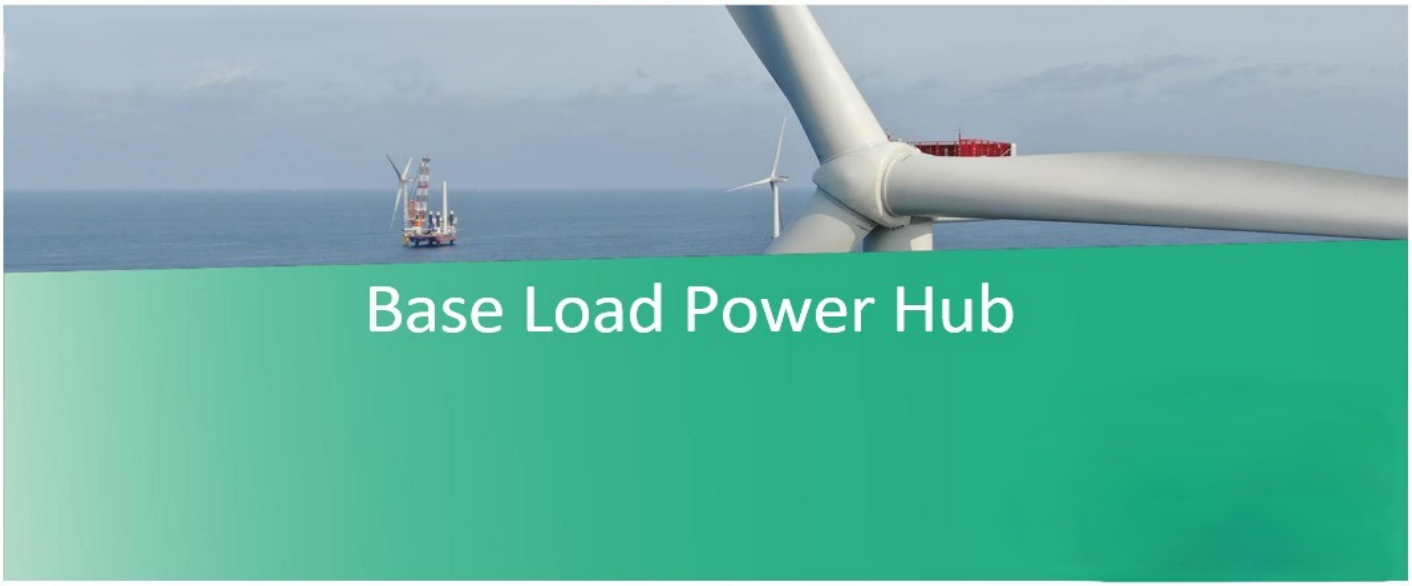
CROSSWIND

ROSETTI MARINO

PROVERLIS

PROJECT **123A90 - HOLLANDSE KUST NOORD WIND PARK**
BLPH Project



MECHANICAL COMPLETION DOSSIER (ONSHORE)

SYSTEM	63 Instrument Air
SUBSYSTEM	63-30 Instrument Air Distribution Network

CROSSWIND	123A90 - HOLLANDSE KUST NOORD WIND PARK BLPH Project MECHANICAL COMPLETION DOSSIER INDEX	ROSETTI MARINO

Sub System N°:	63-30	Tick as appropriate	ONSHORE	O
Description:	Instrument Air Distribution Network		OFFSHORE	NA

1.	***READY FOR COMMISSIONING CERTIFICATE*** *Ready For Commissioning Certificate (RFC)*	O
2.	***CONSOLIDATED PUNCH LISTS*** *Cleared and Residual Items*	O
3.	***SYSTEM/SUB-SYSTEM LIMIT DRAWINGS*** *Mark-up drawings showing the limits of the relevant System/Sub-System*	O
4.	***MECHANICAL COMPLETION STATUS INDEX – BUILDING DISCIPLINE*** *Building Sub-System Status Index (Print out) and Check/Test sheets*	NA
5.	***MECHANICAL COMPLETION STATUS INDEX – ELECTRICAL DISCIPLINE*** *Electrical Sub-System Status Index (Print out) and Check/Test Sheets* *Hazardous Area Equipment Detailed Inspection*	O
6.	***MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE*** *Instrumental Sub-System Status Index (Print out) and Check/Test Sheets*	O
7.	***MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE*** *Mechanical SubSystem Status Index (Print out) and Check/Test Sheets*	NA
8.	***MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE*** *Telecommunication Sub-System Status Index (Print out) and Check/Test Sheets*	NA
9.	***MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE*** *HVAC Sub-System Status Index (Print out) and Check/Test Sheets*	NA
10.	***MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE*** *Piping Sub-System Status Index and Check/Test Sheets*	O
11.	***MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE*** *Safety Sub-System Status Index (Print out) and Check/Test Sheets*	NA
12.	***FAT / VENDOR REPORTS*** *Fat reports issued by vendors and/or vendor reports*	NA
13.	***MECHANICAL COMPLETION CHANGES / MARK-UPS*** *A copy of the changes initiated during the Mechanical Completion process pertaining to the relevant Sub-System will be incorporated in this section*	NA

Note: Under the generic terminology “Building” are also covered the following disciplines: **Structural, Painting**

Under the generic terminology “Instrumental” is also covered the following discipline: **Fire & Gas**

ROSETTI MARINO

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Commissioning (RFC) Certificate

COMPLETE	●	PARTIAL	

Revision:	2		Issued on:	2025-02-17	
System:	63	/	Instrument Air		
SubSystem:	63-30	/	Instrument Air Distribution Network		

1	COMPANY has, at its option and if required, reviewed the mechanical completion associated with the above-named system/sub-system of the SCOPE and observed that such functional sub-system has been brought into readiness for commencement of the associated pre-commissioning and commissioning activities, but for the outstanding punch list items, if any, attached and referred in this Certificate.
2	Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.
3	Mechanical Completion Status Index attached (per Discipline) Punch List report attached (Outstanding and Cleared)

PUNCH LIST	PENDING POINTS	
Note: All Category "A" Items must be cleared prior to issue a Ready For Commissioning (RFC) Certificate	A 0'	B 17

REMARKS:

	CONTRACTOR Construction Manager	**CONTRACTOR** Commissioning Manager	**COMPANY** Construction Lead (if required)	**COMPANY** Commissioning Lead (if required)
Name	Wolmer Borghi	Anthony Iveson	CPY NOT PRESENT	CPY NOT PRESENT
Date	2025-02-18	2025-02-18	2025-02-20	2025-02-20
Signature	PROVERLIS Digitaly signed by Wolmer Borghi 2025-02-18T15:00:33.390Z	PROVERLIS Digitaly signed by Anthony Iveson 2025-02-18T16:38:38.623Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2025-02-20T16:12:40.046Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2025-02-20T16:12:47.978Z

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC

Instrumental	63-30 Instrument Air Distribution Network

ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-PT-003	Pressure Transmitter - Instrument Air to Distribution Header	ONSHORE	C10000947	TJX04	100	2024-10-14	RFC 2
63-PT-004	Pressure Transmitter - Instrument Air to Distribution Header Low Pressure	ONSHORE	C10000948	TJX04	100	2024-10-14	RFC 2
AV-63001	Air Distribution Pot 1	ONSHORE	C10002000	CJX00	100	2025-01-30	RFC 2
AV-63002	Air Distribution Pot 2	ONSHORE	C10002004	CJX00	100	2025-01-30	RFC 2
AV-63003	Air Distribution Pot 3	ONSHORE	C10002005	CJX00	100	2025-02-12	RFC 2
AV-63004	Air Distribution Pot 4	ONSHORE	C10002006	CJX00	100	2025-02-17	RFC 2
AV-63005	Air Distribution Pot 5	ONSHORE	C10002007	CJX00	100	2025-01-28	RFC 2
AV-63006	Air Distribution Pot 6	ONSHORE	C10002008	CJX00	100	2025-02-17	RFC 2
AV-63007	Air Distribution Pot 7	ONSHORE	C10002009	CJX00	100	2025-02-12	RFC 2
AV-63008	Air Distribution Pot 8	ONSHORE	C10002010	CJX00	100	2025-02-04	RFC 2
AV-63009	Air Distribution Pot 9	ONSHORE	C10002011	CJX00	100	2025-02-17	RFC 2
AV-63010	Air Distribution Pot 10	ONSHORE	C10002001	CJX00	100	2025-01-30	RFC 2
AV-63011	Air Distribution Pot 11	ONSHORE	C10002002	CJX00	100	2025-02-12	RFC 2
AV-63012	Air Distribution Pot 12	ONSHORE	C10002003	CJX00	100	2025-02-17	RFC 2
C-63-PT-003/B400-PCS-002	PRESSURE TRANSMITTER / MARSHALLING PCS	ONSHORE	C10000129	CJX10	100	2025-01-25	RFC 2
C-63-PT-004/B400-SIS-001	PRESSURE TRANSMITTER / MARSHALLING PCS	ONSHORE	C10000179	CJX10	100	2025-01-22	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC

Piping	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
036-1-J3	Joint 036-1-J3	ONSHORE	C10004233	TMX27	100	2025-01-13	RFC 1
036-1-J4	Joint 036-1-J4	ONSHORE	C10004234	TMX27	100	2025-01-14	RFC 1
036-1-J5	Joint 036-1-J5	ONSHORE	C10004235	TMX27	100	2025-01-14	RFC 1
095-1-J1	Joint 095-1-J1	ONSHORE	C10004132	TMX27	100	2025-01-13	RFC 1
095-1-J2	Joint 095-1-J2	ONSHORE	C10004133	TMX27	100	2025-01-13	RFC 1
095-1-J3	Joint 095-1-J3	ONSHORE	C10004134	TMX27	100	2025-01-13	RFC 1
101-1-J1	Joint 101-1-J1	ONSHORE	C10004138	TMX27	100	2025-01-13	RFC 1
101-1-J2	Joint 101-1-J2	ONSHORE	C10004139	TMX27	100	2025-01-18	RFC 2
103-1-J1	Joint 103-1-J1	ONSHORE	C10004143	TMX27	100	2025-01-13	RFC 1
103-1-J2	Joint 103-1-J2	ONSHORE	C10004144	TMX27	100	2025-01-18	RFC 2
104-1-J1	Joint 104-1-J1	ONSHORE	C10004145	TMX27	100	2025-01-13	RFC 1
104-1-J2	Joint 104-1-J2	ONSHORE	C10004146	TMX27	100	2025-01-18	RFC 2
105-1-J1	Joint 105-1-J1	ONSHORE	C10004147	TMX27	100	2025-01-13	RFC 1
105-1-J2	Joint 105-1-J2	ONSHORE	C10004148	TMX27	100	2025-01-13	RFC 1
106-1-J1	Joint 106-1-J1	ONSHORE	C10004149	TMX27	100	2025-01-13	RFC 1
106-1-J2	Joint 106-1-J2	ONSHORE	C10004150	TMX27	100	2025-01-20	RFC 2
107-1-J1	Joint 107-1-J1	ONSHORE	C10004151	TMX27	100	2025-01-13	RFC 1
107-1-J2	Joint 107-1-J2	ONSHORE	C10004152	TMX27	100	2025-01-18	RFC 2
108-1-J1	Joint 108-1-J1	ONSHORE	C10004153	TMX27	100	2025-01-13	RFC 1
108-1-J2	Joint 108-1-J2	ONSHORE	C10004154	TMX27	100	2025-01-18	RFC 2
109-1-J1	Joint 109-1-J1	ONSHORE	C10004155	TMX27	100	2025-01-14	RFC 1
109-1-J2	Joint 109-1-J2	ONSHORE	C10004156	TMX27	100	2025-01-20	RFC 2
110-1-J1	Joint 110-1-J1	ONSHORE	C10004157	TMX27	100	2025-01-13	RFC 1
110-1-J2	Joint 110-1-J2	ONSHORE	C10004158	TMX27	100	2025-01-20	RFC 2
111-1-J1	Joint 111-1-J1	ONSHORE	C10004159	TMX27	100	2025-01-15	RFC 1
111-1-J2	Joint 111-1-J2	ONSHORE	C10004160	TMX27	100	2025-01-18	RFC 2
112-1-J1	Joint 112-1-J1	ONSHORE	C10004161	TMX27	100	2025-01-13	RFC 1
112-1-J2	Joint 112-1-J2	ONSHORE	C10004162	TMX27	100	2025-01-20	RFC 2
113-1-J1	Joint 113-1-J1	ONSHORE	C10004163	TMX27	100	2025-01-13	RFC 1

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC

Piping	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
113-1-J2	Joint 113-1-J2	ONSHORE	C10004164	TMX27	100	2025-01-20	RFC 2
119-1-J1	Joint 119-1-J1	ONSHORE	C10004165	TMX27	100	2025-01-13	RFC 1
119-1-J2	Joint 119-1-J2	ONSHORE	C10004166	TMX27	100	2025-01-18	RFC 2
63-30-TP-027	Test Pack 63-30-TP-027	ONSHORE	C10003436	CLX02A	100	2024-12-20	RFC 2
		ONSHORE	C10003437	CLX02B	100	2025-02-03	RFC 2
		ONSHORE	C10003438	CXX02	100	2025-02-05	RFC 2
		ONSHORE	C10003439	TMX03	100	2024-12-24	RFC 2
		ONSHORE	C10003440	TMX05	100	2024-12-24	RFC 2
		ONSHORE	C10003442	TPLX05	100	2024-12-31	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC

ATEX	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-PT-003	Pressure Transmitter - Instrument Air to Distribution Header	ONSHORE	C10000909	CJX01	100	2025-02-08	RFC 2
63-PT-004	Pressure Transmitter - Instrument Air to Distribution Header Low Pressure	ONSHORE	C10000910	CJX01	100	2025-02-08	RFC 2

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-30 Instrument Air Distribution Network

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002095	B	63-30-TP-027 C10003436	Sk.36 (Sh.1/8): For support PS-02075.1 the position F1 (UPN80) has not been installed yet. Pipe is not supported.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002097	B	63-30-TP-027 C10003436	Sk.36 (Sh.1/8): For support PS-02028.1 the position F3 (UPN100) has been installed but is shorter than required. S-211 cannot be installed	.		KAlbonetti 2024-12-20			
C30002100	B	63-30-TP-027 C10003436	SK.095: Spool D, Spool E, Spool F have not been aligned as for the isometric due the scaffolding clashing with them. It has not been possible to	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002105	B	63-30-TP-027 C10003436	SK.36 (Sh.4/8): It has been found and additional piping support not in the isometric that has been installed in between the PS-03094.1 and	.		KAlbonetti 2024-12-20			
C30002108	B	63-30-TP-027 C10003436	Sk.95 (Sh.1/1): The support PS-02092.2 is still in the isometric but as for rev.1 of Piping support book (123A90-DDL-PP-DD-72000) it is not	.		KAlbonetti 2024-12-20			
C30002113	B	63-30-TP-027 C10003436	SK.110: The structural part of support PS-03142.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002114	B	63-30-TP-027 C10003436	SK.112: The structural part of support PS-03143.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002115	B	63-30-TP-027 C10003436	SK.106: The structural part of support PS-03144.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002116	B	63-30-TP-027 C10003436	For all supports type S-211 the isolating ruber, the gap, the lock nuts and the washers shall be checked again during reinstatement because they	.		KAlbonetti 2024-12-20	2026-02-17	KAlbonetti 2026-02-17	2026-02-17

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Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-30 Instrument Air Distribution Network

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003405	B	63-30-TP-027 C10003436	PS-03156 is a mistake. There is no space in field for it and there is no support shown in the 3D.	.		KAlbonetti 2025-01-30			
C30003406	B	63-30-TP-027 C10003436	PS-03155 is a mistake. There is no space in field for it and there is no support shown in the 3D.	.		KAlbonetti 2025-01-30			
C30003466	B	63-30-TP-027 C10003437	Support PS-03142 not installed. ISO 123A90-FDL-PP-DI-00110-01	.		MBruschi 2025-02-03			
C30003467	B	63-30-TP-027 C10003437	Support PS- 03143 not installed. ISO 123A90-FDL-PP-DI-00112-01	.		MBruschi 2025-02-03			
C30003468	B	63-30-TP-027 C10003437	Support PS-03144 not installed. ISO 123A90-FDL-PP-DI-00106-01	.		MBruschi 2025-02-03			
C30003469	B	63-30-TP-027 C10003437	Isolation rubber on Support PS-02008 (S-211) is damaged	.		MBruschi 2025-02-03			
C30003554	B	63-30-TP-027 C10003438	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-05			
C30003555	B	63-30-TP-027 C10003438	General touch up do to, especially near the supports of the piping line.	.		KAlbonetti 2025-02-05			

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Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-30 Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003146	B	C-63-PT-004/B400-SIS-001 C10000179	Missing SS tag side the instrument. (63-PT-004). See attached photo.	.		Gtangianu 2025-01-22			
C30003147	B	C-63-PT-004/B400-SIS-001 C10000179	Missing identification wire tas side the B400-SIS-001.See attached photo.	.		Gtangianu 2025-01-22			
C30003206	B	C-63-PT-003/B400-PCS-002 C10000129	Missing identification tag wire. See attached photo.	.		Gtangianu 2025-01-25			
C30003233	B	AV-63005 C10002007	Missing traffolyte tag , on air distribution pot.	.		APolo 2025-01-28	2025-02-12	APolo 2025-02-12	2025-02-12
C30003234	B	AV-63005 C10002007	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-28	2025-02-04	APolo 2025-02-04	2025-02-04
C30003255	B	AV-63005 C10002007	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-28	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003315	B	AV-63001 C10002000	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003316	B	AV-63001 C10002000	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003317	B	AV-63001 C10002000	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-30 Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003318	B	AV-63010 C10002001	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003319	B	AV-63010 C10002001	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003320	B	AV-63010 C10002001	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003321	B	AV-63002 C10002004	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003322	B	AV-63002 C10002004	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003323	B	AV-63002 C10002004	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003520	B	AV-63008 C10002010	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-02-04	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003521	B	AV-63008 C10002010	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-02-04	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003895	B	AV-63006 C10002008	Found the plug with teflon.See attached photo.	.		Gtangianu 2025-02-17			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-30 Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003969	B	AV-63007 C10002009	Need to remove the teflon on the plug. See attached photo.	.		Gtangianu 2025-02-18			
C30003970	B	AV-63003 C10002005	Need to remove the teflon on the plug. See attached photo.	.		Gtangianu 2025-02-18			

Section 2 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-30 Instrument Air Distribution Network

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002095	B	63-30-TP-027 C10003436	Sk.36 (Sh.1/8): For support PS-02075.1 the position F1 (UPN80) has not been installed yet. Pipe is not supported.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002097	B	63-30-TP-027 C10003436	Sk.36 (Sh.1/8): For support PS-02028.1 the position F3 (UPN100) has been installed but is shorter than required. S-211 cannot be installed	.		KAlbonetti 2024-12-20	2025-02-28	Lmussi 2025-02-28	2025-02-28
C30002100	B	63-30-TP-027 C10003436	SK.095: Spool D, Spool E, Spool F have not been aligned as for the isometric due the scaffolding clashing with them. It has not been possible to	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002105	B	63-30-TP-027 C10003436	SK.36 (Sh.4/8): It has been found and additional piping support not in the isometric that has been installed in between the PS-03094.1 and	.		KAlbonetti 2024-12-20	2025-02-28	Lmussi 2025-02-28	2025-02-28
C30002108	B	63-30-TP-027 C10003436	Sk.95 (Sh.1/1): The support PS-02092.2 is still in the isometric but as for rev.1 of Piping support book (123A90-DDL-PP-DD-72000) it is not	.		KAlbonetti 2024-12-20	2025-04-02	LNovaga 2025-04-02	2025-04-02
C30002113	B	63-30-TP-027 C10003436	SK.110: The structural part of support PS-03142.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002114	B	63-30-TP-027 C10003436	SK.112: The structural part of support PS-03143.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002115	B	63-30-TP-027 C10003436	SK.106: The structural part of support PS-03144.1 has not been installed.	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30002116	B	63-30-TP-027 C10003436	For all supports type S-211 the isolating ruber, the gap, the lock nuts and the washers shall be checked again during reinstatement because they	.		KAlbonetti 2024-12-20	2025-02-17	KAlbonetti 2025-02-17	2025-02-17

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-30 Instrument Air Distribution Network

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003405	B	63-30-TP-027 C10003436	PS-03156 is a mistake. There is no space in field for it and there is no support shown in the 3D.	.	Changes have been recorded on RLMUs	KAlbonetti 2025-01-30	RDegliEsposti 2025-06-25	RDegliEsposti 2025-06-25	2025-06-25
C30003406	B	63-30-TP-027 C10003436	PS-03155 is a mistake. There is no space in field for it and there is no support shown in the 3D.	.	Changes have been recorded on RLMUs	KAlbonetti 2025-01-30	RDegliEsposti 2025-06-25	RDegliEsposti 2025-06-25	2025-06-25
C30003466	B	63-30-TP-027 C10003437	Support PS-03142 not installed. ISO 123A90-FDL-PP-DI-00110-01	.		MBruschi 2025-02-03	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30003467	B	63-30-TP-027 C10003437	Support PS- 03143 not installed. ISO 123A90-FDL-PP-DI-00112-01	.		MBruschi 2025-02-03	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30003468	B	63-30-TP-027 C10003437	Support PS-03144 not installed. ISO 123A90-FDL-PP-DI-00106-01	.		MBruschi 2025-02-03	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30003469	B	63-30-TP-027 C10003437	Isolation rubber on Support PS-02008 (S-211) is damaged	.		MBruschi 2025-02-03	2025-02-28	Lmussi 2025-02-28	2025-02-28
C30003554	B	63-30-TP-027 C10003438	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-05	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30003555	B	63-30-TP-027 C10003438	General touch up do to, especially near the supports of the piping line.	.		KAlbonetti 2025-02-05	2025-03-03	LNovaga 2025-03-03	2025-03-03
C30004315	B	63-30-TP-027 C10003437	Support PS-03142.1 (SK 110), support PS-03143.1 (SK 112) and support PS-03144.1 are installed 160 mm below penetration T.O.S.	.	Changes have been recorded on RLMUs	LNovaga 2025-04-03	RDegliEsposti 2025-06-25	RDegliEsposti 2025-06-25	2025-06-25

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-30 Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003146	B	C-63-PT-004/B400-SIS-001 C10000179	Missing SS tag side the instrument. (63-PT-004). See attached photo.	.		Gtangianu 2025-01-22	2025-02-21	AAndreani 2025-02-21	2025-02-21
C30003147	B	C-63-PT-004/B400-SIS-001 C10000179	Missing identification wire tas side the B400-SIS-001.See attached photo.	.		Gtangianu 2025-01-22	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30003206	B	C-63-PT-003/B400-PCS-002 C10000129	Missing identification tag wire. See attached photo.	.		Gtangianu 2025-01-25	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30003233	B	AV-63005 C10002007	Missing traffolyte tag , on air distribution pot.	.		APolo 2025-01-28	2025-02-12	APolo 2025-02-12	2025-02-12
C30003234	B	AV-63005 C10002007	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-28	2025-02-04	APolo 2025-02-04	2025-02-04
C30003255	B	AV-63005 C10002007	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-28	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003315	B	AV-63001 C10002000	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003316	B	AV-63001 C10002000	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003317	B	AV-63001 C10002000	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-30 Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003318	B	AV-63010 C10002001	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003319	B	AV-63010 C10002001	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003320	B	AV-63010 C10002001	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003321	B	AV-63002 C10002004	Missing traffolyte tag side Air Distribution Pot	.		APolo 2025-01-30	2025-02-18	AAndreani 2025-02-18	2025-02-18
C30003322	B	AV-63002 C10002004	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003323	B	AV-63002 C10002004	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-01-30	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003520	B	AV-63008 C10002010	For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT	.		APolo 2025-02-04	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003521	B	AV-63008 C10002010	Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).	.		APolo 2025-02-04	2025-02-18	Ecarotenuto 2025-02-18	2025-02-18
C30003895	B	AV-63006 C10002008	Found the plug with teflon.See attached photo.	.		Gtangianu 2025-02-17	2025-02-19	Gtangianu 2025-02-19	2025-02-19

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM	63	Instrument Air
SUBSYSTEM	63-30	Instrument Air Distribution Network

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003969	B	AV-63007 C10002009	Need to remove the teflon on the plug. See attached photo.	.		Gtangianu 2025-02-18	2025-02-25	APolo 2025-02-25	2025-02-25
C30003970	B	AV-63003 C10002005	Need to remove the teflon on the plug. See attached photo.	.		Gtangianu 2025-02-18	2025-02-25	APolo 2025-02-25	2025-02-25

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003233

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002007	1.4 Discipline	Instrumental
1.2 Item	AV-63005	Air Distribution Pot 5	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing traffolyte tag , on air distribution pot.

Name: Alessio Polo

Date: 2025-01-28

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


CHECKLIST
ROSETTI MARINO
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003234

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002007	1.4 Discipline	Instrumental
1.2 Item	AV-63005	Air Distribution Pot 5	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).

Name: Alessio Polo
Date: 2025-01-28
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo
Date: 2025-02-04
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


CHECKLIST
ROSETTI MARINO
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003255

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002007	1.4 Discipline	Instrumental
1.2 Item	AV-63005	Air Distribution Pot 5	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT ALLOWED.

Name: Alessio Polo
Date: 2025-01-28
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Teflon tape removed. Point closed

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003315

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002000	1.4 Discipline	Instrumental
1.2 Item	AV-63001	Air Distribution Pot 1	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing traffolyte tag side Air Distribution Pot

Name: Alessio Polo

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003316

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002000	1.4 Discipline	Instrumental
1.2 Item	AV-63001	Air Distribution Pot 1	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


BALL VALVE
AE system
BALL VALVE
BALL VALVE
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003317

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002000	1.4 Discipline	Instrumental
1.2 Item	AV-63001	Air Distribution Pot 1	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT ALLOWED.

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Teflon tape removed. Point closed

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


ON
OFF
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003318

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002001	1.4 Discipline	Instrumental
1.2 Item	AV-63010	Air Distribution Pot 10	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing traffolyte tag side Air Distribution Pot

Name: Alessio Polo

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003319

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002001	1.4 Discipline	Instrumental
1.2 Item	AV-63010	Air Distribution Pot 10	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


BALL VALVE
BALL VALVE
BALL VALVE
AF system

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003320

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002001	1.4 Discipline	Instrumental
1.2 Item	AV-63010	Air Distribution Pot 10	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT ALLOWED.

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Teflon tape removed. Point closed

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


ON
OFF
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003321

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002004	1.4 Discipline	Instrumental
1.2 Item	AV-63002	Air Distribution Pot 2	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing traffolyte tag side Air Distribution Pot

Name: Alessio Polo

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003322

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002004	1.4 Discipline	Instrumental
1.2 Item	AV-63002	Air Distribution Pot 2	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


ROSSETTI MARINO
SYSTEM
LINE N°
63-2
JOINT N°
TORQUED
DATE
FLANGE TAG
FLANGE TESTED
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003323

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002004	1.4 Discipline	Instrumental
1.2 Item	AV-63002	Air Distribution Pot 2	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT ALLOWED.

Name: Alessio Polo
Date: 2025-01-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Teflon tape removed. Point closed

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


ON
OFF
BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003405

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

PS-03156 is a mistake. There is no space in field for it and there is no support shown in the 3D.

Name: Kangi Albonetti

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	ENG Engineering	Signature	

4 - PERFORMED ACTION

Changes have been recorded on RLMUs

Name: Raffaele Degli Esposti

Date: 2025-06-25

Signature:

5 - CLEARANCE CHECK

"Ref. to already officialy issed iso doc. 123A90-FDL-PP-DI-00112-01_01"

Name: Raffaele Degli Esposti

Date: 2025-06-25

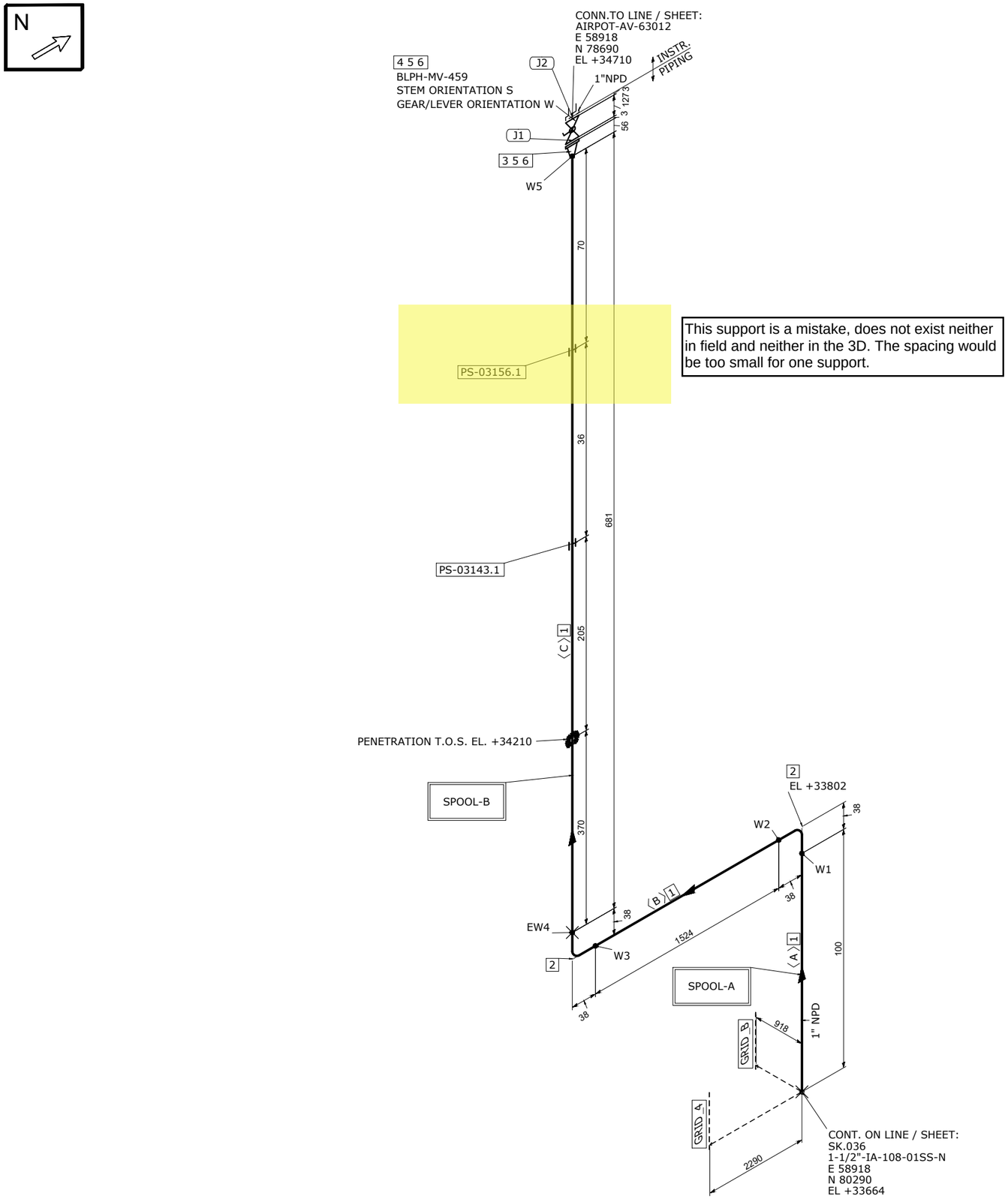
Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-06-25

Signature:



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03143.1
PS-03156.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-214-01SS-N

SK.112

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00112 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS.12 [barg]	TEMP. -29 / 100 [°C]				
HEAT TRACING	N/A		TEST	PRESS.18 [barg]	TEMP. AMB	MEDIUM Water			

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003406

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

PS-03155 is a mistake. There is no space in field for it and there is no support shown in the 3D.

Name: Kangi Albonetti

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	ENG Engineering	Signature	

4 - PERFORMED ACTION

Changes have been recorded on RLMUs

Name: Raffaele Degli Esposti

Date: 2025-06-25

Signature:

5 - CLEARANCE CHECK

"Ref. to already officialy issed iso doc. 123A90-FDL-PP-DI-00106-01_01"

Name: Raffaele Degli Esposti

Date: 2025-06-25

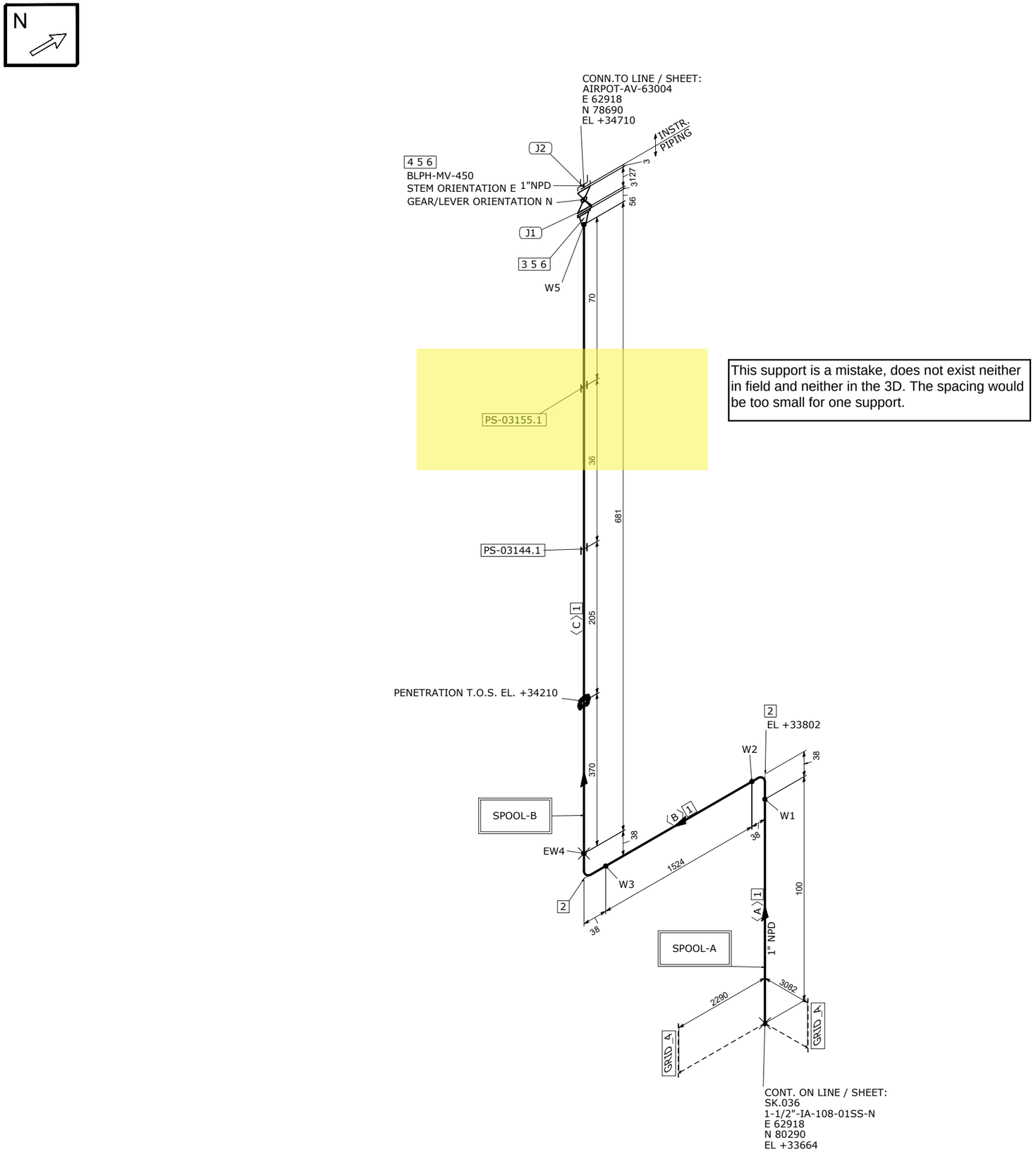
Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-06-25

Signature:



This support is a mistake, does not exist neither in field and neither in the 3D. The spacing would be too small for one support.

MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03144.1
PS-03155.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-208-01SS-N

SK.106

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE	N/A
DRAWN	STAFF SRL
CHECKED	RT
APPROVED	LM
DATE	20-08-2024
FORMAT	A3
DRAWING NO.	123A90-FDL-PP-DI-00106
SHEET / OF	1/1
REV.	00

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003466

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003437	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Support PS-03142 not installed. ISO 123A90-FDL-PP-DI-00110-01

Name: Massimo Bruschi

Date: 2025-02-03

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2025-02-03
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003467

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003437	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Support PS- 03143 not installed. ISO 123A90-FDL-PP-DI-00112-01

Name: Massimo Bruschi

Date: 2025-02-03

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2025-02-03
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003468

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003437	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Support PS-03144 not installed. ISO 123A90-FDL-PP-DI-00106-01

Name: Massimo Bruschi

Date: 2025-02-03

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2025-02-03
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003469

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003437	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Isolation rubber on Support PS-02008 (S-211) is damaged

Name: Massimo Bruschi

Date: 2025-02-03

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2025-02-03
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Luca Mussi

Date: 2025-02-28

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003520

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002010	1.4 Discipline	Instrumental
1.2 Item	AV-63008	Air Distribution Pot 8	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For the installation of the NPT fitting, a suitable sealant must be used according to the line specifications. TEFLON TAPE IS NOT ALLOWED.

Name: Alessio Polo
Date: 2025-02-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-02-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Teflon tape removed. Point closed

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003521

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002010	1.4 Discipline	Instrumental
1.2 Item	AV-63008	Air Distribution Pot 8	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing Plugs SS316 on air distribution pot. (is not installed according to the specifications 123A90-DDL-IN-HD-40078_Rev.01).

Name: Alessio Polo
Date: 2025-02-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-02-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-02-18
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003554

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003438	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Color coding and fluid direction are missing.

Name: Kangi Albonetti

Date: 2025-02-05

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-02-05
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-21

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003555

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003438	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

General touch up do to, especially near the supports of the piping line.

Name: Kangi Albonetti

Date: 2025-02-05

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-02-05
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003895

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002008	1.4 Discipline	Instrumental
1.2 Item	AV-63006	Air Distribution Pot 6	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Found the plug with teflon.See attached photo.

Name: Giovanni Tangianu

Date: 2025-02-17

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-02-17
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


BALL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003969

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002009	1.4 Discipline	Instrumental
1.2 Item	AV-63007	Air Distribution Pot 7	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Need to remove the teflon on the plug. See attached photo.

Name: Giovanni Tangianu

Date: 2025-02-18

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-02-18
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


ON
OFF
BALL VALVE
AV-63007

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003970

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002005	1.4 Discipline	Instrumental
1.2 Item	AV-63003	Air Distribution Pot 3	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Need to remove the teflon on the plug. See attached photo.

Name: Giovanni Tangianu

Date: 2025-02-18

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-02-18
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


AV-63003

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004315

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003437	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Support PS-03142.1 (SK 110), support PS-03143.1 (SK 112) and support PS-03144.1 are installed 160 mm below penetration T.O.S. EL. +34210 and structural supports are UPN50 x 200mm (only pos.F1). Standard S-212 was used instead of S-211 to reduce the mobility of AIRPOTS, if acceptable produce a RLMU on isometrics and support list. See attached photo.

Name: Lorenzo Novaga
Date: 2025-04-03
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Lorenzo Novaga
3.4 Activity code	MC Mechanical Completion	Date	2025-04-03
3.5 Action by	ENG Engineering	Signature	

4 - PERFORMED ACTION

Changes have been recorded on RLMUs

Name: Raffaele Degli Esposti
Date: 2025-06-25
Signature:

5 - CLEARANCE CHECK

"Ref. to RLMU 123A90-DDL-PP-DD-72000-PS-03142_01_01A
+ RLMU 123A90-DDL-PP-DD-72000-PS-03143_01_01A
+ RLMU 123A90-DDL-PP-DD-72000-PS-03144_01_01A"

Name: Raffaele Degli Esposti
Date: 2025-06-25
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-06-25
Signature:


LP VENT

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002095

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Sk.36 (Sh.1/8): For support PS-02075.1 the position F1 (UPN80) has not been installed yet. Pipe is not supported.

Name: Kangi Albonetti
Date: 2024-12-20
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name
Date
Signature

5 - CLEARANCE CHECK

Installed.

Name: Kangi Albonetti
Date: 2025-02-17
Signature:

6- CLEARANCE APPROVAL

Name
Date
Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002097

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Sk.36 (Sh.1/8): For support PS-02028.1 the position F3 (UPN100) has been installed but is shorter than required. S-211 cannot be installed without bending the pipe.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Luca Mussi

Date: 2025-02-28

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002100

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

SK.095: Spool D, Spool E, Spool F have not been aligned as for the isometric due the scaffolding clashing with them. It has not been possible to verify the flanged connection to Spool C of same Sketch and to connection point TP-47 of the Electrolyzer package (A-20000).

Name: Kangi Albonetti
Date: 2024-12-20
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Done.

Name: Kangi Albonetti
Date: 2025-02-17
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002105

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

SK.36 (Sh.4/8): It has been found and additional piping support not in the isometric that has been installed in between the PS-03094.1 and PS-03091.1. The support is similar to PS-03147 but turned at 90°.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Luca Mussi

Date: 2025-02-28

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002108

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Sk.95 (Sh.1/1): The support PS-02092.2 is still in the isometric but as for rev.1 of Piping support book (123A90-DDL-PP-DD-72000) it is not applicable anymore to the line 1"-IA-191-01SS-N. Before it, a new support (PS-02141) has been installed but has not been recorded in the isometrci.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	ENG Engineering	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Document marked-up.

Name: Lorenzo Novaga

Date: 2025-04-02

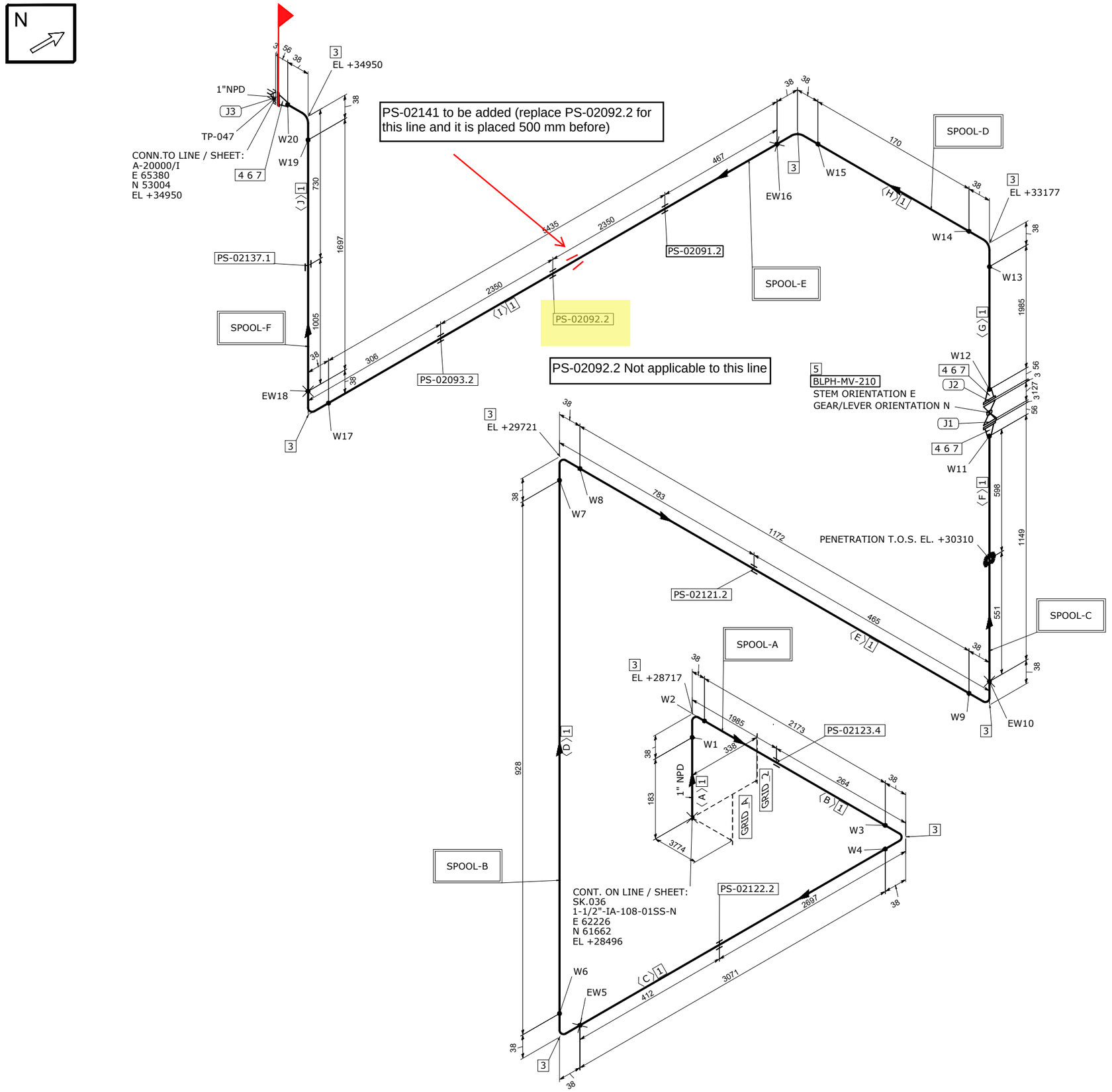
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	17.9M	45.6
3	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	9	1.3
4	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG	3	4.3

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	3	0.2
7	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	12	1.4

FABRICATION WEIGHT [kg]	51.2
ERECTION WEIGHT [kg]	7.6
OVERALL WEIGHT [kg]	58.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	1	BW
EW5	1	BW
W6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
EW10	1	BW
W11	1	BW
W12	1	BW
W13	1	BW
W14	1	BW
W15	1	BW
EW16	1	BW
W17	1	BW
EW18	1	BW
W19	1	BW
W20	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	183	BEVEL	BEVEL
B	1	2173	BEVEL	BEVEL
C	1	3071	BEVEL	BEVEL
D	1	928	BEVEL	BEVEL
E	1	1172	BEVEL	BEVEL
F	1	1149	BEVEL	BEVEL
G	1	1985	BEVEL	BEVEL
H	1	170	BEVEL	BEVEL
I	1	5435	BEVEL	BEVEL
J	1	1697	BEVEL	BEVEL

SUPPORT LIST

PS-02123.4
PS-02122.2
PS-02121.2
PS-02091.2
PS-02092.2
PS-02093.2
PS-02137.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	14.1
B	4	5.8
C	1	4.3
D	4	7.3
E	1	13.7
F	2	5.9
MONT	4	7.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	GAS				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-191-01SS-N

SK.095

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM		DATE	20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00095			SHEET / OF 1/1	REV. 00

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002113

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

SK.110: The structural part of support PS-03142.1 has not been installed.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002114

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

SK.112: The structural part of support PS-03143.1 has not been installed.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002115

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

SK.106: The structural part of support PS-03144.1 has not been installed.

Name: Kangi Albonetti

Date: 2024-12-20

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002116

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003436	1.4 Discipline	Piping
1.2 Item	63-30-TP-027	Test Pack 63-30-TP-027	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

For all supports type S-211 the isolating ruber, the gap, the lock nuts and the washers shall be checked again during reinstatement because they have not been installed properly before the test.

Name: Kangi Albonetti
Date: 2024-12-20
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2024-12-20
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-02-17
Signature:

5 - CLEARANCE CHECK

Done.

Name: Kangi Albonetti
Date: 2025-02-17
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-02-17
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003146

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000179	1.4 Discipline	Instrumental
1.2 Item	C-63-PT-004/B400-SIS-001	PRESSURE TRANSMITTER / MARSHALLING PCS	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing SS tag side the instrument. (63-PT-004). See attached photo.

Name: Giovanni Tangianu

Date: 2025-01-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-01-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-21

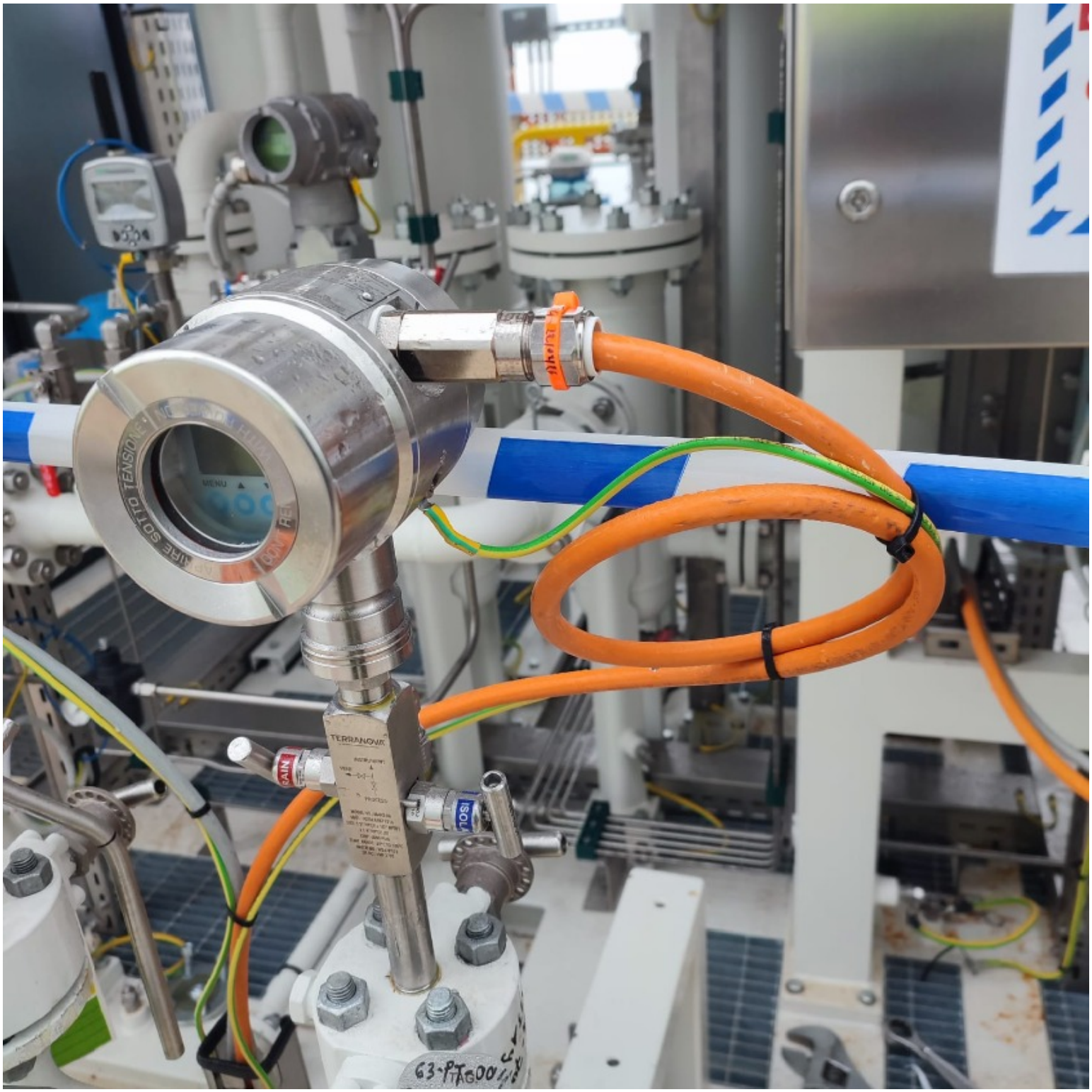
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


MENU
TERRANOVA
63-PTA600

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003147

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000179	1.4 Discipline	Instrumental
1.2 Item	C-63-PT-004/B400-SIS-001	PRESSURE TRANSMITTER / MARSHALLING PCS	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing identification wire tas side the B400-SIS-001.See attached photo.

Name: Giovanni Tangianu

Date: 2025-01-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-01-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-04-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


20
22
24
2
4
6
8
10
12
4/TB-00-JE-21002/4/00-JE-21002/PR2
6/TB-00-JE-21002/6/00-JE-21002/PR3
8/TB-00-JE-21002/8/00-JE-21002/PR4
10/TB-00-JE-21002/10/00-JE-21002/PR5
12/TB-00-JE-21002/12/00-JE-21002/PR6
TB-63-PT-004

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003206

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000129	1.4 Discipline	Instrumental
1.2 Item	C-63-PT-003/B400-PCS-002	PRESSURE TRANSMITTER / MARSHALLING PCS	
1.3 Subsystem	63-30	Instrument Air Distribution Network	

2 - OBSERVATION

Missing identification tag wire. See attached photo.

Name: Giovanni Tangianu

Date: 2025-01-25

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2025-01-25
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-04-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


TB-C-63-PT-003
2/TB-00-JE-11006/2/00-JE-11006/PR1
4/TB-00-JE-11006/4/00-JE-11006/PR2
6/TB-00-JE-11006/6/00-JE-11006/PR3
12/TB-00-JE-11006/12/00-JE-11006/PR6

Section 3 SYSTEM,SUB-SYSTEM LIMIT DRAWINGS

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm3/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm3/h (PRODUCTION)

Waste Water Brine Discharge System	SS 55-01
Instrument Air Distrubution Network	SS 63-30
Instrument Air Package	SS 63-00
Nitrogen Distribution Network	SS 64-10
Nitrogen Generator Package	SS 64-00

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

FAULT PACKAGE 63 XA 003

ESD I — 63-XS-001 SHUT-DOWN

NOTE 14

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DIAGRAM
NOTE 2, 3, 4, 5, 6

1-1/2"-IA-263-01SS-N

V-63001
AIR RECEIVER
C

63 PI 004 LL | 63 PI 003 L | ESD I

63 PT 003 | 63 PT 004

INSTR. PIPING

BLPH-MV-150 3/4" FLG x 1/2" NPTF | BLPH-MV-151 3/4" FLG x 1/2" NPTF

B — TP 041 — LO — BLPH-MV-149

1-1/2"-IA-108-01SS-N → 123A90-DDL-PR-PID-80041 TO INSTRUMENT AIR DISTRIBUTION HEADER

A — TP 039 — BLPH-MV-269 SB LO

1"-WW-079-01CS-H → 123A90-DDL-PR-PID-80025 TO BRINE DISCHARGE CAISSON

BLPH-MV-270 LO 1.1/2"

1-1/2"-IA-204-01SS-N

TO SAFE LOCATION

ESD I — 2"-AV-224-01CS-N

TP 043 — A

TP 045 — C

A-64000
NITROGEN SYSTEM
SEE VENDOR DIAGRAM

64 HS 031 | 64 PIC 031A H L | 64 PIC 031B H L

64 PT 031A | 64 PT 031B | 64 PT 002

64 PV 031A | 64 PV 031B

INSTR. PIPING

BLPH-MV-386 3/4" FLG x 1/2" NPTF | BLPH-MV-166 3/4" FLG x 1/2" NPTF | BLPH-MV-167 3/4" FLG x 1/2" NPTF

64 PI 002 LL

NOTE 15

NOTE 1, 12 SET @ 40 barg — 64 PSV 001

NOTE 10 TO ATM

2"-AV-160-01CS-N

1.5" x 1" — BLPH-MV-278 FB-LO 1.1/2" — 1.5" x 1"

1-1/2"-N-197-01CS-N

B — TP 042 — BLPH-MV-271 SB LO — 3/4" — BLPH-MV-275

1"-N-158-01CS-N

1"-N-100-01CS-N

FL-DC TYP.6 1" — N-158 — N-100

D — 1"-N-262-01CS-N

ESD I — 64-XS-001 SHUT-DOWN — ESD I — NOTE 14

64 XA 003 FAULT PACKAGE

V-64001
NITROGEN RECEIVER
E

1"-N-101-01CS-N → 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER

1"-N-125-03HSS-N → 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C

1"-N-124-03HSS-N → 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B

1"-N-028-03HSS-N → 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A

1" N-257-03HSS-N

UPPER LEVEL
LOWER LEVEL

1"-N-126-03HSS-N → 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D

1"-N-127-03HSS-N → 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E

1"-N-128-03HSS-N → 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F

1"-N-151-01CS-N → 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE

64 SDV 001 | IA | 64 SDV 001 | NOTE 13 | NC FC TYP.2

01CS 03HSS

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED. 02
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED. 02
12. 64PSV001 SIZED FOR UPSTREAM CV FAILURE.
13. 64SDV001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64SDV001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.

02

HOLDS

1. DELETED.
2. DELETED. 02
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

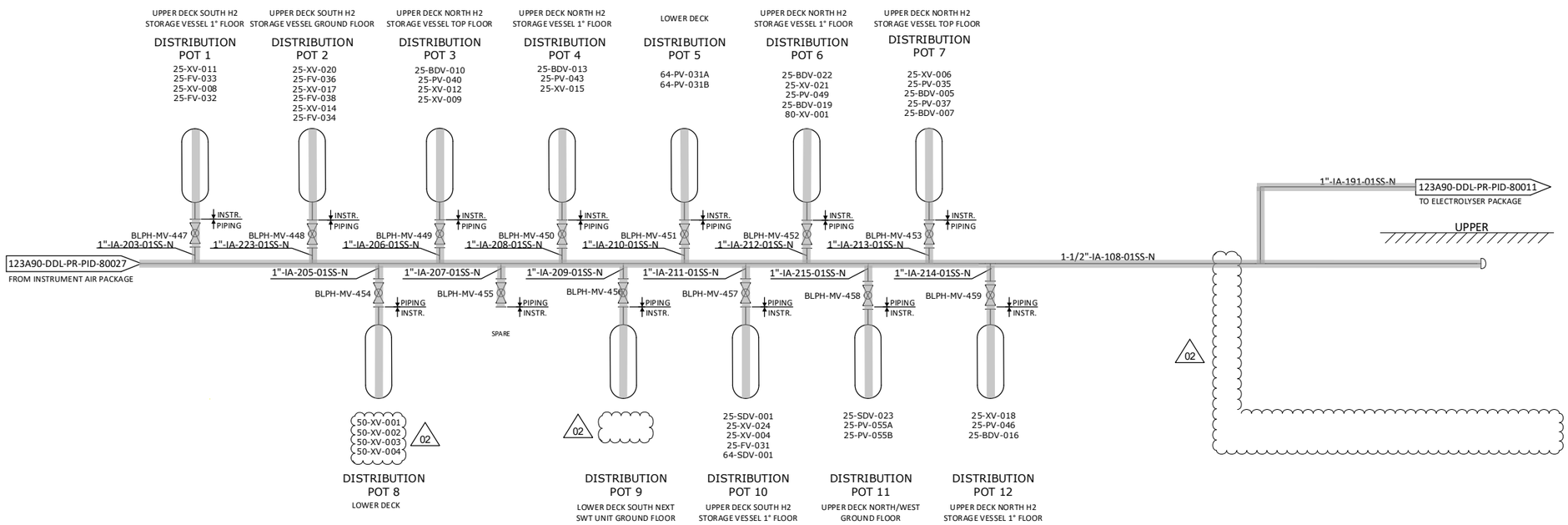
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 02

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV

Instrument Air Distribution Network SS 63-30



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE

A1	DRAWING NO.	SHEET	REV.
	123A90-DDL-PR-PID-80041	001	02

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

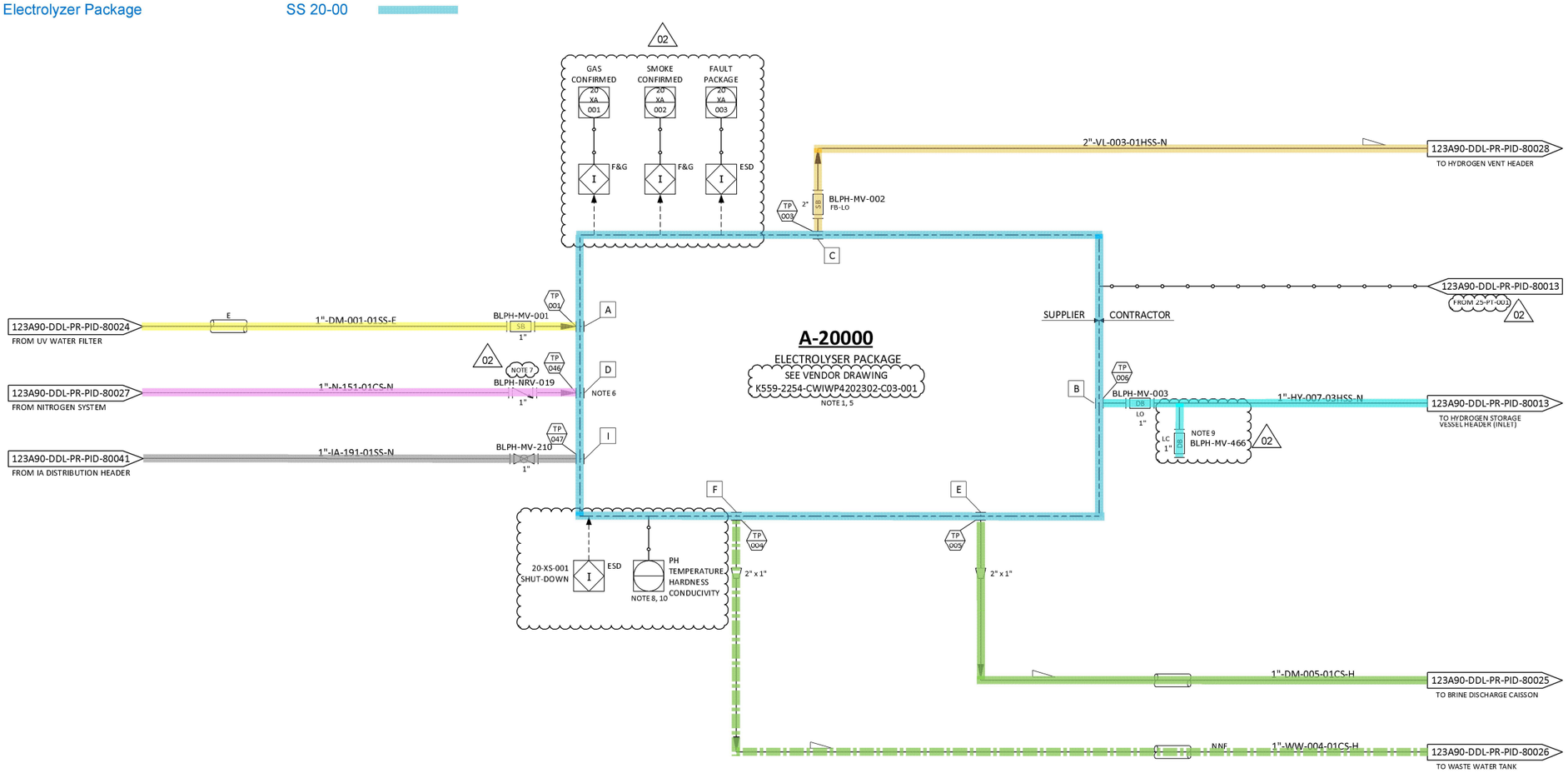
REV. REV

Instrumen Air Distribution Network	SS 63-30	
Water Desalination & Distribution System	SS 50-10	
Hydrogen Storage Vessel Header (Intel)	SS 43-00	
Nitrigen Distribution Network	SS 64-11	
Waste Water Brine Discharge System	SS 55-01	
Waste Water Disposal System	SS 55-00	
Hydrigen Storage Vessel Header (Intel)	SS 25-07	
Electrolyzer Package	SS 20-00	

A-20000

ELECTROLYSER PACKAGE

DUTY: 2.5MW
DESIGN PRESSURE: 40 barg
DESIGN TEMPERATURE: 80 °C
H2 GENERATING CAPACITY: 500 Nm³/h



NOTES

1. PACKAGE SUPPLIED WITH POWER FROM THE BLPH ELECTRICAL SYSTEM.
2. DELETED.
3. DELETED.
4. DELETED.
5. ELECTROLYSER PACKAGE INCLUDES AN OXYGEN VENT LINE WHICH IS IN THE SCOPE OF SUPPLY OF THE ELECTROLYSER PACKAGE UP TO THE ATMOSPHERE. NO PHYSICAL INTERFACE IS PRESENT BETWEEN ELECTROLYSER PACKAGE AND CONTRACTOR ON THIS LINE.
6. AN ISOLATION VALVE DOWNSTREAM THE CHECK VALVE NRV-019 IS PROVIDED WITHIN THE PACKAGE A-20000.
7. CHECK VALVE NRV-019 TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE ELECTROLYSER PACKAGE A-20000.
8. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
9. NITROGEN PURGING CONNECTION TO BE LOCATED AS CLOSE AS POSSIBLE TO MANUAL VALVE BLPH-MV-003.
10. PH, TEMPERATURE, HARDNESS AND CONDUCTIVITY SHALL BE SENT FROM CONTROL SYSTEM TO ELECTROLISER UCP IN ADDITION TO THE OTHER SOFTWARE SIGNALS.

02

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
ELECTROLYSER PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80011	SHEET 001	REV. 02

File Name : FILE_NAME

Section 4 MECHANICAL COMPLETION STATUS INDEX - BUILDING DISCIPLINE

NOT APPLICABLE

Section 5 MECHANICAL COMPLETION STATUS INDEX - ELECTRICAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC & discipline : Y

ATEX	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-PT-003	Pressure Transmitter - Instrument Air to Distribution Header	ONSHORE	C10000909	CJX01	100	2025-02-08	RFC 2
63-PT-004	Pressure Transmitter - Instrument Air to Distribution Header Low Pressure	ONSHORE	C10000910	CJX01	100	2025-02-08	RFC 2

ITEM	Tag	63-PT-003	: Pressure Transmitter - Instrument Air to Distribution Header	Dwg	123A90-DDL-PR-PID-80027		
	S/Sys	63-30	: Instrument Air Distribution Network	Module	UD		
TASK	code	C10000909	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	ATEX	Form	CJX01

Hazardous Area Equipment Detailed Inspection

Schedule Ref. #				**Area Code**					
Area Class Drawing	123A90-DDL-SAF-DL-30022			**Serial No.**		SE240652			
Manufacturer	Terranova Srl			**Model**		SST76-H-7-K-2-0-2-1-4 + MAN2-R6			
Cert No.	TI17ATEX304X-TI17ATEX304X/1			**Equipment Ambient Temp.**		-40°C to +60°C			
Area Classification	HAZARDOUS	**Zone**	2	**Gas group**	IIC	**Temp class**	T1		
Equipment Protection Type	Ex d	**EPL**	Gb	**Gas group**	IIC	**Temp class**	T6	**IP Rating**	IP66/67

Detailed Note:

1) Inspection shall only be performed by competent personnel

2) All fields are to be completed. Any non-applicable field shall state "NA". Comments are required for 'Failure' column ONLY.

3) An Inspection Sheet should be completed for EACH individual item of Equipment.

	General Equipment	Detailed	OK/NA/PL	Comments
1	Equipment is appropriate to the EPL / Zone requirements of the area	x	OK	
2	Equipment group is correct	x	OK	
3	Equipment temperature class is correct	x	OK	
4	Degree of IP protection of equipment is appropriate for the level of protection	x	OK	
5	Equipment circuit identification is correct	x	OK	
6	Equipment circuit identification is available	x	NA	
7	Enclosure glass parts and glass-to-metal sealing gaskets and / or compounds are satisfactory	x	OK	
8	There is no damage or unauthorized modifications	x	OK	
9	There is no evidence of unauthorized modifications	x	OK	
10	Bolts, cable entry devices (direct and indirect) & blanking elements are of the correct type, are complete & tight		OK	
	Physical check	x	OK	
11	Threaded covers on enclosures are of the correct type, are tight and secured		NA	
	Physical check	x	OK	
12	Joint surfaces are clean and undamaged and gaskets, if any, are satisfactory and positioned correctly	x	OK	
13	Condition of enclosure gaskets is satisfactory	x	OK	
14	There is no evidence or ingress of water or dust in the enclosure in accordance with the IP rating	x	OK	
15	Electrical connections are tight	x	OK	
16	Bridging links do not reduce creepage / clearance and are allowed	x	NA	
17	Unused terminals are tightened	x	OK	
18	Encapsulated components are undamaged	x	NA	
19	Flameproof components are undamaged	x	NA	
20	Fluorescent lamps are not indicating EOL effects (only for Ex "e" – Ex "n" – Ex "t")	x	NA	
21	HID lamps are not indicating EOL effects	x	NA	
22	Lamp type, rating, pin configuration and position are correct	x	NA	
23	Breathing and drainage devices are satisfactory	x	OK	
24	Type of cable is appropriate	x	OK	
25	There is no obvious damage to the cables	x	OK	
26	Cable glands are the correct type and installed correctly	x	OK	
27	Sealing of trunking, ducts, pipes and or conduits is satisfactory	x	NA	
28	Stopping boxes and cable boxes are corrected filled	x	OK	

ITEM	Tag	63-PT-003	: Pressure Transmitter - Instrument Air to Distribution Header		Dwg	123A90-DDL-PR-PID-80027	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	UD	
TASK	code	C10000909	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline ATEX	Form	CJX01	Hazardous Area Equipment Detailed Inspection

29	Integrity of conduit system and interface with mixed system maintained	x	NA	
30	Earthing connections, including any supplementary earthing bonding connections are satisfactory (for example connections are tight and conductors are of sufficient cross-section		OK	
	Physical check	x	OK	
31	Automated electric protective devices operate within permitted limits	x	NA	
32	Special conditions (if applicable) have been complied with.	x	OK	
33	All cable cores are uniquely labeled	x	OK	
34	Cable cores not in use are correctly terminated	x	OK	
35	Equipment is adequately protected against corrosion, weather, vibration and other adverse factors	x	OK	
36	No undue accumulation of dust and dirt	x	OK	
37	All equipment housings are clean and dry	x	OK	
38	All moving parts are free and have no mechanical damage	x	NA	
	Applicable for Installation of Heating Systems			
39	Temperature sensors function according to manufacturer's documents (only applicable for Ex-d e Ex-e)	x	NA	
40	Safety cut off devices function according to manufacturer's documents (only applicable for Ex-d e Ex-e)	x	NA	
41	The setting of the safety cut off is sealed (only applicable for Ex-d e Ex-e)	x	NA	
42	Reset of a heating system safety cut off possible with tool only(only applicable for Ex-d e Ex-e)	x	NA	
43	Auto-reset is not possible (only applicable for Ex-d e Ex-e)	x	NA	
44	Reset of a safety cut off under fault conditions is prevented (only applicable for Ex-d e Ex-e)	x	NA	
45	Safety cut off independent from control system (only applicable for Ex-d e Ex-e)	x	NA	
46	Level switch is installed and correctly set, if required (only applicable for Ex-d e Ex-e)	x	NA	
47	Flow switch is installed and correctly set, if required (only applicable for Ex-d e Ex-e)	x	NA	
	Extra Ex d checks			
48	Obstructions adjacent to flame proof flanged joints are in accordance with IEC 60079-14	x	NA	
49	Ex d conduits seals are fitted to all conduits and satisfactorily sealed	x	NA	
50	Cable glands are of the correct type and installed correctly	x	OK	
51	Adaptors, reducers, stop ends, etc. are all certified Ex d	x	OK	
52	Flame path are clean and undamaged	x	OK	
53	Flange gap dimensions are within tolerances	x	NA	
54	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are undamaged, motor foundations have no indentations or cracks	x	NA	
55	The ventilation airflow is not impeded	x	NA	
56	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
57	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
58	Variable voltage/frequency installation complies with documentation	x	OK	
	Extra Ex e checks			
59	All Equipment is Ex e certified (including components within enclosure)	x	NA	
60	Power conductors are not bunched together causing possible hot spots	x	NA	
61	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are undamaged, motor foundations have no indentations or cracks	x	NA	
62	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
63	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
64	The ventilation airflow is not impeded	x	NA	
65	Motor protection devices operate within the permitted tE or tA time limits.	x	NA	
66	Variable voltage/frequency installation complies with documentation	x	NA	

ROSETTI MARINO PROVERLIS CROSSWIND

ITEM	Tag	63-PT-003	: Pressure Transmitter - Instrument Air to Distribution Header		Dwg	123A90-DDL-PR-PID-80027	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	UD	
TASK	code	C10000909	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline ATEX	Form	CJX01	Hazardous Area Equipment Detailed Inspection

Extra Ex n (nR, nL) checks				
67	All Terminals are Ex n certified (if required on certificate)	x	NA	
68	Hermetically sealed and enclosed break devices are undamaged	x	NA	
69	Restricted breathing properties satisfactory (conduct vacuum test)	x	NA	
70	Test port, if fitted, is functional (type “nR” only)	x	NA	
71	Breathing operation is satisfactory (type “nR” only)	x	NA	
72	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are	x	NA	
73	The ventilation airflow is not impeded	x	NA	
74	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
75	Motor protection devices operate within the permitted tE or tA time limits.	x	NA	
76	Variable voltage/frequency installation complies with documentation	x	NA	
Extra Ex p checks				
77	Pressurization gas is correct type	x	NA	
78	Actual pressure is within maximum and minimum settings for equipment	x	NA	
79	Timers set as per certification documentation	x	NA	
80	Alarms and trip functions operate correctly as per certification documentation	x	NA	
81	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
82	Automatic electrical protective devices operate within permitted limits	x	NA	
83	Automatic electrical protective devices are set correctly	x	NA	
84	Protective gas inlet temperature is below maximum specified	x	NA	
85	Ducts, pipes and enclosures are in good condition	x	NA	
86	Protective gas is substantially free from contaminants	x	NA	
87	Protective gas pressure and/or flow is adequate	x	NA	
88	Pressure and/or flow indicators, alarms and interlocks function correctly	x	NA	
89	Conditions of spark and particle barriers of ducts for exhausting the gas in hazardous area are satisfactory	x	NA	
90	Specific conditions of use (if applicable) are complied with		NA	
Extra Ex i (Intrinsically Safe – IS) checks				
91	Equipment has adequate circuit identification for ‘IS’ Installation	x	NA	
92	Cables are installed in accordance with the documentation	x	NA	
93	Segregation is maintained between IS and non-IS Circuits	x	NA	
94	Cable screens are isolated at one end (field side)	x	NA	
95	Cable screens are earthed in accordance with the documentation	x	NA	
96	Safety barrier units, relays and other energy limiting devices are of the approved type, installed in	x	NA	
97	Equipment installed is the one specified in the documentation	x	NA	
98	Ambient temperature range of the apparatus is correct for the installation	x	NA	
99	Service temperature range of the apparatus is correct for the installation	x	NA	
100	Installation is clearly labelled	x	NA	
101	Printed circuit boards are clean and undamaged	x	NA	
102	The maximum voltage Um of the associated apparatus is not exceeded	x	NA	
103	Point-to-point connections are all correct	x	NA	
104	Earth continuity is satisfactory (e.g. connections are tight, conductors are of sufficient cross-section)	x	NA	
105	Earth connections maintain the integrity of the type of protection	x	NA	
106	Intrinsically safe circuit earthing is satisfactory	x	NA	
107	Insulation resistance is satisfactory	x	NA	
108	Short-circuit protection of the power supply is in accordance with the documentation	x	NA	

	BARRIER:	**Manufacturer:**	NA	**Model:**	NA		
		Authority:	NA	**Cert No:**	NA	**Type:**	NA

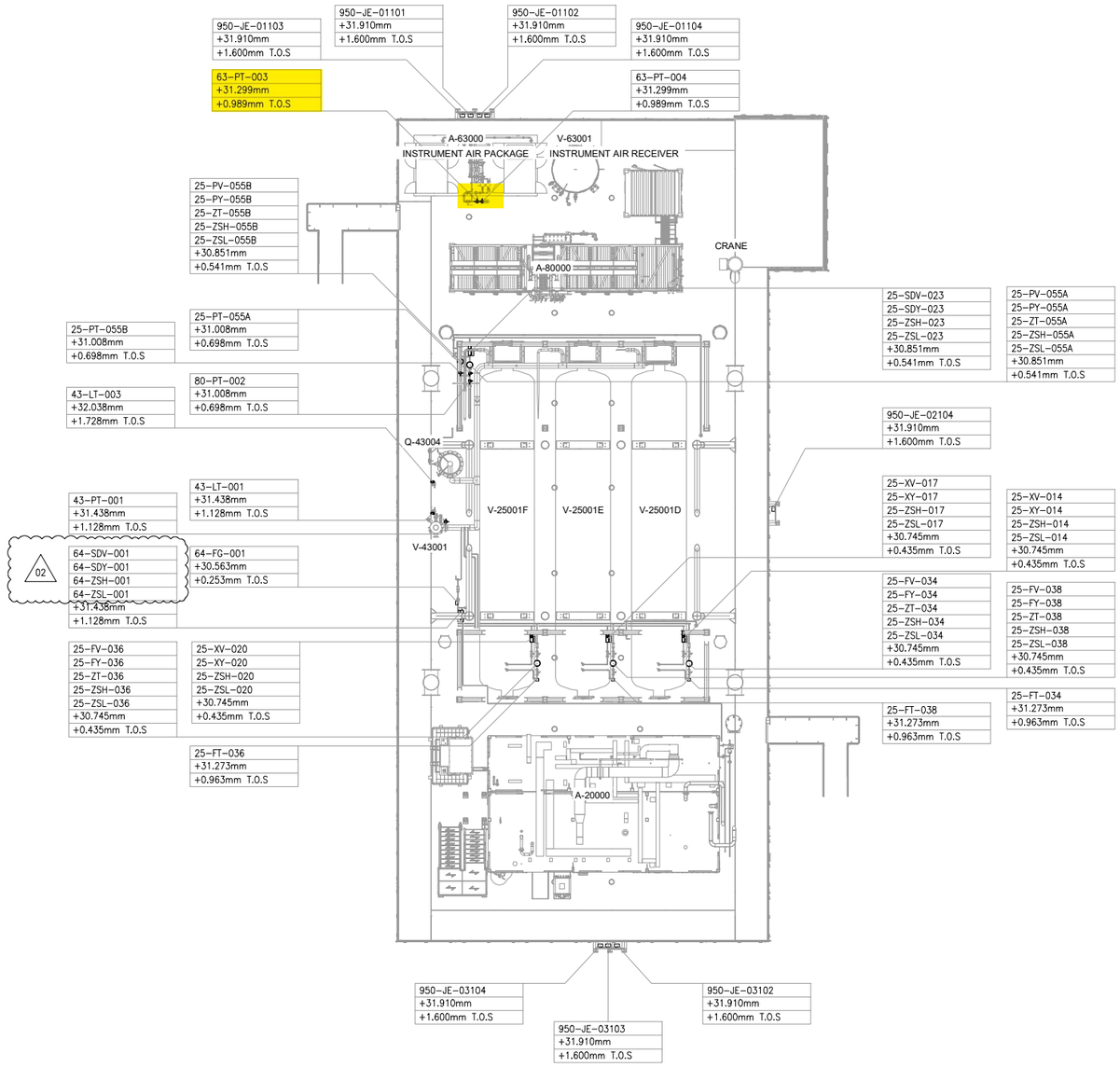
Remarks: Initial inspection should be detailed and carried out before equipment is brought into service as per IEC 60079-17

Please mark only one box as appropriate	
●	**Passed - Complete**
	Failed

Page 3/3	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-08	2025-02-08	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-08T08:24:50.935Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-08T10:13:02.750Z	

DRAWING NO. 123A90-DDL-IN-DL-40081

REV. 01

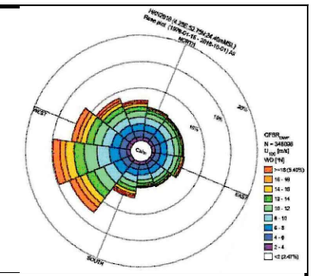


UPPER DECK

SCALE: 1:100

VIEW EL. 29310mm to 33740mm





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR INSTRUMENT LOCATION LAYOUT.

LEGEND

- INSTRUMENT JUNCTION BOX
- ELECTRONIC INSTRUMENT
- CONTROL / ON-OFF VALVE

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40080	INSTRUMENT LAYOUT - LOWER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	22/12/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40081**

REV.:	DATE:	SIGNATURE:
2_A	07/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT LOCATION LAYOUT–UPPER DECK
TOS EL. 30.310M

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40081	SHEET 001	REV. 02

File Name : 123A90-DDL-IN-DL-40081 REV01.dwg

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DRAWING 1724000428-PR-PID-00019 NOTE 2, 3, 4, 5, 6 — 03

ESD I → FAULT PACKAGE 63 XA 003
ESD I → 63-XS-001 SHUT-DOWN
NOTE 14

1-1/2"-IA-263-01SS-N → 03 **V-63001** AIR RECEIVER SEE VENDOR DRAWING 1724000428-PR-PID-00019 (63 TP 040, 2", 2"x1.1/2")

03 (63 TP 041, 2"x1.1/2") LO BLPH-MV-149 — 1-1/2"-IA-108-01SS-N

63 PI 003 L; 63 PT 003; INSTR. PIPING; BLPH-MV-150 3/4" FLG x 1/2" NPTF; BLPH-MV-151 3/4" FLG x 1/2" NPTF

63 PI 004 LL; ESD I; 63 PT 004

→ 123A90-DDL-PR-PID-80041 TO INSTRUMENT AIR DISTRIBUTION HEADER

03 (63 TP 039) BLPH-MV-269 SB LO — 1"-WW-079-01CS-H → 123A90-DDL-PR-PID-80025 TO BRINE DISCHARGE CAISSON

BLPH-MV-270 LO 1.1/2" — 1-1/2"-IA-204-01SS-N → 123A90-DDL-PR-PID-80041 FROM INSTRUMENT AIR DISTRIBUTION HEADER 03

03 (64 TP 043) CONC. RED. 1.1/2"x1" — ESD I — TO SAFE LOCATION 2"-AV-224-01CS-N (03, 64 TP 045)

A-64000
NITROGEN SYSTEM
SEE VENDOR DRAWING 1724000437-PR-PID-00018 — 03

03 (64 TP 042) BLPH-MV-271 SB LO — 1"-N-158-01CS-N

03 3/4" LC BLPH-MV-275 NOTE 16 — 03; (64 TP 044) — 1"-N-262-01CS-N

ESD I → FAULT PACKAGE 64 XA 003
64-XS-001 SHUT-DOWN ESD I
NOTE 14

NOTE 15: 64 PI 002 L LL
64 HS 031
64 PIC 031A H L; 64 PIC 031B H L
64 PT 031A; 64 PT 031B; 64 PT 002
64 PV 031A; 64 PV 031B
FL-DC TYP.6 1"
INSTR. PIPING
3/4" FLG x 1/2" NPTF: BLPH-MV-386; BLPH-MV-166; BLPH-MV-167
N-158 N-100

NOTE 1, 12 SET @ 10 barg 1D2 64 PSV 001 — NOTE 10 TO ATM — 2"-AV-160-01CS-N
1.5" x 1" SB BLPH-MV-278 FB-LO 1.1/2" 1-1/2"-N-197-01CS-N 1.5" x 1"
1"-N-100-01CS-N

1" N-257-03HSS-N
UPPER LEVEL
LOWER LEVEL
64 SDY 001 S IA
64 SDV 001 NOTE 13
NC-FC TYP.2
01CS 03HSS

1"-N-101-01CS-N → 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER
1"-N-125-03HSS-N → 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C
1"-N-124-03HSS-N → 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B
1"-N-028-03HSS-N → 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A
1"-N-126-03HSS-N → 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D
1"-N-127-03HSS-N → 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E
1"-N-128-03HSS-N → 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F
1"-N-151-01CS-N → 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE

03 (64 TP 046) **V-64001** NITROGEN RECEIVER SEE VENDOR DRAWING 1724000437-PR-PID-00018 — 03

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM (03) 64-PV-031 CV FAILURE.
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

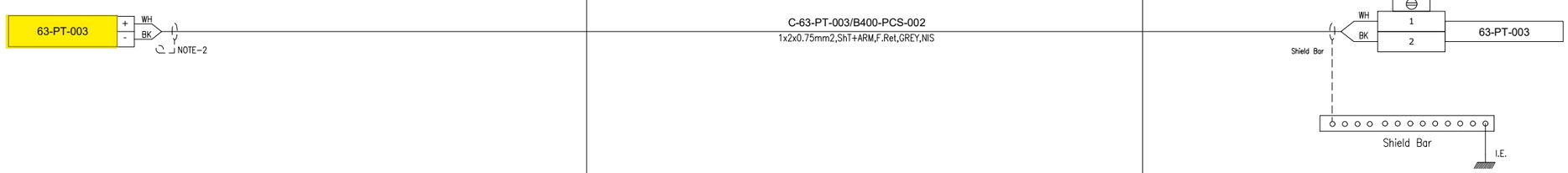
File Name : FILE_NAME

DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
INSTRUMENTS	CABLE NO	MARSHALLING CABINET B400-PCS-002

<01>



CROSSWIND

ROSETTI MARINO

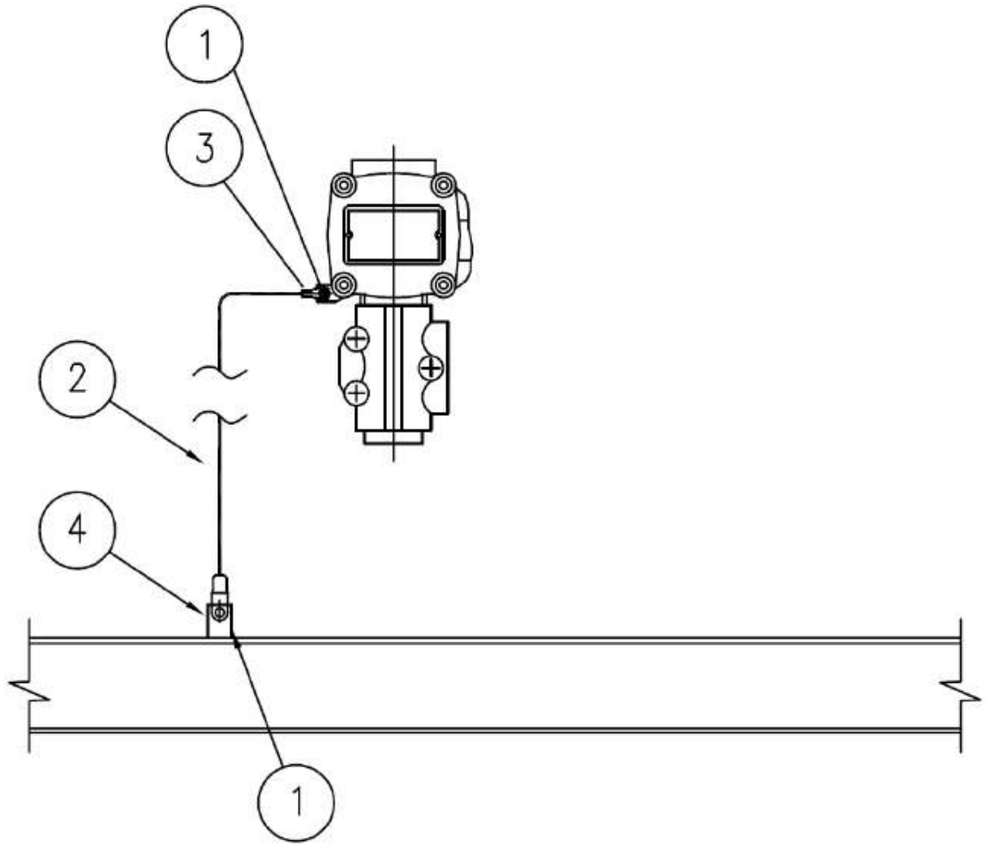
TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
63–PT–003

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40015	SHEET 011	REV. 01

File Name : 123A90-DDL-IN-DG-40015_Rev.01

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

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

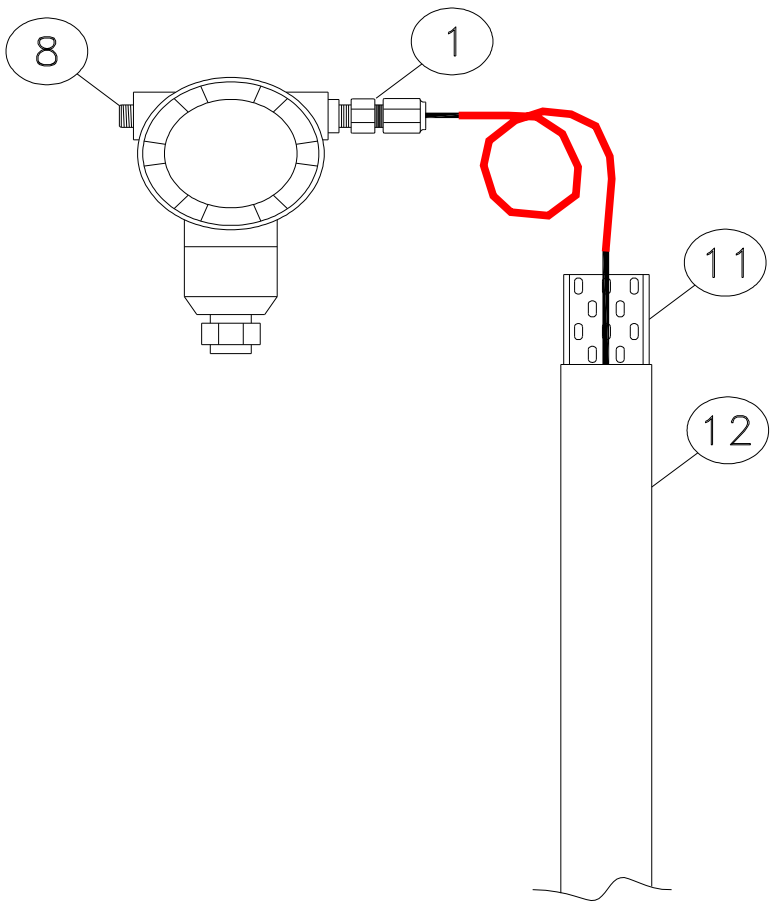
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 027 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Electrical Hook-Ups	Sh. 6 of 37 Date: 27/09/2024 Rev. 02

ELECTRICAL HOOK-UP FOR PRESSURE TRANSMITTERS



INSTRUMENT TAG	
1	25-PT-001
2	25-PT-035
3	25-PT-037
4	25-PT-040
5	25-PT-043
6	25-PT-046
7	25-PT-049
8	25-PT-055A
9	25-PT-055B
10	43-PT-001
11	50-PT-014
12	63-PT-003
13	64-PT-031A
14	64-PT-031B
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NOTE:

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40079**

REV.:	DATE:	SIGNATURE:
2_G	20/12/24	V.Ramponi

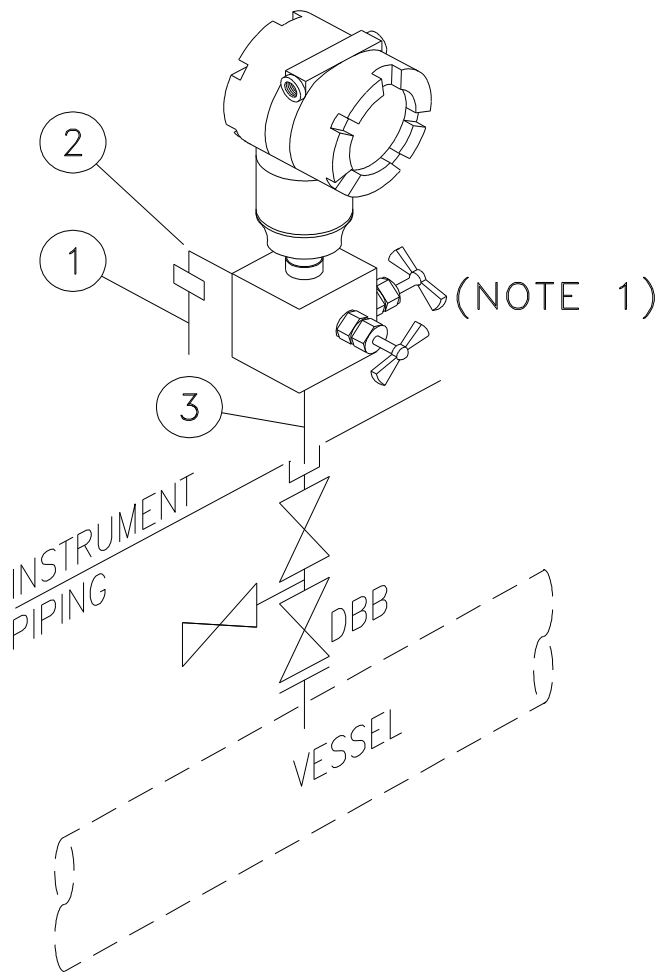
ROSETTI MARINO SpA

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
12		Cover for cable tray, FRP, Grey Color	50 W x 10 H x 5 THK	3 mt
11		Perforated cable tray, FRP, Grey Color	50 W x 50 H x 5 THK	3 mt
8		Nickel Plated Brass Plug Ex-d/e IIC (or IIB + H2) T1	M20	1
1		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20S	1

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Process Hook-Ups	Sh. 6 of 8 Date: 06/12/2024 Rev. 02

PRESSURE TRANSMITTERS - Installation for Gas Service



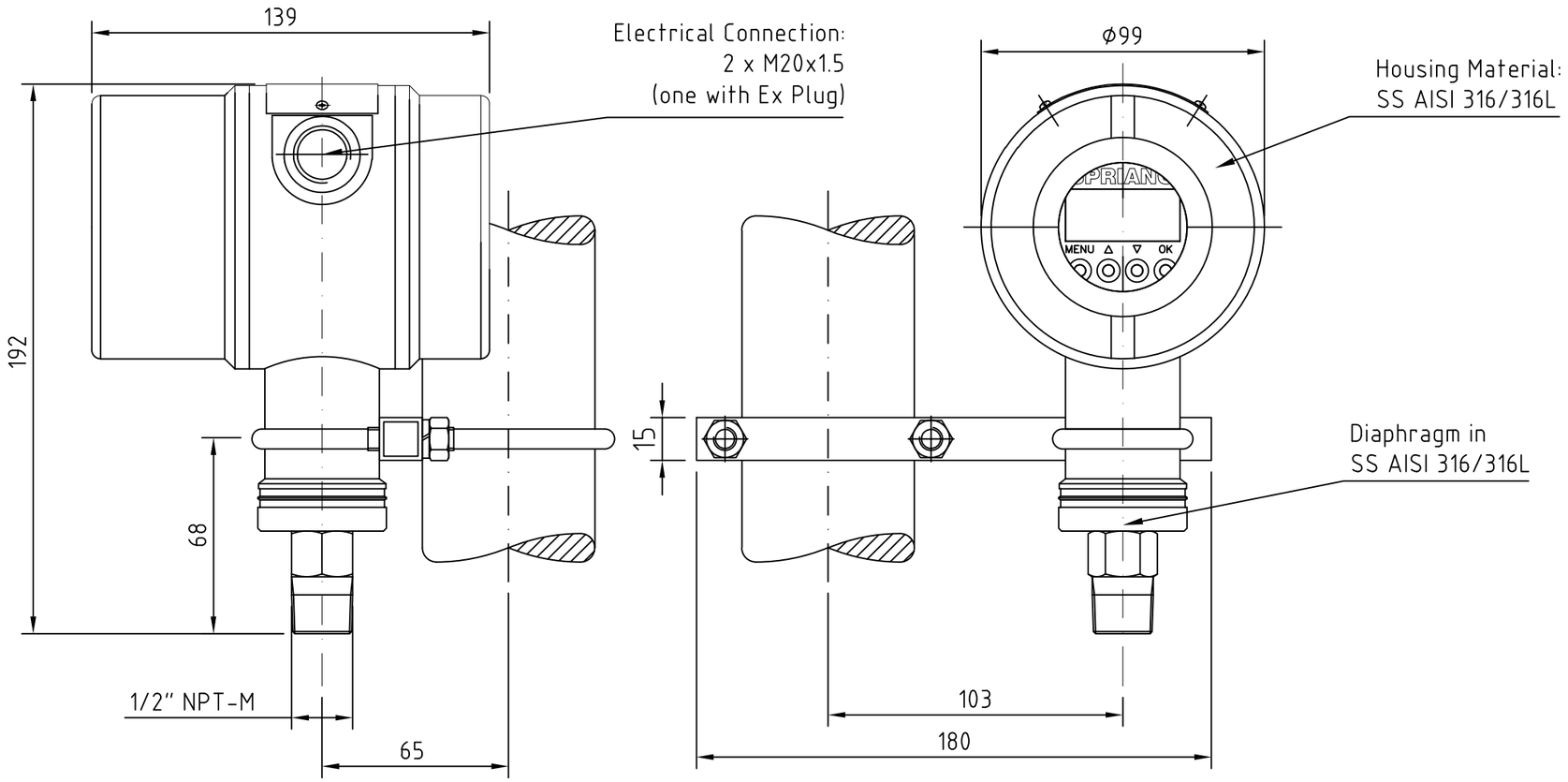
INSTRUMENT TAG	
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2	25-PT-006
3	25-PT-008
4	25-PT-009
5	25-PT-011
6	25-PT-012
7	25-PT-035
8	25-PT-037
9	25-PT-040
10	25-PT-043
11	25-PT-046
12	25-PT-049
13	25-PT-001
14	25-PT-002
15	25-PT-055A
16	25-PT-055B
17	43-PT-001
18	50-PT-014
19	63-PT-003
20	63-PT-004
21	~~64-PT-031A~~
22	64-PT-031B
23	64-PT-002
24	80-PT-002
25	
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29	
30	

NOTES:
(1) MANIFOLD IS SUPPLIED WITH INSTRUMENT.
(2) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
3		SS316 NIPPLE	1/2" NPT L=100mm	N. 1
2		ELBOW SS316	1/4" NPT-M x 1/2" O.D	N. 1
1		SS 316L TUBING (NOTE 2)	1/2" x 0,049"Thk	m 0.5

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SST76 PRESSURE TRANSMITTERS

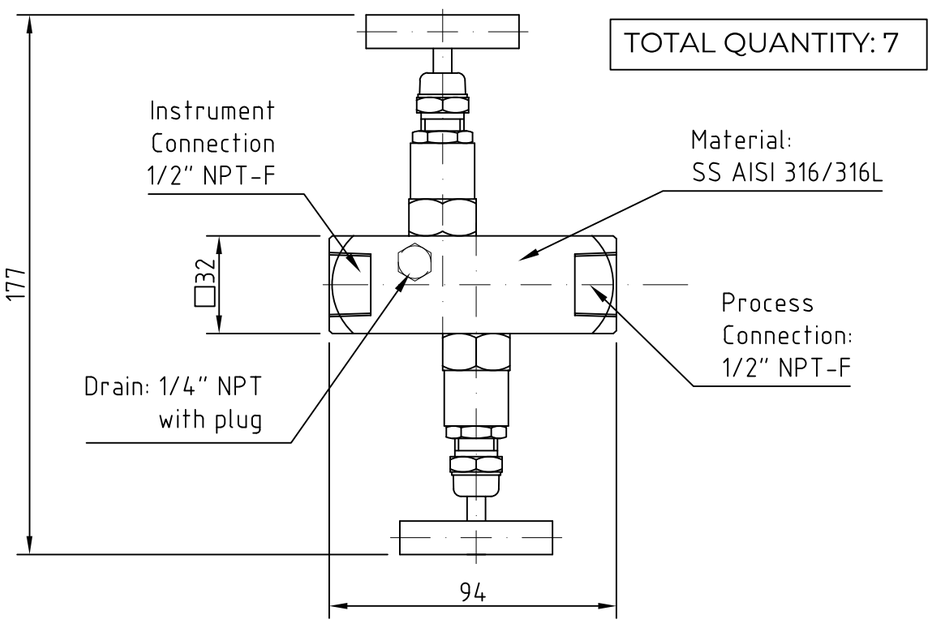


TAG LIST

#	TAG	RANGE	CALIBRATION
18	50-PT-014	0 ÷ 30 barg	0 ÷ 18 barg
19	63-PT-003	0 ÷ 30 barg	0 ÷ 11 barg
20	63-PT-004	0 ÷ 30 barg	0 ÷ 11 barg
21	64-PT-031A	0 ÷ 30 barg	0 ÷ 10 barg
22	64-PT-031B	0 ÷ 30 barg	0 ÷ 10 barg
23	64-PT-002	0 ÷ 30 barg	0 ÷ 10 barg
24	80-PT-002	0 ÷ 30 barg	0 ÷ 10 barg

TOTAL QUANTITY: 7

MAN2-R6 TWO WAYS AND TWO VALVES MANIFOLD



NOTES

SST76 PRESSURE TRANSMITTERS
SST76-H-7-K-2-0-2-1-4 + MAN2-R6

H - OUTPUT: 4-20 mA + HART
7 - PROCESS CONNECTION: 1/2" NPT M;
K - NOMINAL RANGE: 0 ÷ 30 barg
2 - CALIBRATION: refer to TAG LIST TABLE
0 - DIAPHRAGM MATERIAL: SS AISI 316/316L
2 - OPTIONS: HOUSING MATERIAL STAINLESS STEEL WITH ELECTRICAL CONNECTIONS 2 x 1/2" NPT-F
1 - OPTIONS: MOUNTING BRACKET FOR 2" PIPE MOUNTING
4 - EXPLOSION PROTECTION 2014/34/EU: ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1G Ex ia IIC T6/T5/T4 Ga

to be coupled with:
1. MAN2-R6 TWO VALVES AND TWO WAYS MANIFOLD, MATERIAL SS AISI 316/316L, CONNECTION TO INSTRUMENT 1/2" NPT-F, PROCESS CONNECTION 1/2" NPT-F.

NOTES:
1. OVERALL ACCURACY OF PT (COMPREHENSIVE OF HYSTERESIS, NON-LINEARITY, REPEATABILITY) IS WITHIN +/- 0,07% FS;
2. ALL ITEMS ARE EQUIPPED WITH SS NAMEPLATE;
3. FILLING OF ELEMENT IS FORESEEN WITH DOW CORNING SILICONIC OIL;
4. ELECTRICAL CONNECTION ARE: 2 X 1/2" NPT-F (ONE PLUGGED);
5. INTEGRAL LCD /CONFIGURABLE ENGINEERING UNITS;
6. INGRESS PROTECTION EN 60529: IP66;
7. HOUSING MATERIAL STAINLESS STEEL;
8. ALL INSTRUMENT ARE SIL2/SIL3 CERTIFIED;
9. HART 6.

CERTIFICATES

1. ATEX Ex-d CERTIFICATE (2014/34/EU)
2. IP66 GRADE (EN/IEC 60529)
3. MATERIAL 3.1 (EN 10204) & HYDROTEST CERTIFICATES
4. CALIBRATION CERTIFICATES (IEC 60770)

REV	DATE	STATUS	PURPOSE OF ISSUE	PRE'D.	CHC'D.	APP'D.	AUTH'D.
03	18/JULY/24	FOURTH ISSUE	FOR CONSTRUCTION	M.Toni	G.Amodio	G.Nicolini	S.Valletta
02	02/JULY/24	THIRD ISSUE	FOR CONSTRUCTION	M.Toni	G.Amodio	G.Nicolini	S.Valletta
01	13/JUN/24	SECOND ISSUE	FOR CONSTRUCTION	M.Toni	G.Amodio	G.Nicolini	S.Valletta
00	24/MAY/24	FIRST ISSUE	FOR APPROVAL	M.Toni	G.Amodio	G.Nicolini	S.Valletta

CROSSWIND ROSETTI MARINO

P.O. No.: 24/01611/PO | Mod_CAR_Rev17-01 | SCALE - 1:2

TERRANOVA
SPIRIANO VinCenzi MECFRELA
TERRANOVA SRL

DRAWING TITLE: DIMENSIONAL DRAWINGS

JOB: 4718_OS | SHEET No. 6 OF 10 | REV. 03

GENERAL	1	Tag Number		63-PT-003	
	2	Service		IA FROM PACKAGE A-63000 TO AIR DISTR.HEADER	
	3	P&ID Number	Location	123A90-DDL-PR-PID-80027	1-1/2"-IA-108-01SS-N
	4	Function		PRESSURE MEASUREMENT	
	5	Mounting		DIRECT ON-LINE	
	6	Area Classification		ATEX Zone2 - IIC (IIB+H2) T1	
	7	Ambient Temperature		Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.	
PROCESS CONDITIONS	8	Fluid		INSTRUMENT AIR	
	9	Pressure Des.	Oper. [barg]	11	4(Min.) / 10(Max)
	10	Temperature Des.	Oper. [°C]	100	Amb
	11	Oper. Spec. Gravity	Oper. Viscosity	-	-
	12	Flow Rate	Allowable Temp.	-	-
	13				
TRANSMITTER	14	Instrument Range Min.	Max.	0	30
	15	Calibration Range Min.	Max. [barg]	0	11
	16	Elevation	Suppresion	-	-
	17	Element Type		Diaphragm	
	18	Element Material		AISI 316/316L + Gold Plate (17)	
	19	Body Material	Body Rating	AISI 316/316L	200 bar
	20	Process Flanges Material		Integral 2 Way Manifold (22)	
	21	Wetted O-Rings Material		-	
	22	Fill Fluid		-	
	23	Bolts	Housing	Manifold/Instrument assembly	AISI 316/316L
	24	Paint		-	
	25	ATEX Certification	Ingress Protection	Atex Ex II 2G Ex db IIC T5	IP66
	26	Process Connection	Electrical Connection	1/2" NPT(F)	N. 2 M20x1.5mm
	27	Repeatability	Accuracy	-	0.07 % of Nominal Range
	28	SIL Certification	PED Certification	-	Required
DIAPHRAGM SEAL	29	Process Connection & Rating		-	
	30	Diaphragm Material	Housing Material	-	-
	31	Fill Fluid	Capillary Material	-	-
	32	Capillary Type	Capillary Length	-	-
	33	Flushing Connection		-	
	34				
OPTIONS	35	Integral Meter	Scale	Integral LCD Display	-
	36	Hydrostatic Testing	Cleaning	Required	-
	37	Mounting Brackets	Manifold Model No	Required	MAN2-R6
	38	Lightning Protection	Barrier Manuf./Model	-	-
COMMUNICATION AND SOFTWARE	39	Communication Type	Signal Type	HART 6	4-20mA Loop Powered 24 Vdc
	40	D D Revision	CFF Revision	-	-
	41	Device Tag	Hart Tag	-	-
	42	Internal Diagnostics	Capacitance	-	-
	43	Segment	Device Address	-	-
	44	Device Class	Simulate	-	-
	45	Nominal Current	Operating Voltage	-	-
	46				
PURCHASE	47	Manufacturer		TERRANOVA	
	48	Model		SST76-H-7-K-2-0-2-1-4 + MAN2-R6	
	49	Purchase Order Number		1724000979	

Notes:

No.	Date	By	Chkd	Appr	Description
02	06/12/2024	VBA	LCA	DLO	Accepted for Construcion (AFC)
01	29/08/2024	VBA	LCA	DLO	Accepted for Construcion (AFC)
00	16/01/2024	VBA	LCA	DLO	ISSUED FOR REVIEW (IFR)

INSTRUMENT DATASHEET

Pressure Transmitter

CROSSWIND

ROSETTI MARINO

Sheet 28 of 35

Code: 605 | Dwg. No.: 123A90-DDL-IN-DS-40039 Rev 02

Tag Number	Tag Description	Location	P.O.	Vendor	Manufacturer	Serial Number	Model Type Catalogue Number	Installation Zone	ATEX Certificate Number	Reference Document	ATEX Certification Marking	Notes / Comments	Skid / Package	Electrical Equip.	Barrier Calculation Ref.	Special Conditions of Safe Use Applicable	3D Location
50-XY-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-XY-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-XY-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-001	Sea water from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-002	Sea water recirculation from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-001	Sea water from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-002	Sea water recirculation from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
55-LIT-001	Vessel T-55001 level	LOWER DECK	1724000979	Terranova Srl	Tokio Heiki Inc.	105429 (VE241368)	KRG-E-P3-R01-N-L-D08-F79-N00-N-D-V-81-A-R2-Z6		FM13ATEX0069X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2 G Ex ia/db IIC T4 Ga/Gb	-	N/A	False	N/A	True	
63-PT-003	Instrument air to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240652	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
63-PT-004	Instrument air to distribution header low pressure	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240653	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-FG-001	Nitrogen to hydrogen vent header	LOWER DECK	1724000791	Brooks Instrument	Brooks Instrument	3809G-211096	3809GCC08BFBC9A0V0AC	ATEX -ZONE 1/ZONE 2 - NO ELEC	MBID 022 Rev. A	1724000791-IN-DA-00003	II 2 G Ex h IIC T6..T3 Gb	N/A	N/A	False	N/A	True	
64-PG-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	MBS6P4S2PN07-ATEX	FR04	ATEX ZONE 2	MBS6P4S2PN07-ATEX	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-PG-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	MBS6P4S2PN07-ATEX	FR04	ATEX ZONE 2	MBS6P4S2PN07-ATEX	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-PSV-001	Nitrogen to distribution header vent system	LOWER DECK	1724000518	Technical Srl	Technical Srl	291505	320-D10-L2	Zone 2	Declaration of Conformity by Technical Srl	1724000518-IN-DA-00003 / 1724000518-IN-DS-00004	II 2G Ex h IIC T6..T1 Gb	-	N/A	False	N/A	False	
64-PSV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	COITECH	24-03804	SLK	ATEX ZONE 2	SLKL-08HA74-015	1724000740-IN-DA-00004	CE Ex - II 2 GD Ex h X	N/A	N/A	False	N/A	True	
64-PSV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	COITECH	24-03805	SLK	ATEX ZONE 2	SLKL-08HA74-015	1724000740-IN-DA-00004	CE Ex - II 2 GD Ex h X	N/A	N/A	False	N/A	True	
64-PT-002	Nitrogen to distribution header low pressure	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240656	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PT-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240654	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PT-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240655	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400597	CV-8407	ATEX ZONE 2	ATEX - SN 2400597	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400598	CV-8407	ATEX ZONE 2	ATEX - SN 2400598	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PY-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400597	CV-8407	II 2G	ATEX - SN 2400597	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PY-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400598	CV-8407	II 2G	ATEX - SN 2400598	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-SDV-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N/A	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	False	N/A	True	HAZARDOUS-AREA_6
64-SDY-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-SV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	FR08411S00SSNB2 TRACE 24/1638	FR04	ATEX ZONE 2	FR08411S00SSNB2 TRACE 24/1638	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-SV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	FR08411S00SSNB2 TRACE 24/1638	FR04	ATEX ZONE 2	FR08411S00SSNB2 TRACE 24/1638	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-ZSH-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-ZSH-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSH-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSL-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-ZSL-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSL-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
77-HS-001A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11391	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-001B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11392	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-002A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11393	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-002B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11394	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-003A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11395	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-003B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11396	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-004A	Proximity Switch	LOWER DECK	1724000821	Fores	EATON	24-11397	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-004B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11398	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-005A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11399	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-005B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11400	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-006A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11401	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-006B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11402	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-007A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11403	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-007B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11404	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-008A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11405	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-008B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11406	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	

Technická inšpekcia, a.s.
Trnavská cesta 56, 821 01 Bratislava
Slovenská republika

[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres
Directive 2014/34/EU

[3] Supplementary EU-Type Examination Certificate Number:

TI17ATEX 304 X / 1

[4] Product:

SPRIANO® Electronic transmitter series SST7X
Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator)

[5] Manufacturer: **TERRANOVA S.r.l.**

[6] Address: **Via Gramsci, 1, 26827 – Terranova dei Passerini (LO), Italy**

[7] This supplementary certificate extends EU – Type Examination Certificate No. TI17ATEX 304 X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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Bratislava, March 08th, 2021

Ing. Dušan Perniš
General Director

This certificate may only be reproduced in its entirety and change, schedule included.

NB 1354

[13] **Schedule**

[14] **Supplementary EU-Type Examination Certificate Number: TI17ATEX 304 X / 1**

[15] Description of the variation to the product:

The subject of this supplementary certificate is extension of product SPRIANO® Electronic transmitter series SST7X, Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator), which has protection mode "Ex-db" certified by certificate TI17ATEX304X, to the protection mode "Ex-ia" certified by certificate TI17ATEX305X.
Electronic inside the Series SST7X has been used the same as the SST5X described into TI17ATEX305X certificate.
Housing materials to be used Anticorodal Aluminum or Stainless Steel according previous certificates.
New Variation to the product are:

		With Aluminum housing	
		Without safety barrier	
Ex	II 1/2 G	Ex db IIC T6 Ga/Gb	-40°C<Tamb<+60°C
		Ex db IIB T5 Ga/Gb	-40°C<Tamb<+80°C
		or	
		With safety barrier	
Ex	II 1/2 G	Ex ia IIC T6, T5, T4 Ga	-40°C<Tamb<+40°C / +55°C / +80°C
		With SS AISI 316 housing	
		Without safety barrier	
Ex	II 1/2 G	Ex db IIC T6 Ga/Gb	-40°C<Tamb<+60°C
		Ex db IIB T5 Ga/Gb	-40°C<Tamb<+80°C
		or	
		With safety barrier	
Ex	II 1 G	Ex ia IIC T6, T5, T4 Ga	-40°C<Tamb<+40°C / +55°C / +80°C

Basic description of product:

The Transmitters series electronic SST7X measure pressure, level or temperature of liquids, gases and vapors and transmit a current signal 4-20mA + HART®.
According to the process connection, the series SST7X is constituted by the following models, they can be identified by the code following the series name:

SST70	Displacer level transmitter
SST71	Float level transmitter
SST72	Temperature transmitter
SST75	Relative or absolute pressure transmitter with incorporate separating diaphragm (ceramic)
SST76	Relative or absolute pressure transmitter with incorporate separating diaphragm (piezo)
SST77B	Differential pressure transmitter
SST77BL	Pressure transmitter for level measure
SST79B	Submersible level transmitter
SST70-REM	Field digital indicator

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Model SST70: The transmitter is isolated from the process via a mechanical system to the torsion tube and also the measuring cell presents a separation membrane filled with inert fluid.
Model SST71: The transmitter is isolated from the process via a tube containing reed switches.
Model SST72: The transmitter is isolated from the process via a tube containing sensors PT100.
Models SST75, SST76, SST77B and SST77BL: The transmitter is isolated from the process by membrane separation metal filled with inert fluid.
Model SST79 (version with remote sensor): The remote transmitter is isolated from the process by separation membranes metal filled with inert fluid. It is connected to the housing means shielded cable with 5 wires soldered.
Model SST70-REM (Loop powered field digital indicator): The indicator has no element part but only it is connected via current loop for displaying the desired variable.

Product with variation of Exdb protection:

The instruments are suitable for gas group IIC or IIB depending by the Ambient Temperature and they have the type of protection "Ex db".
Temperature: -40 ° C ≤Tamb≤ + 60 ° C (or -40 ° C ≤Tamb≤ + 80 ° C)
In the case where the process temperatures are higher than the maximum ambient temperature (or below the minimum ambient temperature), the instrument is installed with a suitable finned arm that can dissipate the temperature in excess and ensure the installation inside the ambient temperature range specified by the manufacturer.
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a body of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made in Anticorodal Aluminum or Stainless Steel AISI 304 / 316 (Thickness of coating <0.15mm) while the door is tempered-glass glued to the lid with a silicone seal.

Electrical characteristics:

Supply voltage	≤ 30 VDC
Output signal	4 ÷ 20 mA + HART®
Maximum power transferred	0,75 W
ATEX category	II 1/2 G
Protection mode	Ex db IIC T6 Ga/Gb with Tamb [- 40°C, +60°C] Ex db IIB T5 Ga/Gb with Tamb [- 40°C, +80°C]
IP Code	IP 66
The power cables must be at least 22 AWG (0.34mm2 section section - 0.64mm2), suitable for an operating temperature ≥ 90 ° C for Tamb ≥ 70 ° C.	

The marking of the product shall include the following:

⟨Ex⟩ II 1/2 G Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

Product with variation of Exia protection:

The instruments are suitable for gas group IIC and have the type of protection "Ex i".
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a body of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made of stainless steel or aluminum having a content Mg of less than 6% (coating thickness <0.15mm) while the door can be static plastic, 5 mm thick (glue Araldite 2021) or sodalime tempered glass, 5 mm thick (glue Araldite 2011).

Electrical characteristics:

Parameter	Tamb<60°C	Tamb<80°C
Maximum voltage input **Ui**	30 V	25.2 V
Maximum current input **Ii**	100 mA	100 mA
Power maximum input **Pi**	0.75 W	0.62 W
Maximum capacity Internal	10 nF	10 nF
Maximum Internal Inductance	0.2 mH	0.2 mH
Output signal	4 ÷ 20 mA + HART®	
Degree of protection	IP 66 for Aluminum housing IP67 for SS AISI 316 housing	

The marking of the product shall include the following:

Ex II 1/2G Ex ia IIC T6, T5, T4 Ga/Gb **-40°C ≤ Tamb ≤ 40°C (T6)** **-40°C ≤ Tamb ≤ 55°C (T5)** **-40°C ≤ Tamb ≤ 80°C (T4)** **For Aluminum housing**	**Ex 1G Ex ia IIC T6, T5, T4 Ga** **-40°C ≤ Tamb ≤ 40°C (T6)** **-40°C ≤ Tamb ≤ 55°C (T5)** **-40°C ≤ Tamb ≤ 80°C (T4)** **For SS AISI 316 housing**

[16] Report Number:
Inspection report No: 54/5/2021
Final Test Report No: 54/5/2021

[17] Specific Conditions of Use:

Product with variation of Exdb protection:

Ambient temperature:
Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C
In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

Entries for flameproof enclosure:
The accessories used for cable entry into the housing (which must be treated ½ "NPT or M20x1.5) must comply with the standards EN 60079-0 and EN 60079-1.
The entrance hole leads not used should be closed with the cap conforms to EN 60079-1.

Warning marking:
- "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"

Informative marking:
- "SEE INSTALLATION INSTRUCTION DOCUMENT".

Product with variation of Exia protection:

Ambient temperature:

-40°C ÷ +40°C	For Class T6
-40°C ÷ +55°C	For Class T5
-40°C ÷ +80°C	For Class T4

In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable

spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

[18] Essential Health and Safety Requirements:
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.
Additional information: None.

[19] Drawings and Documents:

Number	Sheet	Issue	Date	Description
DTP-SST7X	4pgs	REV No.21.02	12/02/2021	List of drawings and Documents SPRIANO ® Electronic Switches SST7X By TERRANOVA ®
TI17ATEX305X	3 pgs	-	13/03/2017	EU –Type Examination Certificate (Exia)

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TECHNICKÁ INŠPEKCIA • TI NB 1354 -5- • SLOVENSKÁ REPUBLIKA

Bratislava, March 08th, 2021

Ing. Dušan Perniš
General Director

TECHNICKÁ INŠPEKCIA, a.s.

SLOVENSKÁ REPUBLIKA

CEOC INTERNATIONAL

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres
Directive 2014/34/EU

[3] EU-Type Examination Certificate Number:

TI17ATEX 304 X

[4] Product:

SPRIANO® Electronic transmitter series SST7X
Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator)

[5] Manufacturer: **TERRANOVA S.r.l.**

[6] Address: **Via Gramsci, 1, 26827 – Terranova dei Passerini (LO), Italy**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of product intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report No. 304/5/2017.

[9] Compliance with the Essential Health and safety Requirements has been assured by compliance with: **EN 60079-0:2012+A11:2013, EN 60079-1:2014**
except in respect of those requirements listed at item 18 of the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicate that the product is subject to the Specific conditions of Use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of this Directive apply to the manufacturing process and supply of this product.

[12] The marking of the product shall include the following:

Ex II 1/2 G Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

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Bratislava, March 13th, 2017

Ing. Dušan Perniš
General Director

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- 5 -

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CSTA3-128

NB 1354

[13] **Schedule**

[14] **EU-Type Examination Certificate Number: TI17ATEX 304 X**

[15] Description of product:
The Transmitters series electronic SST7X measure pressure, level or temperature of liquids, gases and vapors and transmit a current signal 4-20mA.
The instruments are suitable for gas group IIC and have the type of protection "Ex db".
Temperature: -40 ° C ≤Tambs≤ + 60 ° C (or -40 ° C ≤Tambs≤ + 80 ° C)
In the case where the process temperatures are higher than the maximum ambient temperature (or below the minimum ambient temperature), the appliance is installed with a suitable spacer can dissipate the temperature in excess and ensure the installation inside the ambient temperature range specified by the manufacturer.
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a bodice of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made in anticorodal aluminum or stainless steel AISI 304 (Thickness of coating <0.15mm) while the door is tempered-glass glued to the lid with a silicone seal.

According to the process connection, the series SST7 is formed by the following models, they can be identified by the code following the series name:

SST70	Displacer level transmitter
SST71	Float level transmitter
SST72	Temperature transmitter
SST75	Relative or absolute pressure transmitter with incorporate separating diaphragm (ceramic)
SST76	Relative or absolute pressure transmitter with incorporate separating diaphragm (piezo)
SST77B	Differential pressure transmitter
SST77BL	Pressure transmitter for level measure
SST79B	Submersible level transmitter
SST70-REM	Field digital indicator

Model SST70: The transmitter is isolated from the process via a mechanical system to the torsion tube and also the measuring cell presents a separation membrane filled with inert fluid.

Model SST71: The transmitter is isolated from the process via a tube containing reed switches.

Model SST72: The transmitter is isolated from the process via a tube containing sensors PT100.

Models SST75, SST76, SST77B and SST77BL: The transmitter is isolated from the process by membrane separation metal filled with inert fluid.

Model SST79 (version with remote sensor): The remote transmitter is isolated from the process by separation membranes metal filled with inert fluid. It is connected to the housing means shielded cable with 5 wires soldered.

Model SST70-REM (Loop powered field digital indicator): The indicator has no element part but only it is connected via current loop for displaying the desired variable.

Electrical characteristics:

Supply voltage	≤ 30 VDC
Output signal	4 ÷ 20 mA
Maximum power transferred	0,75 W
ATEX category	1/2 G
Protection mode	Ex db IIC T6 Ga/Gb with Tamb [- 40°C, +60°C] Ex db IIB T5 Ga/Gb with Tamb [- 40°C, +80°C]
IP Code	IP 66
The power cables must be at least 22 AWG (0.34mm2 section section - 0.64mm2), suitable for an operating temperature ≥ 90 ° C for Tamb ≥ 70 ° C.	

[16] Report Number:
Inspection report No: 304/5/2017
Final Test Report No: 304/5/2017

[17] Specific Conditions of Use:

Ambient temperature:
Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

Entries for flameproof enclosure:
The accessories used for cable entry into the housing (which must be treated ½ "NPT) must comply with the standards EN 60079-0 and EN 60079-1.
The entrance hole leads not used should be closed with the cap conforms to EN 60079-1.

Warning marking:
- "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"

Informative marking:
- "SEE INSTALLATION INSTRUCTION DOCUMENT".

[18] Essential Health and Safety Requirements:
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.
Additional information: None.

[19] Drawings and Documents:

Number	Sheet	Issue	Date	Description
DTP-SST7X	3pgs	REV No.17.01	31/01/2017	List of drawings and Documents SPRIANO® Electronic Switches SST7X

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Bratislava, March 13th, 2017

Ing. Dušan Perniš
General Director

CSTA3-128

ATEX CERTIFICATE for KRG

TERRANOVA® Srl - www.terranova-instruments.com
Factory & Sales: Via Gramsci 1 – 26827 Terranova dei Passerini (LO) – Italy
Head Office: Via Rosso Medardo 16 – 20159 Milano – Italy
Phone: +39 0377 919119 – Fax: +39 0377 855720 - VAT IT07848810151

1 EU-TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**

3 **EU-Type Examination Certificate No:** **FM13ATEX0069X**

4 **Equipment or protective system: (Type Reference and Name)** **KRG-10 Microwave Level Gauge**

5 **Name of Applicant:** **Tokyo Keiki Inc.**

6 **Address of Applicant:** **2-16-46 Minami-Kamata Ohta-ku Tokyo-To 144-8551 Japan**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3049358 dated 20th January 2015

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015 and EN 60529:1991+A1:2000+A2:2013

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:

II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T135°C Da
II 1/2 G Ex ia/db IIC T4 Ga/Gb
Ta = -40°C to +60°C

Martin Crowe
Certification Manager, FM Approvals Europe Ltd.

Issue date: 30th March 2023

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

13 **Description of Equipment or Protective System:**

The KRG-10 Microwave Level Gauge is designed for level measurements using microwave technology. The KRG-10 Type A is an Intrinsically Safe protection scheme with or without an LCD display installed. The Type B version also comes with an optional LCD display but is flameproof protected as well as intrinsically safe. The Type B version contains a IS barrier circuit allowing 250V to power the unit. The KRG-10 utilizes 6 different antennas which contain both metal and plastic. There are 3 different O-ring options depending on the antenna installed. All signal outputs are available in 4 to 20 mA and HART communications. The KRG-10 electronic enclosure is made of die cast aluminum with the LCD version having a polycarbonate window and silicone rubber LCD cover cap.

The equipment is rated for Degree of Protection IP66 in accordance with EN 60529.

Operation Temperature Ranges:
The ambient operating temperature range of the KRG-10 Microwave Level Gauge is -40°C to 60°C. Process temperature range is -40°C to 200°C for flameproof applications. Depending on the antenna used and the o-ring, the process temperature range varies within the range of -40°C to +200°C The process pressure range is -0.1 to +1.5 MPa.

Electrical data:

In type of protection intrinsic safety, the following energy limitation parameters apply (Type A only): U_i = 30Vdc; I_i = 93mA; P_i = 0.7W; C_i = 0nF; L_i = 0mH

All other protection techniques, the electronic connection has the following values (Type B only): Um= 250VAC

KRG-10a0bc-dA Microwave Level Gauge
Type A
II 1 G Ex ia IIC T4 Ga Ta = -40°C to +60°C; IP66
II 1 D Ex ia IIIC T135°C Da Ta = -40°C to +60°C; IP66
Ui = 30Vdc, Ii = 93mA, Pi = 0.7W, Li = 0mH, Ci = 0nF

Type B
II 1/2 G Ex ia/db IIC T4 Ga/Gb Ta = -40°C to +60°C; IP66

a = EX Approval; AI, or AD
b = Antenna Type; 2H, 4H, 2P, 3P, 4P, or 1R
c = Material of Seal; V, S, or K
d = Display; N or A

14 **Specific Conditions of Use:**

1. *The KRG-10 enclosure contains aluminium and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.*
2. *The KRG-10 enclosure contains exposed non-metallic surfaces considered to constitute an electrostatic discharge hazard. Clean only with a damp cloth.*
3. *The painted surface of the KRG-10 may store electrostatic charge and become a source of ignition in applications with a low relative humidity <30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in PD CLC/TR 60079-32-1 and IEC TS 60079-32. Cleaning of the painted surface should only be done with a damp cloth.*

4 .For the Ex ia/db rated Microwave Level Gauge, this equipment can be installed in the boundary wall

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SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

between an area of EPL Ga (Category 1) and the less hazardous area, EPL Gb (Category 2). In this configuration, the antenna process connection portion may be installed in EPL Ga (Category 1), while the electronics housing is installed in EPL Gb (Category 2).

5. *For the Ex ia/db rated Microwave Level Gauge, consult the manufacturer for dimensional information on the flameproof joints for repair.*
6. *The device contains a nonmetallic wall constructed of PTFE, PFA, Glass parts and Epoxy resin that acts as a partition wall between the process and the device. Installation, Maintenance and use shall take into account the environmental conditions to which the partition wall will be subjected. The manufacturer's instruction for maintenance shall be followed in detail to assure safety during its expected lifetime.*

15 **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 **Test and Assessment Procedure and Conditions:**

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
20th January 2015	Original Issue.
12th January 2017	Supplement 1: Report Reference: - 3056241 Dated 11th January 2017. Description of the Change: Redesign of inter-compartmental feed through. Increase process temperature for flameproof applications. Correction of drawing errors. Change of Type B product ratings. Removal of Cone Antenna rating. Correction of Specific Condition 6. Updated to EU format.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

Date	Description
04th June 2019	Supplement 2: Report Reference: - RR218082 Dated 31st May 2019. Description of the Change: Revised Certificate Specific Conditions of Use: Item 3 - replaced EN TR50404 with PD CLC/TR 60079-32-1. Updates made to Product Label Marking and Notified Body Number. Updated Installation Manual label. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809.
29th May 2020	Supplement 3: Report Reference: - RR222698 Dated 28th May 2020. Description of the Change: i) Minor documentation update (no physical changes; only editorial changes). ii) Updated description correctly in the certificate from "for flameproof applications. Process temperature range is -40°C to 180°C for all other applications." and ".1 to 1.5 MPa" to "[d]epending on the antenna used and the o-ring, the process temperature range varies within the range of -40°C to +200°C" and "-.1 to 1.5 MPa", respectively.
28th October 2020	Supplement 4: Report Reference: - PR457466 Dated 26th October 2020. Description of the Change: Evaluation conducted to qualify updates to enclosure and probe construction, minor drawing revisions, moved IP66 ratings from Section 12 to Section 13 as is appropriate, removed Material of Seal option V that had previously been added in error.
25th February 2021	Supplement 5: Report Reference: - RR226323 Dated 23rd February 2021. Description of the Change: Add a new antenna (3" PTFE Sealing Antenna option 3P). Update of safety instructions, model code and manual.
30th July 2021	Supplement 6: Report Reference: - RR228480 Dated 29th July 2021. Description of the Change: Change description in ATEX Cert to match IECEx cert IECEx FMG13.0039X. Um=250VAC was previously 120/240VAC 50/60Hz.
30th March 2023	Supplement 7: Report Reference: - RR236287 Dated 28th March 2023. Description of the Change: Minor technical and documentation changes.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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Blueprint Report

Tokyo Keiki Inc (144654)

Class No 3610

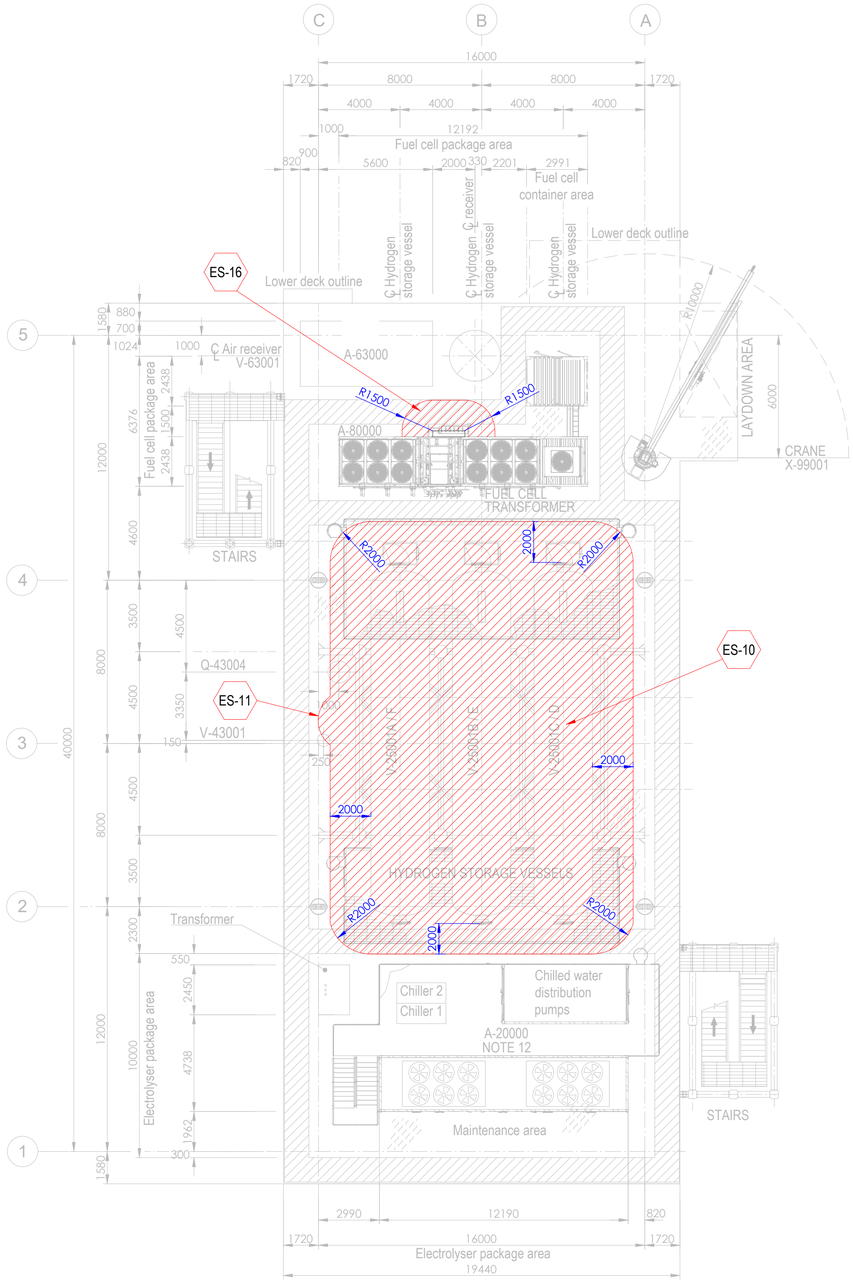
Original Project I.D. ***3049358***

Certificate I.D. ***FM13ATEX0069X***

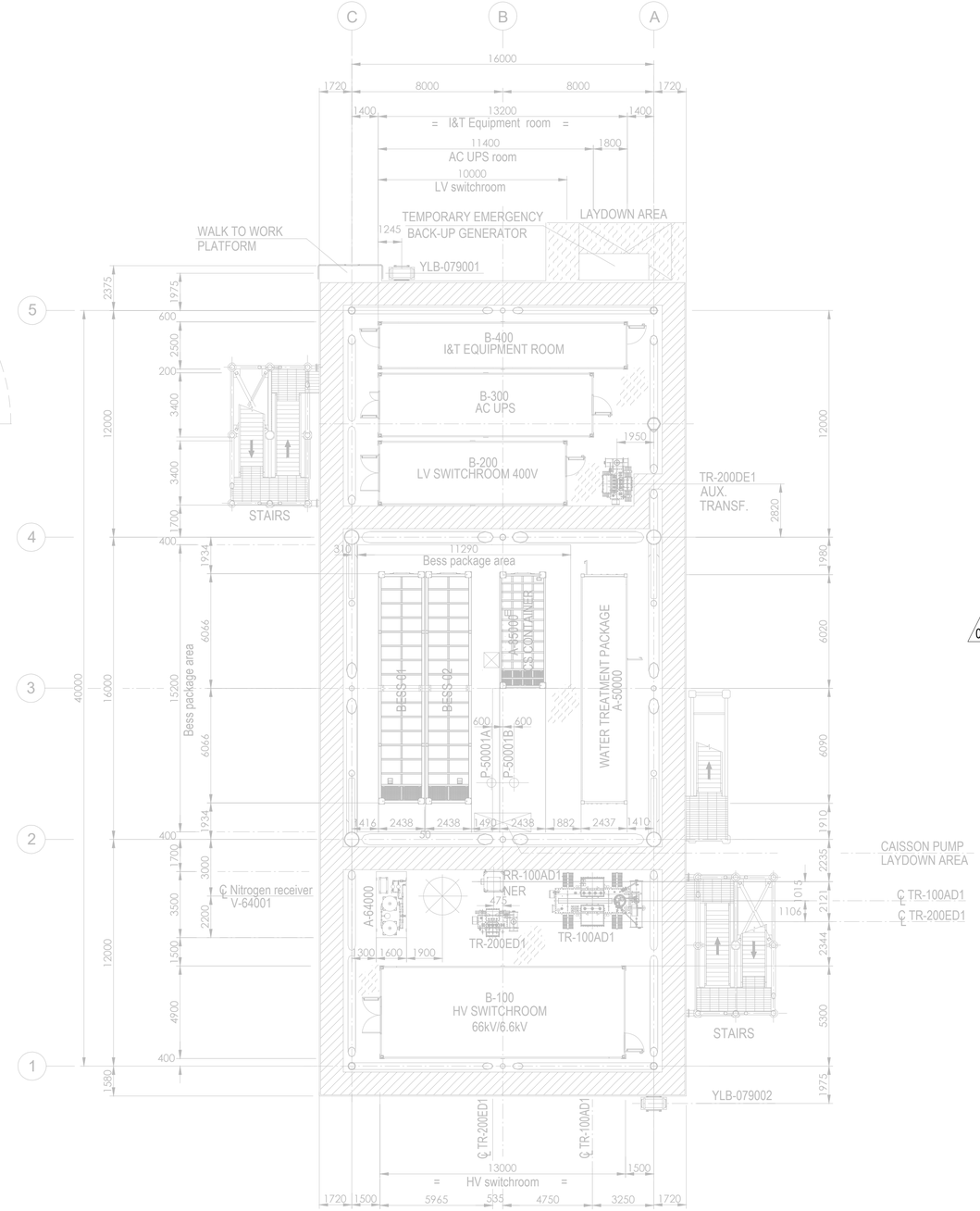
Drawing No.	Revision Level	Drawing Title	Last Report
51986690	06	External Dim DWG	PR457466
51986691	**05**	**Internal Structure DWG Type A**	**RR236287**
51986692	**07**	**Internal Structure DWG Type B**	**RR236287**
51986693	05	Internal Structure Detail DWG	PR457466
51986694	05	Assembly Dimension DWG 1	PR457466
51986695	06	Assembly Dimension DWG 2	RR226323
51986696	05	Assembly Dimension DWG 3	PR457466
51986697	10	Labels DWG	RR228480
51986714	00	KAR-20 PCB diagram 1-2	3049358
51986715	00	KMB-10 PCB diagram	3049358
51986716	00	KRF-10 PCB diagram	3049358
51986717	00	KIB-10 PCB diagram	3049358
51986718	01	KTR-20 PCB diagram 1-2	3049358
51986719	02	KPB-20 PCB diagram 1-4	3049358
51986720	01	KPB-20 Parts list 1-6	3049358
51986721	00	KAR-20 Parts list	3049358
51986722	00	KTR-20 Parts list 1-2	3049358
51986723	00	ARM-10 parts list	3049358
51986724	01	BRM-10 parts list 1-3	3049358
51986725	00	KRF-10 Parts list 1-5	3049358
51986726	00	KMB-10 Parts list 1-9	3049358
51986727	00	KIB-10 Parts list	3049358
51986729	01	Blind Plug	3056241
51986962	03	O-Ring Detail DWG	RR226323
51987060	01	Installation DWG Type A	3049358
51987061	04	Installation DWG Type B	RR218082
51987062	01	Intrinsic Safety Concept Type A	3049358
51987063	04	Intrinsic Safety Concept Type B	RR218082
51987064	00	KAR-20 Circuit Diagram	3049358
51987065	00	KTR-20 Circuit Diagram	3049358
51987066	00	ARM-10 Circuit Diagram	3049358
51987067	00	BRM-10 Circuit Diagram	3049358
51987068	00	KPB-20 Circuit Diagram 1-2	3049358
51987069	00	KMB-10 Circuit Diagram 1-4	3049358
51987070	00	KRF-10 Circuit Diagram 1-2	3049358
51987071	00	KIB-10 Circuit Diagram	3049358
51987072	00	BRM-10 PCB Diagram 1-2	3049358
51987073	01	ARM-10 PCB Diagram 1-2	3049358
51987188	01	Line bushing	3056241
KF13-001	**R**	**KRG-10 Manual**	**RR236287**
KF13-003	H	KRG-10 Safety Instructions	RR228480

DRAWING NO. 123A90-DDL-SAF-DL-30022

REV. 02



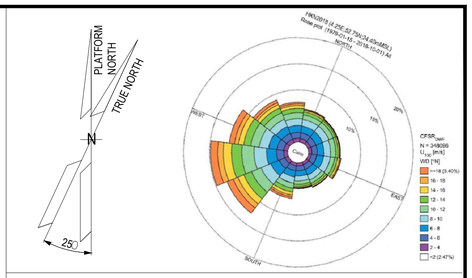
PLAN ON UPPER DECK
EL+30.310 T.O.S.



PLAN ON LOWER DECK
EL+23.310 T.O.S.

Tag No.	Equipment Tag	Description	Material	Ventilation Type
01	P-50001 A/B	SEA WATER LIFT PUMPS	SEA WATER	NATURAL (OPEN AREA)
02	Q-43004	HYDROGEN VENT	HYDROGEN	NATURAL (OPEN AREA)
03	V-43001	HYDROGEN VENT KO DRUM	HYDROGEN	NATURAL (OPEN AREA)
04	V-25001 (A/B/C/D/E/F)	HYDROGEN STORAGE VESSELS	HYDROGEN	NATURAL (OPEN AREA)
05	V-63001	AIR RECEIVER	INSTRUMENT AIR	NATURAL (OPEN AREA)
06	A-20000	ELECTROLYSER PACKAGE		
07	A-63000	INSTRUMENT AIR PACKAGE		
08	A-80000	FUEL CELL PACKAGE		
09	A-85000	BESS PACKAGE		
10	YLB-079001/2	LIFE RAFTS		
11	A-50000	WATER TREATMENT PACKAGE		

Tag No.	Equipment Tag	Description	Material	Ventilation Type
12	A-64000	NITROGEN SYSTEM		
13	B-100	HV SWITCHROOM 66kV/6.6kV		
14	B-200	LV SWITCHROOM 400V		
15	B-300	AC UPS EQUIPMENT ROOM		
16	B-400	I&T EQUIPMENT ROOM		
17	TR-100AD1	TRANSFORMER MAIN 66kV/6.6kV		
18	RR-100AD1-NER	NEUTRAL EARTHING RESISTOR		
19	TR-200DE1	TRANSFORMER AUX. 6.6kV/0.4kV		
20	TR-200ED1	SOLAR TRANSFORMER PV FARM EQUIPMENT		
21	X-99001	CRANE		
22	V-64001	NITROGEN RECEIVER		



NOTES

1. ALL DIMENSIONS IN mm U.N.O.
2. ALL ELEVATIONS IN METERS.
3. PLATFORM NORTH DIRECTION IS N 25°W.
4. VENT TOP SHALL BE REACHEABLE FOR MAINTENANCE PURPOSE.
5. THE BESS IS CONSIDERED SAFE AREA EXCEPT EXTRACTORES FROM BATTERIES , CURRENTLY NOT SHOWN IN DRAWINGS, SINCE INFORMATION FROM VENDOR IS NOT YET AVAILABLE.[ES17].
6. THE LOCATION OF EMISSION SOURCES ON THE LAYOUT ARE ONLY INDICATIVE. EMISSION SOURCES CONSIDERED ARE PRESENT WITHIN THE EXTENSION OF HAZARDOUS CLASSIFIED AREAS SHOWN ON THE LAYOUT. THIS IS BECAUSE VALVES AND FLANGES,WHICH ARE CONSIDERED POTENTIAL SOURCES OF RELEASE POINTS FOR FLAMMABLE GAS ARE NOT SHOWN ON CURRENT LAYOUT PROVIDED. THE SAME APPLIES TO THE EMISSION SOURCES FOR CPI'S ITEM.
7. IDENTIFIED EMISSION SOURCES DETAIL.

02
8. FOR DETAILS RELATED TO ELECTROLYSER PACKAGE INTERNAL ENCLOSURES REFER TO DRAWING 224J10-DDL-PP-DA-00001 REV 0.
9. FOR DETAILS RELATED TO FUELL CELL PACKAGE INTERNAL ENCLOSURES REFER TO DRAWING K559-2254-CWIWP4202202-B01-001 REV 009".
10. THE N.6 HYDROGEN STORAGE VESSELS ARE NOT CLASSIFIED INTERNALLY SINCE THEY ARE DESIGNED TO CONTAIN HYDROGEN OR NITROGEN FOR THE ENTIRE DURATION OF THE 2 YEARS OF OPERATION.

EMISSION SOURCE No.	IDENTIFIED AREAS
ES10	HYDROGEN STORAGE VESSLES
ES11	HYDROGEN VENT KO DRUM
ES16	FUEL CELL

LEGEND

ZONE 0 — ZONE 1

ZONE 2 — ES EMISSION SOURCES

123A90-DDL-PP-DS-70071	PLOT PLAN - BELOW LOWER DECK
123A90-DDL-PP-DS-70072	PLOT PLAN - ELEVATION LOOKING NORTH & EAST

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/01/25	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	27/08/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/02/24	MMA	CCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
HAZARDOUS AREA CLASSIFICATION
LOWER & UPPER DECK

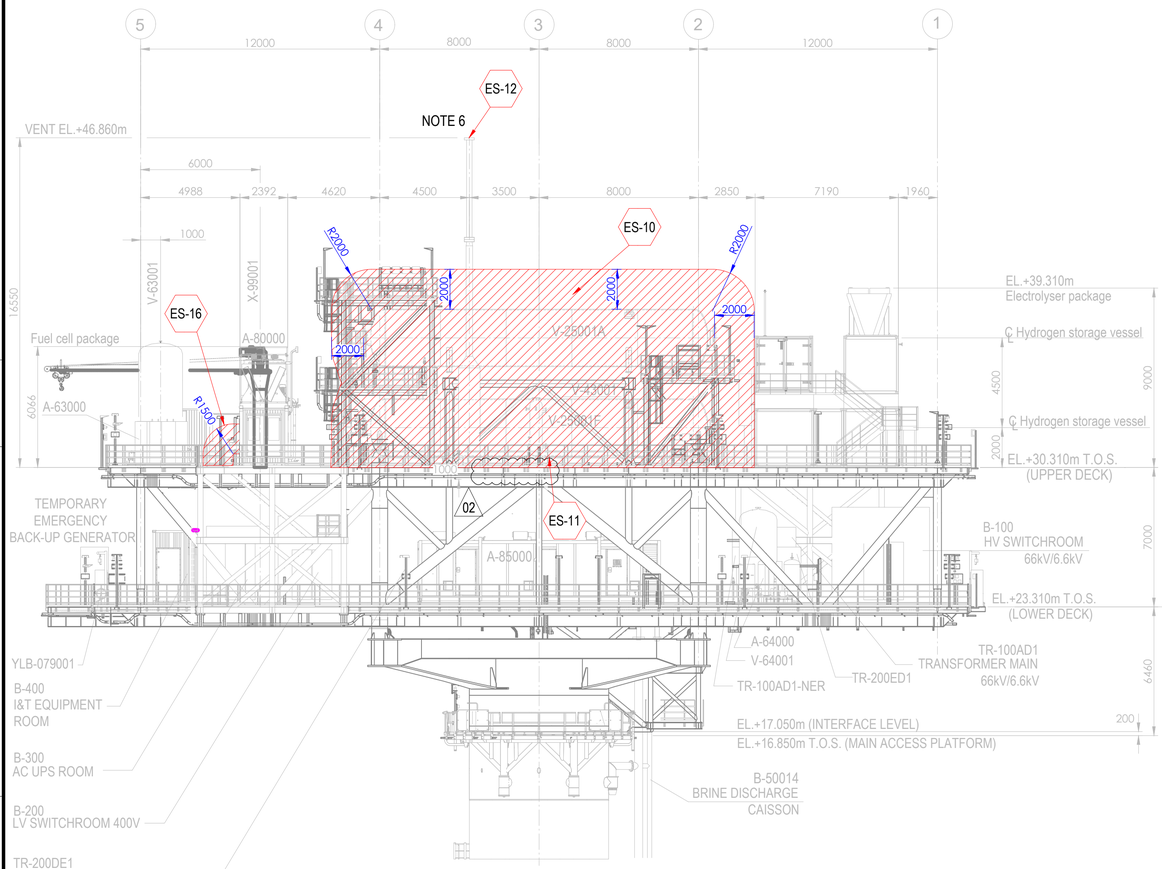
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN M. MAGNI	CHECKED C. CARACCIOLO	APPROVED D. LO STERZO	DATE 03/07/24

	DRAWING NO.	SHEET	REV.
A1	123A90-DDL-SAF-DL-30022	001	02

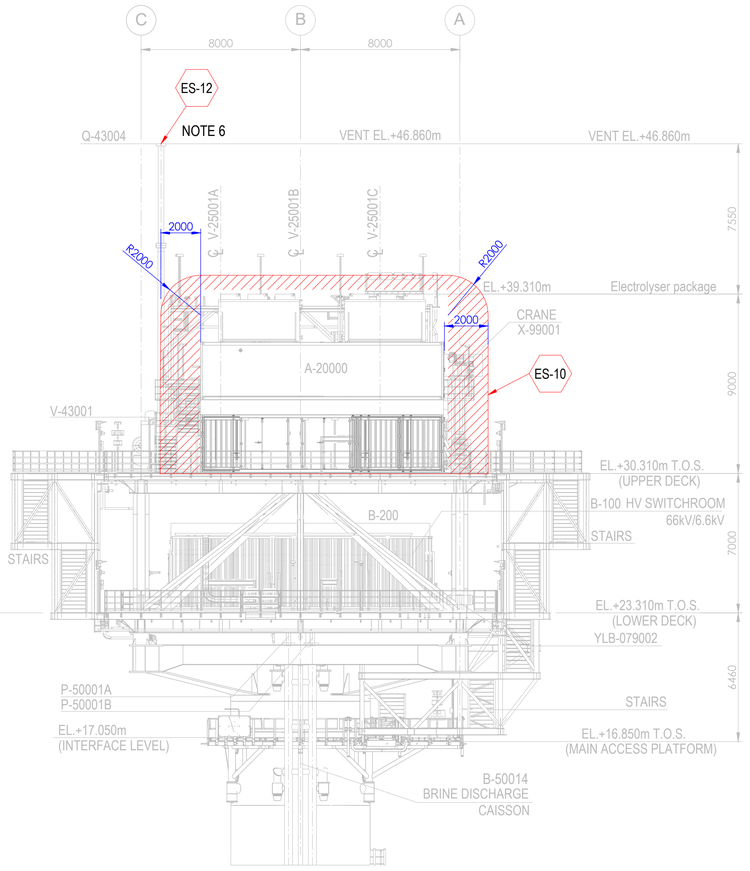
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DRAWING NO. 123A90-DDL-SAF-DL-30024

REV. 02

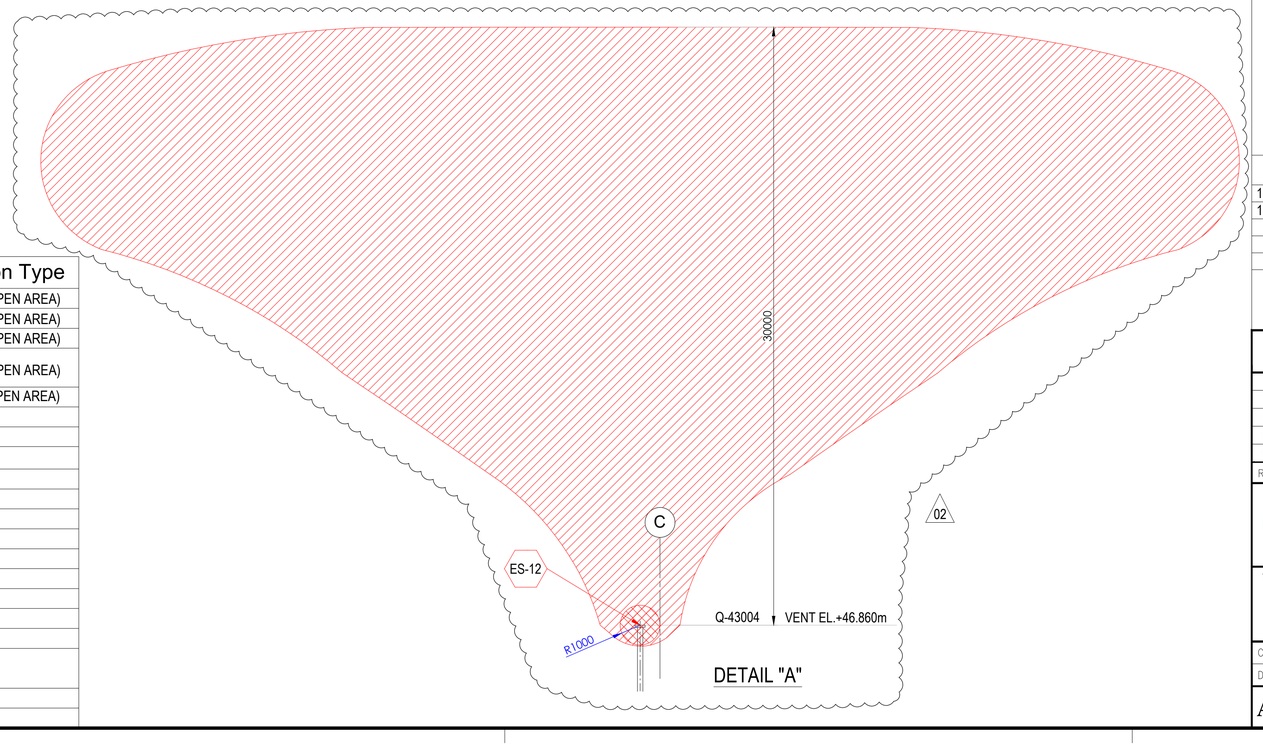


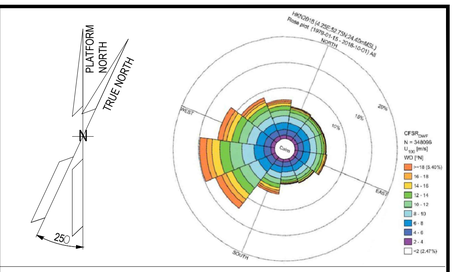
ELEVATION LOOKING EAST



ELEVATION LOOKING NORTH

Tag No.	Equipment Tag	Description	Material	Ventilation Type
01	P-50001 A/B	SEA WATER LIFT PUMPS	SEA WATER	NATURAL (OPEN AREA)
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05	V-63001	INSTRUMENT AIR RECEIVER	INSTRUMENT AIR	NATURAL (OPEN AREA)
06	A-20000	ELECTROLYSER PACKAGE		
07	A-63000	INSTRUMENT AIR PACKAGE		
08	A-80000	FUEL CELL PACKAGE		
09	A-85000	BESS PACKAGE		
10	YLB-079001/2	LIFE RAFTS		
11	B-100	HV SWITCHROOM 66kV/6.6kV		
12	B-200	LV SWITCHROOM 400V		
13	B-300	AC UPS EQUIPMENT ROOM		
14	B-400	I&T EQUIPMENT ROOM		
15	TR-100AD1	TRANSFORMER MAIN 66kV/6.6kV		
16	TR-100AD1-NER	NEUTRAL EARTHING RESISTOR		
17	TR-200DE1	TRANSFORMER AUX. 6.6kV/0.4kV		
18	TR-200ED1	SOLAR TRANSFORMER PV FARM EQUIPMENT		
19	X-99001	CRANE		
20	V-64001	NITROGEN RECEIVER		





NOTES

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2. ALL ELEVATIONS IN METERS.
3. PLATFORM NORTH DIRECTION IS N 25°W.
4. VENT TOP SHALL BE REACHEABLE FOR MAINTENANCE PURPOSE.
5. THE BESS IS CONSIDERED SAFE AREA EXCEPT EXTRACTORES FROM BATTERIES , CURRENTLY NOT SHOWN IN DRAWINGS, SINCE INFORMATION FROM VENDOR IS NOT YET AVAILABLE.[ES17]
6. FOR ES12 PLUME, PLEASE REFER TO THE DETAIL "A" BELOW. (02)
7. THE LOCATION OF EMISSION SOURCES ON THE LAYOUT ARE ONLY INDICATIVE. EMISSION SOURCES CONSIDERED ARE PRESENT WITHIN THE EXTENSION OF HAZARDOUS CLASSIFIED AREAS SHOWN ON THE LAYOUT. THIS IS BECAUSE VALVES AND FLANGES,WHICH ARE CONSIDERED POTENTIAL SOURCES OF RELEASE POINTS FOR FLAMMABLE GAS ARE NOT SHOWN ON CURRENT LAYOUT PROVIDED. THE SAME APPLIES TO THE EMISSION SOURCES FOR CPI'S ITEM.
8. IDENTIFIED EMISSION SOURCES DETAIL

EMISSION SOURCE No.	IDENTIFIED AREAS
ES10	HYDROGEN STORAGE VESSLES
ES11	HYDROGEN VENT KO DRUM
ES12	HYDROGEN VENT
ES16	FUEL CELL

LEGEND

ZONE 0 — ZONE 1

ZONE 2 — ES EMISSION SOURCES

REFERENCE DOCUMENTS

123A90-DDL-PP-DS-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-PP-DS-70071	PLOT PLAN - BELOW LOWER DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/01/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	27/08/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/02/24	MMA	CCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
HAZARDOUS AREA CLASSIFICATION
ELEVATION LOOKING NORTH & EAST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN M. MAGNI	CHECKED C. CARACCIOLO	APPROVED D. LO STERZO	DATE 03/07/24

A1 | DRAWING NO. 123A90-DDL-SAF-DL-30024 | SHEET 001 | REV. 02

File Name : 123A90-DDL-SAF-DL-30024 Rev.02

ITEM	Tag	63-PT-004	: Pressure Transmitter - Instrument Air to Distribution Header Low Pressure			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10000910		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	ATEX	Form	CJX01
							Hazardous Area Equipment Detailed Inspection

Schedule Ref. #				**Area Code**					
Area Class Drawing	123A90-DDL-SAF-DL-30022			**Serial No.**		SE240653			
Manufacturer	Terranova Srl			**Model**		SST76-H-7-K-2-0-2-1-4 + MAN2-R6			
Cert No.	TI17ATEX304X-TI17ATEX304X/1			**Equipment Ambient Temp.**		-40°C to +60°C			
Area Classification	HAZARDOUS	**Zone**	2	**Gas group**	IIC	**Temp class**	T1		
Equipment Protection Type	Ex d	**EPL**	Gb	**Gas group**	IIC	**Temp class**	T6	**IP Rating**	IP66/67

Detailed Note:

1) Inspection shall only be performed by competent personnel

2) All fields are to be completed. Any non-applicable field shall state “NA”. Comments are required for ‘Failure’ column ONLY.

3) An Inspection Sheet should be completed for EACH individual item of Equipment.

	General Equipment	Detailed	OK/NA/PL	Comments
1	Equipment is appropriate to the EPL / Zone requirements of the area	x	OK	
2	Equipment group is correct	x	OK	
3	Equipment temperature class is correct	x	OK	
4	Degree of IP protection of equipment is appropriate for the level of protection	x	OK	
5	Equipment circuit identification is correct	x	OK	
6	Equipment circuit identification is available	x	NA	
7	Enclosure glass parts and glass-to-metal sealing gaskets and / or compounds are satisfactory	x	OK	
8	There is no damage or unauthorized modifications	x	OK	
9	There is no evidence of unauthorized modifications	x	OK	
10	Bolts, cable entry devices (direct and indirect) & blanking elements are of the correct type, are complete & tight		OK	
	Physical check	x	OK	
11	Threaded covers on enclosures are of the correct type, are tight and secured		OK	
	Physical check	x	OK	
12	Joint surfaces are clean and undamaged and gaskets, if any, are satisfactory and positioned correctly	x	OK	
13	Condition of enclosure gaskets is satisfactory	x	OK	
14	There is no evidence or ingress of water or dust in the enclosure in accordance with the IP rating	x	OK	
15	Electrical connections are tight	x	OK	
16	Bridging links do not reduce creepage / clearance and are allowed	x	NA	
17	Unused terminals are tightened	x	OK	
18	Encapsulated components are undamaged	x	NA	
19	Flameproof components are undamaged	x	NA	
20	Fluorescent lamps are not indicating EOL effects (only for Ex “e” – Ex “n” – Ex “t”)	x	NA	
21	HID lamps are not indicating EOL effects	x	NA	
22	Lamp type, rating, pin configuration and position are correct	x	NA	
23	Breathing and drainage devices are satisfactory	x	OK	
24	Type of cable is appropriate	x	OK	
25	There is no obvious damage to the cables	x	OK	
26	Cable glands are the correct type and installed correctly	x	OK	
27	Sealing of trunking, ducts, pipes and or conduits is satisfactory	x	NA	
28	Stopping boxes and cable boxes are corrected filled	x	OK	

ITEM	Tag	63-PT-004	: Pressure Transmitter - Instrument Air to Distribution Header Low Pressure			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10000910	Location	Onshore Activities		User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	ATEX	Form	CJX01 Hazardous Area Equipment Detailed Inspection

29	Integrity of conduit system and interface with mixed system maintained	x	NA	
30	Earthing connections, including any supplementary earthing bonding connections are satisfactory (for example connections are tight and conductors are of sufficient cross-section		OK	
	Physical check	x	OK	
31	Automated electric protective devices operate within permitted limits	x	NA	
32	Special conditions (if applicable) have been complied with.	x	OK	
33	All cable cores are uniquely labeled	x	OK	
34	Cable cores not in use are correctly terminated	x	OK	
35	Equipment is adequately protected against corrosion, weather, vibration and other adverse factors	x	OK	
36	No undue accumulation of dust and dirt	x	OK	
37	All equipment housings are clean and dry	x	OK	
38	All moving parts are free and have no mechanical damage	x	NA	
	Applicable for Installation of Heating Systems			
39	Temperature sensors function according to manufacturer's documents (only applicable for Ex-d e Ex-e)	x	NA	
40	Safety cut off devices function according to manufacturer's documents (only applicable for Ex-d e Ex-e)	x	NA	
41	The setting of the safety cut off is sealed (only applicable for Ex-d e Ex-e)	x	NA	
42	Reset of a heating system safety cut off possible with tool only(only applicable for Ex-d e Ex-e)	x	NA	
43	Auto-reset is not possible (only applicable for Ex-d e Ex-e)	x	NA	
44	Reset of a safety cut off under fault conditions is prevented (only applicable for Ex-d e Ex-e)	x	NA	
45	Safety cut off independent from control system (only applicable for Ex-d e Ex-e)	x	NA	
46	Level switch is installed and correctly set, if required (only applicable for Ex-d e Ex-e)	x	NA	
47	Flow switch is installed and correctly set, if required (only applicable for Ex-d e Ex-e)	x	NA	
	Extra Ex d checks			
48	Obstructions adjacent to flame proof flanged joints are in accordance with IEC 60079-14	x	NA	
49	Ex d conduits seals are fitted to all conduits and satisfactorily sealed	x	NA	
50	Cable glands are of the correct type and installed correctly	x	OK	
51	Adaptors, reducers, stop ends, etc. are all certified Ex d	x	OK	
52	Flame path are clean and undamaged	x	OK	
53	Flange gap dimensions are within tolerances	x	NA	
54	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are undamaged, motor foundations have no indentations or cracks	x	NA	
55	The ventilation airflow is not impeded	x	NA	
56	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
57	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
58	Variable voltage/frequency installation complies with documentation	x	OK	
	Extra Ex e checks			
59	All Equipment is Ex e certified (including components within enclosure)	x	NA	
60	Power conductors are not bunched together causing possible hot spots	x	NA	
61	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are undamaged, motor foundations have no indentations or cracks	x	NA	
62	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
63	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
64	The ventilation airflow is not impeded	x	NA	
65	Motor protection devices operate within the permitted tE or tA time limits.	x	NA	
66	Variable voltage/frequency installation complies with documentation	x	NA	

ITEM	Tag	63-PT-004	: Pressure Transmitter - Instrument Air to Distribution Header Low Pressure			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10000910		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	ATEX	Form	CJX01 Hazardous Area Equipment Detailed Inspection

Extra Ex n (nR, nL) checks				
67	All Terminals are Ex n certified (if required on certificate)	x	NA	
68	Hermetically sealed and enclosed break devices are undamaged	x	NA	
69	Restricted breathing properties satisfactory (conduct vacuum test)	x	NA	
70	Test port, if fitted, is functional (type “nR” only)	x	NA	
71	Breathing operation is satisfactory (type “nR” only)	x	NA	
72	Motor fans have sufficient clearance to the enclosure and/or covers, cooling systems are	x	NA	
73	The ventilation airflow is not impeded	x	NA	
74	Insulation resistance (IR) of the motor windings is satisfactory	x	NA	
75	Motor protection devices operate within the permitted tE or tA time limits.	x	NA	
76	Variable voltage/frequency installation complies with documentation	x	NA	
Extra Ex p checks				
77	Pressurization gas is correct type	x	NA	
78	Actual pressure is within maximum and minimum settings for equipment	x	NA	
79	Timers set as per certification documentation	x	NA	
80	Alarms and trip functions operate correctly as per certification documentation	x	NA	
81	Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory	x	NA	
82	Automatic electrical protective devices operate within permitted limits	x	NA	
83	Automatic electrical protective devices are set correctly	x	NA	
84	Protective gas inlet temperature is below maximum specified	x	NA	
85	Ducts, pipes and enclosures are in good condition	x	NA	
86	Protective gas is substantially free from contaminants	x	NA	
87	Protective gas pressure and/or flow is adequate	x	NA	
88	Pressure and/or flow indicators, alarms and interlocks function correctly	x	NA	
89	Conditions of spark and particle barriers of ducts for exhausting the gas in hazardous area are satisfactory	x	NA	
90	Specific conditions of use (if applicable) are complied with		NA	
Extra Ex i (Intrinsically Safe – IS) checks				
91	Equipment has adequate circuit identification for ‘IS’ Installation	x	NA	
92	Cables are installed in accordance with the documentation	x	NA	
93	Segregation is maintained between IS and non-IS Circuits	x	NA	
94	Cable screens are isolated at one end (field side)	x	NA	
95	Cable screens are earthed in accordance with the documentation	x	NA	
96	Safety barrier units, relays and other energy limiting devices are of the approved type, installed in	x	NA	
97	Equipment installed is the one specified in the documentation	x	NA	
98	Ambient temperature range of the apparatus is correct for the installation	x	NA	
99	Service temperature range of the apparatus is correct for the installation	x	NA	
100	Installation is clearly labelled	x	NA	
101	Printed circuit boards are clean and undamaged	x	NA	
102	The maximum voltage Um of the associated apparatus is not exceeded	x	NA	
103	Point-to-point connections are all correct	x	NA	
104	Earth continuity is satisfactory (e.g. connections are tight, conductors are of sufficient cross-section)	x	NA	
105	Earth connections maintain the integrity of the type of protection	x	NA	
106	Intrinsically safe circuit earthing is satisfactory	x	NA	
107	Insulation resistance is satisfactory	x	NA	
108	Short-circuit protection of the power supply is in accordance with the documentation	x	NA	

	BARRIER:	**Manufacturer:**	NA	**Model:**	NA		
		Authority:	NA	**Cert No:**	NA	**Type:**	NA

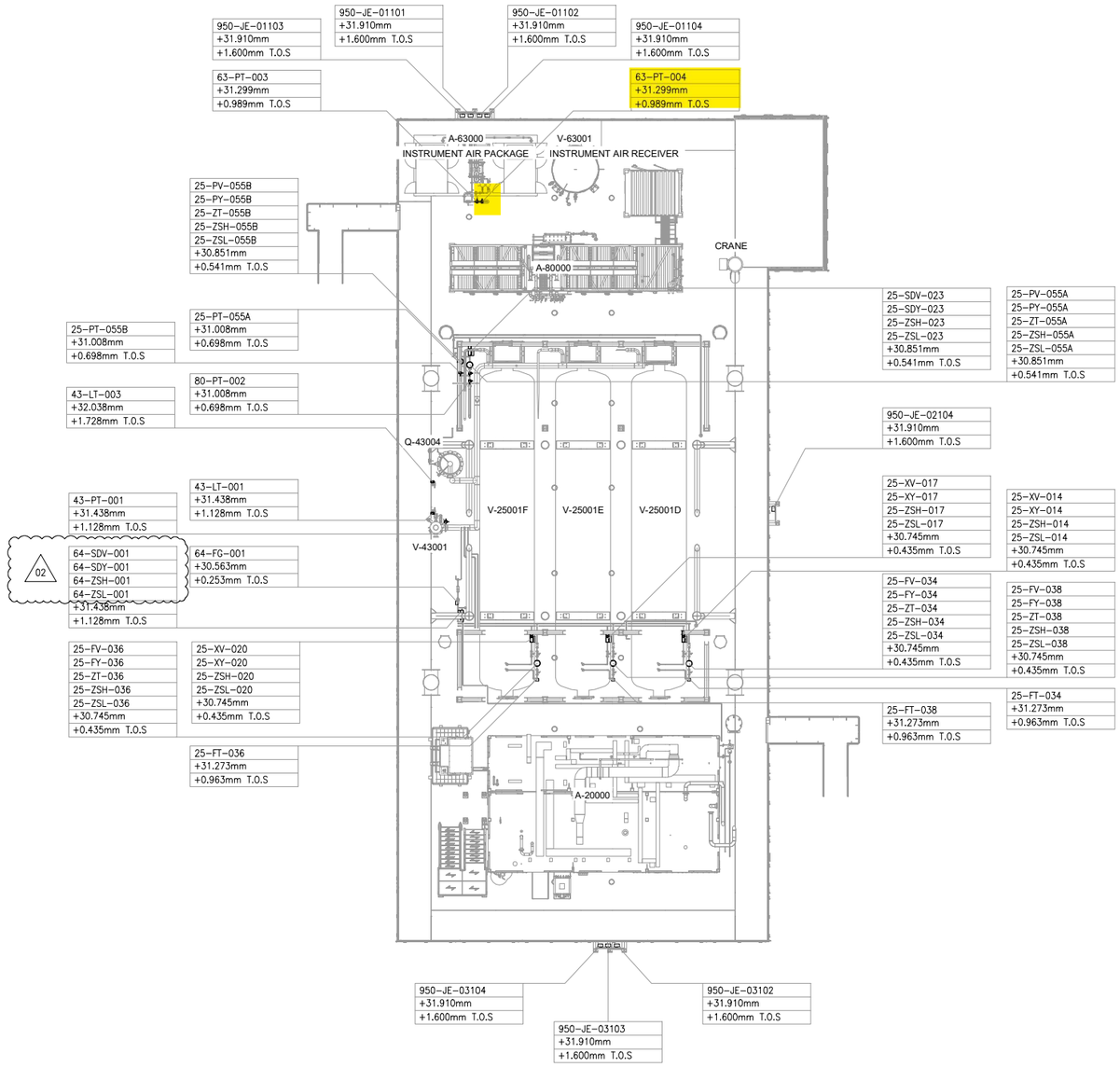
Remarks: Initial inspection should be detailed and carried out before equipment is brought into service as per IEC 60079-17

Please mark only one box as appropriate	
●	**Passed - Complete**
	Failed

Page 3/3	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-08	2025-02-08	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-08T08:25:12.353Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-08T10:10:45.398Z	

DRAWING NO. 123A90-DDL-IN-DL-40081

REV. 01

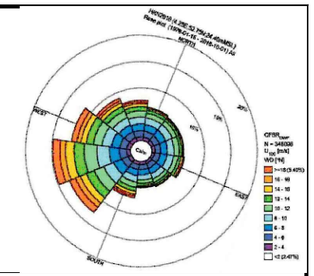


UPPER DECK

SCALE: 1:100

VIEW EL. 29310mm to 33740mm





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR INSTRUMENT LOCATION LAYOUT.

LEGEND

- INSTRUMENT JUNCTION BOX
- ELECTRONIC INSTRUMENT
- CONTROL / ON-OFF VALVE

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40080	INSTRUMENT LAYOUT - LOWER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	22/12/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40081**
REV.: 2_A | DATE: 07/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT LOCATION LAYOUT–UPPER DECK
TOS EL. 30.310M

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1 | DRAWING NO. 123A90-DDL-IN-DL-40081 | SHEET 001 | REV. 02

File Name : 123A90-DDL-IN-DL-40081 REV01.dwg

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

FAULT PACKAGE 63 XA 003

ESD I — 63-XS-001 SHUT-DOWN

NOTE 14

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DRAWING 1724000428-PR-PID-00019
NOTE 2, 3, 4, 5, 6
03

1-1/2"-IA-263-01SS-N

03 — 63 TP 040 — 2" — 2"x1.1/2"

V-63001
AIR RECEIVER
SEE VENDOR DRAWING 1724000428-PR-PID-00019

03 — 63 TP 041 — 2"x1.1/2" — LO — BLPH-MV-149

1-1/2"-IA-108-01SS-N

63 PI 004 LL — ESD I — 63 PT 004

63 PI 003 L — 63 PT 003 — INSTR. PIPING — BLPH-MV-150 3/4" FLG x 1/2" NPTF — BLPH-MV-151 3/4" FLG x 1/2" NPTF

123A90-DDL-PR-PID-80041
TO INSTRUMENT AIR DISTRIBUTION HEADER

03 — 63 TP 039 — BLPH-MV-269 — SB — LO

1"-WW-079-01CS-H

123A90-DDL-PR-PID-80025
TO BRINE DISCHARGE CAISSON

BLPH-MV-270 — LO — 1.1/2"

1-1/2"-IA-204-01SS-N

123A90-DDL-PR-PID-80041
FROM INSTRUMENT AIR DISTRIBUTION HEADER
03

03 — CONC. RED. 1.1/2"x1" — 64 TP 043

ESD I — TO SAFE LOCATION — 2"-AV-224-01CS-N — 03 — 64 TP 045

NOTE 15: 64 PI 002 L LL

NOTE 1, 12 SET @ 10 barg: 64 PSV 001 — NOTE 10 TO ATM — 2"-AV-160-01CS-N

64 HS 031 — 64 PIC 031A H L — 64 PIC 031B H L — 64 PT 031A — 64 PT 031B — 64 PT 002

1.5" x 1" — SB — BLPH-MV-278 FB-LO 1.1/2" — 1-1/2"-N-197-01CS-N — 1.5" x 1"

INSTR. PIPING — 64 PV 031A — 3/4" FLG x 1/2" NPTF — BLPH-MV-386 — 3/4" FLG x 1/2" NPTF — BLPH-MV-166 — 3/4" FLG x 1/2" NPTF — BLPH-MV-167

1"-N-100-01CS-N

1"-N-101-01CS-N — 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER

1"-N-125-03HSS-N — 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C

1"-N-124-03HSS-N — 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B

1"-N-028-03HSS-N — 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A

1" N-257-03HSS-N

UPPER LEVEL / LOWER LEVEL

1"-N-126-03HSS-N — 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D

1"-N-127-03HSS-N — 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E

1"-N-128-03HSS-N — 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F

1"-N-151-01CS-N — 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE

64 SDV 001 — IA — 64 SDV 001 — NOTE 13 — NC-FC TYP.2

01CS | 03HSS

A-64000
NITROGEN SYSTEM
SEE VENDOR DRAWING 1724000437-PR-PID-00018
03

03 — 64 TP 042 — BLPH-MV-271 — SB — LO — 1"-N-158-01CS-N

3/4" LC — BLPH-MV-275 NOTE 16 — 03 — 64 TP 044 — 1"-N-262-01CS-N

64 PV 031A — FL-DC TYP.6 1" — 64 PV 031B — FL-DC TYP.6 1" — N-158 | N-100

ESD I — 64-XS-001 SHUT-DOWN — ESD I — NOTE 14

64 XA 003 — FAULT PACKAGE

03 — 64 TP 046 — **V-64001** NITROGEN RECEIVER — SEE VENDOR DRAWING 1724000437-PR-PID-00018 — 03

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

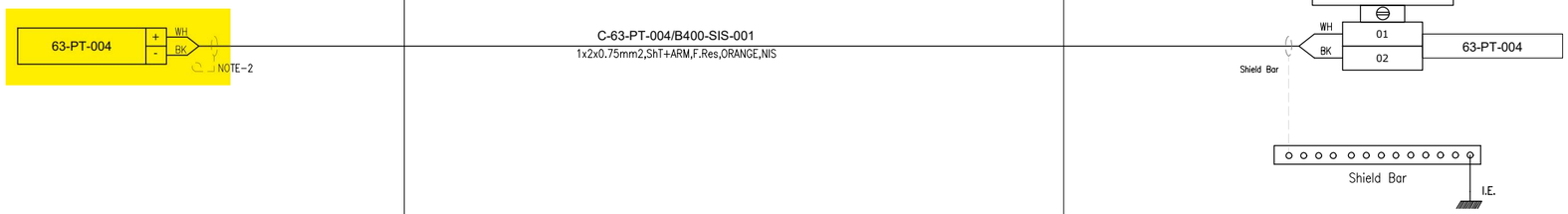
File Name : FILE_NAME

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
INSTRUMENTS	CABLE NO	MARSHALLING CABINET B400-SIS-001

<01>



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_J	06/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

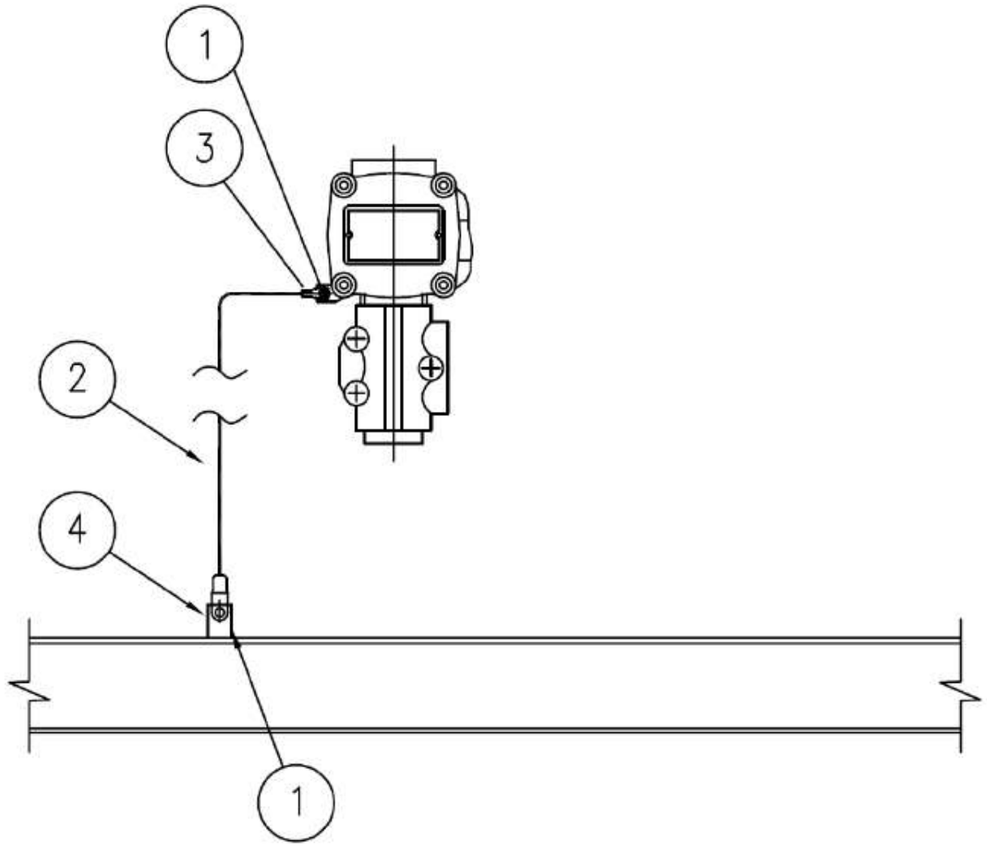
TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT– SAFETY SYSTEM WIRING DIAGRAMS
63–PT–004

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	007	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

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

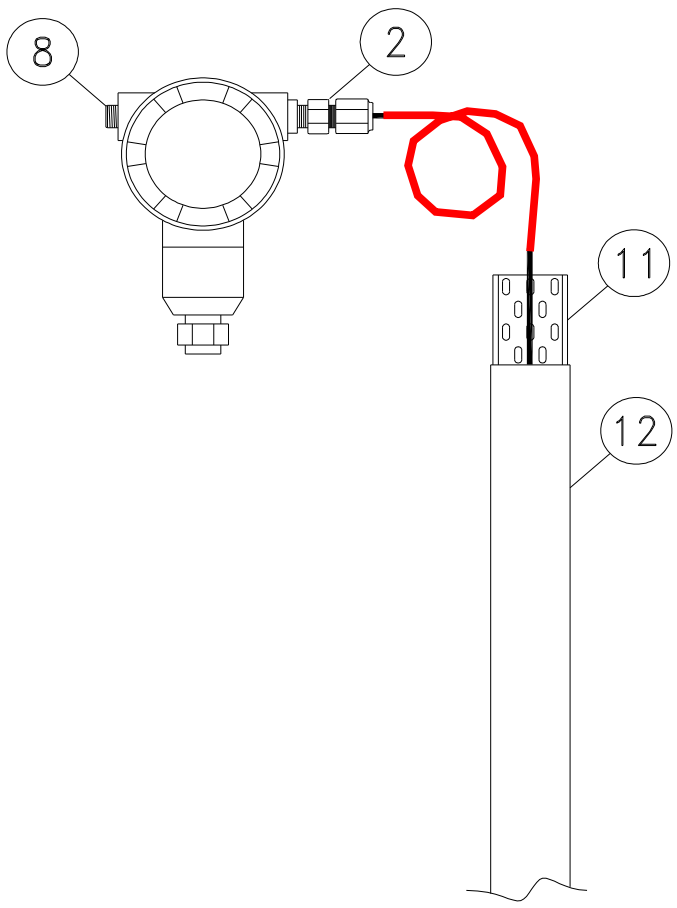
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 027 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Electrical Hook-Ups	Sh. 7 of 37 Date: 27/09/2024 Rev. 02

ELECTRICAL HOOK-UP FOR PRESSURE TRANSMITTERS



INSTRUMENT TAG	
1	25-PT-002
2	25-PT-004
3	25-PT-006
4	25-PT-008
5	25-PT-009
6	25-PT-011
7	25-PT-012
8	63-PT-004
9	64-PT-002
10	80-PT-002
11	
12	
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29	
30	

NOTE:

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40079**

REV.:	DATE:	SIGNATURE:
2_G	20/12/24	V.Ramponi

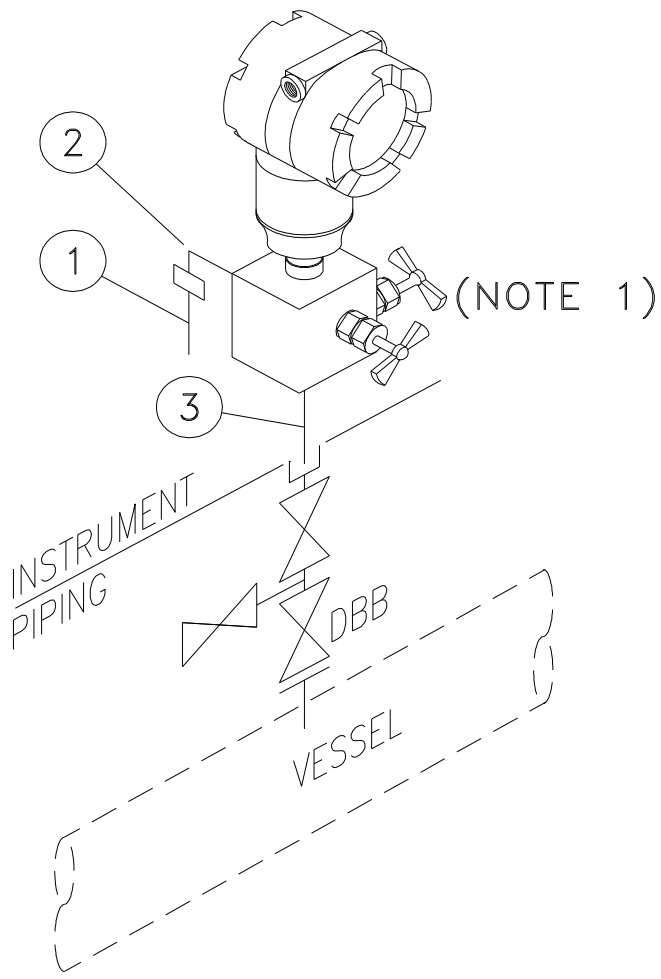
ROSETTI MARINO SpA

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
12		Cover for cable tray, FRP, Grey Color	50 W x 10 H x 5 THK	3 mt
11		Perforated cable tray, FRP, Grey Color	50 W x 50 H x 5 THK	3 mt
8		Nickel Plated Brass Plug Ex-d/e IIC (or IIB + H2) T1	M20	1
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	1

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Process Hook-Ups	Sh. 6 of 8 Date: 06/12/2024 Rev. 02

PRESSURE TRANSMITTERS - Installation for Gas Service



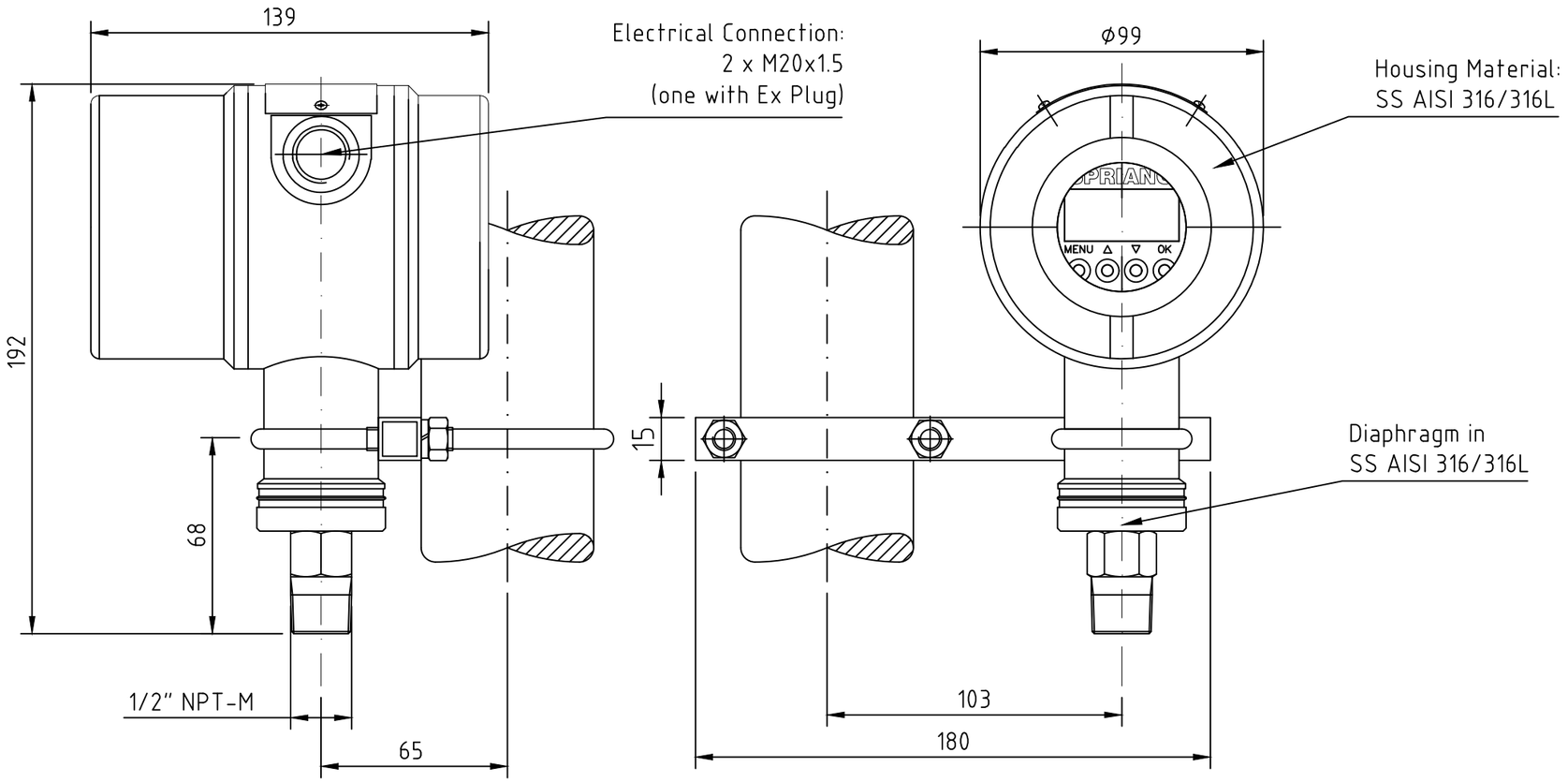
	INSTRUMENT TAG
1	25-PT-004
2	25-PT-006
3	25-PT-008
4	25-PT-009
5	25-PT-011
6	25-PT-012
7	25-PT-035
8	25-PT-037
9	25-PT-040
10	25-PT-043
11	25-PT-046
12	25-PT-049
13	25-PT-001
14	25-PT-002
15	25-PT-055A
16	25-PT-055B
17	43-PT-001
18	50-PT-014
19	63-PT-003
20	63-PT-004
21	~~64-PT-031A~~
22	64-PT-031B
23	64-PT-002
24	80-PT-002
25	
26	
27	
28	
29	
30	

NOTES:
(1) MANIFOLD IS SUPPLIED WITH INSTRUMENT.
(2) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
3		SS316 NIPPLE	1/2" NPT L=100mm	N. 1
2		ELBOW SS316	1/4" NPT-M x 1/2" O.D	N. 1
1		SS 316L TUBING (NOTE 2)	1/2" x 0,049"Thk	m 0.5

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SST76 PRESSURE TRANSMITTERS

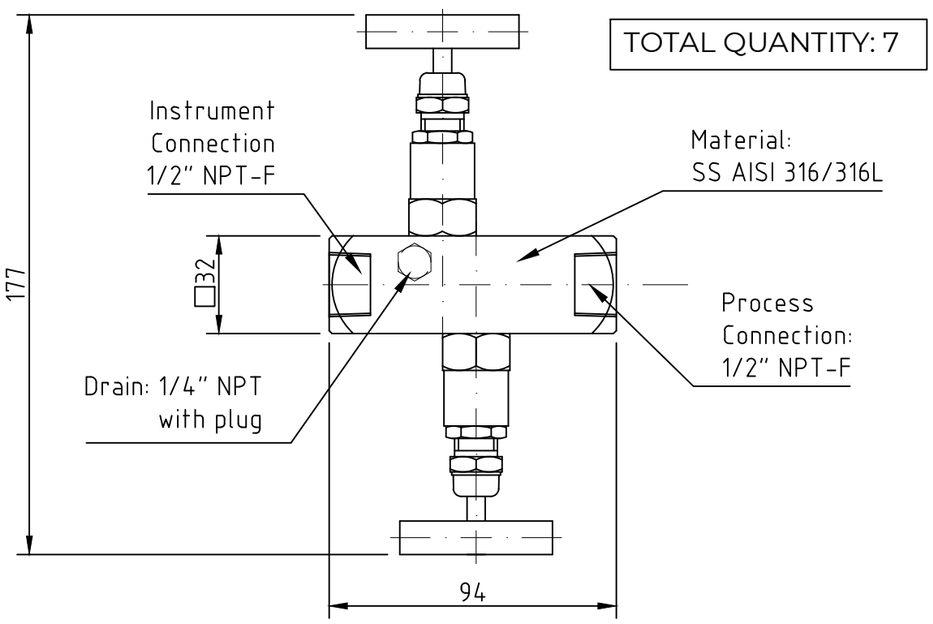


TAG LIST

#	TAG	RANGE	CALIBRATION
18	50-PT-014	0 ÷ 30 barg	0 ÷ 18 barg
19	63-PT-003	0 ÷ 30 barg	0 ÷ 11 barg
20	63-PT-004	0 ÷ 30 barg	0 ÷ 11 barg
21	64-PT-031A	0 ÷ 30 barg	0 ÷ 10 barg
22	64-PT-031B	0 ÷ 30 barg	0 ÷ 10 barg
23	64-PT-002	0 ÷ 30 barg	0 ÷ 10 barg
24	80-PT-002	0 ÷ 30 barg	0 ÷ 10 barg

TOTAL QUANTITY: 7

MAN2-R6 TWO WAYS AND TWO VALVES MANIFOLD



TOTAL QUANTITY: 7

NOTES

SST76 PRESSURE TRANSMITTERS
SST76-H-7-K-2-0-2-1-4 + MAN2-R6

H - OUTPUT: 4-20 mA + HART
7 - PROCESS CONNECTION: 1/2" NPT M;
K - NOMINAL RANGE: 0 ÷ 30 barg
2 - CALIBRATION: refer to TAG LIST TABLE
0 - DIAPHRAGM MATERIAL: SS AISI 316/316L
2 - OPTIONS: HOUSING MATERIAL STAINLESS STEEL WITH ELECTRICAL CONNECTIONS 2 x 1/2" NPT-F
1 - OPTIONS: MOUNTING BRACKET FOR 2" PIPE MOUNTING
4 - EXPLOSION PROTECTION 2014/34/EU: ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1G Ex ia IIC T6/T5/T4 Ga

to be coupled with:
1. MAN2-R6 TWO VALVES AND TWO WAYS MANIFOLD, MATERIAL SS AISI 316/316L, CONNECTION TO INSTRUMENT 1/2" NPT-F, PROCESS CONNECTION 1/2" NPT-F.

NOTES:
1. OVERALL ACCURACY OF PT (COMPREHENSIVE OF HYSTERESIS, NON-LINEARITY, REPEATABILITY) IS WITHIN +/- 0,07% FS;
2. ALL ITEMS ARE EQUIPPED WITH SS NAMEPLATE;
3. FILLING OF ELEMENT IS FORESEEN WITH DOW CORNING SILICONIC OIL;
4. ELECTRICAL CONNECTION ARE: 2 X 1/2" NPT-F (ONE PLUGGED);
5. INTEGRAL LCD /CONFIGURABLE ENGINEERING UNITS;
6. INGRESS PROTECTION EN 60529: IP66;
7. HOUSING MATERIAL STAINLESS STEEL;
8. ALL INSTRUMENT ARE SIL2/SIL3 CERTIFIED;
9. HART 6.

CERTIFICATES

1. ATEX Ex-d CERTIFICATE (2014/34/EU)
2. IP66 GRADE (EN/IEC 60529)
3. MATERIAL 3.1 (EN 10204) & HYDROTEST CERTIFICATES
4. CALIBRATION CERTIFICATES (IEC 60770)

REV	DATE	STATUS	PURPOSE OF ISSUE	PRE'D.	CHC'D.	APP'D.	AUTH'D.
03	18/JULY/24	FOURTH ISSUE	FOR CONSTRUCTION	M. Sioni	G. Arnaudo	G. Olivieri	S. Valletta
02	02/JULY/24	THIRD ISSUE	FOR CONSTRUCTION	M. Sioni	G. Arnaudo	G. Olivieri	S. Valletta
01	13/JUN/24	SECOND ISSUE	FOR CONSTRUCTION	M. Sioni	G. Arnaudo	G. Olivieri	S. Valletta
00	24/MAY/24	FIRST ISSUE	FOR APPROVAL	M. Sioni	G. Arnaudo	G. Olivieri	S. Valletta

CROSSWIND ROSETTI MARINO

P.O. No.: 24/01611/PO | Mod_CAR_Rev17-01 | SCALE – 1:2

TERRANOVA
SPRIANO Yard.com MEC-RELA
TERRANOVA SRL

DRAWING TITLE: DIMENSIONAL DRAWINGS

JOB: 4718_OS | SHEET No. 6 OF 10 | REV. 03

GENERAL	1	Tag Number		63-PT-004	
	2	Service		IA FROM PACKAGE A-63000 TO AIR DISTR.HEADER	
	3	P&ID Number	Location	123A90-DDL-PR-PID-80027	1-1/2"-IA-108-01SS-N
	4	Function		PRESSURE MEASUREMENT	
	5	Mounting		DIRECT ON-LINE	
	6	Area Classification		ATEX Zone2 - IIC (IIB+H2) T1	
	7	Ambient Temperature		Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.	
PROCESS CONDITIONS	8	Fluid		INSTRUMENT AIR	
	9	Pressure Des.	Oper. [barg]	11	4(Min.) / 10(Max)
	10	Temperature Des.	Oper. [°C]	100	Amb
	11	Oper. Spec. Gravity	Oper. Viscosity	-	-
	12	Flow Rate	Allowable Temp.	-	-
	13				
TRANSMITTER	14	Instrument Range Min.	Max.	0	30
	15	Calibration Range Min.	Max. [barg]	0	11
	16	Elevation	Suppresion	-	-
	17	Element Type		Diaphragm	
	18	Element Material		AISI 316/316L + Gold Plate (17)	
	19	Body Material	Body Rating	AISI 316/316L	200 bar
	20	Process Flanges Material		Integral 2 Way Manifold (22)	
	21	Wetted O-Rings Material		-	
	22	Fill Fluid		-	
	23	Bolts	Housing	Manifold/Instrument assembly	AISI 316/316L
	24	Paint		-	
	25	ATEX Certification	Ingress Protection	Atex Ex II 2G Ex db IIC T5	IP66
	26	Process Connection	Electrical Connection	1/2" NPT(F)	N. 2 M20x1.5mm
	27	Repeatability	Accuracy	-	0.07 % of Nominal Range
	28	SIL Certification	PED Certification	-	Required
DIAPHRAGM SEAL	29	Process Connection & Rating		-	
	30	Diaphragm Material	Housing Material	-	-
	31	Fill Fluid	Capillary Material	-	-
	32	Capillary Type	Capillary Length	-	-
	33	Flushing Connection		-	
	34				
OPTIONS	35	Integral Meter	Scale	Integral LCD Display	-
	36	Hydrostatic Testing	Cleaning	Required	-
	37	Mounting Brackets	Manifold Model No	Required	MAN2-R6
	38	Lightning Protection	Barrier Manuf./Model	-	-
COMMUNICATION AND SOFTWARE	39	Communication Type	Signal Type	HART 6	4-20mA Loop Powered 24 Vdc
	40	D D Revision	CFF Revision	-	-
	41	Device Tag	Hart Tag	-	-
	42	Internal Diagnostics	Capacitance	-	-
	43	Segment	Device Address	-	-
	44	Device Class	Simulate	-	-
	45	Nominal Current	Operating Voltage	-	-
	46				
PURCHASE	47	Manufacturer		TERRANOVA	
	48	Model		SST76-H-7-K-2-0-2-1-4 + MAN2-R6	
	49	Purchase Order Number		1724000979	

Notes:

No.	Date	By	Chkd	Appr	Description
02	06/12/2024	VBA	LCA	DLO	Accepted for Construcion (AFC)
01	29/08/2024	VBA	LCA	DLO	Accepted for Construcion (AFC)
00	16/01/2024	VBA	LCA	DLO	ISSUED FOR REVIEW (IFR)

INSTRUMENT DATASHEET

Pressure Transmitter

CROSSWIND

ROSETTI MARINO

Sheet 29 of 35

Code: 605 | Dwg. No.: 123A90-DDL-IN-DS-40039 Rev 02

Tag Number	Tag Description	Location	P.O.	Vendor	Manufacturer	Serial Number	Model Type Catalogue Number	Installation Zone	ATEX Certificate Number	Reference Document	ATEX Certification Marking	Notes / Comments	Skid / Package	Electrical Equip.	Barrier Calculation Ref.	Special Conditions of Safe Use Applicable	3D Location
50-XY-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-XY-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-XY-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-001	Sea water from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-002	Sea water recirculation from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSH-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-001	Sea water from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-002	Sea water recirculation from pump P-50001A	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-003	Sea water from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-004	Sea water recirculation from pump P-50001B	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
50-ZSL-005	Drain Water discharge to Caisson	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	
55-LIT-001	Vessel T-55001 level	LOWER DECK	1724000979	Terranova Srl	Tokio Heiki Inc.	105429 (VE241368)	KRG-E-P3-R01-N-L-D08-F79-N00-N-D-V-81-A-R2-Z6		FM13ATEX0069X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2 G Ex ia/db IIC T4 Ga/Gb	-	N/A	False	N/A	True	
63-PT-003	Instrument air to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240652	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
63-PT-004	Instrument air to distribution header low pressure	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240653	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-FG-001	Nitrogen to hydrogen vent header	LOWER DECK	1724000791	Brooks Instrument	Brooks Instrument	3809G-211096	3809GCC08BFBC9A0V0AC	ATEX -ZONE 1/ZONE 2 - NO ELEC	MBID 022 Rev. A	1724000791-IN-DA-00003	II 2 G Ex h IIC T6..T3 Gb	N/A	N/A	False	N/A	True	
64-PG-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	MBS6P4S2PN07-ATEX	FR04	ATEX ZONE 2	MBS6P4S2PN07-ATEX	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-PG-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	MBS6P4S2PN07-ATEX	FR04	ATEX ZONE 2	MBS6P4S2PN07-ATEX	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-PSV-001	Nitrogen to distribution header vent system	LOWER DECK	1724000518	Technical Srl	Technical Srl	291505	320-D10-L2	Zone 2	Declaration of Conformity by Technical Srl	1724000518-IN-DA-00003 / 1724000518-IN-DS-00004	II 2G Ex h IIC T6..T1 Gb	-	N/A	False	N/A	False	
64-PSV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	COITECH	24-03804	SLK	ATEX ZONE 2	SLKL-08HA74-015	1724000740-IN-DA-00004	CE Ex - II 2 GD Ex h X	N/A	N/A	False	N/A	True	
64-PSV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	COITECH	24-03805	SLK	ATEX ZONE 2	SLKL-08HA74-015	1724000740-IN-DA-00004	CE Ex - II 2 GD Ex h X	N/A	N/A	False	N/A	True	
64-PT-002	Nitrogen to distribution header low pressure	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240656	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PT-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240654	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PT-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000979	Terranova Srl	Terranova Srl	SE240655	SST76-H-7-K-2-0-2-1-4 + MAN2-R6		TI17ATEX304X	1724000979-IN-DA-00003 / 1724000979-IN-DS-00004	ATEX Ex II 1/2G Ex db IIC / IIB, T6/T5, Ga/Gb or ATEX Ex II 1/2G Ex ia IIC T6/T5/T4 Ga/Gb	-	N/A	False	N/A	True	
64-PV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400597	CV-8407	ATEX ZONE 2	ATEX - SN 2400597	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400598	CV-8407	ATEX ZONE 2	ATEX - SN 2400598	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PY-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400597	CV-8407	II 2G	ATEX - SN 2400597	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-PY-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	AST SpA	2400598	CV-8407	II 2G	ATEX - SN 2400598	1724000740-IN-DA-00004	CE Ex - II 2 G Ex h IIC T6..T1 Gb X	N/A	N/A	False	N/A	True	
64-SDV-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N/A	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	False	N/A	True	HAZARDOUS-AREA_6
64-SDY-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-SV-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	FR08411S00SSNB2 TRACE 24/1638	FR04	ATEX ZONE 2	FR08411S00SSNB2 TRACE 24/1638	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-SV-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	SITECNA	FR08411S00SSNB2 TRACE 24/1638	FR04	ATEX ZONE 2	FR08411S00SSNB2 TRACE 24/1638	1724000740-IN-DA-00004	CE Ex - 2G Ex h IIC T6/T5 Gb X	N/A	N/A	False	N/A	True	
64-ZSH-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-ZSH-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSH-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSL-001	Nitrogen to distribution header shut-down	LOWER DECK	1724000204	RFS	SOLDO	N.A.	FP06P-S1-04-32-NU-V-77A-24D-57	Zone 2, Gas Group IIC	CML 19ATEX1359X	1724000204-IN-DG-00006	Ex II 2GD Ex d IIC T4/T6	N/A	N/A	True	N/A	True	HAZARDOUS-AREA_6
64-ZSL-031A	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
64-ZSL-031B	Nitrogen pressure control to distribution header	LOWER DECK	1724000740	AST SpA	EISENBAU	Batch:44219	GUARDABOX - GD SERIES GDSN0LIS2MS290	ATEX ZONE 2	FIDI 20 ATEX 0039X	1724000740-IN-DA-00004	CE Ex - II 2G Ex db IIC T6..T4	N/A	N/A	True	N/A	True	
77-HS-001A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11391	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-001B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11392	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-002A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11393	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-002B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11394	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-003A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11395	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-003B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11396	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-004A	Proximity Switch	LOWER DECK	1724000821	Fores	EATON	24-11397	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-004B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11398	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-005A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11399	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-005B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11400	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-006A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11401	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-006B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11402	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-007A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11403	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-007B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11404	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-008A	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11405	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	
77-HS-008B	Hand Switch	LOWER DECK	1724000821	Fores	EATON	24-11406	GHG 432	II 2 G	BVS 22 ATEX E032 X	1724000821-COM-LIS-00011	II 2 G Ex ed ib m IIC T6	-	N/A	True	N/A	True	

Technická inšpekcia, a.s.
Trnavská cesta 56, 821 01 Bratislava
Slovenská republika

[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres
Directive 2014/34/EU

[3] Supplementary EU-Type Examination Certificate Number:

TI17ATEX 304 X / 1

[4] Product:

SPRIANO® Electronic transmitter series SST7X
Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator)

[5] Manufacturer: **TERRANOVA S.r.l.**

[6] Address: **Via Gramsci, 1, 26827 – Terranova dei Passerini (LO), Italy**

[7] This supplementary certificate extends EU – Type Examination Certificate No. TI17ATEX 304 X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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Bratislava, March 08th, 2021

Ing. Dušan Perniš
General Director

This certificate may only be reproduced in its entirety and change, schedule included.

NB 1354

[13] **Schedule**

[14] **Supplementary EU-Type Examination Certificate Number: TI17ATEX 304 X / 1**

[15] Description of the variation to the product:

The subject of this supplementary certificate is extension of product SPRIANO® Electronic transmitter series SST7X, Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator), which has protection mode "Ex-db" certified by certificate TI17ATEX304X, to the protection mode "Ex-ia" certified by certificate TI17ATEX305X.
Electronic inside the Series SST7X has been used the same as the SST5X described into TI17ATEX305X certificate.
Housing materials to be used Anticorodal Aluminum or Stainless Steel according previous certificates.
New Variation to the product are:

		With Aluminum housing	
		Without safety barrier	
Ex	II 1/2 G	Ex db IIC T6 Ga/Gb	-40°C<Tamb<+60°C
		Ex db IIB T5 Ga/Gb	-40°C<Tamb<+80°C
		or	
		With safety barrier	
Ex	II 1/2 G	Ex ia IIC T6, T5, T4 Ga	-40°C<Tamb<+40°C / +55°C / +80°C
		With SS AISI 316 housing	
		Without safety barrier	
Ex	II 1/2 G	Ex db IIC T6 Ga/Gb	-40°C<Tamb<+60°C
		Ex db IIB T5 Ga/Gb	-40°C<Tamb<+80°C
		or	
		With safety barrier	
Ex	II 1 G	Ex ia IIC T6, T5, T4 Ga	-40°C<Tamb<+40°C / +55°C / +80°C

Basic description of product:

The Transmitters series electronic SST7X measure pressure, level or temperature of liquids, gases and vapors and transmit a current signal 4-20mA + HART®.
According to the process connection, the series SST7X is constituted by the following models, they can be identified by the code following the series name:

SST70	Displacer level transmitter
SST71	Float level transmitter
SST72	Temperature transmitter
SST75	Relative or absolute pressure transmitter with incorporate separating diaphragm (ceramic)
SST76	Relative or absolute pressure transmitter with incorporate separating diaphragm (piezo)
SST77B	Differential pressure transmitter
SST77BL	Pressure transmitter for level measure
SST79B	Submersible level transmitter
SST70-REM	Field digital indicator

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Model SST70: The transmitter is isolated from the process via a mechanical system to the torsion tube and also the measuring cell presents a separation membrane filled with inert fluid.
Model SST71: The transmitter is isolated from the process via a tube containing reed switches.
Model SST72: The transmitter is isolated from the process via a tube containing sensors PT100.
Models SST75, SST76, SST77B and SST77BL: The transmitter is isolated from the process by membrane separation metal filled with inert fluid.
Model SST79 (version with remote sensor): The remote transmitter is isolated from the process by separation membranes metal filled with inert fluid. It is connected to the housing means shielded cable with 5 wires soldered.
Model SST70-REM (Loop powered field digital indicator): The indicator has no element part but only it is connected via current loop for displaying the desired variable.

Product with variation of Exdb protection:

The instruments are suitable for gas group IIC or IIB depending by the Ambient Temperature and they have the type of protection "Ex db".
Temperature: -40 ° C ≤Tamb≤ + 60 ° C (or -40 ° C ≤Tamb≤ + 80 ° C)
In the case where the process temperatures are higher than the maximum ambient temperature (or below the minimum ambient temperature), the instrument is installed with a suitable finned arm that can dissipate the temperature in excess and ensure the installation inside the ambient temperature range specified by the manufacturer.
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a body of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made in Anticorodal Aluminum or Stainless Steel AISI 304 / 316 (Thickness of coating <0.15mm) while the door is tempered-glass glued to the lid with a silicone seal.

Electrical characteristics:

Supply voltage	≤ 30 VDC
Output signal	4 ÷ 20 mA + HART®
Maximum power transferred	0,75 W
ATEX category	II 1/2 G
Protection mode	Ex db IIC T6 Ga/Gb with Tamb [- 40°C, +60°C] Ex db IIB T5 Ga/Gb with Tamb [- 40°C, +80°C]
IP Code	IP 66
The power cables must be at least 22 AWG (0.34mm2 section section - 0.64mm2), suitable for an operating temperature ≥ 90 ° C for Tamb ≥ 70 ° C.	

The marking of the product shall include the following:

⟨Ex⟩ II 1/2 G Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

Product with variation of Exia protection:

The instruments are suitable for gas group IIC and have the type of protection "Ex i".
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a body of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made of stainless steel or aluminum having a content Mg of less than 6% (coating thickness <0.15mm) while the door can be static plastic, 5 mm thick (glue Araldite 2021) or sodalime tempered glass, 5 mm thick (glue Araldite 2011).

Electrical characteristics:

Parameter	Tamb<60°C	Tamb<80°C
Maximum voltage input **Ui**	30 V	25.2 V
Maximum current input **Ii**	100 mA	100 mA
Power maximum input **Pi**	0.75 W	0.62 W
Maximum capacity Internal	10 nF	10 nF
Maximum Internal Inductance	0.2 mH	0.2 mH
Output signal	4 ÷ 20 mA + HART®	
Degree of protection	IP 66 for Aluminum housing IP67 for SS AISI 316 housing	

The marking of the product shall include the following:

Ex II 1/2G Ex ia IIC T6, T5, T4 Ga/Gb **-40°C ≤ Tamb ≤ 40°C (T6)** **-40°C ≤ Tamb ≤ 55°C (T5)** **-40°C ≤ Tamb ≤ 80°C (T4)** **For Aluminum housing**	**Ex 1G Ex ia IIC T6, T5, T4 Ga** **-40°C ≤ Tamb ≤ 40°C (T6)** **-40°C ≤ Tamb ≤ 55°C (T5)** **-40°C ≤ Tamb ≤ 80°C (T4)** **For SS AISI 316 housing**

[16] Report Number:
Inspection report No: 54/5/2021
Final Test Report No: 54/5/2021

[17] Specific Conditions of Use:

Product with variation of Exdb protection:

Ambient temperature:
Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C
In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

Entries for flameproof enclosure:
The accessories used for cable entry into the housing (which must be treated ½ "NPT or M20x1.5) must comply with the standards EN 60079-0 and EN 60079-1.
The entrance hole leads not used should be closed with the cap conforms to EN 60079-1.

Warning marking:
- "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"

Informative marking:
- "SEE INSTALLATION INSTRUCTION DOCUMENT".

Product with variation of Exia protection:

Ambient temperature:

-40°C ÷ +40°C	For Class T6
-40°C ÷ +55°C	For Class T5
-40°C ÷ +80°C	For Class T4

In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable

spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

[18] Essential Health and Safety Requirements:
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.
Additional information: None.

[19] Drawings and Documents:

Number	Sheet	Issue	Date	Description
DTP-SST7X	4pgs	REV No.21.02	12/02/2021	List of drawings and Documents SPRIANO ® Electronic Switches SST7X By TERRANOVA ®
TI17ATEX305X	3 pgs	-	13/03/2017	EU –Type Examination Certificate (Exia)

Technická inšpekcia, a.s.
Trnavskácesta 56
821 01 Bratislava, Slovakia
e-mail: tisr@tisr.sk
web: www.tisr.sk
Tel.: +421 2 49208 100

TECHNICKÁ INŠPEKCIA • TI NB 1354 -5- • SLOVENSKÁ REPUBLIKA

Bratislava, March 08th, 2021

Ing. Dušan Perniš
General Director

TECHNICKÁ INŠPEKCIA, a.s.

SLOVENSKÁ REPUBLIKA

CEOC INTERNATIONAL

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System Intended for use in potentially explosive atmospheres
Directive 2014/34/EU

[3] EU-Type Examination Certificate Number:

TI17ATEX 304 X

[4] Product:

SPRIANO® Electronic transmitter series SST7X
Type: SST70, SST71, SST72, SST75, SST76, SST77B, SST77BL, SST79B and SST70-REM (Indicator)

[5] Manufacturer: **TERRANOVA S.r.l.**

[6] Address: **Via Gramsci, 1, 26827 – Terranova dei Passerini (LO), Italy**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Technická inšpekcia, a.s., Notified Body Number 1354 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of product intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report No. 304/5/2017.

[9] Compliance with the Essential Health and safety Requirements has been assured by compliance with: **EN 60079-0:2012+A11:2013, EN 60079-1:2014**
except in respect of those requirements listed at item 18 of the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicate that the product is subject to the Specific conditions of Use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of this Directive apply to the manufacturing process and supply of this product.

[12] The marking of the product shall include the following:

Ex II 1/2 G Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

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Bratislava, March 13th, 2017

Ing. Dušan Perniš
General Director

NB 1354
- 5 -

333123

CSTA3-128

NB 1354

[13] **Schedule**

[14] **EU-Type Examination Certificate Number: TI17ATEX 304 X**

[15] Description of product:
The Transmitters series electronic SST7X measure pressure, level or temperature of liquids, gases and vapors and transmit a current signal 4-20mA.
The instruments are suitable for gas group IIC and have the type of protection "Ex db".
Temperature: -40 ° C ≤Tambs≤ + 60 ° C (or -40 ° C ≤Tambs≤ + 80 ° C)
In the case where the process temperatures are higher than the maximum ambient temperature (or below the minimum ambient temperature), the appliance is installed with a suitable spacer can dissipate the temperature in excess and ensure the installation inside the ambient temperature range specified by the manufacturer.
The instruments are composed of two parts:
• The housing, the same for all models, which contains the electronic board and the electrical connections.
• The sensing element contained in a bodice of stainless steel that allows the process connection.
The housing is constituted by the body and by two closing covers (one of which is equipped with transparent windows). The metal parts can be made in anticorodal aluminum or stainless steel AISI 304 (Thickness of coating <0.15mm) while the door is tempered-glass glued to the lid with a silicone seal.

According to the process connection, the series SST7 is formed by the following models, they can be identified by the code following the series name:

SST70	Displacer level transmitter
SST71	Float level transmitter
SST72	Temperature transmitter
SST75	Relative or absolute pressure transmitter with incorporate separating diaphragm (ceramic)
SST76	Relative or absolute pressure transmitter with incorporate separating diaphragm (piezo)
SST77B	Differential pressure transmitter
SST77BL	Pressure transmitter for level measure
SST79B	Submersible level transmitter
SST70-REM	Field digital indicator

Model SST70: The transmitter is isolated from the process via a mechanical system to the torsion tube and also the measuring cell presents a separation membrane filled with inert fluid.

Model SST71: The transmitter is isolated from the process via a tube containing reed switches.

Model SST72: The transmitter is isolated from the process via a tube containing sensors PT100.

Models SST75, SST76, SST77B and SST77BL: The transmitter is isolated from the process by membrane separation metal filled with inert fluid.

Model SST79 (version with remote sensor): The remote transmitter is isolated from the process by separation membranes metal filled with inert fluid. It is connected to the housing means shielded cable with 5 wires soldered.

Model SST70-REM (Loop powered field digital indicator): The indicator has no element part but only it is connected via current loop for displaying the desired variable.

Electrical characteristics:

Supply voltage	≤ 30 VDC
Output signal	4 ÷ 20 mA
Maximum power transferred	0,75 W
ATEX category	1/2 G
Protection mode	Ex db IIC T6 Ga/Gb with Tamb [- 40°C, +60°C] Ex db IIB T5 Ga/Gb with Tamb [- 40°C, +80°C]
IP Code	IP 66
The power cables must be at least 22 AWG (0.34mm2 section section - 0.64mm2), suitable for an operating temperature ≥ 90 ° C for Tamb ≥ 70 ° C.	

[16] Report Number:
Inspection report No: 304/5/2017
Final Test Report No: 304/5/2017

[17] Specific Conditions of Use:

Ambient temperature:
Ex db IIC T6 Ga/Gb -40°C ≤ Tamb ≤ 60°C
Ex db IIB T5 Ga/Gb -40°C ≤ Tamb ≤ 80°C

In the case where the process temperatures are higher than the maximum ambient temperature (or lower than the minimum ambient temperature), the equipment is installed with a suitable spacer (example: finned arm, syphon, capillary, remote head, etc.) capable of dissipating the excess temperature and ensure the installation inside the temperature range specified by the manufacturer.

Entries for flameproof enclosure:
The accessories used for cable entry into the housing (which must be treated ½ "NPT) must comply with the standards EN 60079-0 and EN 60079-1.
The entrance hole leads not used should be closed with the cap conforms to EN 60079-1.

Warning marking:
- "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"

Informative marking:
- "SEE INSTALLATION INSTRUCTION DOCUMENT".

[18] Essential Health and Safety Requirements:
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.
Additional information: None.

[19] Drawings and Documents:

Number	Sheet	Issue	Date	Description
DTP-SST7X	3pgs	REV No.17.01	31/01/2017	List of drawings and Documents SPRIANO® Electronic Switches SST7X

Technická inšpekcia, a.s.
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e-mail: tisr@tisr.sk
web: www.tisr.sk
Tel.: +421 2 49208 100

TECHNICKÁ INŠPEKCIA · TI · NB 1354 - 5 - · SLOVENSKÁ REPUBLIKA ·

Bratislava, March 13th, 2017

Ing. Dušan Perniš
General Director

CSTA3-128

ATEX CERTIFICATE for KRG

TERRANOVA® Srl - www.terranova-instruments.com
Factory & Sales: Via Gramsci 1 – 26827 Terranova dei Passerini (LO) – Italy
Head Office: Via Rosso Medardo 16 – 20159 Milano – Italy
Phone: +39 0377 919119 – Fax: +39 0377 855720 - VAT IT07848810151

1 EU-TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**

3 **EU-Type Examination Certificate No:** **FM13ATEX0069X**

4 **Equipment or protective system: (Type Reference and Name)** **KRG-10 Microwave Level Gauge**

5 **Name of Applicant:** **Tokyo Keiki Inc.**

6 **Address of Applicant:** **2-16-46 Minami-Kamata Ohta-ku Tokyo-To 144-8551 Japan**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3049358 dated 20th January 2015

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015 and EN 60529:1991+A1:2000+A2:2013

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:

II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T135°C Da
II 1/2 G Ex ia/db IIC T4 Ga/Gb
Ta = -40°C to +60°C

Martin Crowe
Certification Manager, FM Approvals Europe Ltd.

Issue date: 30th March 2023

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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T: +353 (0) 1761 4200 E-mail: atex@fmapprovals.com www.fmapprovals.com

SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

13 **Description of Equipment or Protective System:**

The KRG-10 Microwave Level Gauge is designed for level measurements using microwave technology. The KRG-10 Type A is an Intrinsically Safe protection scheme with or without an LCD display installed. The Type B version also comes with an optional LCD display but is flameproof protected as well as intrinsically safe. The Type B version contains a IS barrier circuit allowing 250V to power the unit. The KRG-10 utilizes 6 different antennas which contain both metal and plastic. There are 3 different O-ring options depending on the antenna installed. All signal outputs are available in 4 to 20 mA and HART communications. The KRG-10 electronic enclosure is made of die cast aluminum with the LCD version having a polycarbonate window and silicone rubber LCD cover cap.

The equipment is rated for Degree of Protection IP66 in accordance with EN 60529.

Operation Temperature Ranges:
The ambient operating temperature range of the KRG-10 Microwave Level Gauge is -40°C to 60°C. Process temperature range is -40°C to 200°C for flameproof applications. Depending on the antenna used and the o-ring, the process temperature range varies within the range of -40°C to +200°C The process pressure range is -0.1 to +1.5 MPa.

Electrical data:

In type of protection intrinsic safety, the following energy limitation parameters apply (Type A only): U_i = 30Vdc; I_i = 93mA; P_i = 0.7W; C_i = 0nF; L_i = 0mH

All other protection techniques, the electronic connection has the following values (Type B only): Um= 250VAC

KRG-10a0bc-dA Microwave Level Gauge
Type A
II 1 G Ex ia IIC T4 Ga Ta = -40°C to +60°C; IP66
II 1 D Ex ia IIIC T135°C Da Ta = -40°C to +60°C; IP66
Ui = 30Vdc, Ii = 93mA, Pi = 0.7W, Li = 0mH, Ci = 0nF

Type B
II 1/2 G Ex ia/db IIC T4 Ga/Gb Ta = -40°C to +60°C; IP66

a = EX Approval; AI, or AD
b = Antenna Type; 2H, 4H, 2P, 3P, 4P, or 1R
c = Material of Seal; V, S, or K
d = Display; N or A

14 **Specific Conditions of Use:**

1. *The KRG-10 enclosure contains aluminium and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.*
2. *The KRG-10 enclosure contains exposed non-metallic surfaces considered to constitute an electrostatic discharge hazard. Clean only with a damp cloth.*
3. *The painted surface of the KRG-10 may store electrostatic charge and become a source of ignition in applications with a low relative humidity <30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in PD CLC/TR 60079-32-1 and IEC TS 60079-32. Cleaning of the painted surface should only be done with a damp cloth.*

4 .For the Ex ia/db rated Microwave Level Gauge, this equipment can be installed in the boundary wall

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SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

between an area of EPL Ga (Category 1) and the less hazardous area, EPL Gb (Category 2). In this configuration, the antenna process connection portion may be installed in EPL Ga (Category 1), while the electronics housing is installed in EPL Gb (Category 2).

5. *For the Ex ia/db rated Microwave Level Gauge, consult the manufacturer for dimensional information on the flameproof joints for repair.*
6. *The device contains a nonmetallic wall constructed of PTFE, PFA, Glass parts and Epoxy resin that acts as a partition wall between the process and the device. Installation, Maintenance and use shall take into account the environmental conditions to which the partition wall will be subjected. The manufacturer's instruction for maintenance shall be followed in detail to assure safety during its expected lifetime.*

15 **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 **Test and Assessment Procedure and Conditions:**

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
20th January 2015	Original Issue.
12th January 2017	Supplement 1: Report Reference: - 3056241 Dated 11th January 2017. Description of the Change: Redesign of inter-compartmental feed through. Increase process temperature for flameproof applications. Correction of drawing errors. Change of Type B product ratings. Removal of Cone Antenna rating. Correction of Specific Condition 6. Updated to EU format.

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SCHEDULE

to EU-Type Examination Certificate No. FM13ATEX0069X

Date	Description
04th June 2019	Supplement 2: Report Reference: - RR218082 Dated 31st May 2019. Description of the Change: Revised Certificate Specific Conditions of Use: Item 3 - replaced EN TR50404 with PD CLC/TR 60079-32-1. Updates made to Product Label Marking and Notified Body Number. Updated Installation Manual label. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809.
29th May 2020	Supplement 3: Report Reference: - RR222698 Dated 28th May 2020. Description of the Change: i) Minor documentation update (no physical changes; only editorial changes). ii) Updated description correctly in the certificate from "for flameproof applications. Process temperature range is -40°C to 180°C for all other applications." and ".1 to 1.5 MPa" to "[d]epending on the antenna used and the o-ring, the process temperature range varies within the range of -40°C to +200°C" and "-.1 to 1.5 MPa", respectively.
28th October 2020	Supplement 4: Report Reference: - PR457466 Dated 26th October 2020. Description of the Change: Evaluation conducted to qualify updates to enclosure and probe construction, minor drawing revisions, moved IP66 ratings from Section 12 to Section 13 as is appropriate, removed Material of Seal option V that had previously been added in error.
25th February 2021	Supplement 5: Report Reference: - RR226323 Dated 23rd February 2021. Description of the Change: Add a new antenna (3" PTFE Sealing Antenna option 3P). Update of safety instructions, model code and manual.
30th July 2021	Supplement 6: Report Reference: - RR228480 Dated 29th July 2021. Description of the Change: Change description in ATEX Cert to match IECEx cert IECEx FMG13.0039X. Um=250VAC was previously 120/240VAC 50/60Hz.
30th March 2023	Supplement 7: Report Reference: - RR236287 Dated 28th March 2023. Description of the Change: Minor technical and documentation changes.

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Blueprint Report

Tokyo Keiki Inc (144654)

Class No 3610

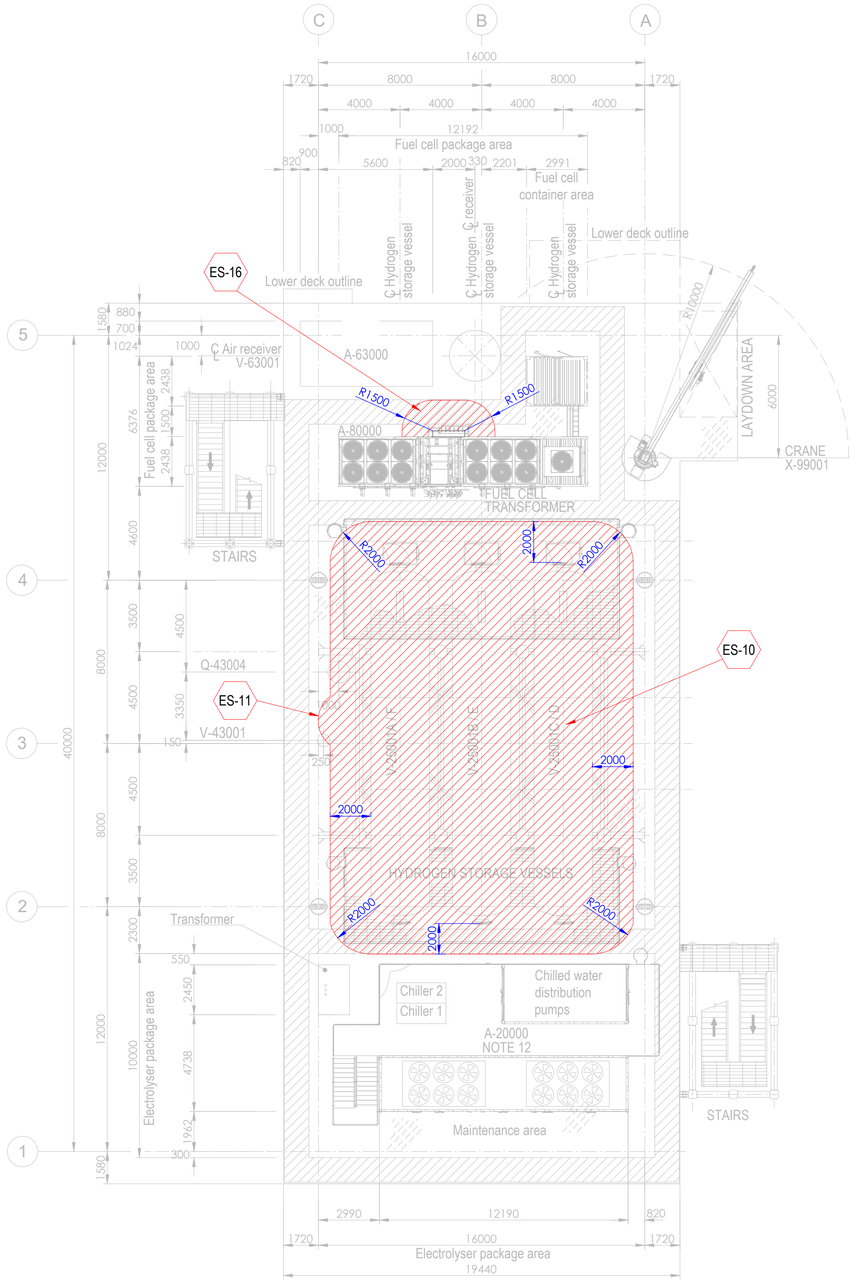
Original Project I.D. ***3049358***

Certificate I.D. ***FM13ATEX0069X***

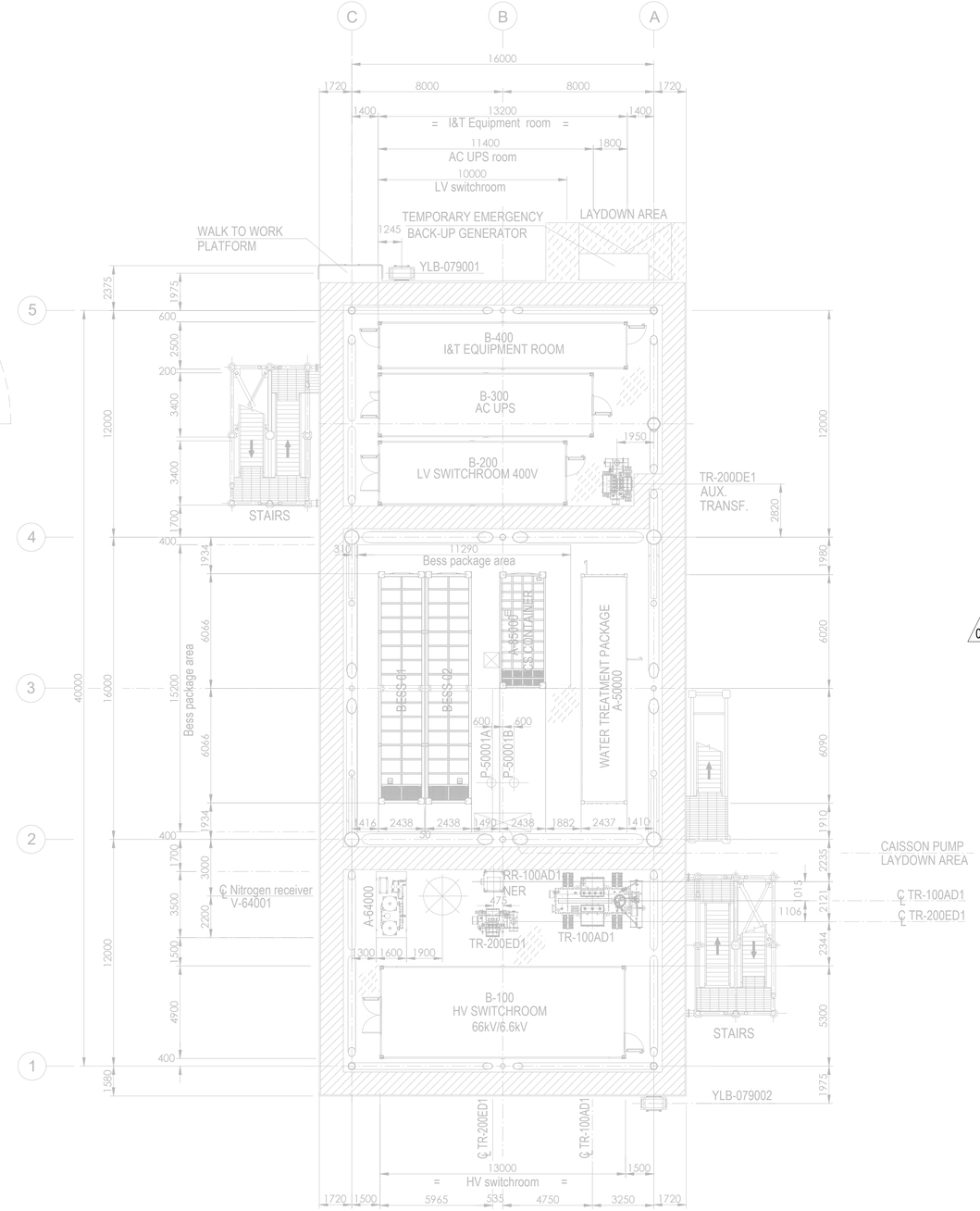
Drawing No.	Revision Level	Drawing Title	Last Report
51986690	06	External Dim DWG	PR457466
51986691	**05**	**Internal Structure DWG Type A**	**RR236287**
51986692	**07**	**Internal Structure DWG Type B**	**RR236287**
51986693	05	Internal Structure Detail DWG	PR457466
51986694	05	Assembly Dimension DWG 1	PR457466
51986695	06	Assembly Dimension DWG 2	RR226323
51986696	05	Assembly Dimension DWG 3	PR457466
51986697	10	Labels DWG	RR228480
51986714	00	KAR-20 PCB diagram 1-2	3049358
51986715	00	KMB-10 PCB diagram	3049358
51986716	00	KRF-10 PCB diagram	3049358
51986717	00	KIB-10 PCB diagram	3049358
51986718	01	KTR-20 PCB diagram 1-2	3049358
51986719	02	KPB-20 PCB diagram 1-4	3049358
51986720	01	KPB-20 Parts list 1-6	3049358
51986721	00	KAR-20 Parts list	3049358
51986722	00	KTR-20 Parts list 1-2	3049358
51986723	00	ARM-10 parts list	3049358
51986724	01	BRM-10 parts list 1-3	3049358
51986725	00	KRF-10 Parts list 1-5	3049358
51986726	00	KMB-10 Parts list 1-9	3049358
51986727	00	KIB-10 Parts list	3049358
51986729	01	Blind Plug	3056241
51986962	03	O-Ring Detail DWG	RR226323
51987060	01	Installation DWG Type A	3049358
51987061	04	Installation DWG Type B	RR218082
51987062	01	Intrinsic Safety Concept Type A	3049358
51987063	04	Intrinsic Safety Concept Type B	RR218082
51987064	00	KAR-20 Circuit Diagram	3049358
51987065	00	KTR-20 Circuit Diagram	3049358
51987066	00	ARM-10 Circuit Diagram	3049358
51987067	00	BRM-10 Circuit Diagram	3049358
51987068	00	KPB-20 Circuit Diagram 1-2	3049358
51987069	00	KMB-10 Circuit Diagram 1-4	3049358
51987070	00	KRF-10 Circuit Diagram 1-2	3049358
51987071	00	KIB-10 Circuit Diagram	3049358
51987072	00	BRM-10 PCB Diagram 1-2	3049358
51987073	01	ARM-10 PCB Diagram 1-2	3049358
51987188	01	Line bushing	3056241
KF13-001	**R**	**KRG-10 Manual**	**RR236287**
KF13-003	H	KRG-10 Safety Instructions	RR228480

DRAWING NO. 123A90-DDL-SAF-DL-30022

REV. 02



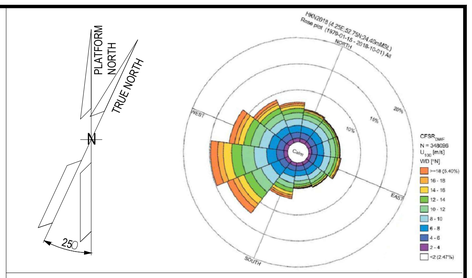
PLAN ON UPPER DECK
EL+30.310 T.O.S.



PLAN ON LOWER DECK
EL+23.310 T.O.S.

Tag No.	Equipment Tag	Description	Material	Ventilation Type
01	P-50001 A/B	SEA WATER LIFT PUMPS	SEA WATER	NATURAL (OPEN AREA)
02	Q-43004	HYDROGEN VENT	HYDROGEN	NATURAL (OPEN AREA)
03	V-43001	HYDROGEN VENT KO DRUM	HYDROGEN	NATURAL (OPEN AREA)
04	V-25001 (A/B/C/D/E/F)	HYDROGEN STORAGE VESSELS	HYDROGEN	NATURAL (OPEN AREA)
05	V-63001	AIR RECEIVER	INSTRUMENT AIR	NATURAL (OPEN AREA)
06	A-20000	ELECTROLYSER PACKAGE		
07	A-63000	INSTRUMENT AIR PACKAGE		
08	A-80000	FUEL CELL PACKAGE		
09	A-85000	BESS PACKAGE		
10	YLB-079001/2	LIFE RAFTS		
11	A-50000	WATER TREATMENT PACKAGE		

Tag No.	Equipment Tag	Description	Material	Ventilation Type
12	A-64000	NITROGEN SYSTEM		
13	B-100	HV SWITCHROOM 66kV/6.6kV		
14	B-200	LV SWITCHROOM 400V		
15	B-300	AC UPS EQUIPMENT ROOM		
16	B-400	I&T EQUIPMENT ROOM		
17	TR-100AD1	TRANSFORMER MAIN 66kV/6.6kV		
18	RR-100AD1-NER	NEUTRAL EARTHING RESISTOR		
19	TR-200DE1	TRANSFORMER AUX. 6.6kV/0.4kV		
20	TR-200ED1	SOLAR TRANSFORMER PV FARM EQUIPMENT		
21	X-99001	CRANE		
22	V-64001	NITROGEN RECEIVER		



NOTES

1. ALL DIMENSIONS IN mm U.N.O.
2. ALL ELEVATIONS IN METERS.
3. PLATFORM NORTH DIRECTION IS N 25°W.
4. VENT TOP SHALL BE REACHEABLE FOR MAINTENANCE PURPOSE.
5. THE BESS IS CONSIDERED SAFE AREA EXCEPT EXTRACTORES FROM BATTERIES , CURRENTLY NOT SHOWN IN DRAWINGS, SINCE INFORMATION FROM VENDOR IS NOT YET AVAILABLE.[ES17].
6. THE LOCATION OF EMISSION SOURCES ON THE LAYOUT ARE ONLY INDICATIVE. EMISSION SOURCES CONSIDERED ARE PRESENT WITHIN THE EXTENSION OF HAZARDOUS CLASSIFIED AREAS SHOWN ON THE LAYOUT. THIS IS BECAUSE VALVES AND FLANGES,WHICH ARE CONSIDERED POTENTIAL SOURCES OF RELEASE POINTS FOR FLAMMABLE GAS ARE NOT SHOWN ON CURRENT LAYOUT PROVIDED. THE SAME APPLIES TO THE EMISSION SOURCES FOR CPI'S ITEM.
7. IDENTIFIED EMISSION SOURCES DETAIL.

02
8. FOR DETAILS RELATED TO ELECTROLYSER PACKAGE INTERNAL ENCLOSURES REFER TO DRAWING 224J10-DDL-PP-DA-00001 REV 0.
9. FOR DETAILS RELATED TO FUELL CELL PACKAGE INTERNAL ENCLOSURES REFER TO DRAWING K559-2254-CWIWP4202202-B01-001 REV 009".
10. THE N.6 HYDROGEN STORAGE VESSELS ARE NOT CLASSIFIED INTERNALLY SINCE THEY ARE DESIGNED TO CONTAIN HYDROGEN OR NITROGEN FOR THE ENTIRE DURATION OF THE 2 YEARS OF OPERATION.

EMISSION SOURCE No.	IDENTIFIED AREAS
ES10	HYDROGEN STORAGE VESSLES
ES11	HYDROGEN VENT KO DRUM
ES16	FUEL CELL

LEGEND

ZONE 0 — ZONE 1

ZONE 2 — ES EMISSION SOURCES

123A90-DDL-PP-DS-70071	PLOT PLAN - BELOW LOWER DECK
123A90-DDL-PP-DS-70072	PLOT PLAN - ELEVATION LOOKING NORTH & EAST

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/01/25	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	27/08/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/02/24	MMA	CCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
HAZARDOUS AREA CLASSIFICATION
LOWER & UPPER DECK

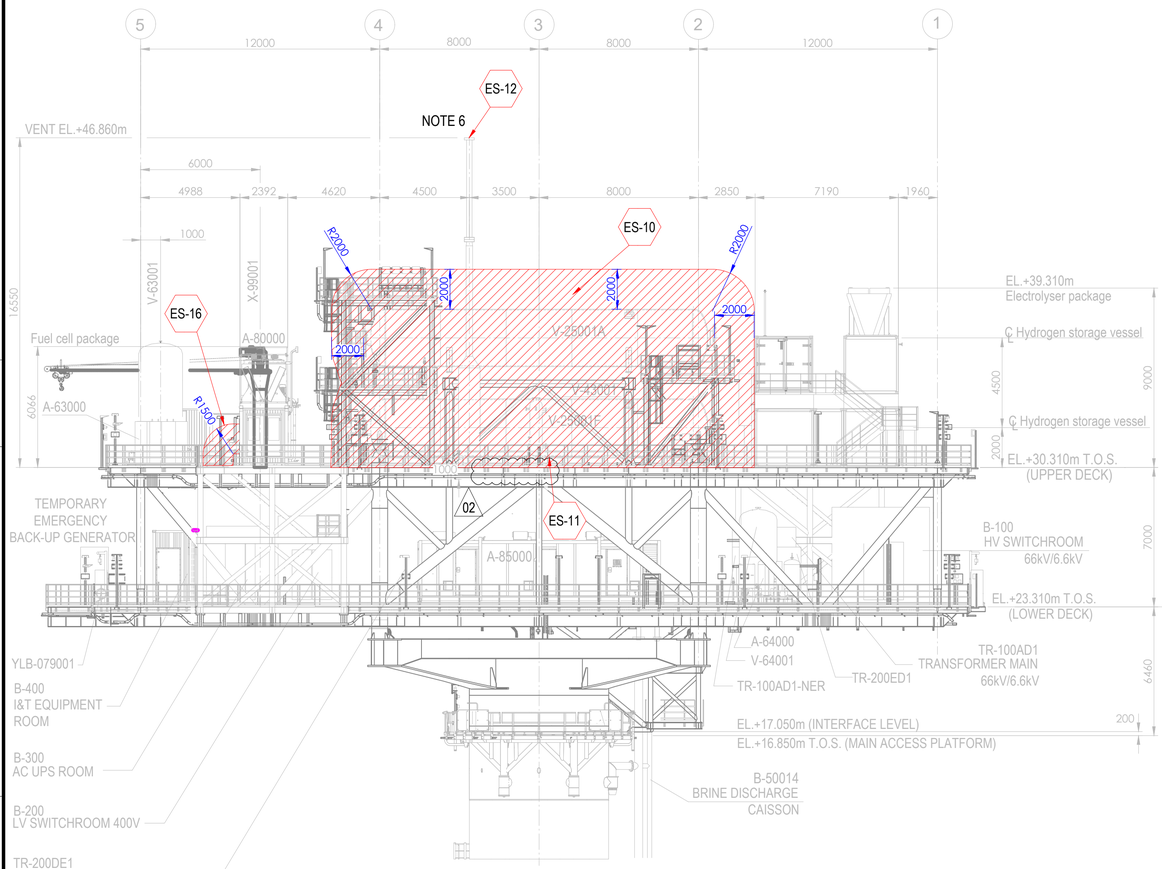
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN M. MAGNI	CHECKED C. CARACCIOLO	APPROVED D. LO STERZO	DATE 03/07/24

	DRAWING NO.	SHEET	REV.
A1	123A90-DDL-SAF-DL-30022	001	02

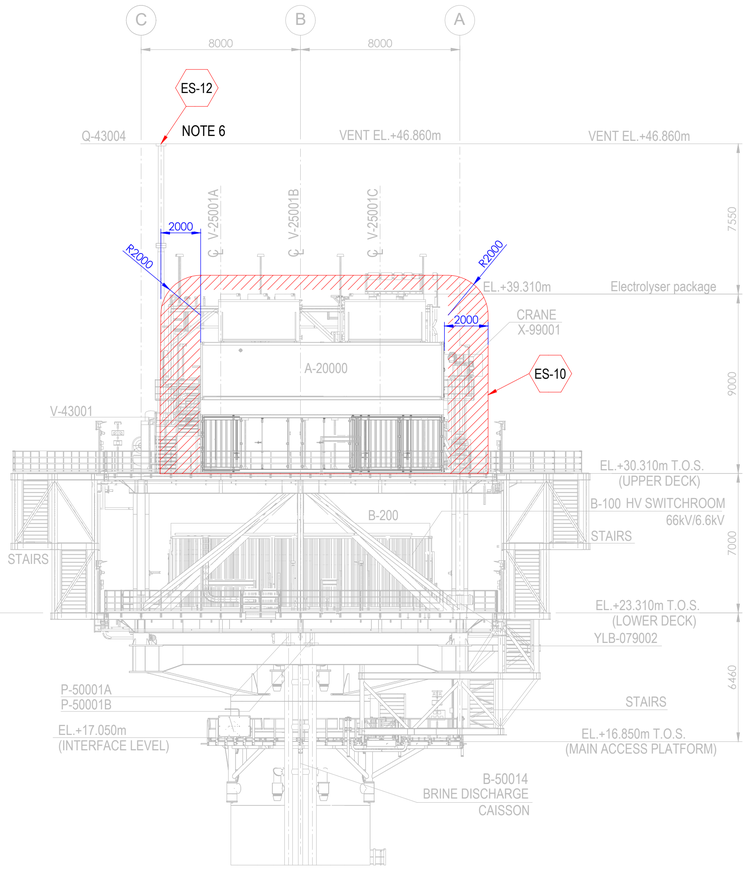
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DRAWING NO. 123A90-DDL-SAF-DL-30024

REV. 02

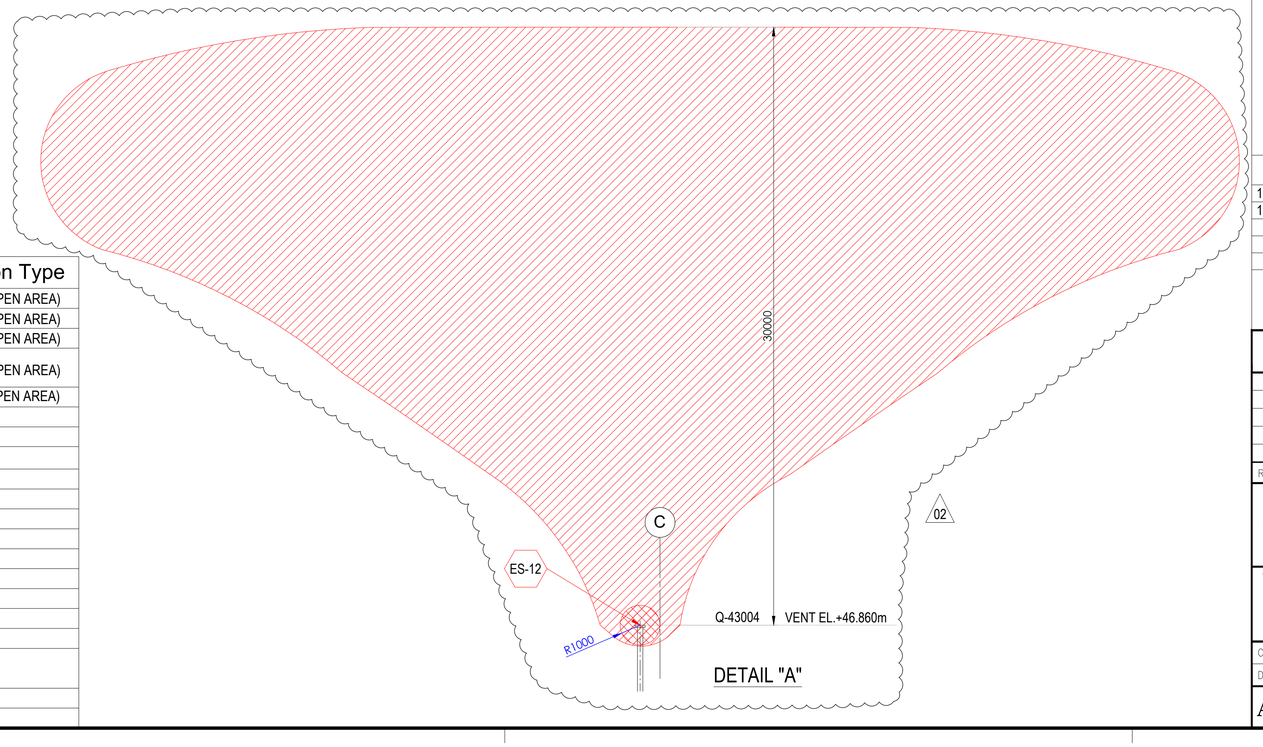


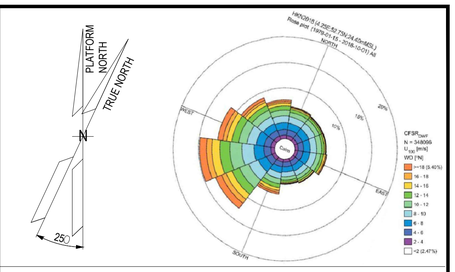
ELEVATION LOOKING EAST



ELEVATION LOOKING NORTH

Tag No.	Equipment Tag	Description	Material	Ventilation Type
01	P-50001 A/B	SEA WATER LIFT PUMPS	SEA WATER	NATURAL (OPEN AREA)
02	Q-43004	HYDROGEN VENT	HYDROGEN	NATURAL (OPEN AREA)
03	V-43001	HYDROGEN VENT KO DRUM	HYDROGEN	NATURAL (OPEN AREA)
04	V-25001 (A/B/C/D/E/F)	HYDROGEN STORAGE VESSELS	HYDROGEN	NATURAL (OPEN AREA)
05	V-63001	INSTRUMENT AIR RECEIVER	INSTRUMENT AIR	NATURAL (OPEN AREA)
06	A-20000	ELECTROLYSER PACKAGE		
07	A-63000	INSTRUMENT AIR PACKAGE		
08	A-80000	FUEL CELL PACKAGE		
09	A-85000	BESS PACKAGE		
10	YLB-079001/2	LIFE RAFTS		
11	B-100	HV SWITCHROOM 66kV/6.6kV		
12	B-200	LV SWITCHROOM 400V		
13	B-300	AC UPS EQUIPMENT ROOM		
14	B-400	I&T EQUIPMENT ROOM		
15	TR-100AD1	TRANSFORMER MAIN 66kV/6.6kV		
16	TR-100AD1-NER	NEUTRAL EARTHING RESISTOR		
17	TR-200DE1	TRANSFORMER AUX. 6.6kV/0.4kV		
18	TR-200ED1	SOLAR TRANSFORMER PV FARM EQUIPMENT		
19	X-99001	CRANE		
20	V-64001	NITROGEN RECEIVER		





NOTES

1. ALL DIMENSIONS IN mm U.N.O
2. ALL ELEVATIONS IN METERS.
3. PLATFORM NORTH DIRECTION IS N 25°W.
4. VENT TOP SHALL BE REACHEABLE FOR MAINTENANCE PURPOSE.
5. THE BESS IS CONSIDERED SAFE AREA EXCEPT EXTRACTORES FROM BATTERIES , CURRENTLY NOT SHOWN IN DRAWINGS, SINCE INFORMATION FROM VENDOR IS NOT YET AVAILABLE.[ES17]
6. FOR ES12 PLUME, PLEASE REFER TO THE DETAIL "A" BELOW. (02)
7. THE LOCATION OF EMISSION SOURCES ON THE LAYOUT ARE ONLY INDICATIVE. EMISSION SOURCES CONSIDERED ARE PRESENT WITHIN THE EXTENSION OF HAZARDOUS CLASSIFIED AREAS SHOWN ON THE LAYOUT. THIS IS BECAUSE VALVES AND FLANGES,WHICH ARE CONSIDERED POTENTIAL SOURCES OF RELEASE POINTS FOR FLAMMABLE GAS ARE NOT SHOWN ON CURRENT LAYOUT PROVIDED. THE SAME APPLIES TO THE EMISSION SOURCES FOR CPI'S ITEM.
8. IDENTIFIED EMISSION SOURCES DETAIL

EMISSION SOURCE No.	IDENTIFIED AREAS
ES10	HYDROGEN STORAGE VESSLES
ES11	HYDROGEN VENT KO DRUM
ES12	HYDROGEN VENT
ES16	FUEL CELL

LEGEND

ZONE 0 — ZONE 1

ZONE 2 — ES EMISSION SOURCES

REFERENCE DOCUMENTS

123A90-DDL-PP-DS-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-PP-DS-70071	PLOT PLAN - BELOW LOWER DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/01/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	27/08/24	MMA	CCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/02/24	MMA	CCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
HAZARDOUS AREA CLASSIFICATION
ELEVATION LOOKING NORTH & EAST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN M. MAGNI	CHECKED C. CARACCIOLO	APPROVED D. LO STERZO	DATE 03/07/24

A1 | DRAWING NO. 123A90-DDL-SAF-DL-30024 | SHEET 001 | REV. 02

File Name : 123A90-DDL-SAF-DL-30024 Rev.02

Section 6 MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC & discipline : I

Instrumental	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-PT-003	Pressure Transmitter - Instrument Air to Distribution Header	ONSHORE	C10000947	TJX04	100	2024-10-14	RFC 2
63-PT-004	Pressure Transmitter - Instrument Air to Distribution Header Low Pressure	ONSHORE	C10000948	TJX04	100	2024-10-14	RFC 2
AV-63001	Air Distribution Pot 1	ONSHORE	C10002000	CJX00	100	2025-01-30	RFC 2
AV-63002	Air Distribution Pot 2	ONSHORE	C10002004	CJX00	100	2025-01-30	RFC 2
AV-63003	Air Distribution Pot 3	ONSHORE	C10002005	CJX00	100	2025-02-12	RFC 2
AV-63004	Air Distribution Pot 4	ONSHORE	C10002006	CJX00	100	2025-02-17	RFC 2
AV-63005	Air Distribution Pot 5	ONSHORE	C10002007	CJX00	100	2025-01-28	RFC 2
AV-63006	Air Distribution Pot 6	ONSHORE	C10002008	CJX00	100	2025-02-17	RFC 2
AV-63007	Air Distribution Pot 7	ONSHORE	C10002009	CJX00	100	2025-02-12	RFC 2
AV-63008	Air Distribution Pot 8	ONSHORE	C10002010	CJX00	100	2025-02-04	RFC 2
AV-63009	Air Distribution Pot 9	ONSHORE	C10002011	CJX00	100	2025-02-17	RFC 2
AV-63010	Air Distribution Pot 10	ONSHORE	C10002001	CJX00	100	2025-01-30	RFC 2
AV-63011	Air Distribution Pot 11	ONSHORE	C10002002	CJX00	100	2025-02-12	RFC 2
AV-63012	Air Distribution Pot 12	ONSHORE	C10002003	CJX00	100	2025-02-17	RFC 2
C-63-PT-003/B400-PCS-002	PRESSURE TRANSMITTER / MARSHALLING PCS	ONSHORE	C10000129	CJX10	100	2025-01-25	RFC 2
C-63-PT-004/B400-SIS-001	PRESSURE TRANSMITTER / MARSHALLING PCS	ONSHORE	C10000179	CJX10	100	2025-01-22	RFC 2

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-63-PT-003/B400-PCS-002	: PRESSURE TRANSMITTER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	63-30	: Instrument Air Distribution Network	Module	UD/LD_B-400		
TASK	code	C10000129	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	1X2X0,75 mm2	Color	GREY
From	63-PT-003	To	B400-PCS-002		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	PL
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0,7	Ω
	SCREEN		0,7	Ω
	EARTH		NA	Ω
	ARMr		0,7	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

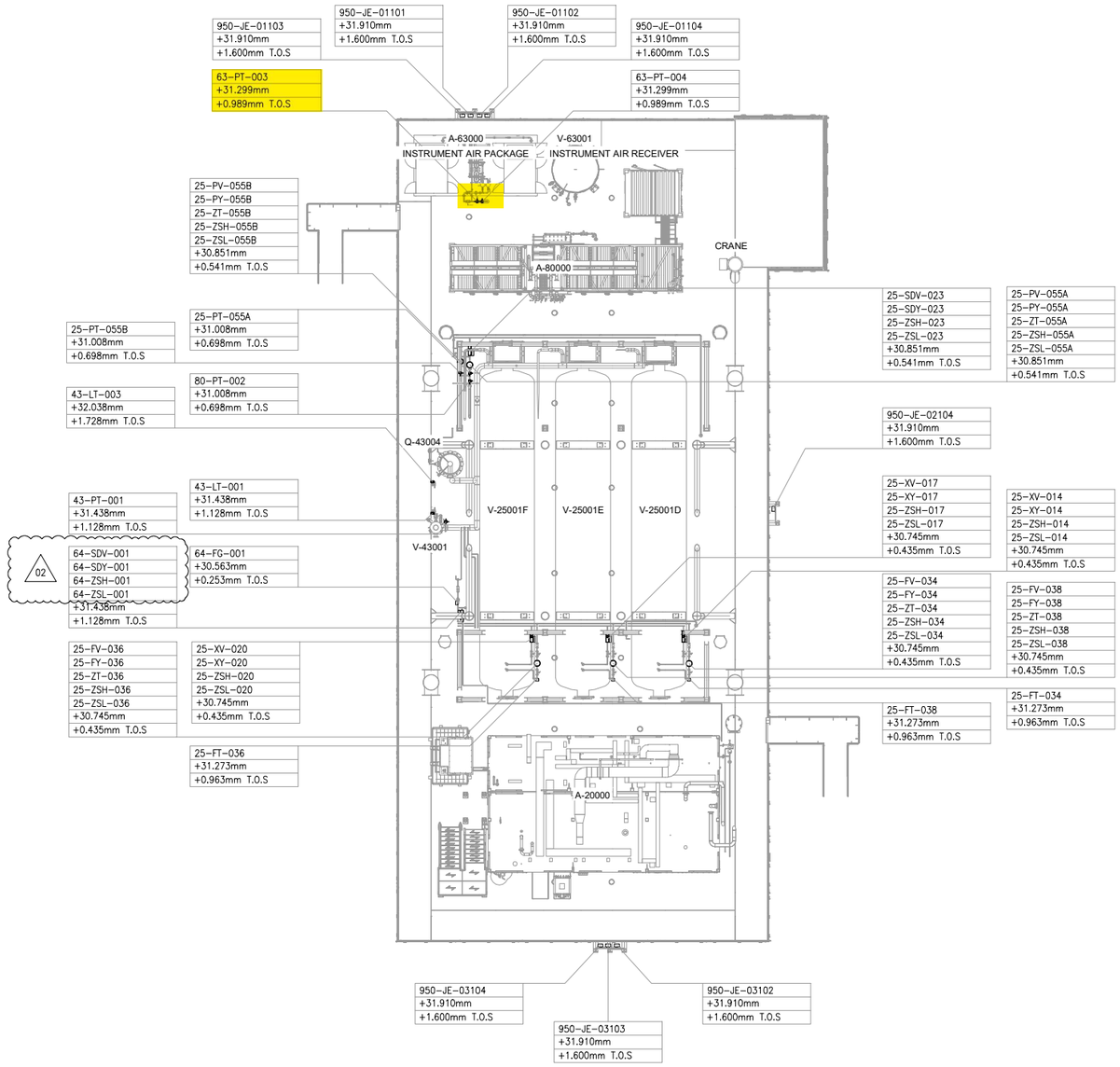
TYPE / SERIAL N°: MULTIMETRO SIN-STRU-017 S/N:H240103023 Calibration date: 12/10/2024

Comments Nota 5: refer to PL C30000680/C30000682

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-01-17	2025-01-25	
Signature	Digitaly signed by Michele Tartaglia 2025-01-17T15:09:01.193Z	Digitaly signed by Giovanni Tangianu 2025-01-25T11:41:02.899Z	

DRAWING NO. 123A90-DDL-IN-DL-40081

REV. 01

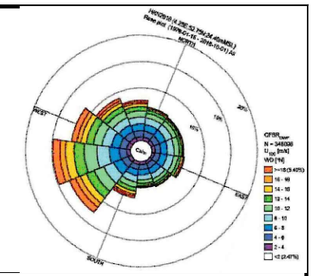


UPPER DECK

SCALE: 1:100

VIEW EL. 29310mm to 33740mm





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR INSTRUMENT LOCATION LAYOUT.

LEGEND

- INSTRUMENT JUNCTION BOX
- ELECTRONIC INSTRUMENT
- CONTROL / ON-OFF VALVE

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40080	INSTRUMENT LAYOUT - LOWER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	22/12/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40081**

REV.:	DATE:	SIGNATURE:
2_A	07/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT LOCATION LAYOUT–UPPER DECK
TOS EL. 30.310M

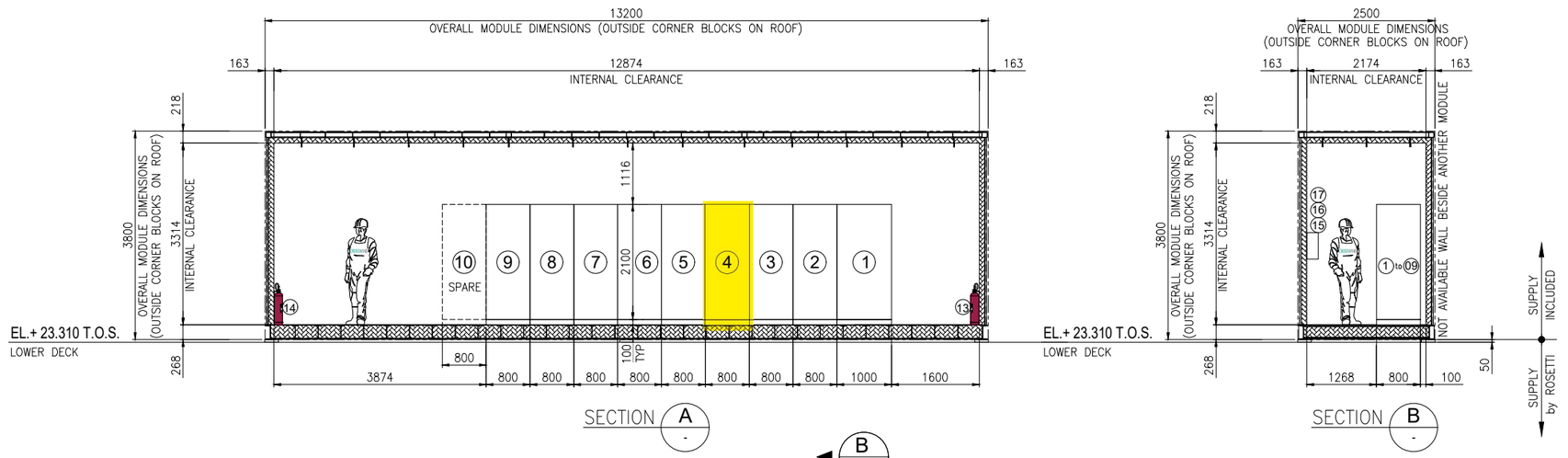
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DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

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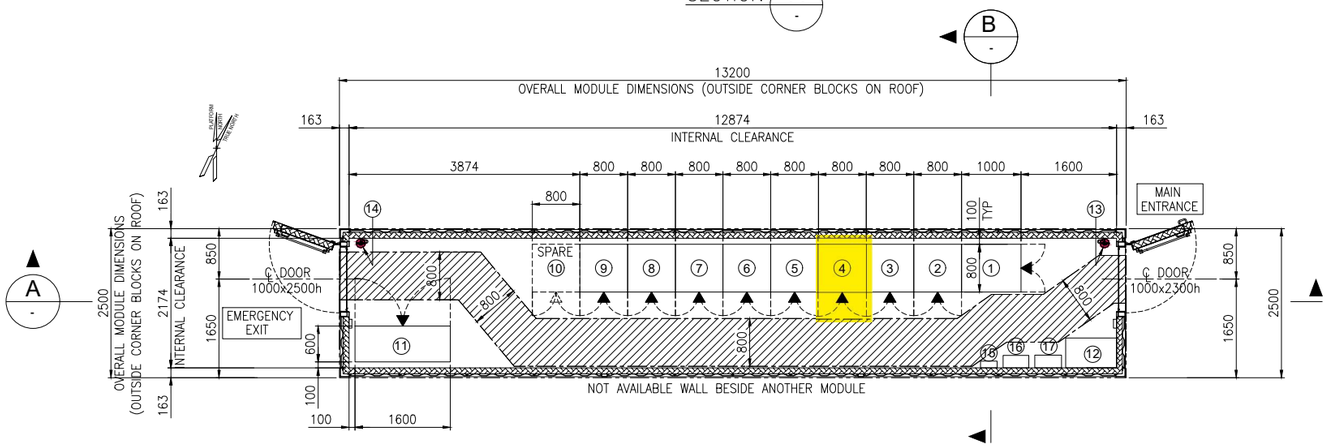
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REV. 03



SECTION A -

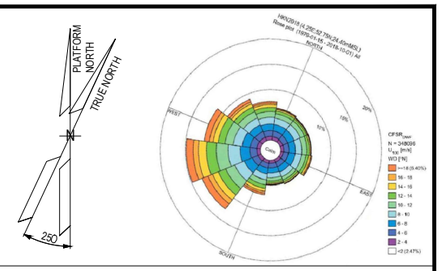
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

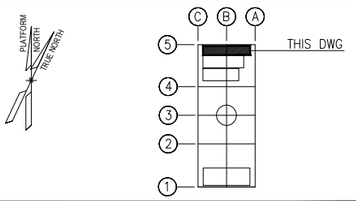
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
OFF-SHORE ITER
EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:33,3
DRAWN MGA	CHECKED LCA	APPROVED DLO	DATE 27/05/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40012	SHEET 001	REV. 03

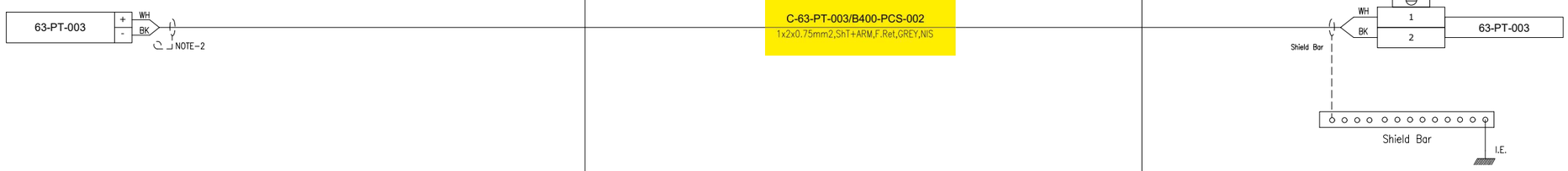
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DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
INSTRUMENTS	CABLE NO	MARSHALLING CABINET B400-PCS-002

<01>



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_G	06/12/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
63-PT-003

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

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	123A90-DDL-IN-DG-40015	011	01

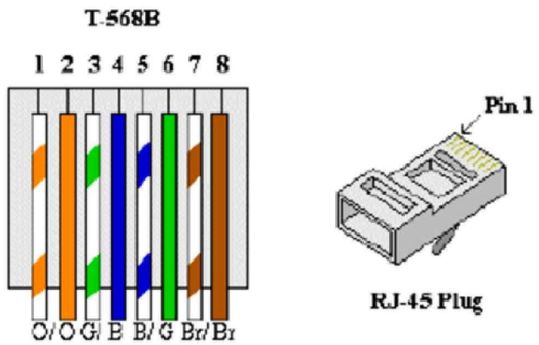
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DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. SWITCH TAG NAME AND PORT WILL BE DEFINED DURING THE CONSTRUCTION PHASE
6. FOR OPTICAL FIBERS, USE THE FOLLOWING COLOR CODING:
   - 01- RED
   - 02- GREEN
   - 03- BLUE
   - 04- YELLOW
   - 05- GREY
   - 06- PURPLE
   - 07- BROWN
   - 08- ORANGE
   - 09- WHITE
   - 10- PINK
   - 11- BLACK
   - 12- TURQUOISE
7. CAT.6A CABLE SHALL BE TERMINATED MEETING REQUIREMENTS OF STANDARD EIA/TIA 568B:



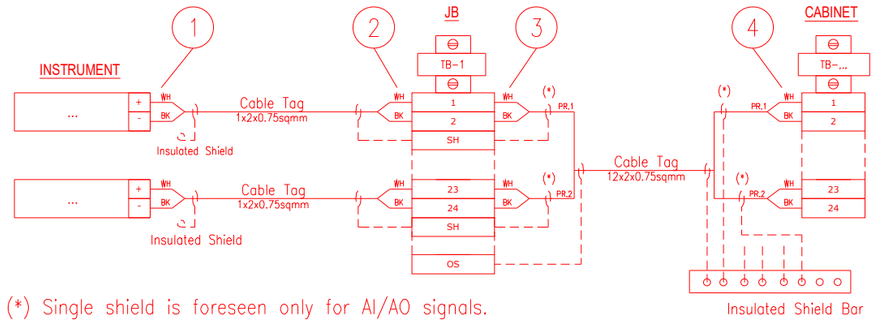
8. FOR INTRISICALLY SAFE CIRCUIT USE LIGHT BLUE CABLE OR ALTERNATIVELY ORANGE CABLE WITH HEAT SHRINKABLE SLEEVE BLUE AT BOTH END (SEE DOC. 123A90-FDL-IN-DD-40017).

LEGENDS & SYMBOLS:

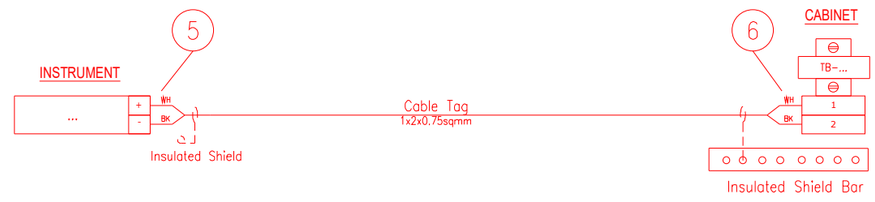
I.E.	- GREEN ⟶ INSTRUMENT SIGNAL EARTH
P.E.	- GREEN / YELLOW ⟶ P.E. EARTH / BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS

PHILOSOPHY OF CROSS-FERRULING:

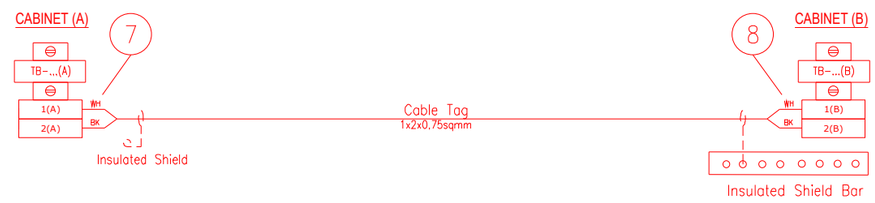
INSTRUMENT CONNECTION THROUGH MARSHALLING JB TO CABINET



INSTRUMENT CONNECTION STRAIGHT TO CABINET



CABINET CONNECTION TO CABINET



1 - INSTR. TERMINAL NO. OR POLARITY / JB TAG / JB TERMINAL NO.
2 - INSTR. TERMINAL NO. OR POLARITY / INSTR. TAG / JB TERMINAL NO.
3 - JB TERMINAL NO. / JB TERMINAL STRIP / CABINET TERMINAL STRIP / PAIR OR CORE NO.
4 - PAIR OR CORE NO. / JB TAG / JB TERMINAL NO. / CABINET TERMINAL STRIP / CABINET TERMINAL NO.
5 - INSTR. TERMINAL NO. OR POLARITY / CABINET TAG / CABINET TERMINAL STRIP / CABINET TERMINAL NO.
6 - INSTR. TERMINAL NO. OR POLARITY / INSTR. TAG / CABINET TERMINAL STRIP/ CABINET TERMINAL NO.
7 - TERMINAL NO. (A) / TERMINAL STRIP (A) / CABINET TAG (B) / CABINET TERMINAL NO. (B) / PAIR OR CORE NO.
8 - PAIR OR CORE NO. / CABINET TERMINAL NO. (A) / CABINET TAG (A) / TERMINAL STRIP (B) / TERMINAL NO. (B)

NOTES: A - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
HEAT SHRINKABLE BLUE FOR SHIELD OF IS INSTRUMENT CABLE.
B - ABOVE DESCRIBED PHILOSOPHY IS INTENDED FOR CONNECTION AS REPRESENTED:
IN CASE OF CONNECTION FROM THE OPPOSITE SIDE, ORDER OF FERULE TAG SHALL BE MIRRORED.
C - SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO SHIELDS TERMINATED ON TERMINAL STRIP.

REFERENCE DRAWINGS:

PIPING AND INSTRUMENT DIAGRAM 123A90-DDL-PR-PID-80009
INSTRUMENT INDEX 123A90-DDL-IN-LIS-40088
F&G DETECTORS LAYOUT 123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_G	06/12/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

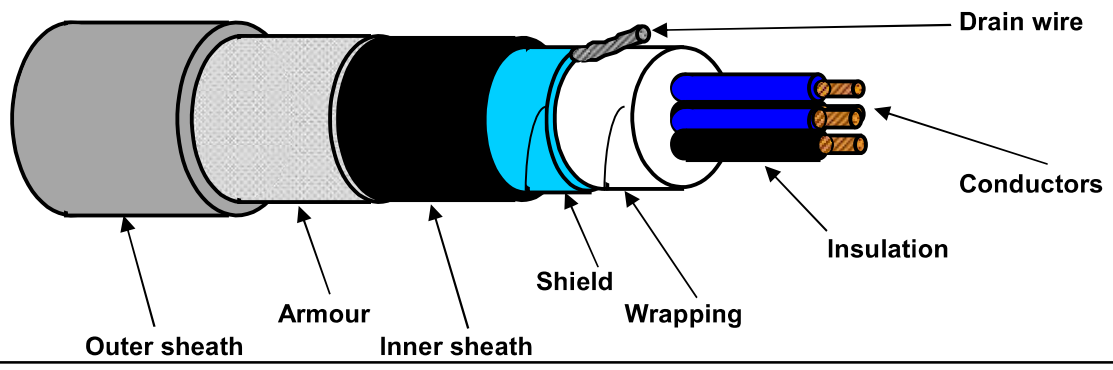
A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-IN-DG-40015	003	01

File Name : 123A90-DDL-IN-DG-40015_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Star	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-63-PT-003/B400-PCS-002	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						63-PT-003	Pressure Transmitter	Upper Deck	B400-PCS-002	Marshalling PCS	Lower Deck (B-400)	SMICV01-1X2X0,75	Cable Cu Cl.2/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 1x2x0,75mm² - Grey	M20S	T2_M20S_Double			T2_M20S_Double				I-MCT-U03 / L-SEC-3 / L-SEC-1A / B-400-SEC-1A / B-400-SEC-1B / I-MCT-401

Cu Cl.2/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

1X2X0,75 - INSTRUMENT CABLE - Flame Retardant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	XLPE, Nominal Thickness 0,5 mm	
Cores colour code :	**White - Black**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	13/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,0 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,1 mm	
Outer sheath color code:	**Grey**	
Outer printing (INKJET) :	**FLEI - 1X2X0,75 SQMM - XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60332.1.2 - IEC 60332.3.22 -**	
(every 1000 mm)	**Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(6,5 ± 10%) mm	
Over armour diameter :	(7,3 ± 10%) mm	
Outer diameter :	(9,5 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 26 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Mutual Capacitance :	≤ 150 nF/km	
L/R ratio :	≤ 25 µH/Ω	
Inductance :	≤ 0,9 mH/km	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-63-PT-004/B400-SIS-001	: PRESSURE TRANSMITTER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	63-30	: Instrument Air Distribution Network	Module	UD/LD_B-400		
TASK	code	C10000179	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	1X2X0,75 mm2	Color	ORANGE
From	63-PT-004	To	B400-SIS-001		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	PL
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0,6	Ω
	SCREEN		0,6	Ω
	EARTH		NA	Ω
	ARMr		0,6	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

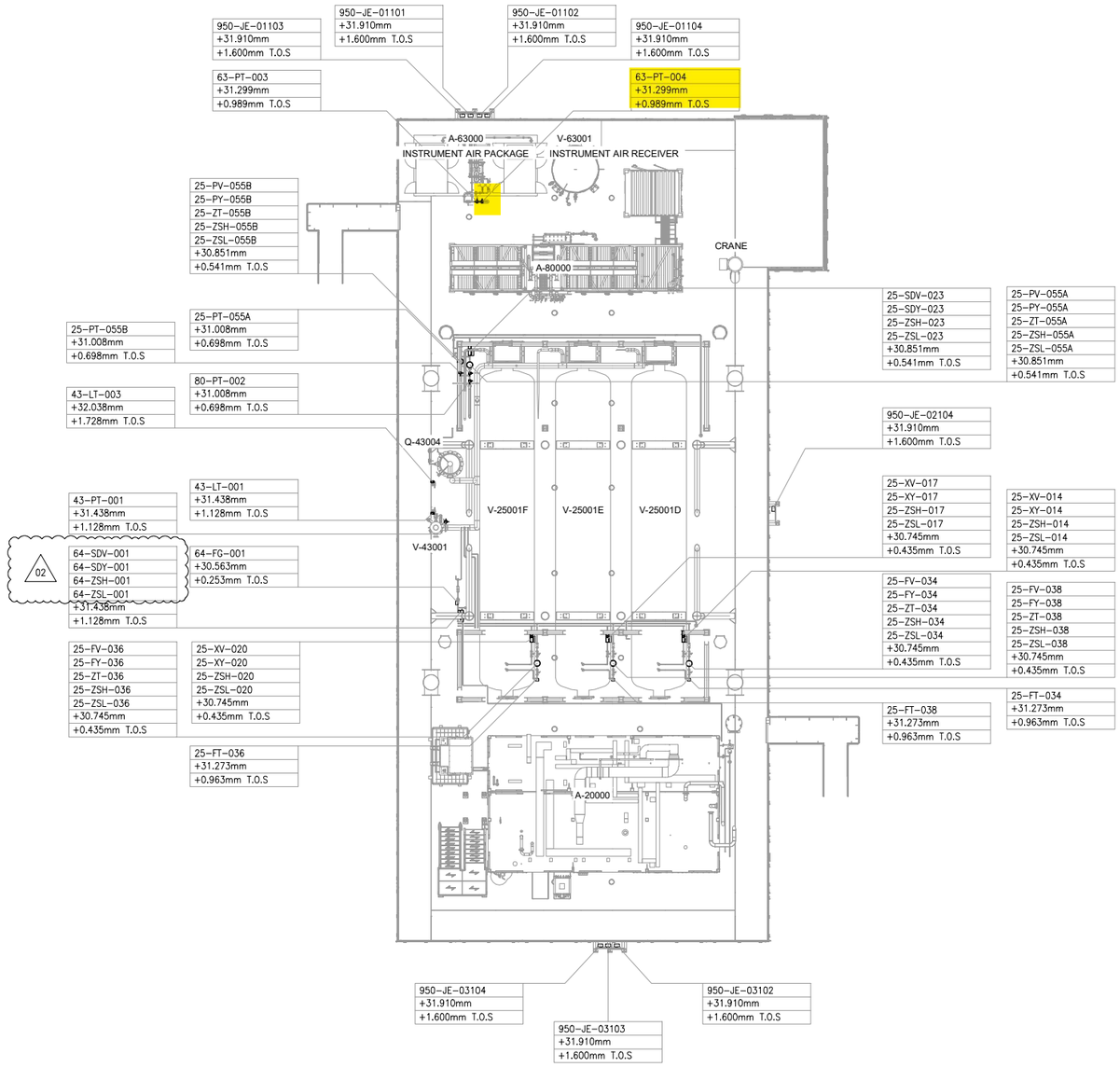
TYPE / SERIAL N°: MULTIMETRO SIN-STRU-017 S/N:H240103023 Calibration date: 12/10/2024

Comments Nota 5: refer to PL C30000680/C30000682

Page 1/1	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-01-17	2025-01-22	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-01-17T15:09:17.864Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-01-22T12:18:50.904Z	

DRAWING NO. 123A90-DDL-IN-DL-40081

REV. 01

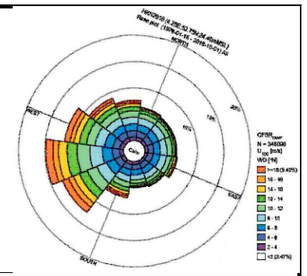


UPPER DECK

SCALE: 1:100

VIEW EL. 29310mm to 33740mm





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR INSTRUMENT LOCATION LAYOUT.

LEGEND

- INSTRUMENT JUNCTION BOX
- ELECTRONIC INSTRUMENT
- CONTROL / ON-OFF VALVE

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40080	INSTRUMENT LAYOUT - LOWER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	22/12/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40081**

REV.:	DATE:	SIGNATURE:
2_A	07/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT LOCATION LAYOUT–UPPER DECK
TOS EL. 30.310M

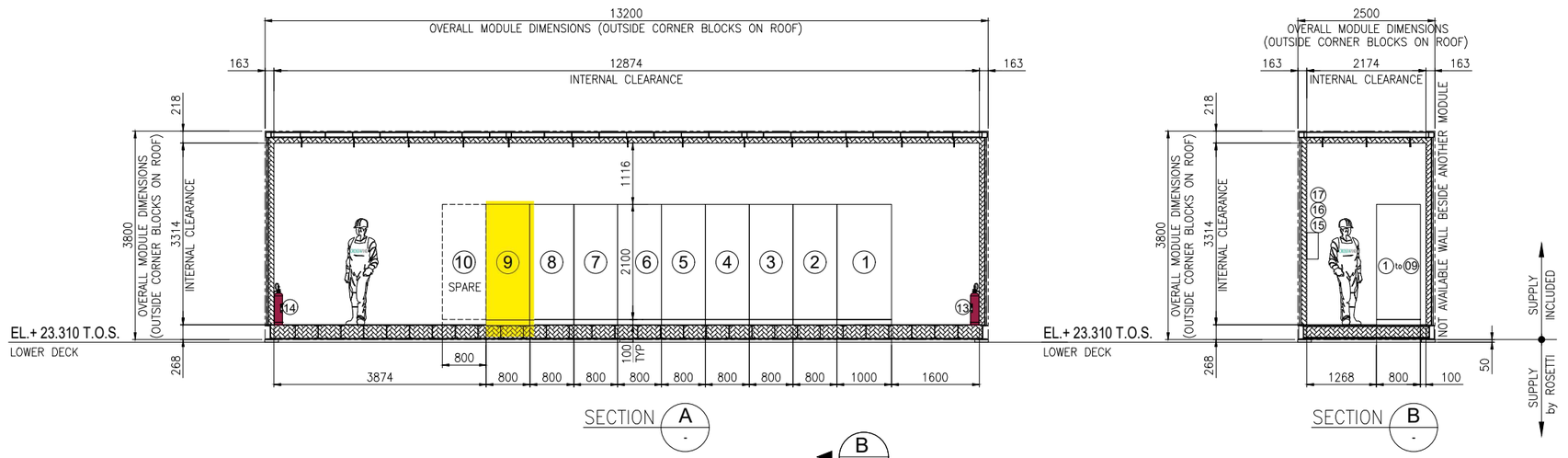
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40081	SHEET 001	REV. 02

File Name : 123A90-DDL-IN-DL-40081 REV01.dwg

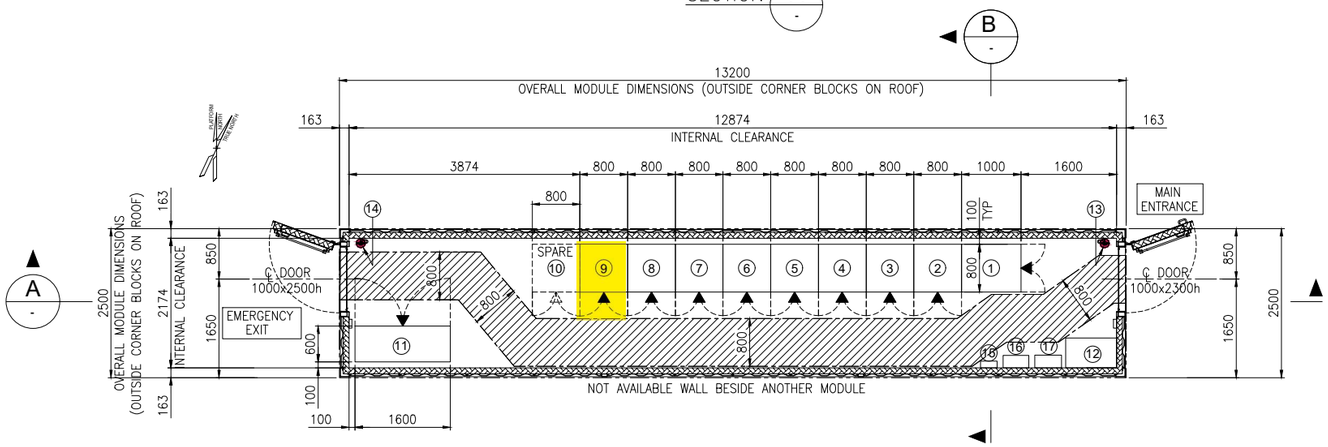
DRAWING NO. 123A90-DDL-IN-DL-40012

REV. 03



SECTION A -

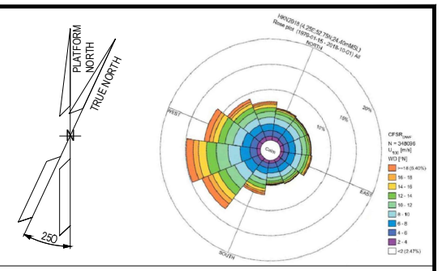
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

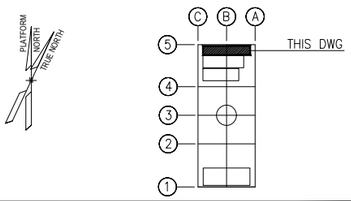
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
OFF-SHORE ITER
EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:33,3
DRAWN MGA	CHECKED LCA	APPROVED DLO	DATE 27/05/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40012	SHEET 001	REV. 03

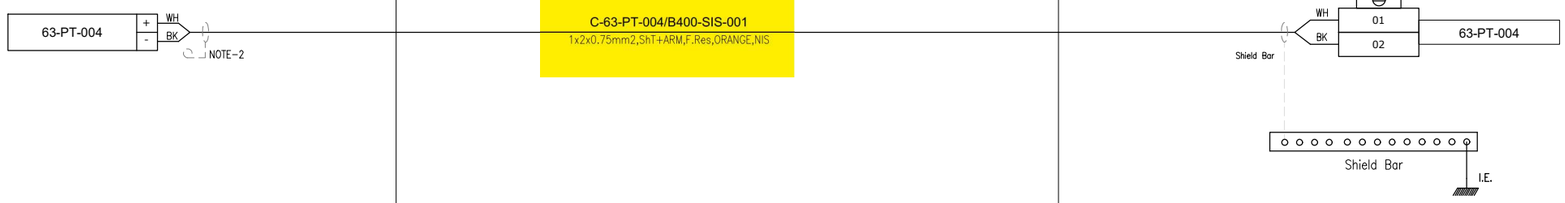
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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
INSTRUMENTS	CABLE NO	MARSHALLING CABINET B400-SIS-001

<01>



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_O	08/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT– SAFETY SYSTEM WIRING DIAGRAMS
63–PT–004

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 007	REV. 01

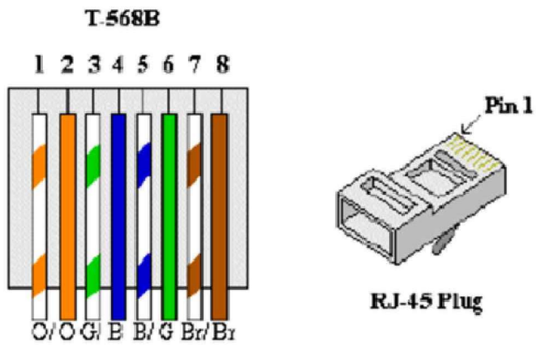
File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
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6. FOR OPTICAL FIBERS, USE THE FOLLOWING COLOR CODING:
   - 01- RED
   - 02- GREEN
   - 03- BLUE
   - 04- YELLOW
   - 05- GREY
   - 06- PURPLE
   - 07- BROWN
   - 08- ORANGE
   - 09- WHITE
   - 10- PINK
   - 11- BLACK
   - 12- TURQUOISE
7. CAT.6A CABLE SHALL BE TERMINATED MEETING REQUIREMENTS OF STANDARD EIA/TIA 568B:



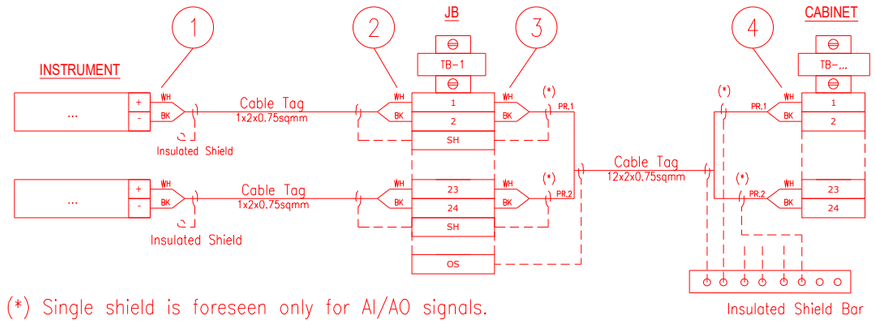
8. FOR INTRISICALLY SAFE CIRCUIT USE LIGHT BLUE CABLE OR ALTERNATIVELY ORANGE CABLE WITH HEAT SHRINKABLE SLEEVE BLUE AT BOTH END (SEE DOC. 123A90-FDL-IN-DD-40017).

LEGENDS & SYMBOLS:

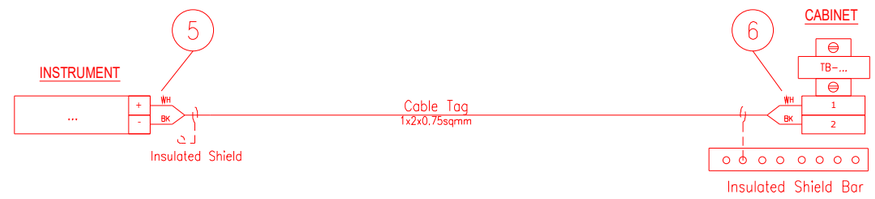
I.E.	- GREEN ⟶ INSTRUMENT SIGNAL EARTH
P.E.	- GREEN / YELLOW ⟶ P.E. EARTH / BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS

PHILOSOPHY OF CROSS-FERRULING:

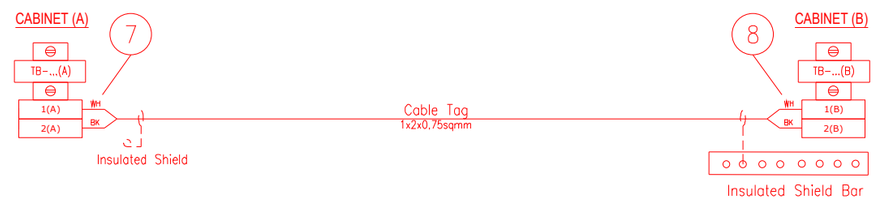
INSTRUMENT CONNECTION THROUGH MARSHALLING JB TO CABINET



INSTRUMENT CONNECTION STRAIGHT TO CABINET



CABINET CONNECTION TO CABINET



1 - INSTR. TERMINAL NO. OR POLARITY / JB TAG / JB TERMINAL NO.
2 - INSTR. TERMINAL NO. OR POLARITY / INSTR. TAG / JB TERMINAL NO.
3 - JB TERMINAL NO. / JB TERMINAL STRIP / CABINET TERMINAL STRIP / PAIR OR CORE NO.
4 - PAIR OR CORE NO. / JB TAG / JB TERMINAL NO. / CABINET TERMINAL STRIP / CABINET TERMINAL NO.
5 - INSTR. TERMINAL NO. OR POLARITY / CABINET TAG / CABINET TERMINAL STRIP / CABINET TERMINAL NO.
6 - INSTR. TERMINAL NO. OR POLARITY / INSTR. TAG / CABINET TERMINAL STRIP/ CABINET TERMINAL NO.
7 - TERMINAL NO. (A) / TERMINAL STRIP (A) / CABINET TAG (B) / CABINET TERMINAL NO. (B) / PAIR OR CORE NO.
8 - PAIR OR CORE NO. / CABINET TERMINAL NO. (A) / CABINET TAG (A) / TERMINAL STRIP (B) / TERMINAL NO. (B)

NOTES: A - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
HEAT SHRINKABLE BLUE FOR SHIELD OF IS INSTRUMENT CABLE.
B - ABOVE DESCRIBED PHILOSOPHY IS INTENDED FOR CONNECTION AS REPRESENTED:
IN CASE OF CONNECTION FROM THE OPPOSITE SIDE, ORDER OF FERULE TAG SHALL BE MIRRORED.
C - SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO SHIELDS TERMINATED ON TERMINAL STRIP.

REFERENCE DRAWINGS:

PIPING AND INSTRUMENT DIAGRAM 123A90-DDL-PR-PID-80009
INSTRUMENT INDEX 123A90-DDL-IN-LIS-40088
F&G DETECTORS LAYOUT 123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_O	08/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

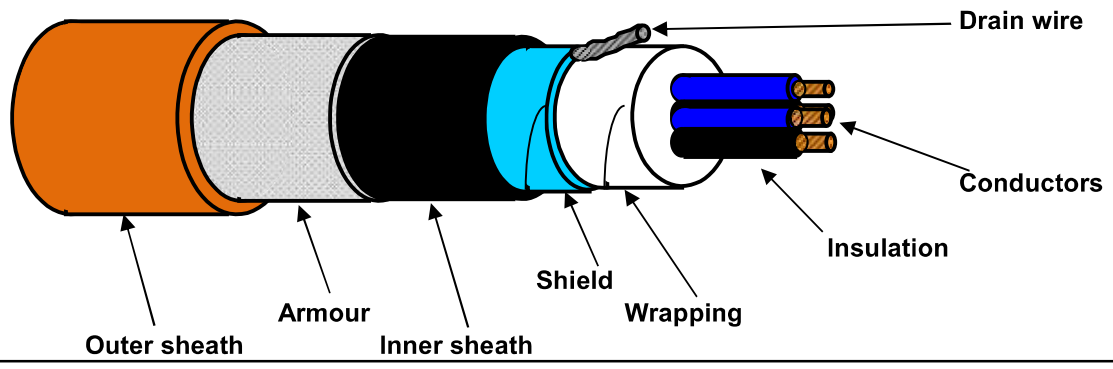
	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40015	003	01

File Name : 123A90-DDL-IN-DG-40015_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Stan	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-63-PT-004/B400-SIS-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						63-PT-004	Pressure Transmitter	Upper Deck	B400-SIS-001	Marshalling SIS	Lower Deck (B-400)	SMICV08-1X2X0,75	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 1x2x0,75mm² - Orange	M20S	T2_M20S_Double			n.a.				I-MCT-U03 / L-SEC-3 / L-SEC-1A / B-400-SEC-1A / I-MCT-401

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

1X2X0,75 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,5 mm	
Cores colour code :	**White - Black**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	10/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant, Average Thickness 1,2 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 1X2X0,75 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(8,5 ± 10%) mm	
Over armour diameter :	(9,3 ± 10%) mm	
Outer diameter :	(11,7 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 26 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Mutual Capacitance :	≤ 150 nF/km	
L/R ratio :	≤ 25 µH/Ω	
Inductance :	≤ 0,9 mH/km	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided herein are meant for the transaction will be used in the sense of the article 19 of the Regulation (UE) 2016/679, also by such subjects in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.
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ITEM	Tag	63-PT-003	: Pressure Transmitter - Instrument Air to Distribution Header		Dwg	123A90-DDL-IN-DS-40039	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	UD	
TASK	code	C10000947	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity STS	Discipline Instrumental	Form	TJX04	Analogue O/P

DATA

VENDOR CALIBRATION MANUAL N° 1724000979-QC-PRO-00005

CALIBRATION/TEST PROCEDURE N° : 123A90-QHSE-PRO-00122

MODEL N° :	SST76_Series	SERIAL N° :	SE240652
DATA SHEET N° :	1724000979-IN-DS-00004	Rev :	3
TEST EQUIPMENT :		SERIAL N° :	

Instruments calibration is not required prior to the installation, as long as Manufacturer's calibration certificate is provided and transportation or storage conditions have not corrupted the instrument.

Manufacturer's calibration certificate is valid, not expired and attached to this check sheet

Following section must be filled only if certificate is not valid or missing

See Attached

TEST DETAILS
CALIBRATION FIGURES

CALIBRATION POINTS	RISING	FALLING	UNITS
INPUT A			
INPUT B *			
INPUT C *			
OUTPUT			

* NOTE : COMPLETE IF APPLICABLE

TESTED LABEL AFFIXED

DATA SHEET ATTACHED

If required produce Red Line Mark Up for "AS BUILT"

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-14	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-14T13:36:45.596Z	Firma Digitale Sicura Giovanni Tangianu 2024-10-14T18:00:01+0200	

ABR SERVICE S.r.l.
Via Manlio Monti, 40 – 48123 RAVENNA
Tel. +39 0544 685411 info@abrservice.net
C.F. Part. IVA 02764420390

Plant	CROSSWIND	Description	IA FROM PACKAGE A-63000 TO AIR DISTR. HEADER		
Area	N.P.	Loop Tag	63-PI-003	Instrument Tag	63-PT-003
Type of verification	periodic	Calibration range	0,00 ÷ 11,00 bar	Report N°	021
Type of instrument	Pressure meter	Max uncertainty required	± 0,070 % s.r.	Reference procedure data sheet	123A90-PML-QHSE-PRO-00122 Page N°8

UNDER EXAMINATION INSTRUMENT 'S DATA

Tag	Manufacture	Model	S/N
63-PT-003	SPRIANO	SST76	SE240652

USED REFERENCE SAMPLE 'S DATA

Manufacture	Model	S/N	n° of certification and calibration center	uncertainty (u.m.)	Date of issue
BEAMEX	MC5-IS	20177766	0640/MP/2024 _LAT 150	± 0,001 c.s.	24/04/2024
Digital pressure gauge				± 0,001 c.s.	24/04/2024

environment temperature at the time of check 25 °C

Value indicated before starting the check 0 bar

CHECK RESULT: *as found*

Verification functionality loop check

Generated value	Expected value	Read value	Error	Error % on s.r.
bar	mA	mA	mA	
0,00	4,000	4,000	+0,000	+0,000
2,75	8,000	8,003	+0,002	+0,016
5,50	12,000	11,997	-0,003	-0,019
8,25	16,000	16,000	+0,000	+0,000
11,00	20,000	19,997	-0,003	-0,021
8,25	16,000	15,999	-0,001	-0,009
5,50	12,000	11,996	-0,004	-0,024
2,75	8,000	8,002	+0,002	+0,013
0,00	4,000	4,001	+0,001	+0,006
		max error detected %		0,024

Check: PASSED

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
bar					

Blocks/alarms check:

Corrective action

CHECK RESULT: *as left*

Verification functionality loop check

Generated value	Expected value	Read value	Error	Error % on s.r.
bar	mA	mA	mA	
		errore massimo rilevato %		0,00

Check:

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
bar	DESCENT				

Blocks/alarms check:

Value indicated after the check 0 bar

Note:

FINAL OUTCOME OF THE VERIFICATION: *The instrument is SUITABLE*

Verification Date	Verification Expiration	Technical Executor	Viewed	Approved by
18/09/2024	09/2025	PENSO SILVIO		
		signature	*signature*	*signature*

ABR SERVICE srl
Via M. Monti, 40 - 48123 RAVENNA
Tel. 0544 685411
C.F. e P.IVA 02764420390

GENERAL	1	Tag Number			63-PT-003	
	2	Service			IA FROM PACKAGE A-63000 TO AIR DISTR.HEADER	
	3	P&ID Number	Location		123A90-DDL-PR-PID-80027	1-1/2"-IA-108-01SS-N
	4	Function			PRESSURE MEASUREMENT	
	5	Mounting			DIRECT ON-LINE	
	6	Area Classification			ATEX Zone2 - IIC (IIB+H2) T1	
	7	Ambient Temperature			Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.	
PROCESS CONDITIONS	8	Fluid			INSTRUMENT AIR	
	9	Pressure Des.	Oper.	[barg]	11	4(Min.) / 10(Max)
	10	Temperature Des.	Oper.	[°C]	100	AMB
	11	Oper. Spec. Gravity	Oper. Viscosity		-	-
	12	Flow Rate	Allowable Temp.		-	-
TRANSMITTER	13	Instrument Range Min.	Max.	[barg]	0	30
	14	Calibration Range Min.	Max.	[barg]	0	11
	15	Elevation	Suppression		-	-
	16	Element Type			Diaphragm	
	17	Element Material			SS AISI 316/316L	
	18	Body Material	Body Rating		AISI 316 SS	150 bar
	19	Process Connection			1/2” NPT-M	
	20	Wetted O-Rings Material			-	
	21	Fill Fluid			-	
	22	Bolts	Housing		Manifold/Instrument assembly	SS AISI 316/316L
	23	Paint			N/A	
	24	ATEX Certification	Ingress Protection		ATEX Ex II 2G Ex db IIC T5	IP66
	25	Process Connection	Electrical Connection		1/2” NPT-M	2 X M20X1.5
	26	Accuracy			0.07% of Nominal Range	
	27	SIL Certification	PED Certification		-	Required
DIAPHRAGM SEAL	28	Process Connection & Rating			-	
	29	Diaphragm Material	Housing Material		-	-
	30	Fill Fluid	Capillary Material		-	-
	31	Capillary Type	Capillary Length		-	-
	32	Flushing Connection			-	
OPTIONS	33	Integral Meter	Scale		Required	-
	34	Hydrostatic Testing	Cleaning		Required	-
	35	Mounting Brackets	Manifold Model No		Required	MAN2-R6
	36	Lightning Protection	Barrier Manuf./Model		-	-
COMMUNICATION AND SOFTWARE	37	Communication Type	Signal Type		HART 6	4-20mA Loop Powered 24 Vdc
	38	D D Revision	CFF Revision		-	-
	39	Device Tag	Hart Tag		-	-
	40	Internal Diagnostics	Capacitance		-	-
	41	Segment	Device Address		-	-
	42	Device Class	Simulate		-	-
	43	Nominal Current	Operating Voltage		-	-
PURCHASE	44	Manufacturer			TERRANOVA SRL	
	45	Model			SST76-H-7-K-2-0-2-1-4 + MAN2-R6	
	46	Purchase Order Number			4718_OS	

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ITEM	Tag	63-PT-004	: Pressure Transmitter - Instrument Air to Distribution Header Low Pressure			Dwg	123A90-DDL-IN-DS-40039
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10000948		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity STS	Discipline	Instrumental	Form	TJX04 Analogue O/P

DATA

VENDOR CALIBRATION MANUAL N° 1724000979-QC-PRO-00005

CALIBRATION/TEST PROCEDURE N° : 123A90-QHSE-PRO-00122

MODEL N° :	SST76_Series	SERIAL N° :	SE240653
DATA SHEET N° :	1724000979-IN-DS-00004	Rev :	3
TEST EQUIPMENT :		SERIAL N° :	

Instruments calibration is not required prior to the installation, as long as Manufacturer's calibration certificate is provided and transportation or storage conditions have not corrupted the instrument.

Manufacturer's calibration certificate is valid, not expired and attached to this check sheet

Following section must be filled only if certificate is not valid or missing

See attached

TEST DETAILS
CALIBRATION FIGURES

CALIBRATION POINTS	RISING						FALLING						UNITS
INPUT A													
INPUT B *													
INPUT C *													
OUTPUT													

* NOTE : COMPLETE IF APPLICABLE

TESTED LABEL AFFIXED

DATA SHEET ATTACHED

If required produce Red Line Mark Up for "AS BUILT"

Comments:

Page 1/1	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-14	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-14T13:36:58.197Z	Firma Digitale Sicura Giovanni Tangianu 2024-10-14T18:02:07+0200	

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C.F. Part. IVA 02764420390

Plant	CROSSWIND	Description	IA FROM PACKAGE A-63000 TO AIR DISTR. HEADER		
Area	N.P.	Loop Tag	63-PI-004	Instrument Tag	63-PT-004
Type of verification	periodic	Calibration range	0,00 ÷ 11,00 bar	Report N°	022
Type of instrument	Pressure meter	Max uncertainty required	± 0,070 % s.r.	Reference procedure data sheet	123A90-PML-QHSE-PRO-00122 Page N°8

UNDER EXAMINATION INSTRUMENT 'S DATA

Tag	Manufacture	Model	S/N
63-PT-004	SPRIANO	SST76	SE240653

USED REFERENCE SAMPLE 'S DATA

Manufacture	Model	S/N	n° of certification and calibration center	uncertainty (u.m.)	Date of issue
BEAMEX	MC5-IS	20177766	0640/MP/2024 _LAT 150	± 0,001 c.s.	24/04/2024
Digital pressure gauge				± 0,001 c.s.	24/04/2024

environment temperature at the time of check 25 °C

Value indicated before starting the check 0 bar

CHECK RESULT: *as found*

Verification functionality loop check

Generated value	Expected value	Read value	Error	Error % on s.r.
bar	mA	mA	mA	
0	4,000	4,001	+0,001	+0,006
2,75	8,000	7,997	-0,003	-0,019
5,5	12,000	11,998	-0,002	-0,013
8,25	16,000	15,982	-0,018	-0,113
11	20,000	19,963	-0,037	-0,231
8,25	16,000	15,981	-0,019	-0,119
5,5	12,000	11,996	-0,004	-0,025
2,75	8,000	7,995	-0,005	-0,031
0	4,000	4,002	+0,002	+0,012
		max error detected %		0,231

Check: FAILED

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
bar					

Blocks/alarms check:

Corrective action Instruments scores less than the set range. Recalibrated

CHECK RESULT: *as left*

Verification functionality loop check

Generated value	Expected value	Read value	Error	Error % on s.r.
bar	mA	mA	mA	
0	4,000	4,000	0,000	0,000
2,75	8,000	8,000	0,000	0,003
5,5	12,000	11,999	-0,001	-0,012
8,25	16,000	15,993	-0,007	-0,064
11	20,000	20,000	0,000	-0,001
8,25	16,000	15,995	-0,005	-0,045
5,5	12,000	11,999	-0,001	-0,009
2,75	8,000	7,999	-0,001	-0,009
0	4,000	4,000	0,000	0,000
		errore massimo rilevato %		0,064

Check: PASSED

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
bar					

Blocks/alarms check:

Value indicated after the check 0 bar

Note:

FINAL OUTCOME OF THE VERIFICATION: *The instrument is SUITABLE*

Verification Date	Verification Expiration	Technical Executor	Viewed	Approved by
18/09/2024	09/2025	PENSO SILVIO		
		signature	*signature*	*signature*

ABR SERVICE srl
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Tel. 0544 685411
C.F. e P.IVA 02764420390

GENERAL	1	Tag Number			63-PT-004	
	2	Service			IA FROM PACKAGE A-63000 TO AIR DISTR.HEADER	
	3	P&ID Number	Location		123A90-DDL-PR-PID-80027	1-1/2"-IA-108-01SS-N
	4	Function			PRESSURE MEASUREMENT	
	5	Mounting			DIRECT ON-LINE	
	6	Area Classification			ATEX Zone2 - IIC (IIB+H2) T1	
	7	Ambient Temperature			Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.	
PROCESS CONDITIONS	8	Fluid			INSTRUMENT AIR	
	9	Pressure Des.	Oper.	[barg]	11	4(Min.) / 10(Max)
	10	Temperature Des.	Oper.	[°C]	100	AMB
	11	Oper. Spec. Gravity	Oper. Viscosity		-	-
	12	Flow Rate	Allowable Temp.		-	-
TRANSMITTER	13	Instrument Range Min.	Max.	[barg]	0	30
	14	Calibration Range Min.	Max.	[barg]	0	11
	15	Elevation	Suppression		-	-
	16	Element Type			Diaphragm	
	17	Element Material			SS AISI 316/316L	
	18	Body Material	Body Rating		AISI 316 SS	150 bar
	19	Process Connection			1/2” NPT-M	
	20	Wetted O-Rings Material			-	
	21	Fill Fluid			-	
	22	Bolts	Housing		Manifold/Instrument assembly	SS AISI 316/316L
	23	Paint			N/A	
	24	ATEX Certification	Ingress Protection		ATEX Ex II 2G Ex db IIC T5	IP66
	25	Process Connection	Electrical Connection		1/2” NPT-M	2 X M20X1.5
	26	Accuracy			0.07% of Nominal Range	
	27	SIL Certification	PED Certification		SIL2	Required
DIAPHRAGM SEAL	28	Process Connection & Rating			-	
	29	Diaphragm Material	Housing Material		-	-
	30	Fill Fluid	Capillary Material		-	-
	31	Capillary Type	Capillary Length		-	-
	32	Flushing Connection			-	
OPTIONS	33	Integral Meter	Scale		Required	-
	34	Hydrostatic Testing	Cleaning		Required	-
	35	Mounting Brackets	Manifold Model No		Required	MAN2-R6
	36	Lightning Protection	Barrier Manuf./Model		-	-
COMMUNICATION AND SOFTWARE	37	Communication Type	Signal Type		HART 6	4-20mA Loop Powered 24 Vdc
	38	D D Revision	CFF Revision		-	-
	39	Device Tag	Hart Tag		-	-
	40	Internal Diagnostics	Capacitance		-	-
	41	Segment	Device Address		-	-
	42	Device Class	Simulate		-	-
	43	Nominal Current	Operating Voltage		-	-
PURCHASE	44	Manufacturer			TERRANOVA SRL	
	45	Model			SST76-H-7-K-2-0-2-1-4 + MAN2-R6	
	46	Purchase Order Number			4718_OS	

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ITEM	Tag	AV-63001	: Air Distribution Pot 1			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002000		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX00 Miscellaneous

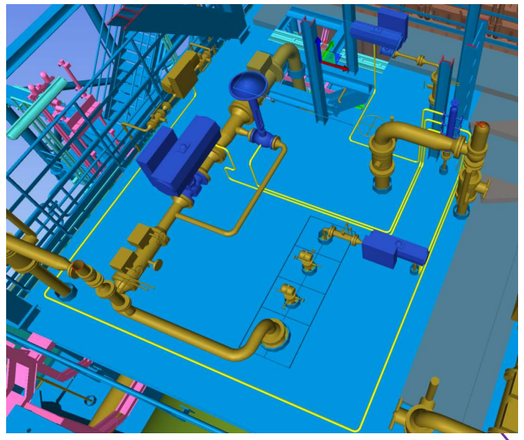
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	PL
8	Check supporting and protection against vibrations.	Note
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

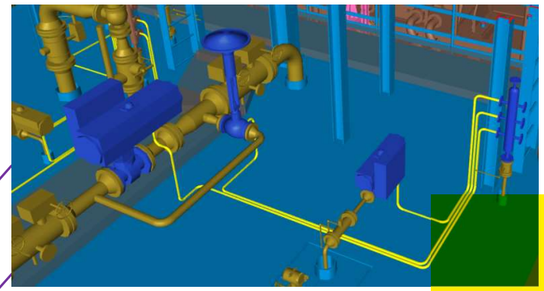
Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Alessio Polo	
Date	2025-01-24	2025-01-30	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-01-24T13:12:47.963Z	PROVERLIS Digitaly signed by Alessio Polo 2025-01-30T11:05:04.126Z	

DRAWING NO. 12390-DDL-IN-DL-40085

REV. 01





FUEL CELL TRANSFORMER
A-80000

CRANE
X-99001

AV-63012
+35.085mm
+4.775mm T.O.S

25-BDV-022
+34.740mm
+4.430mm T.O.S

AV-63004
+35.085mm
+4.775mm T.O.S

25-XV-015
+34.479mm
+4.169mm T.O.S

AV-63006
+35.085mm
+4.775mm T.O.S

80-XV-001
+34.508mm
+4.198mm T.O.S

25-PV-043
+34.740mm
+4.430mm T.O.S

25-BDV-013
+34.740mm
+4.430mm T.O.S

25-PV-049
+34.740mm
+4.430mm T.O.S

25-BDV-019
+34.740mm
+4.430mm T.O.S

25-XV-018
+34.508mm
+4.198mm T.O.S

Q-43004
HYDROGEN VENT

25-PV-046
+34.740mm
+4.430mm T.O.S

25-XV-021
+34.479mm
+4.169mm T.O.S

25-BDV-016
+34.740mm
+4.430mm T.O.S

V-25001A V-25001B V-25001C

25-XV-008
+35.245mm
+4.935mm T.O.S

AV-63001
+35.834mm
+5.524mm T.O.S

REFER SHEET-001

HYDROGEN STORAGE VESSELS

AV-63010
+35.834mm
+5.524mm T.O.S

25-XV-011
+35.245mm
+4.935mm T.O.S

25-XV-024
+35.140mm
+4.830mm T.O.S

25-SDV-001
+35.140mm
+4.830mm T.O.S

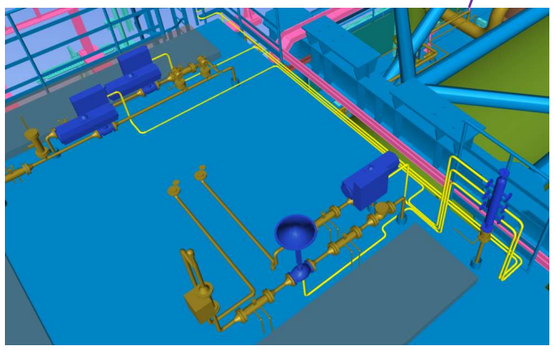
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+4.935mm T.O.S

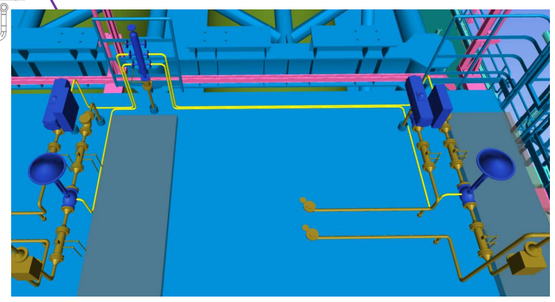
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+4.935mm T.O.S

25-FV-031
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+4.935mm T.O.S

25-FV-032
+35.245mm
+4.935mm T.O.S

A-20000
ELECTROLYSER



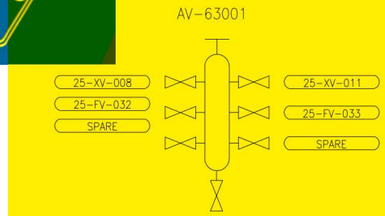


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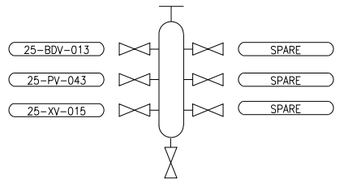
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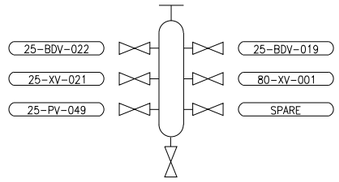
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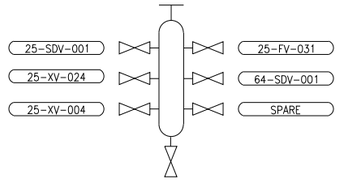
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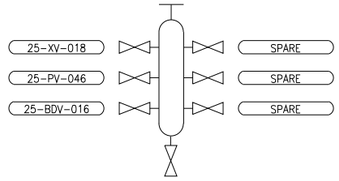
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AV-63010



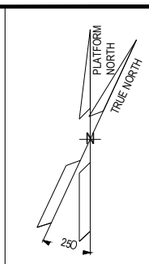
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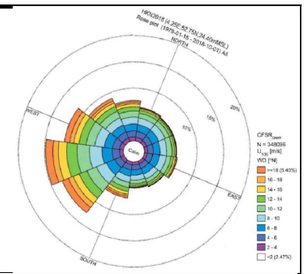


VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40085

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

ROSETTI MARINO SpA





NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

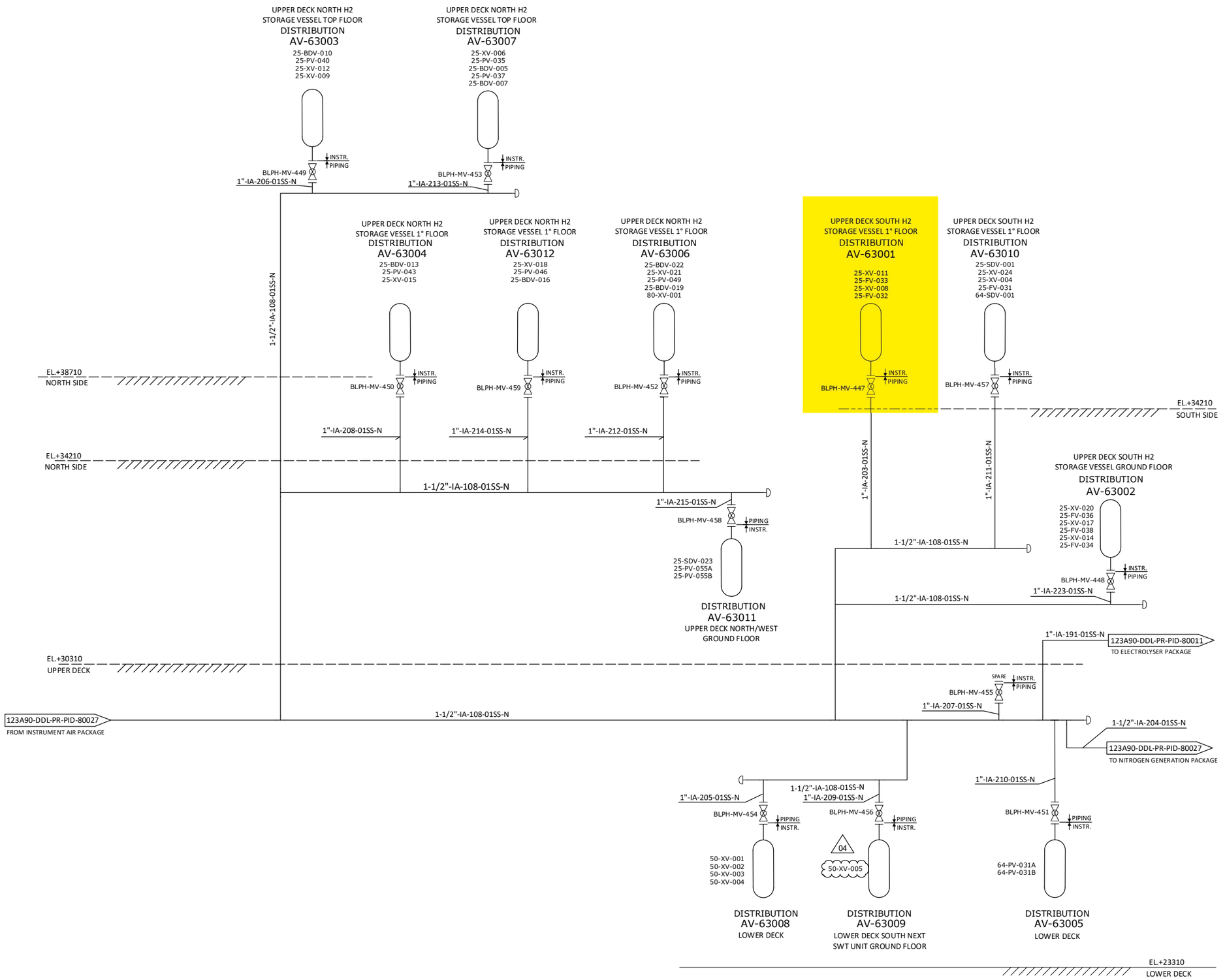
TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 002	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE NTS
DRAWN	CHECKED	APPROVED	DATE

	DRAWING NO.	SHEET	REV.
A1	123A90-DDL-PR-PID-80041	001	04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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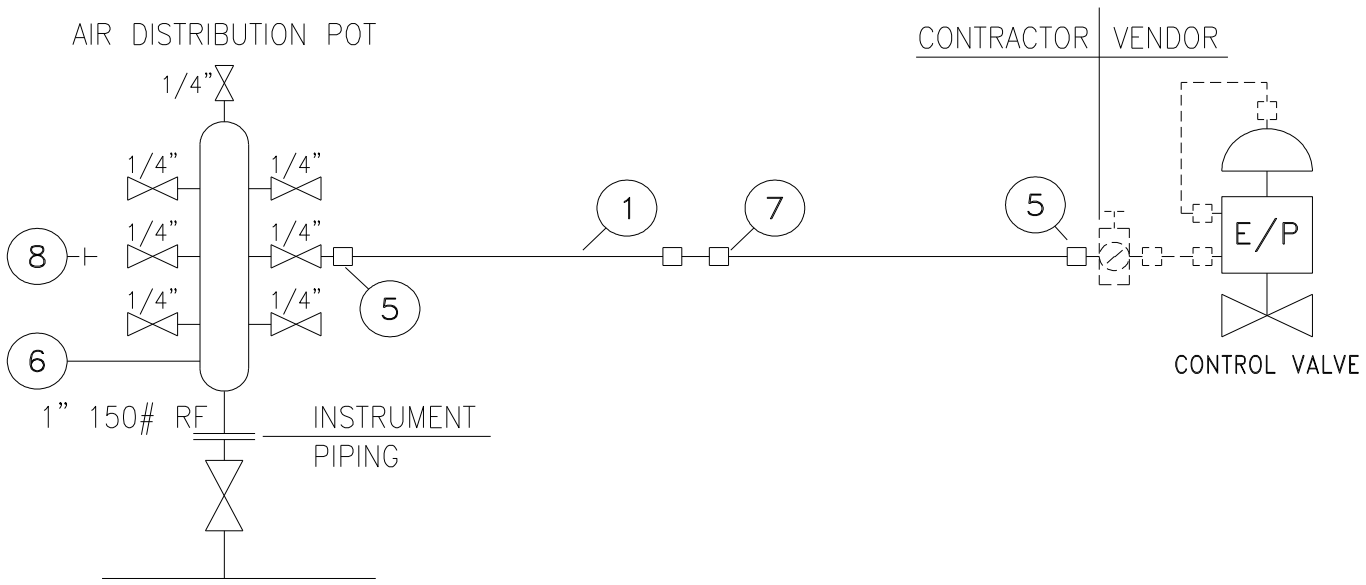
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Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
17	
18	
19	
20	
21	
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24	
25	
26	
27	
28	
29	
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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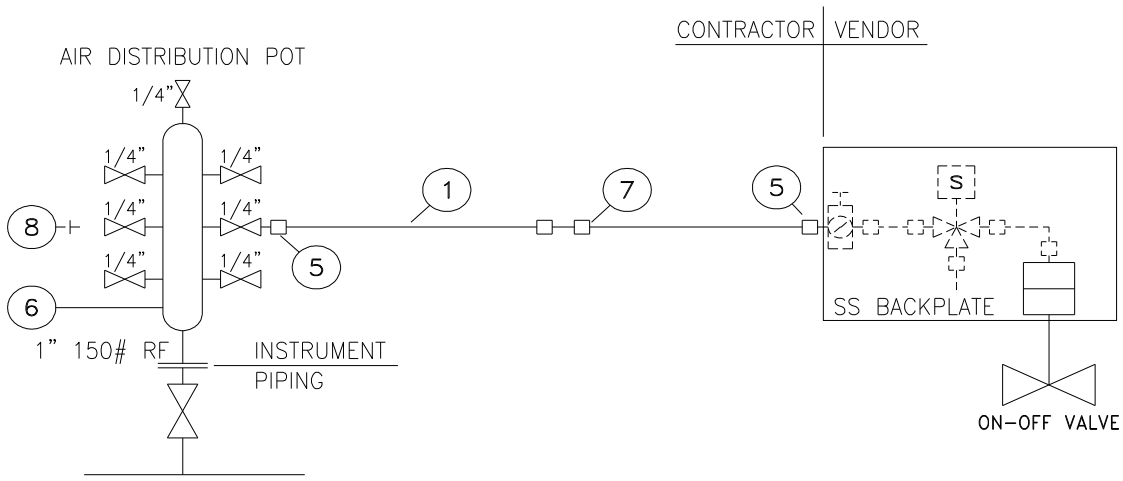
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Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63010	: Air Distribution Pot 10			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002001		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

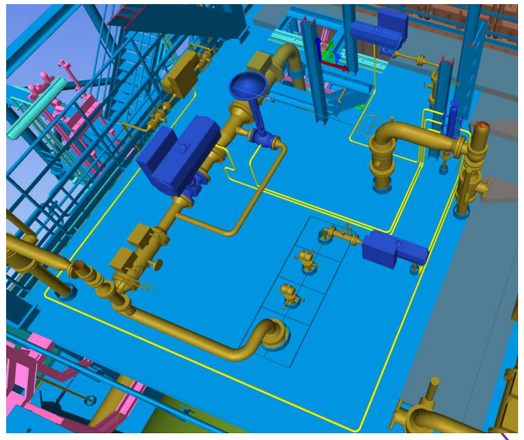
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	PL
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

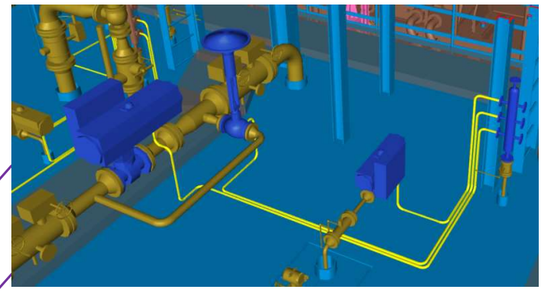
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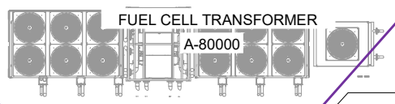
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Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Alessio Polo	
Date	2025-01-24	2025-01-30	
Signature	Digitaly signed by Michele Tartaglia 2025-01-24T13:12:58.328Z	Digitaly signed by Alessio Polo 2025-01-30T10:50:52.292Z	

DRAWING NO. 123A90-DDL-IN-DL-40085

REV. 01







CRANE
X-99001

AV-63012
+35.085mm
+4.775mm T.O.S

AV-63004
+35.085mm
+4.775mm T.O.S

25-BDV-022
+34.740mm
+4.430mm T.O.S

AV-63006
+35.085mm
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80-XV-001
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Q-43004
HYDROGEN VENT

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V-25001A V-25001B V-25001C

25-XV-008
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+4.935mm T.O.S

AV-63001
+35.834mm
+5.524mm T.O.S

REFER SHEET-001

HYDROGEN STORAGE VESSELS

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+4.935mm T.O.S

25-XV-024
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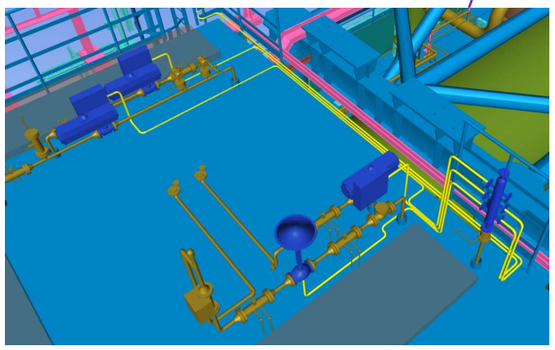
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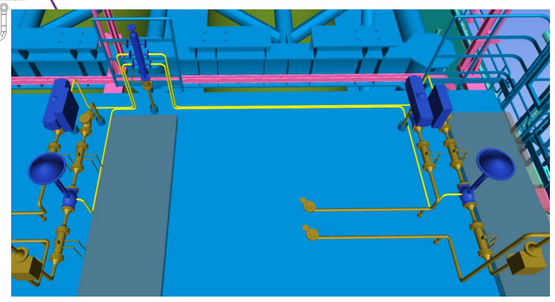
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+4.935mm T.O.S

25-XV-004
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+4.935mm T.O.S

25-FV-031
+35.245mm
+4.935mm T.O.S

A-20000
ELECTROLYSER



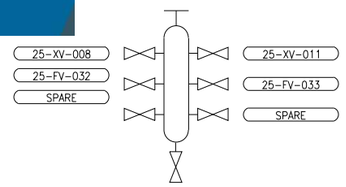


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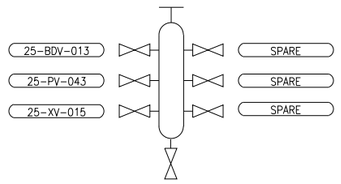
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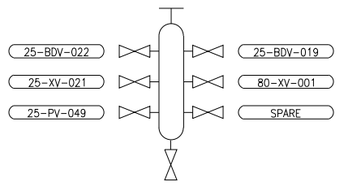
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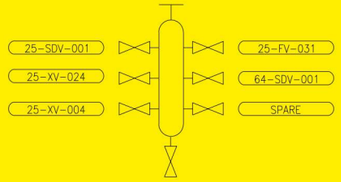
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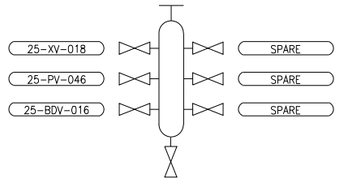
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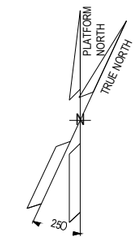


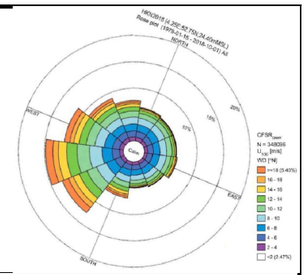
AV-63010



AV-63012







NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40085**

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

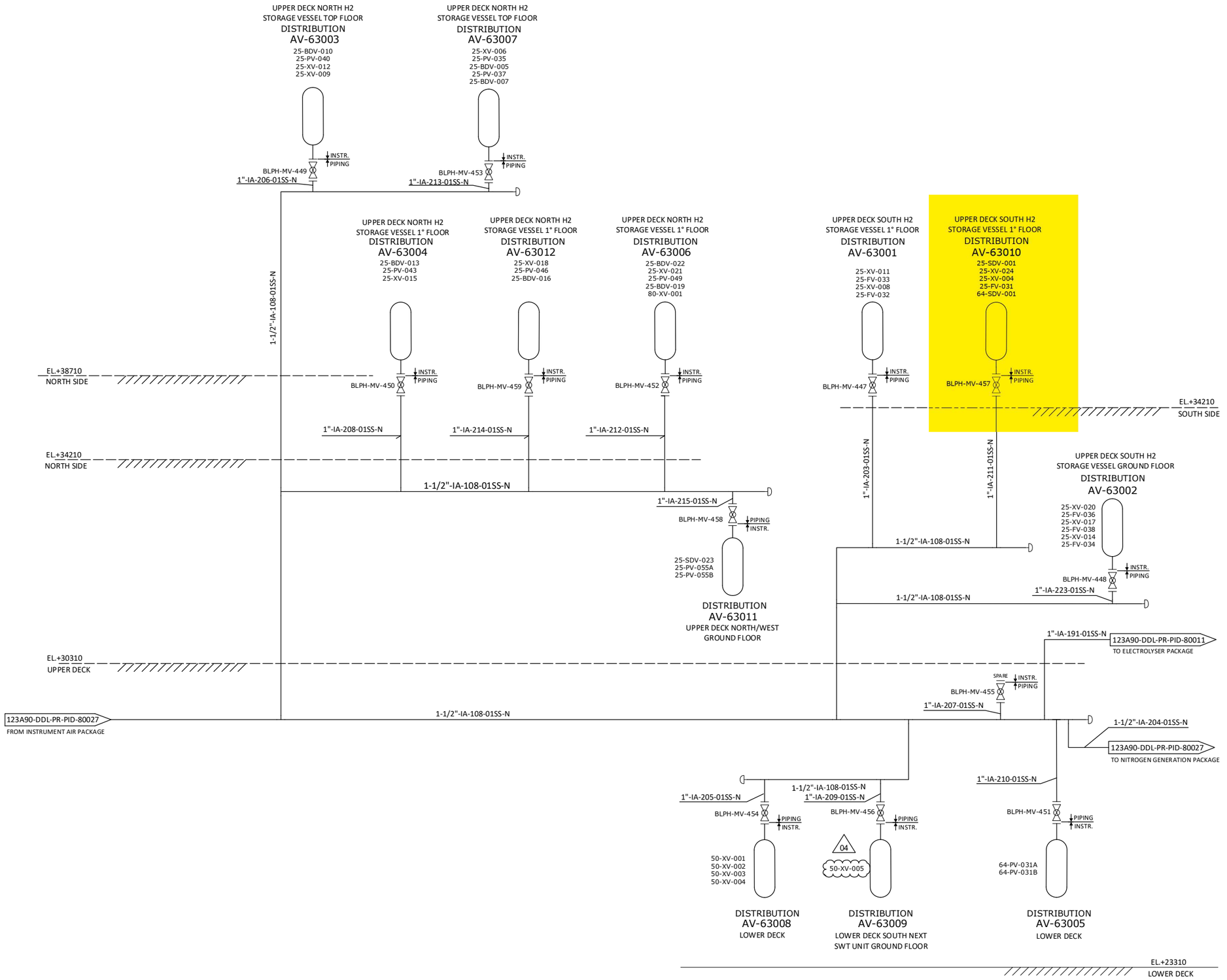
ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 002	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041	SHEET 001	REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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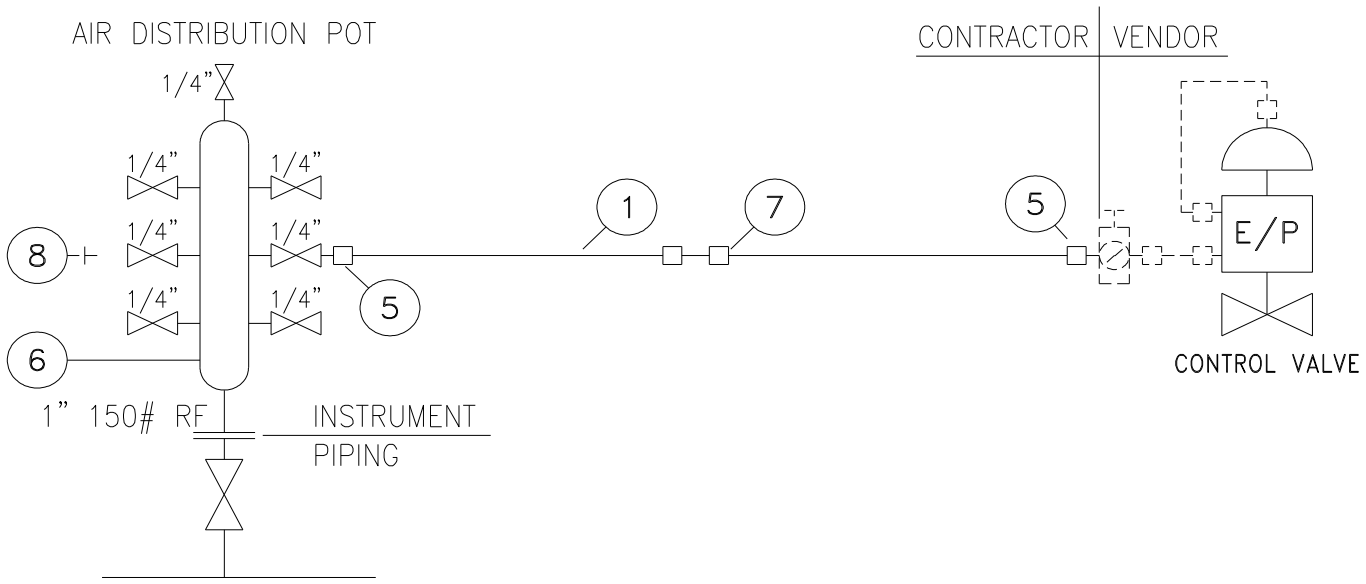
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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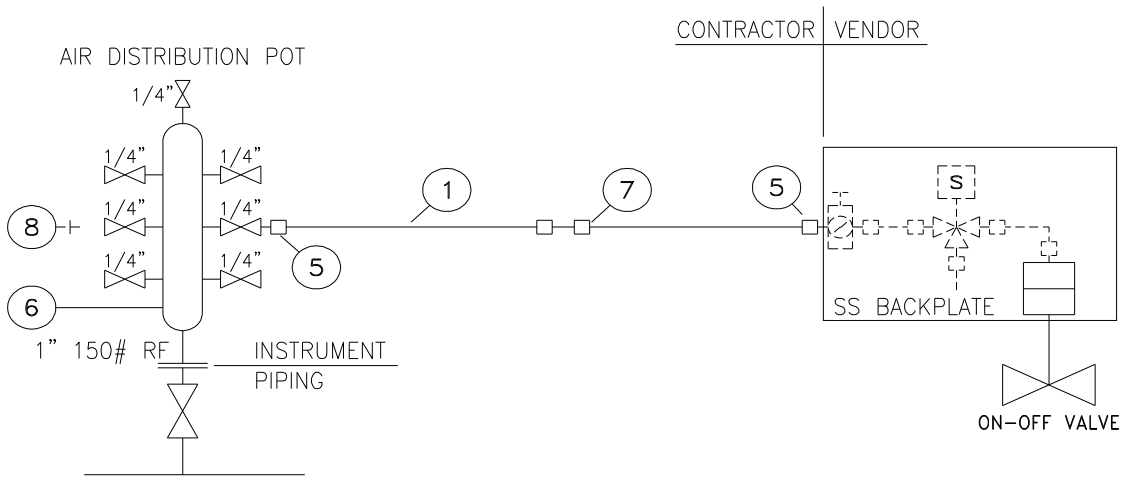
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63011	: Air Distribution Pot 11			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002002		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

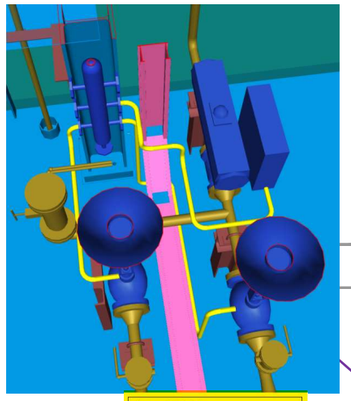
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	OK
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

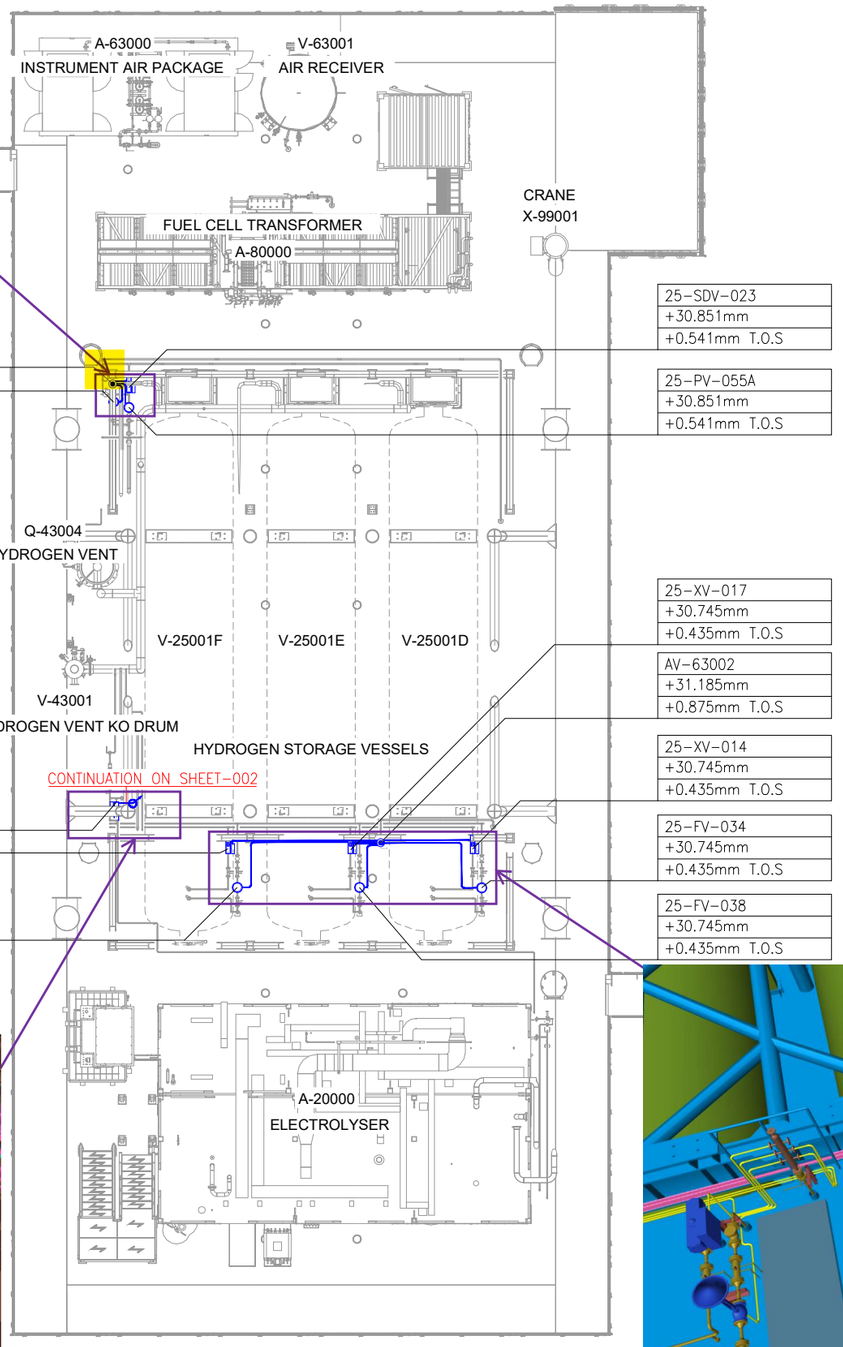
	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-12	2025-02-12	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-12T14:10:59.086Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-12T14:40:46.263Z	

DRAWING NO. 12390-DDL-IN-DL-40085

REV. 01



AV-63011
+31.185mm
+0.875mm T.O.S



25-PV-055B
+30.851mm
+0.541mm T.O.S

25-SDV-023
+30.851mm
+0.541mm T.O.S

25-PV-055A
+30.851mm
+0.541mm T.O.S

25-XV-017
+30.745mm
+0.435mm T.O.S

AV-63002
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+0.875mm T.O.S

25-XV-014
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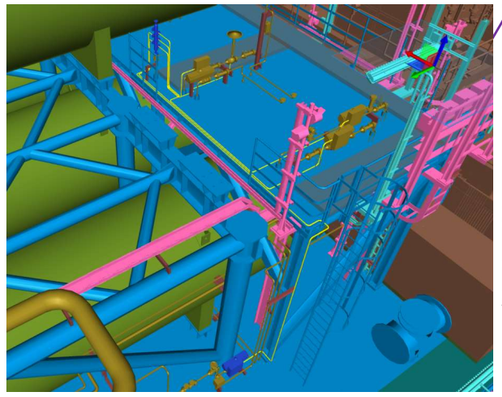
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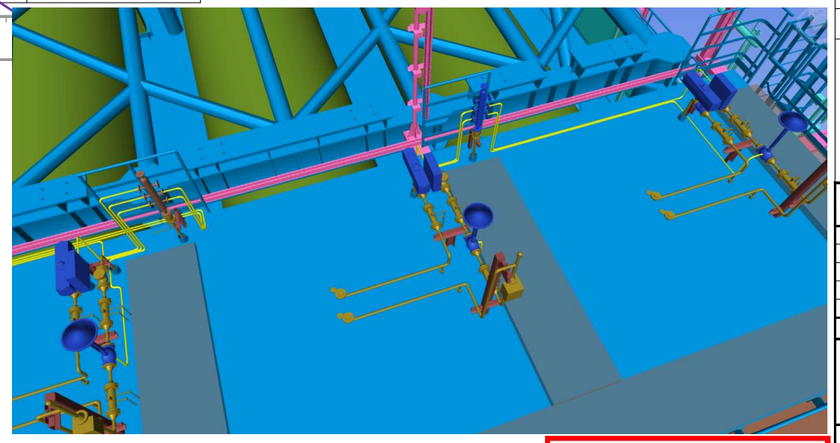
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+0.435mm T.O.S

64-SDV-001
+31.438mm
+1.128mm T.O.S

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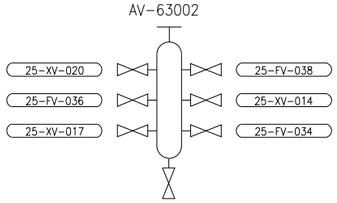


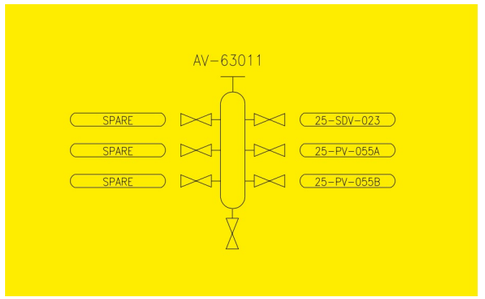


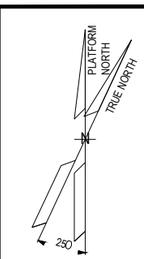
UPPER DECK

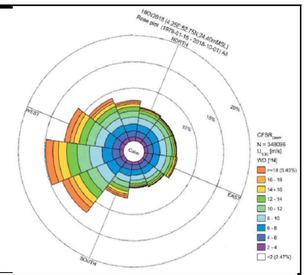
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VIEW EL. 29310mm to 33740mm









NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40085**

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

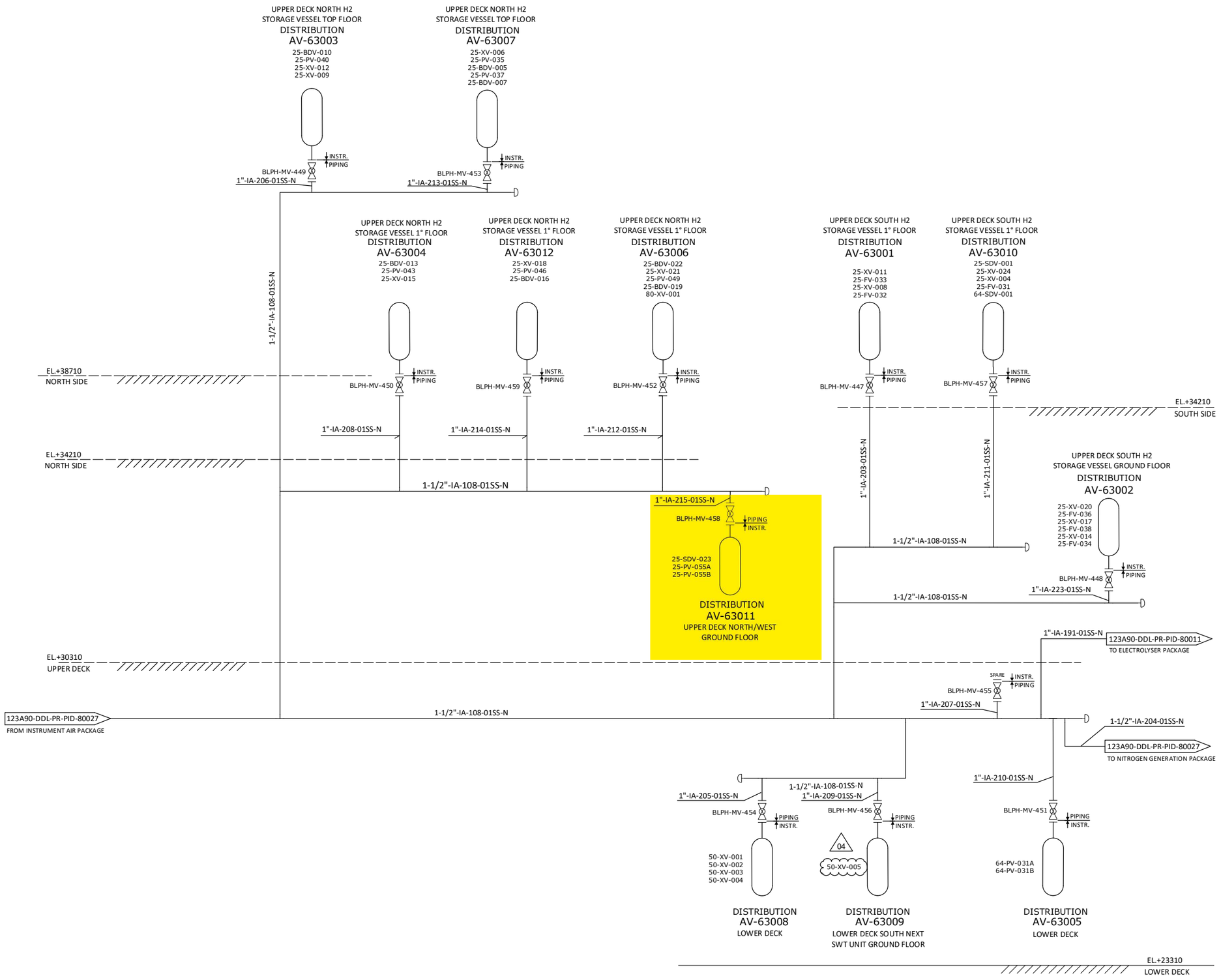
ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 001	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :

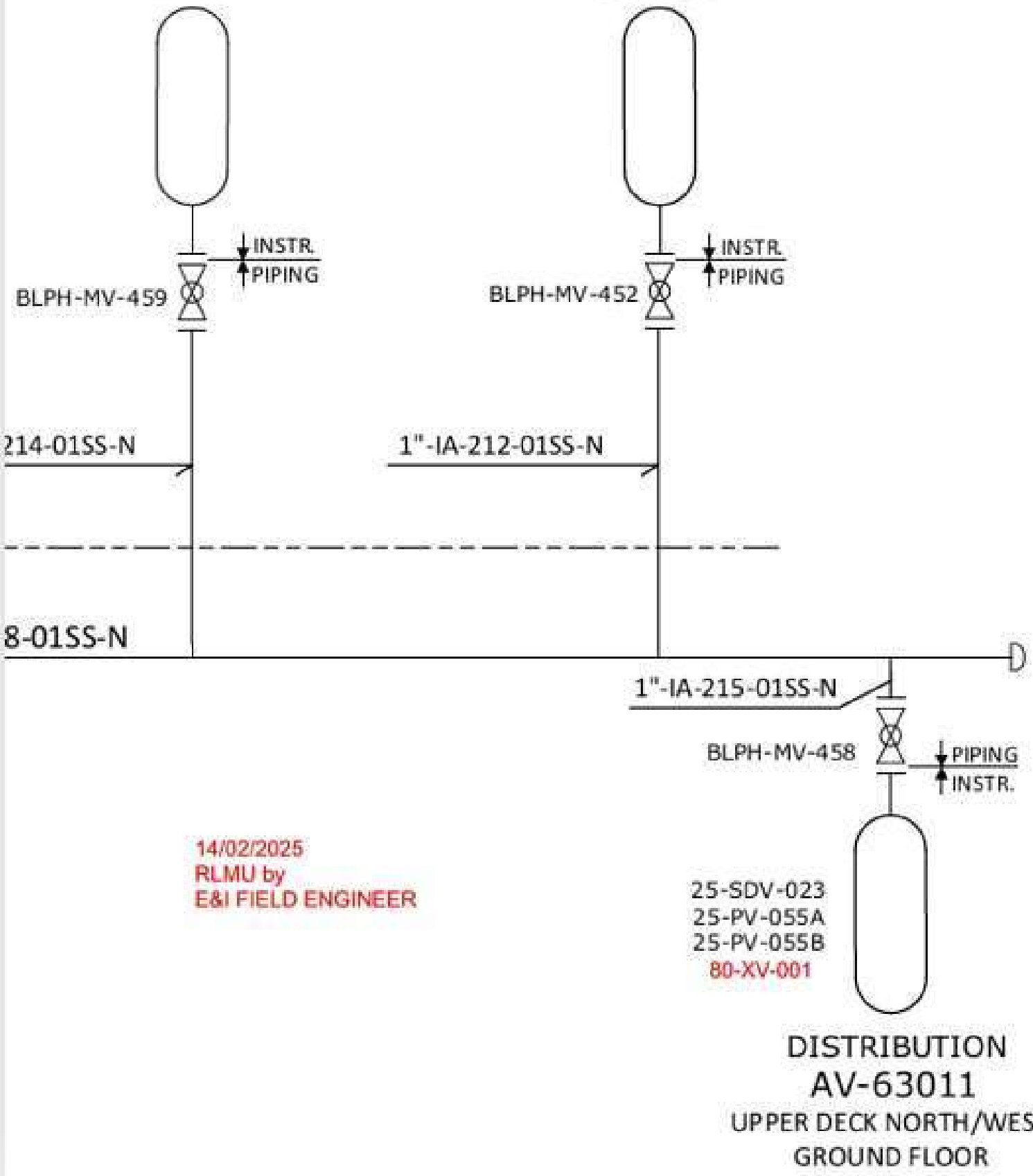
BLPH PIPING AND INSTRUMENTATION DIAGRAM INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041	SHEET 001	REV. 04

File Name : FILE_NAME

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63012
25-XV-018
25-PV-046
25-BDV-016

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63006
25-BDV-022
25-XV-021
25-PV-049
25-BDV-019
~~80-XV-001~~



14/02/2025
RLMU by
E&I FIELD ENGINEER

25-SDV-023
25-PV-055A
25-PV-055B
80-XV-001

DISTRIBUTION
AV-63011
UPPER DECK NORTH/WEST
GROUND FLOOR

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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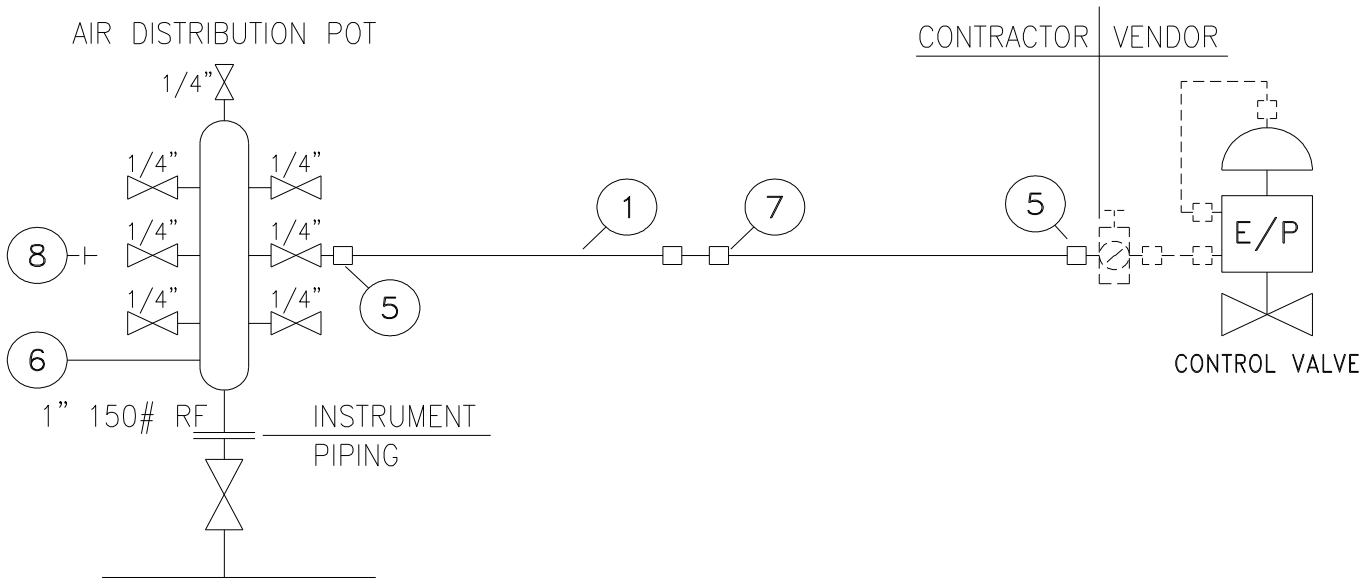
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
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11	25-PV-046
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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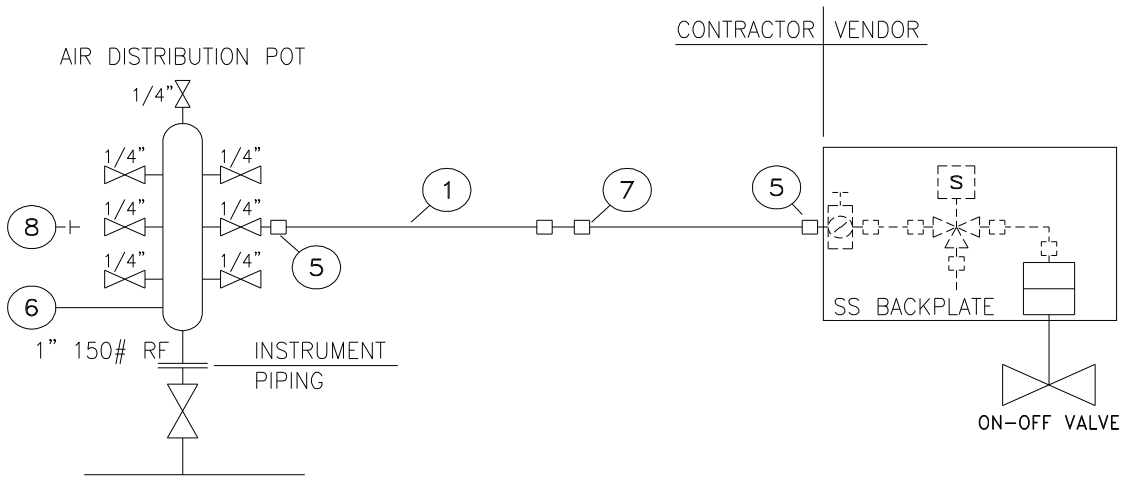
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63012	: Air Distribution Pot 12			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002003		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

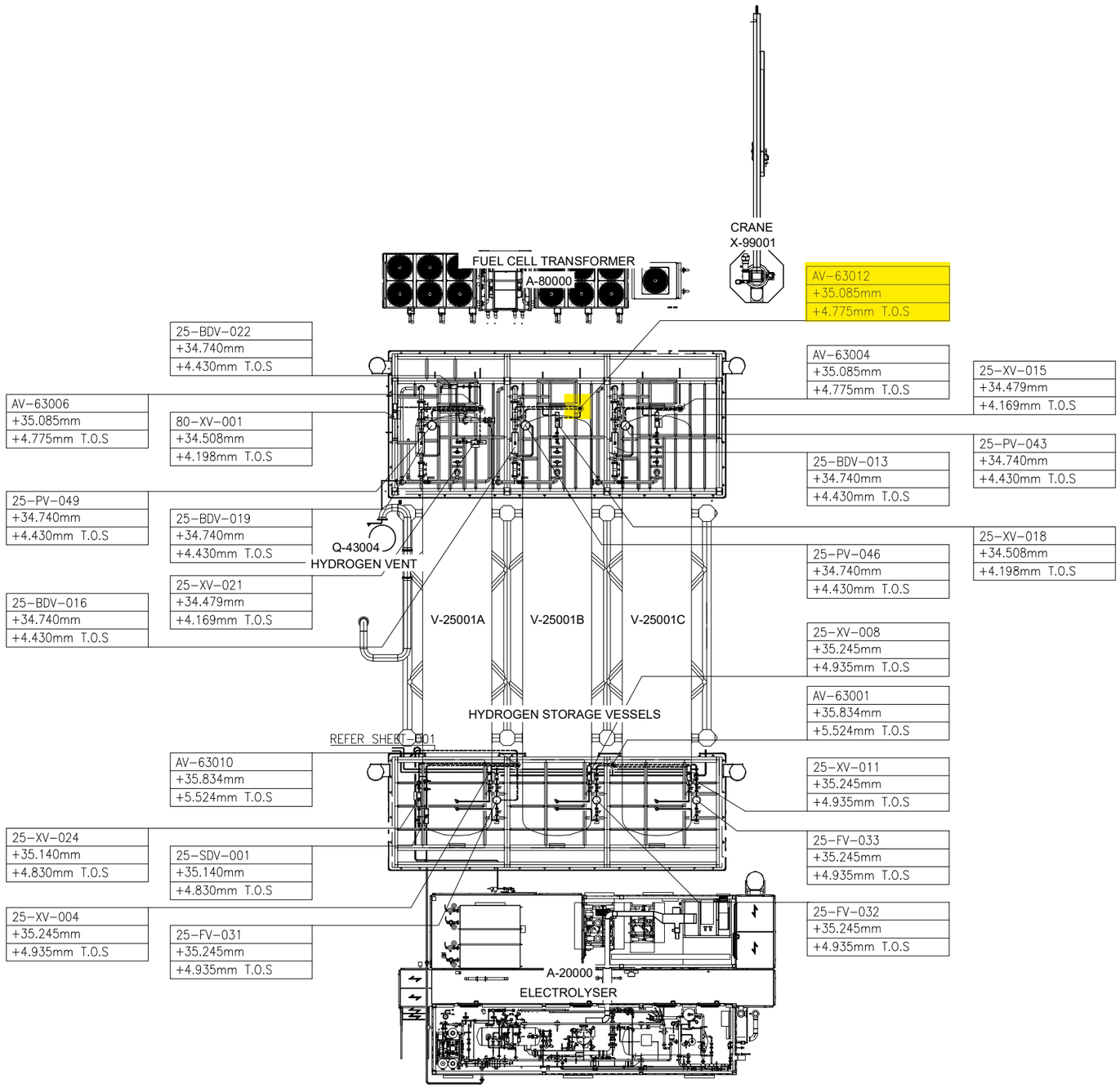
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	OK
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-14	2025-02-17	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-14T07:38:30.843Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-17T13:04:30.272Z	

DRAWING NO. 12390-DDL-IN-DL-40085

REV. 01

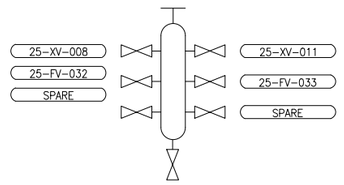


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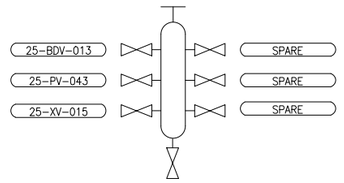
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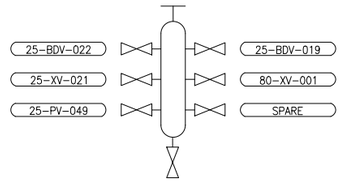
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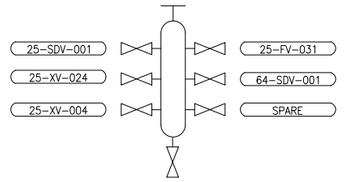
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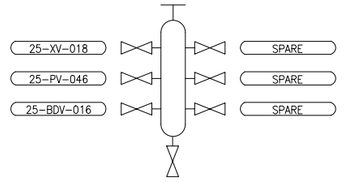
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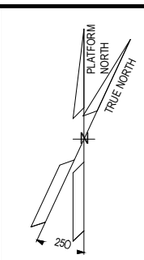


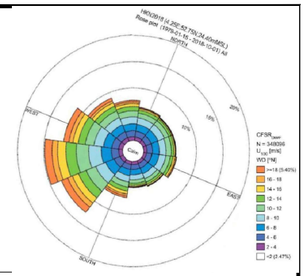
AV-63010



AV-63012







NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY

A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 002	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

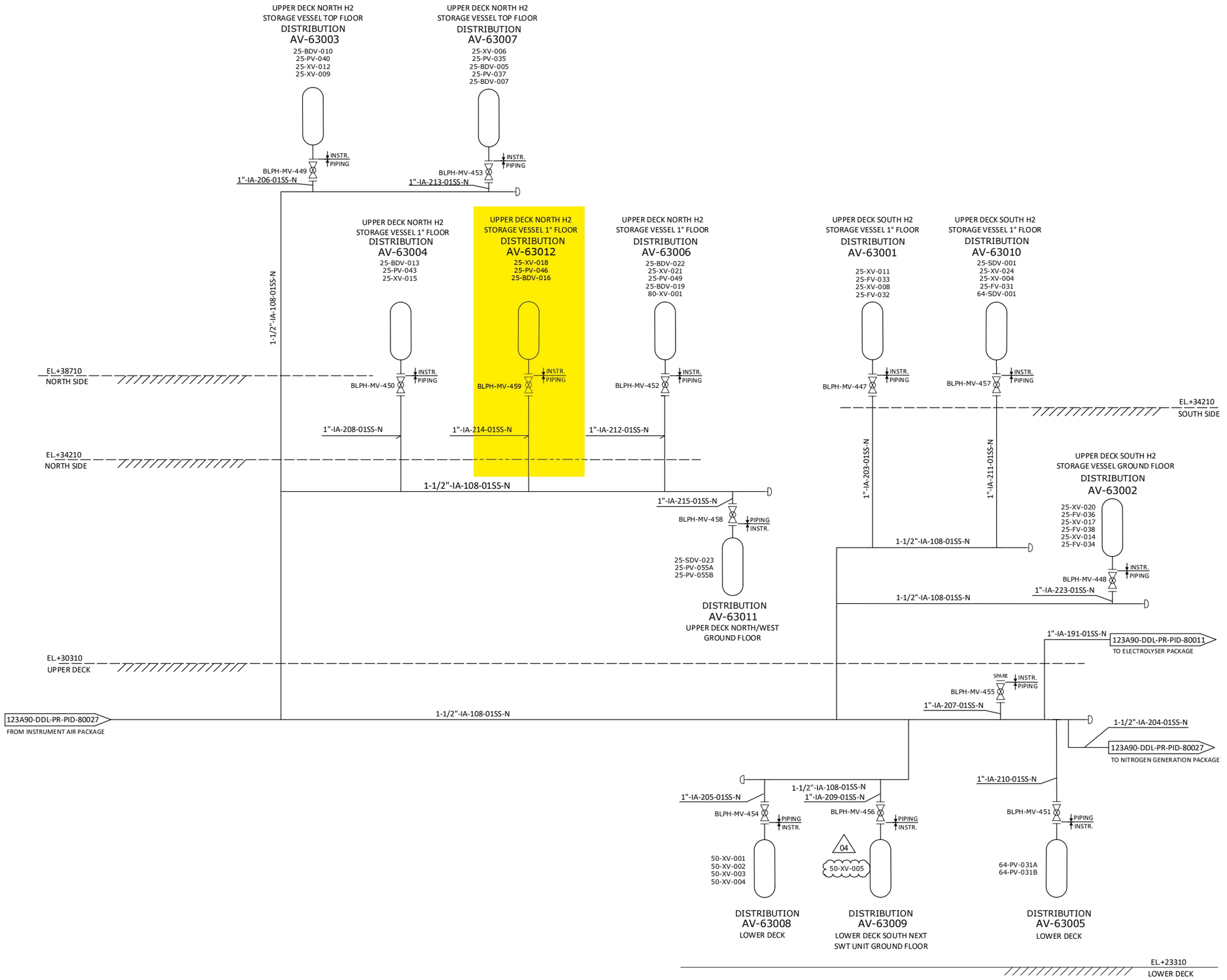
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40085**

REV.:	DATE:	SIGNATURE:
1_A	30/08/24	G.Randi

ROSETTI MARINO SpA

DRAWING NO. DRAWING_NO.

REV. REV



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001 / REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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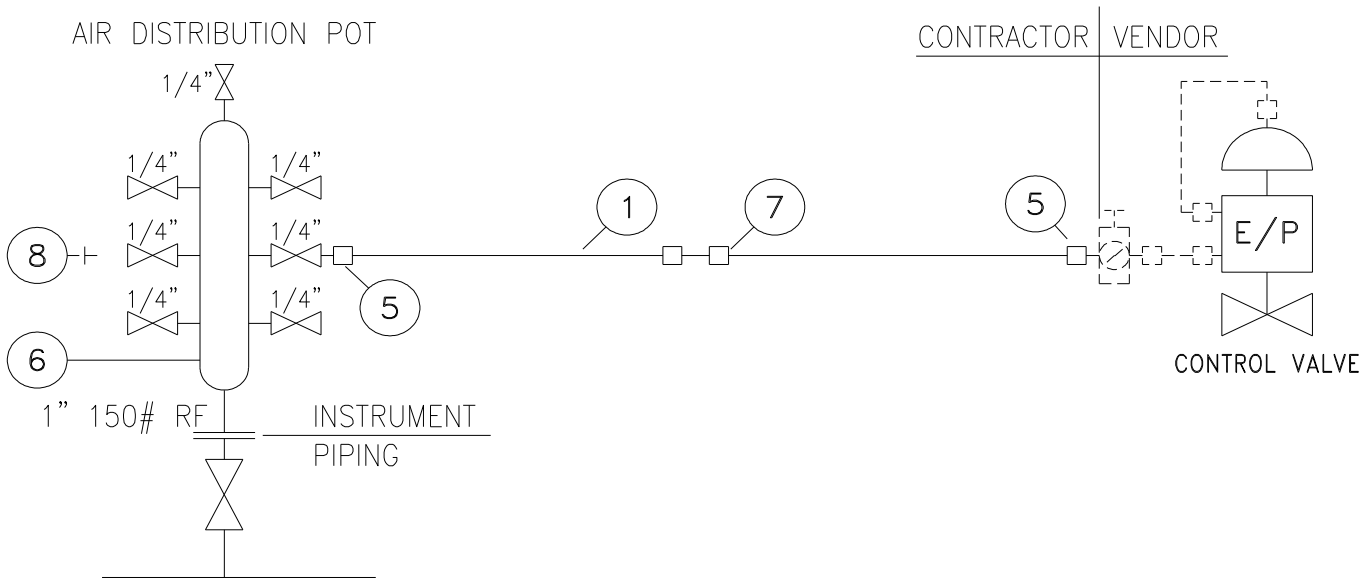
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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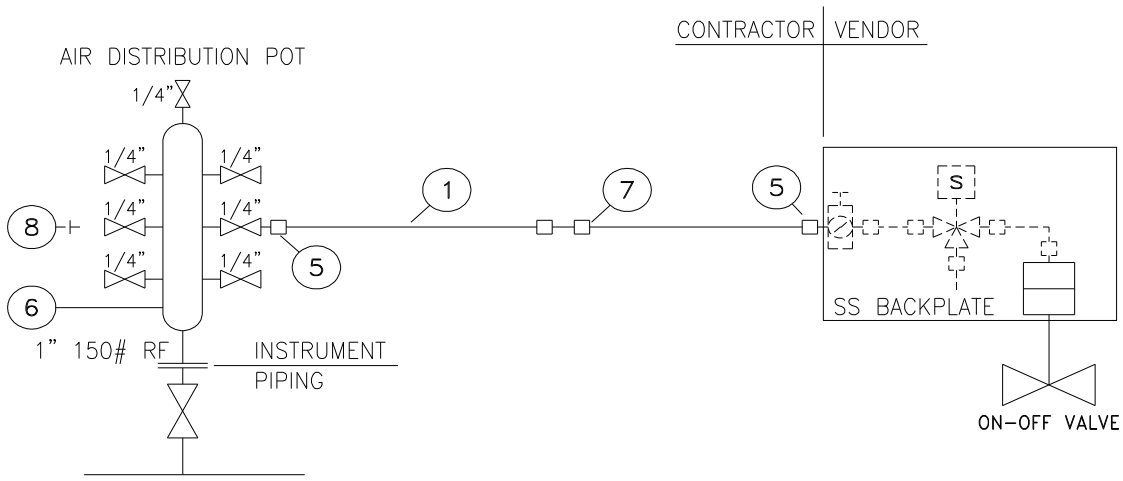
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Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63002	: Air Distribution Pot 2			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002004		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

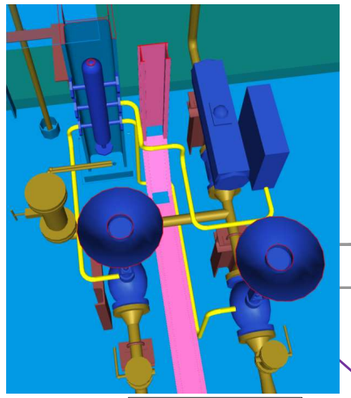
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	PL
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

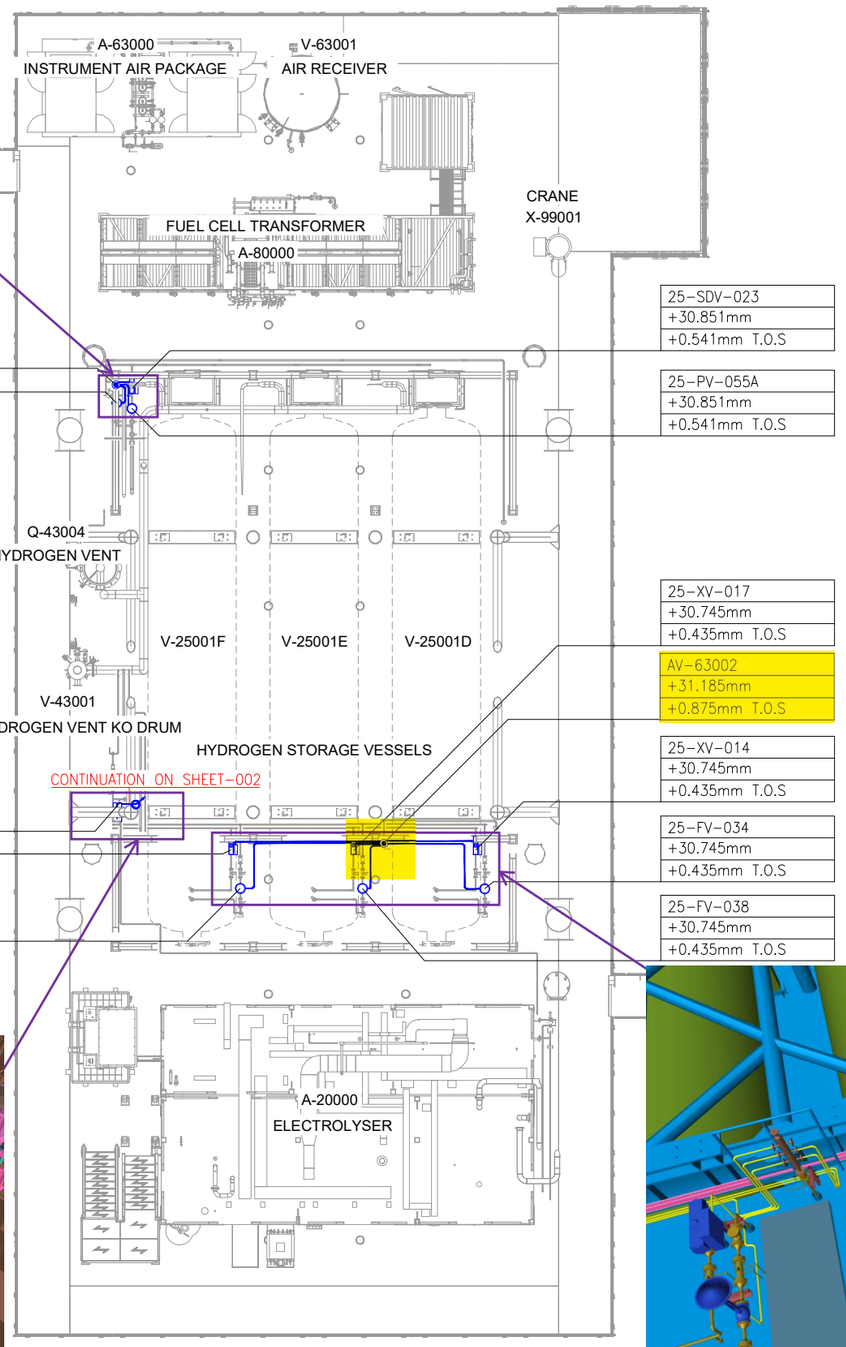
Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Alessio Polo	
Date	2025-01-24	2025-01-30	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-01-24T13:13:09.883Z	PROVERLIS Digitaly signed by Alessio Polo 2025-01-30T10:53:51.580Z	

DRAWING NO. 12390-DDL-IN-DL-40085

REV. 01





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+0.875mm T.O.S

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+30.851mm
+0.541mm T.O.S

25-SDV-023
+30.851mm
+0.541mm T.O.S

25-PV-055A
+30.851mm
+0.541mm T.O.S

25-XV-017
+30.745mm
+0.435mm T.O.S

AV-63002
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+0.875mm T.O.S

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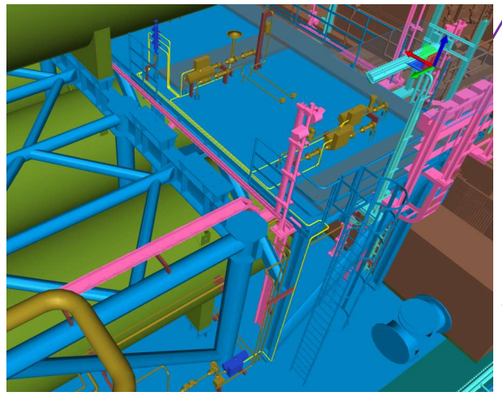
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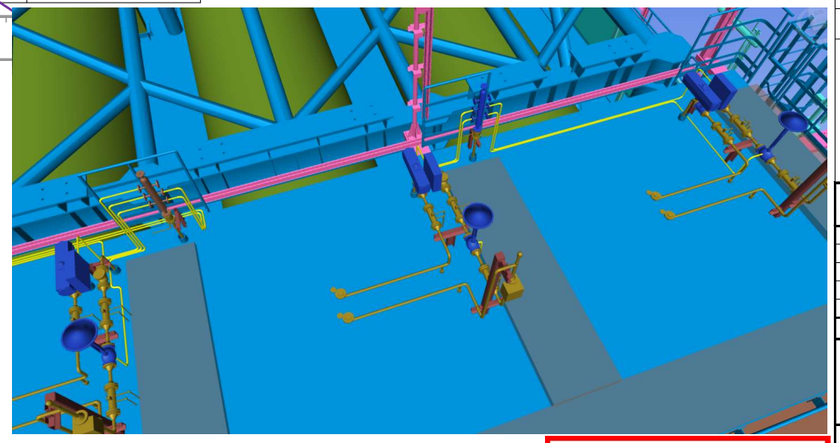
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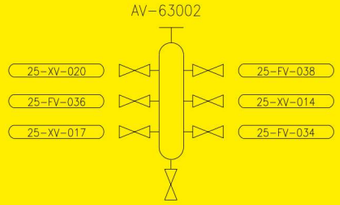
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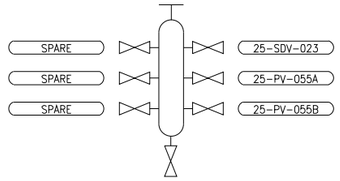


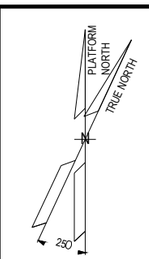


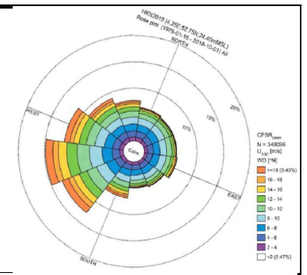
AV-63002



AV-63011







NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40085

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
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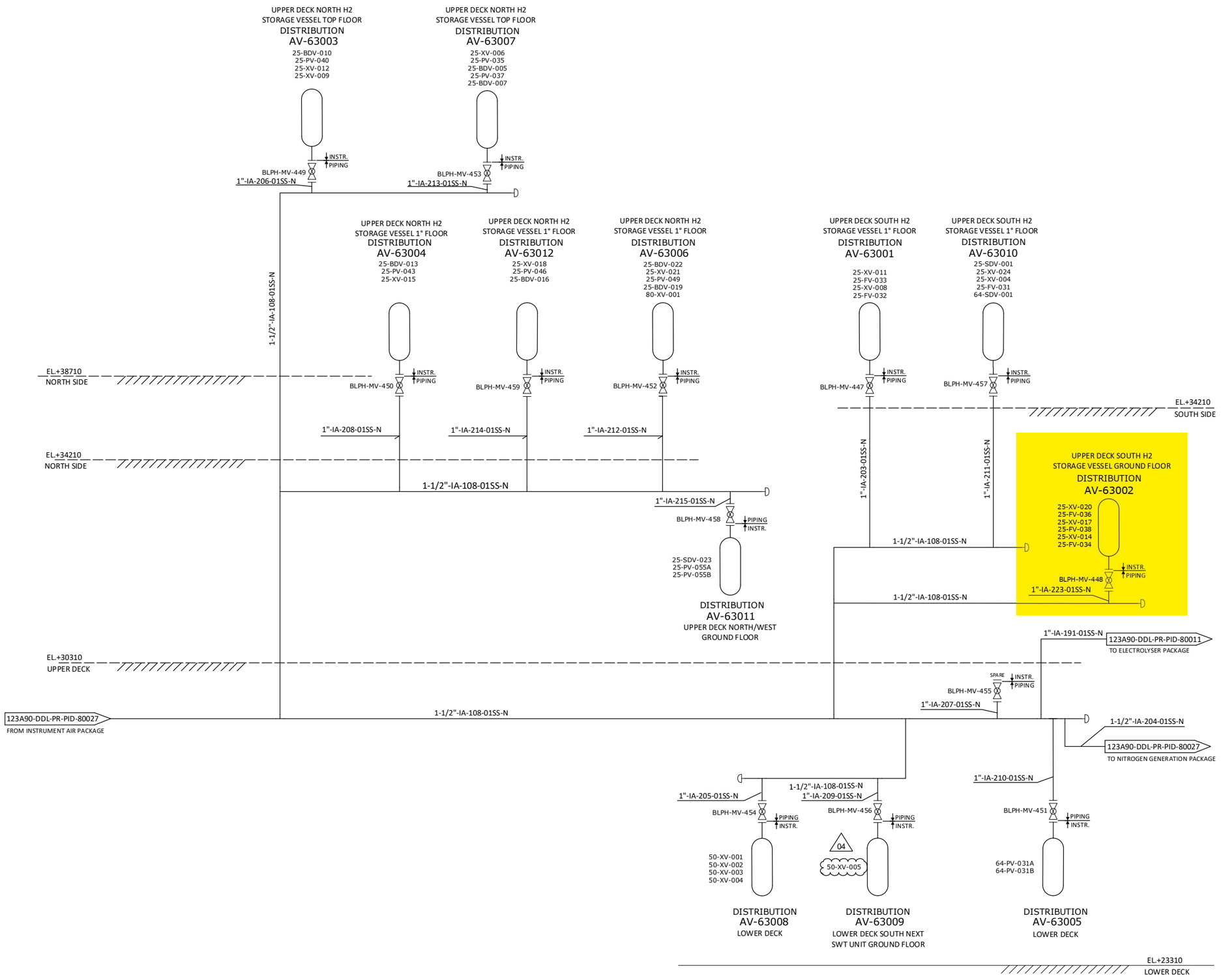
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UPPER DECK
SCALE: 1:1

VIEW EL. 29310mm to 33740mm

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :

BLPH PIPING AND INSTRUMENTATION DIAGRAM INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041	SHEET 001	REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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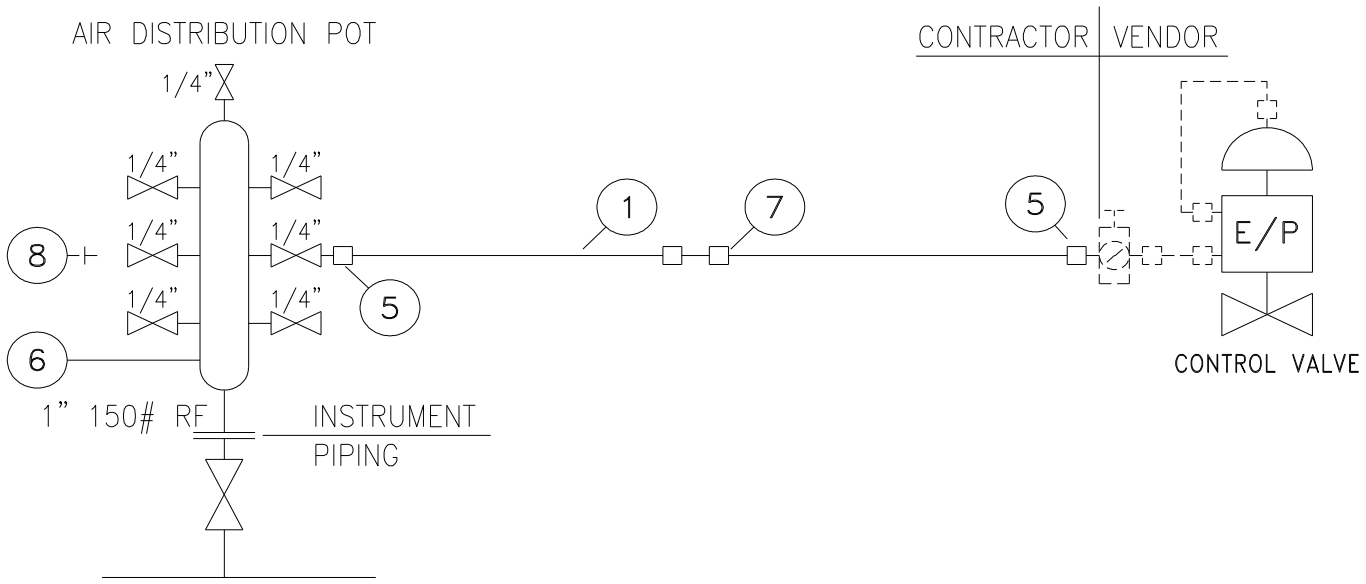
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
17	
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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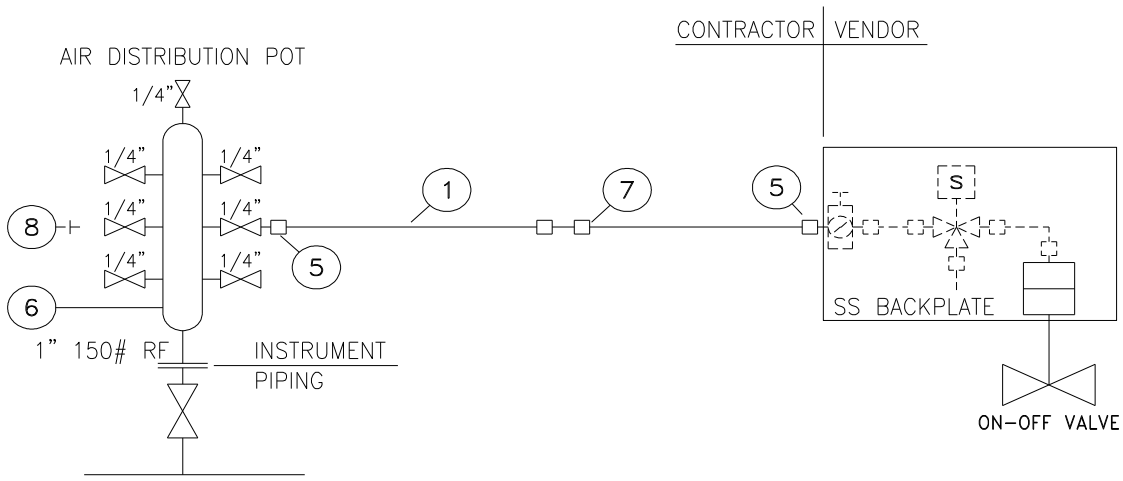
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63003	: Air Distribution Pot 3			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002005		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

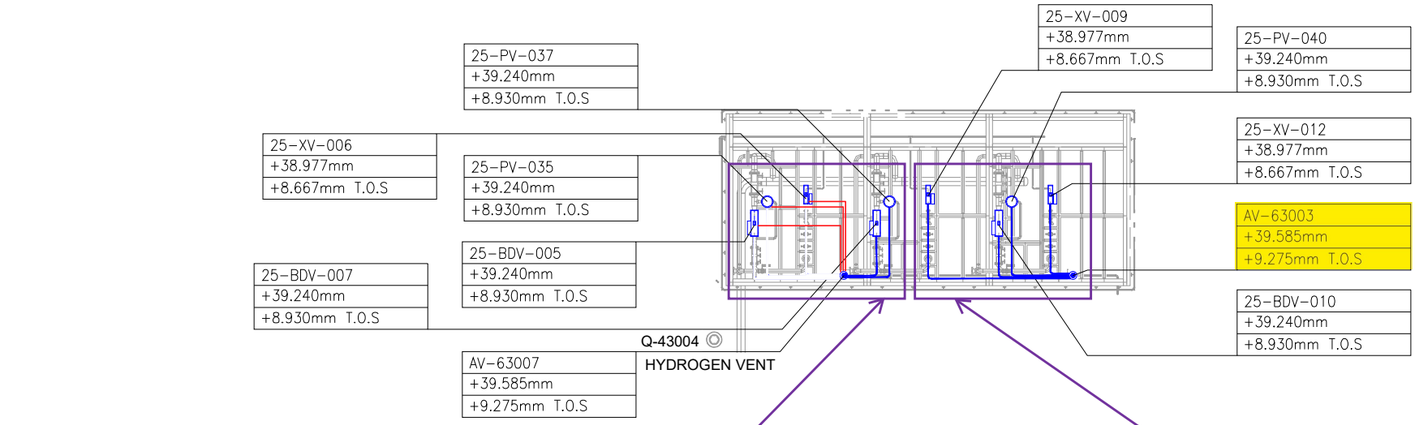
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

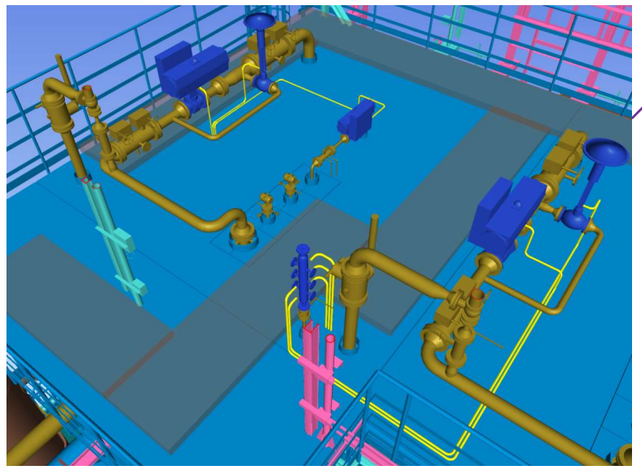
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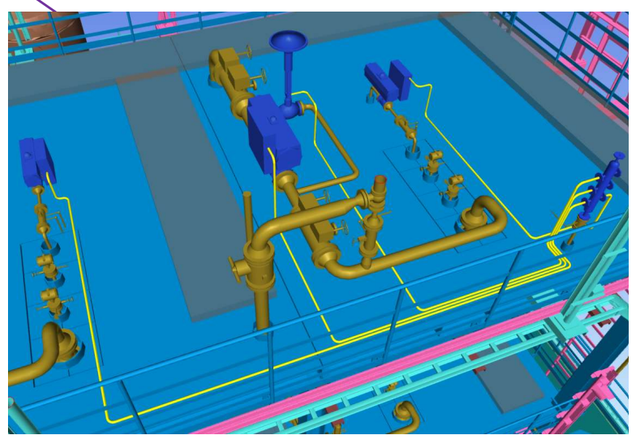
	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-12	2025-02-12	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-12T07:44:02.764Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-12T08:23:54.805Z	

DRAWING NO. 12390-DDL-IN-DL-40085

REV. 01



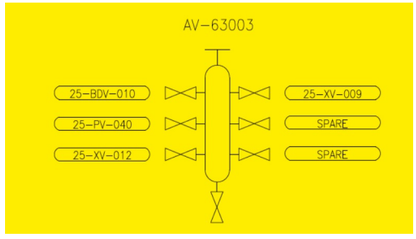


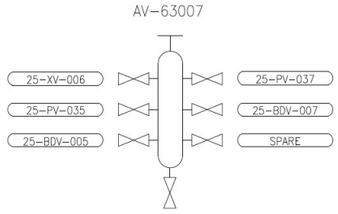


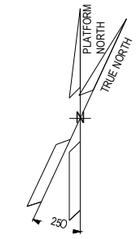
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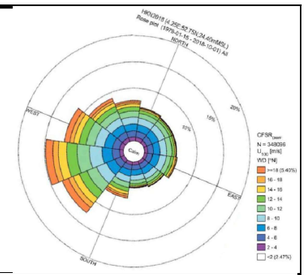
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VIEW EL. 36500mm to 47060mm









NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40085**

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

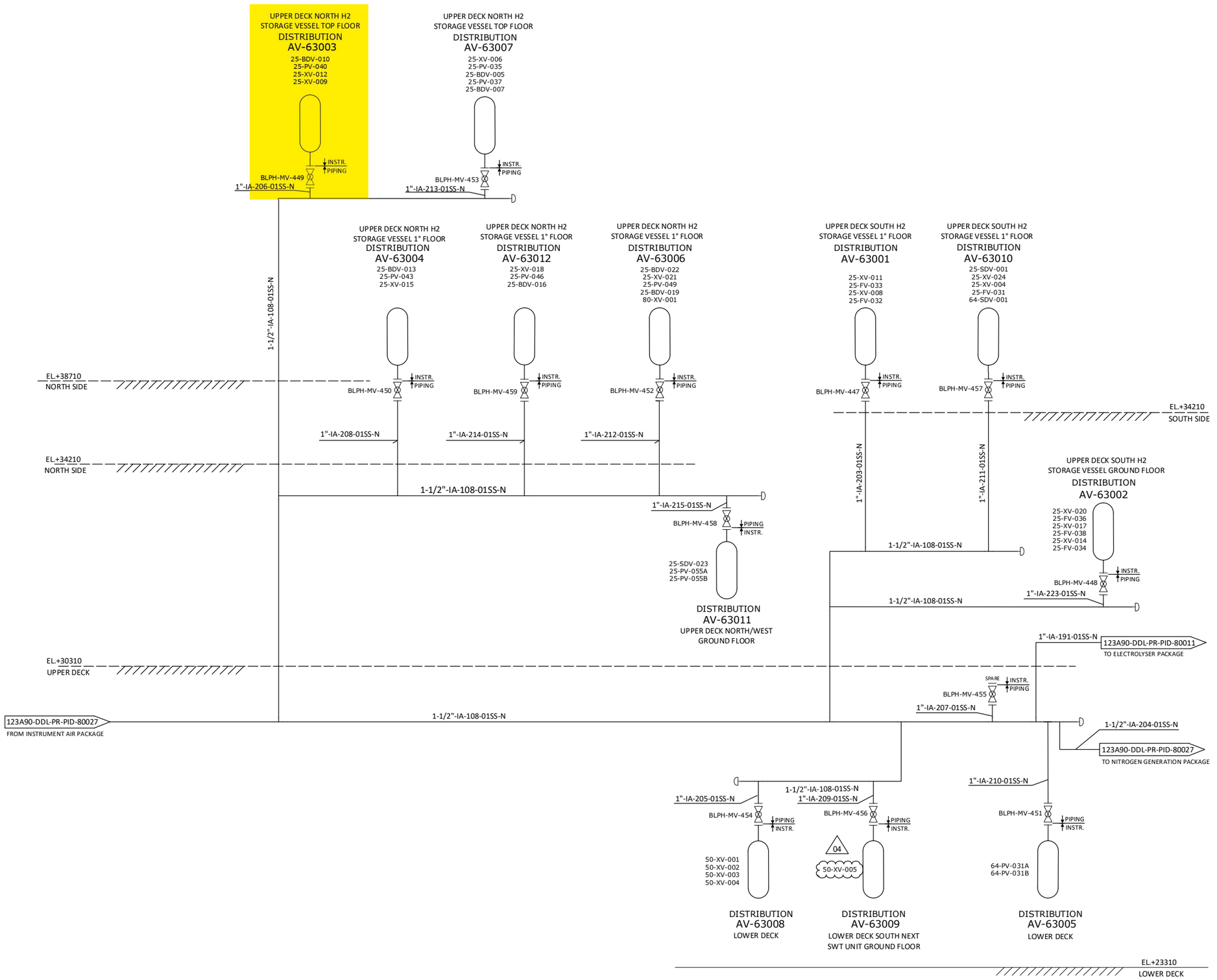
ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 003	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING NO. DRAWING_NO.

REV. REV



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001 / REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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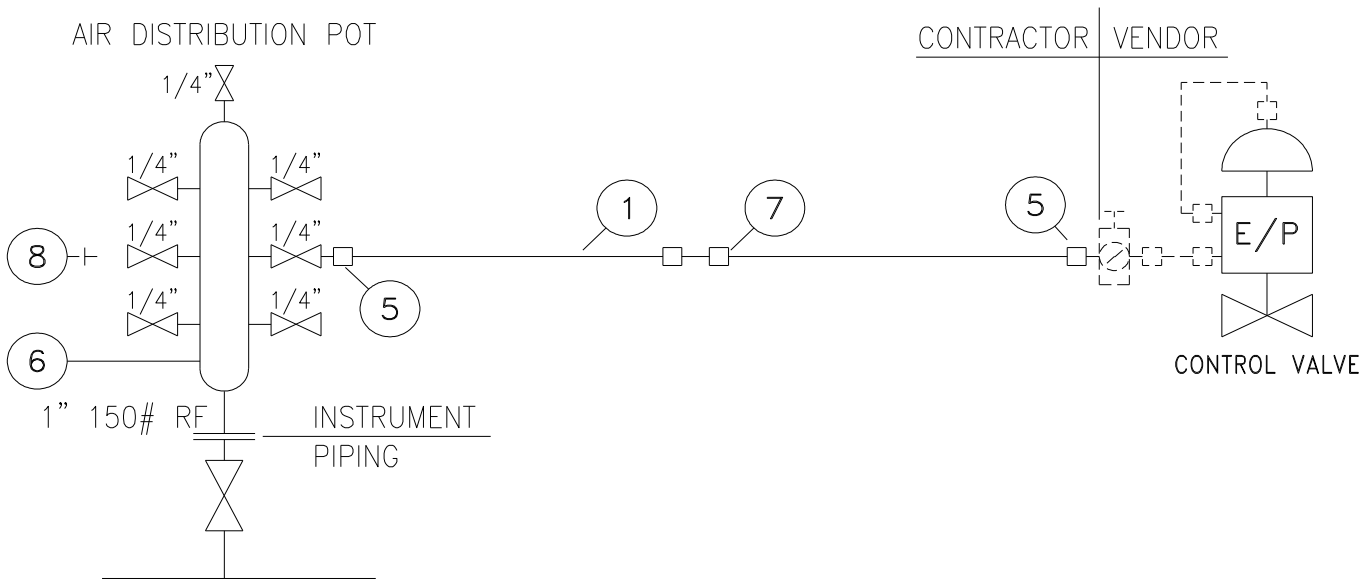
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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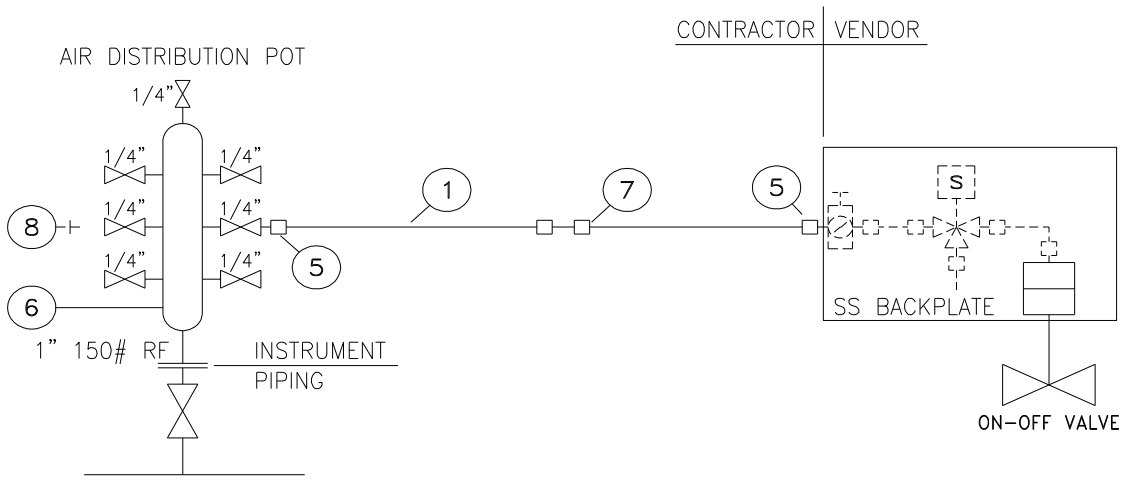
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63004	: Air Distribution Pot 4			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002006		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX00 Miscellaneous

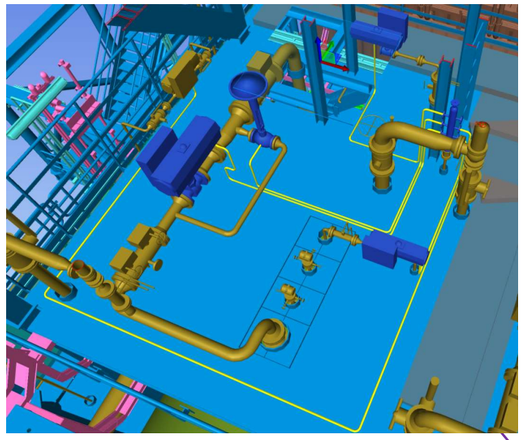
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	OK
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

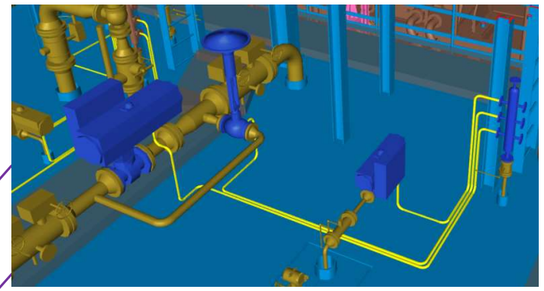
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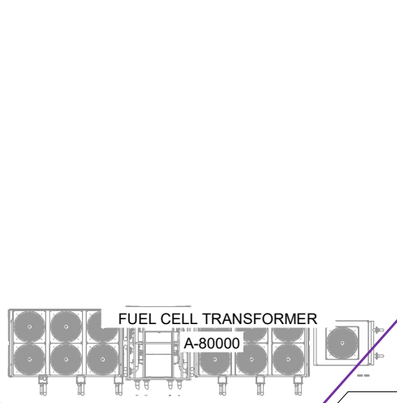
	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-14	2025-02-17	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-14T09:59:25.200Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-17T14:18:15.576Z	

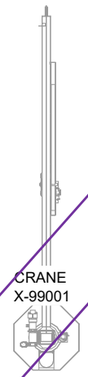
DRAWING NO. 123A90-DDL-IN-DL-40085

REV. 01









25-BDV-022
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+4.430mm T.O.S

AV-63006
+35.085mm
+4.775mm T.O.S

80-XV-001
+34.508mm
+4.198mm T.O.S

25-PV-049
+34.740mm
+4.430mm T.O.S

25-BDV-019
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25-XV-021
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25-BDV-016
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AV-63012
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25-PV-043
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25-BDV-013
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25-XV-018
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25-PV-046
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+4.430mm T.O.S

25-XV-008
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AV-63001
+35.834mm
+5.524mm T.O.S

25-XV-011
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+4.935mm T.O.S

25-FV-033
+35.245mm
+4.935mm T.O.S

25-FV-032
+35.245mm
+4.935mm T.O.S

Q-43004
HYDROGEN VENT

V-25001A V-25001B V-25001C

REFER SHEET-001

HYDROGEN STORAGE VESSELS

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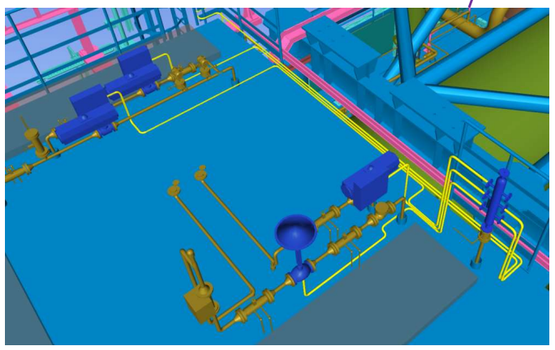
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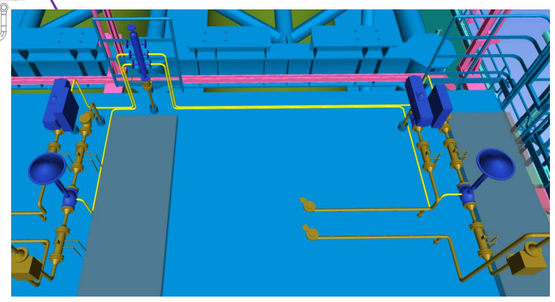
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+4.830mm T.O.S

25-XV-004
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+4.935mm T.O.S

25-FV-031
+35.245mm
+4.935mm T.O.S

A-20000
ELECTROLYSER



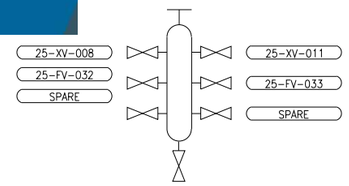


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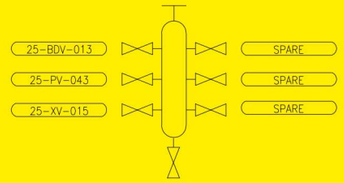
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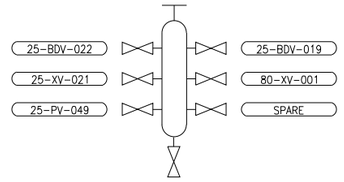
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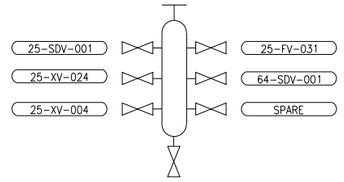
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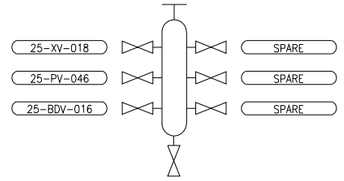
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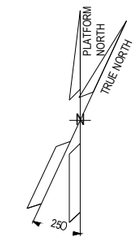


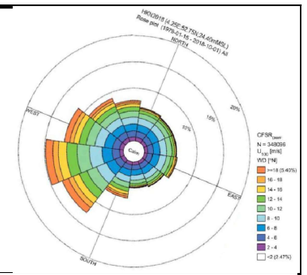
AV-63010



AV-63012







NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40085

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

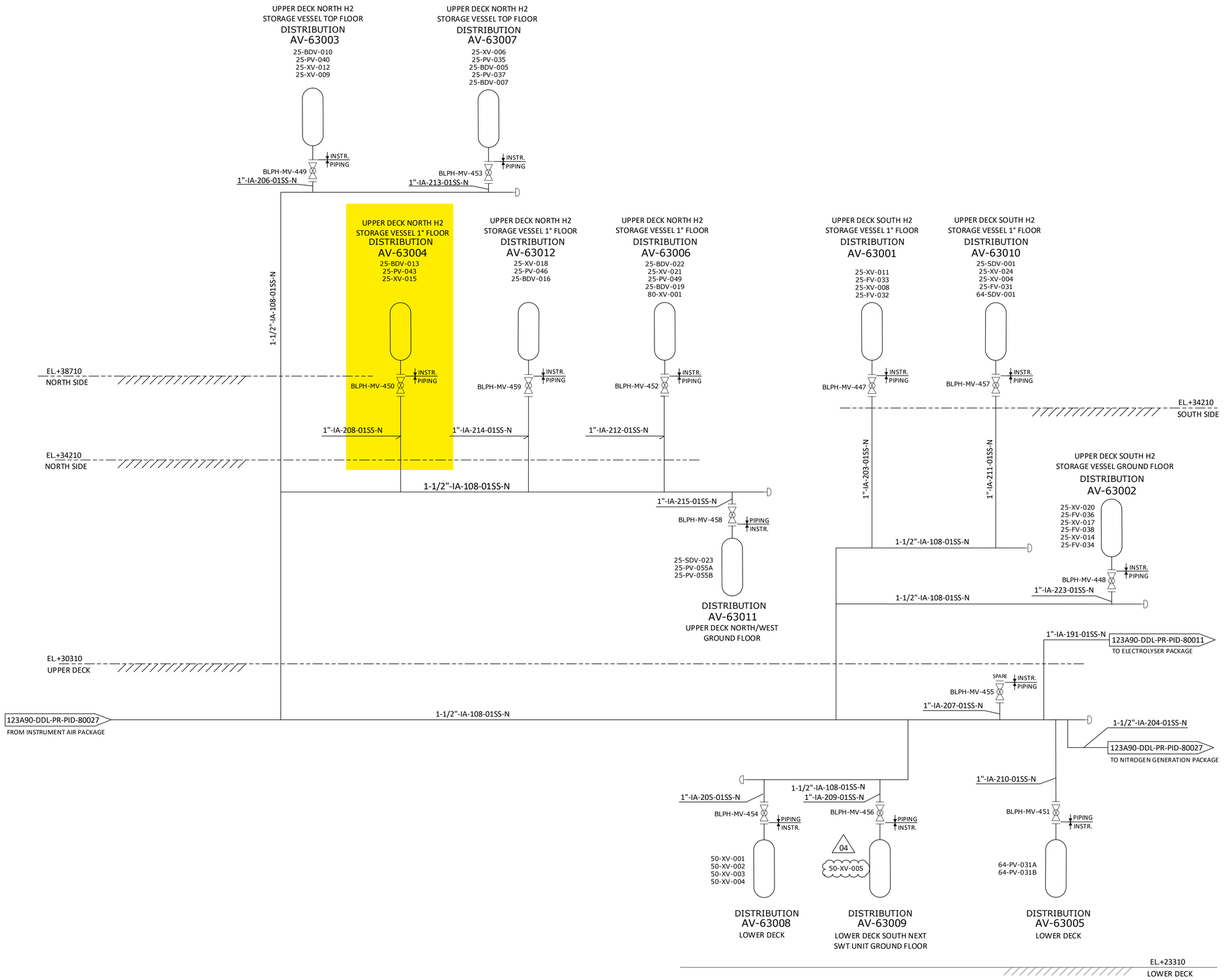
ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085	SHEET 002	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING NO. DRAWING_NO.

REV. REV



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001	REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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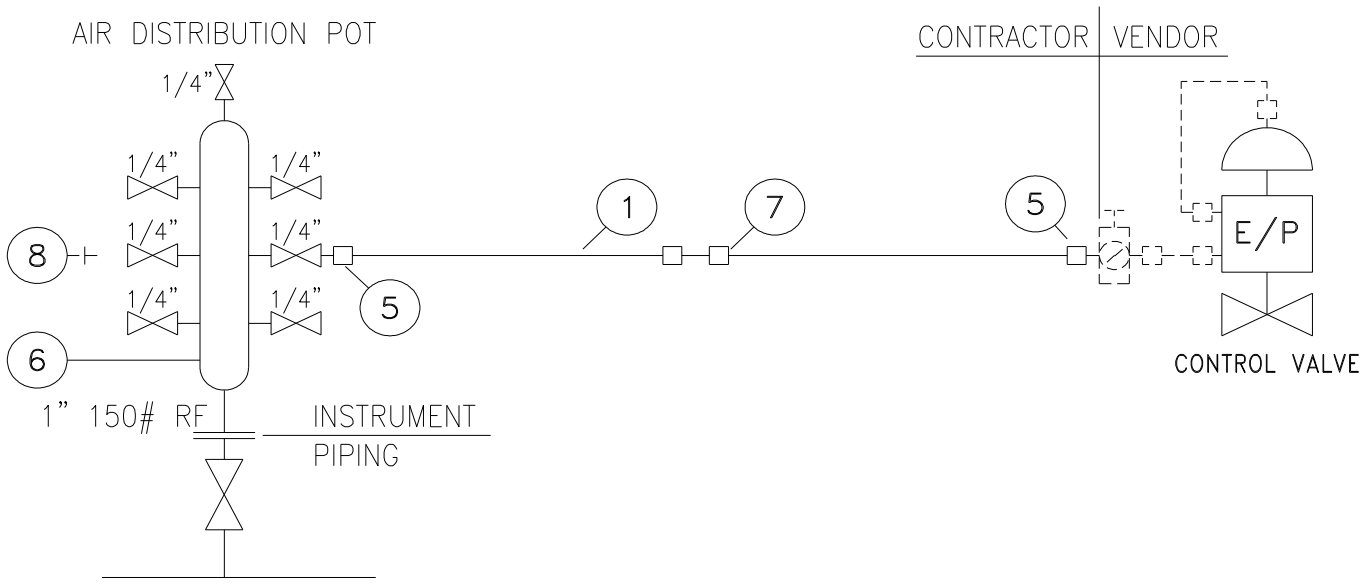
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Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
17	
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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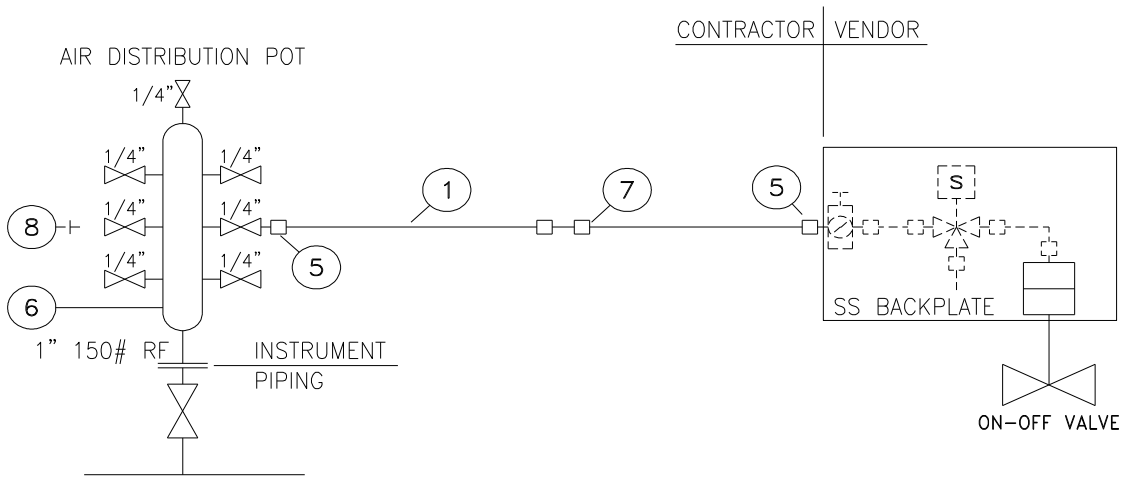
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63005	: Air Distribution Pot 5			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10002007		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

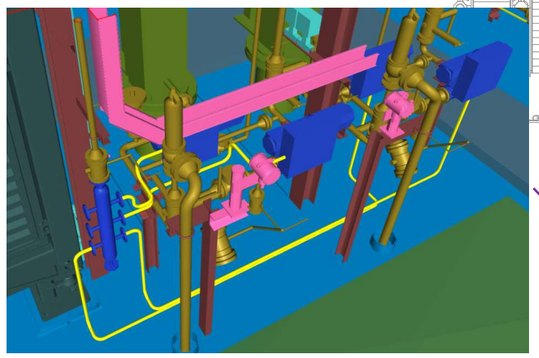
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	PL
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

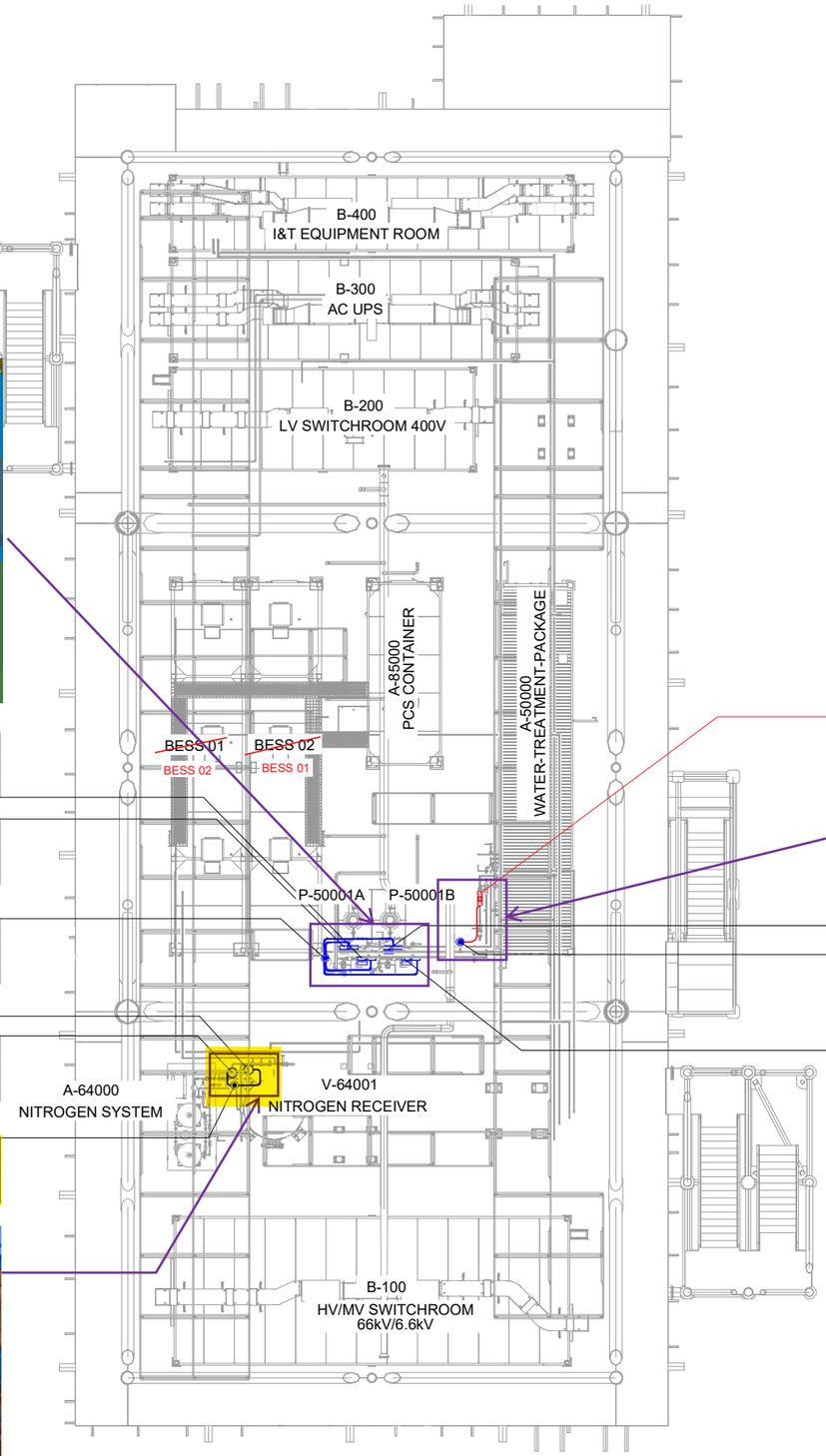
Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Alessio Polo	
Date	2025-01-24	2025-01-28	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-01-24T13:13:35.710Z	PROVERLIS Digitaly signed by Alessio Polo 2025-01-28T16:26:17.529Z	

DRAWING NO. 12390-DDL-IN-DL-40084

REV. 01





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+0.318mm T.O.S

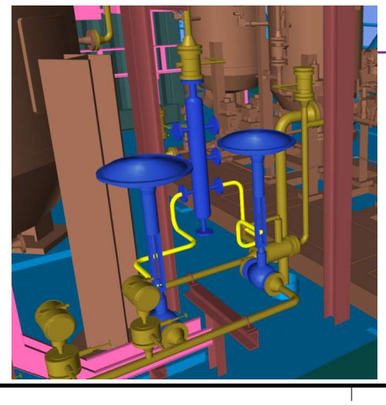
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64-PV-031A
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+0.072mm T.O.S

64-PV-031B
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AV-63005
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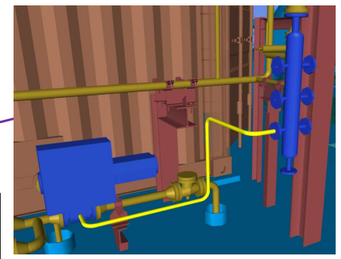


50-XV-005
+23.628mm
+0.318mm T.O.S.

50-XV-004
+23.628mm
+0.318mm T.O.S

AV-63009
+24.235mm
+0.925mm T.O.S

50-XV-003
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+0.318mm T.O.S

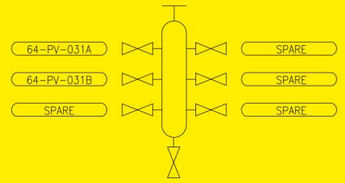


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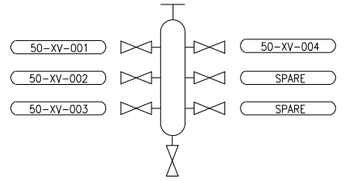
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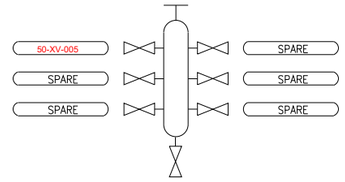
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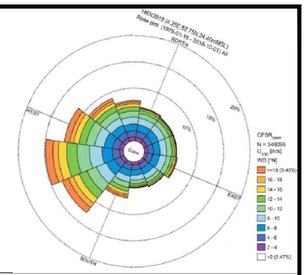


AV-63008



AV-63009





NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING

HOLDS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 23.310M

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:100

DRAWN DRAWN_BY | CHECKED CHECKED_BY | APPROVED APPROVED_BY | DATE DD/MM/YY

A1 | DRAWING NO. 123A90-DDL-IN-DL-40084 | SHEET 001 | REV. 01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40084**

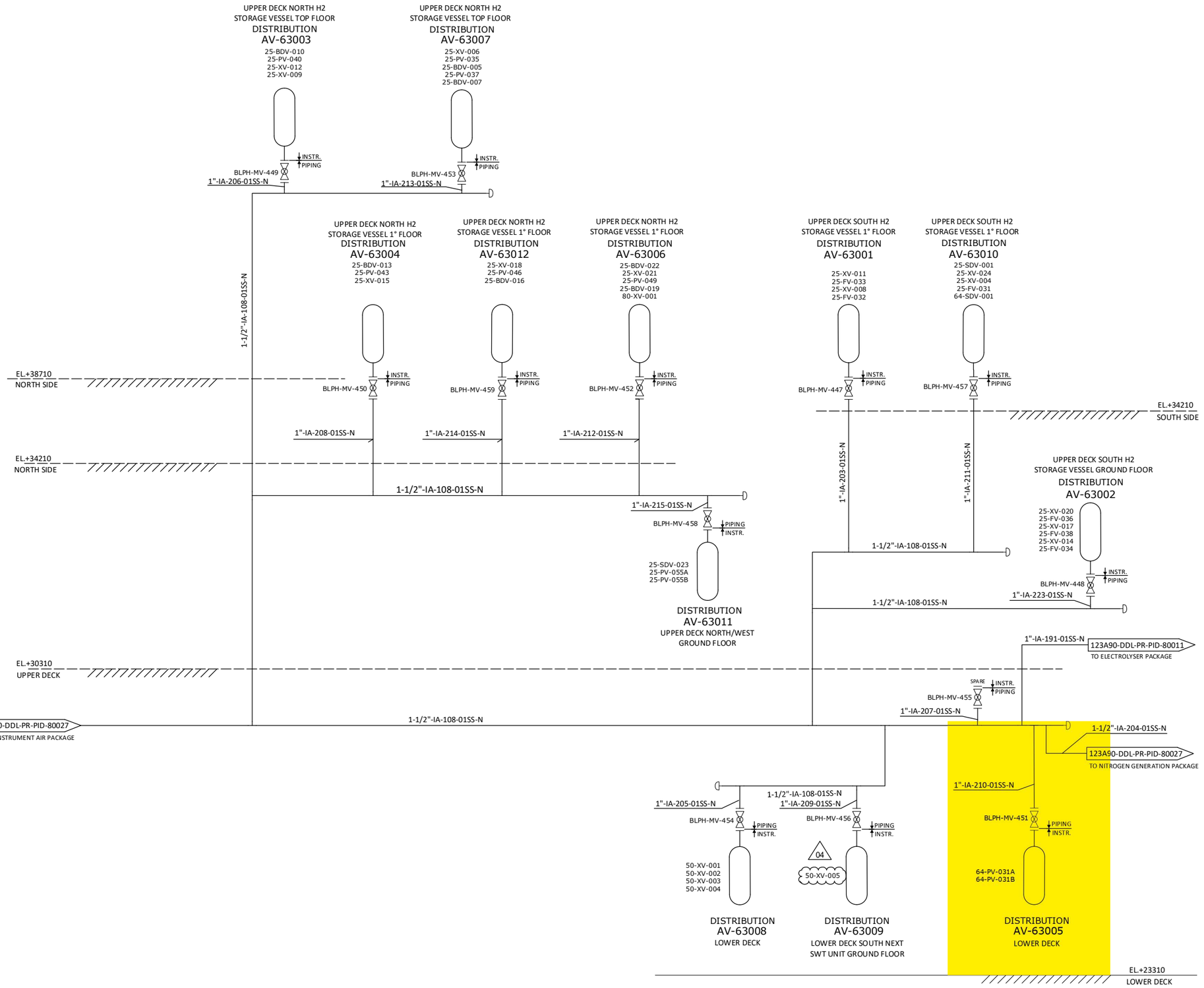
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1_D	12/12/24	C.Pilato

ROSETTI MARINO SpA

File Name : 12390-DDL-IN-DL-40084_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE

A1	DRAWING NO. 123A90-DDL-PR-PID-80041	SHEET 001	REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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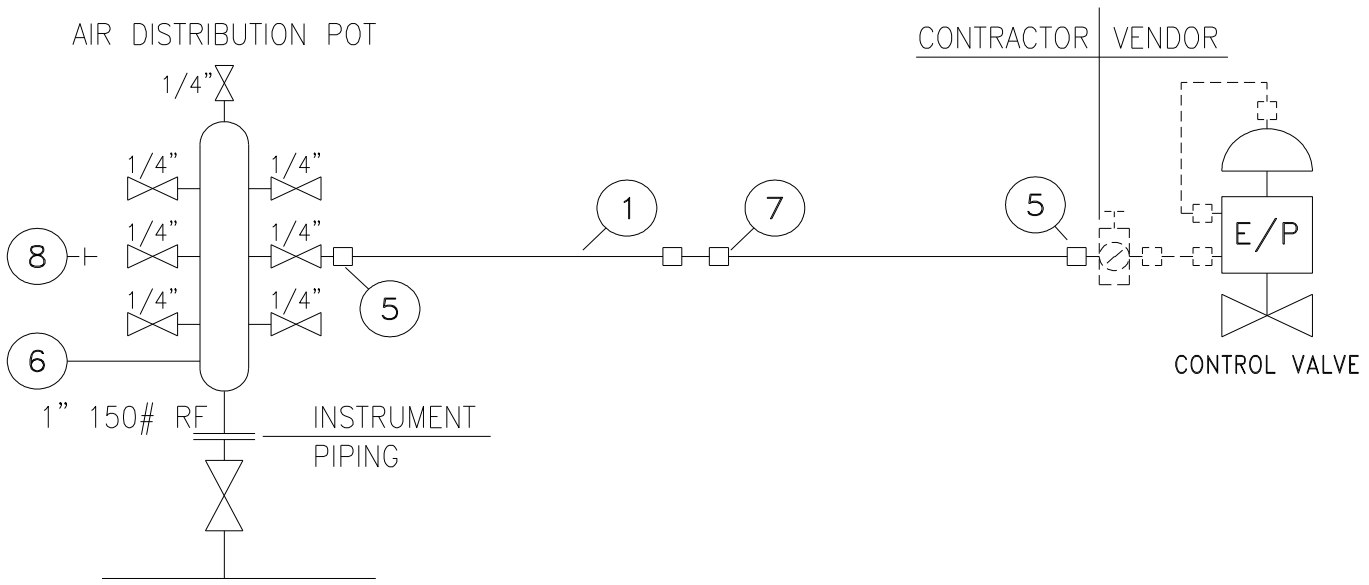
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Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-FV-032
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63006	: Air Distribution Pot 6			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002008		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

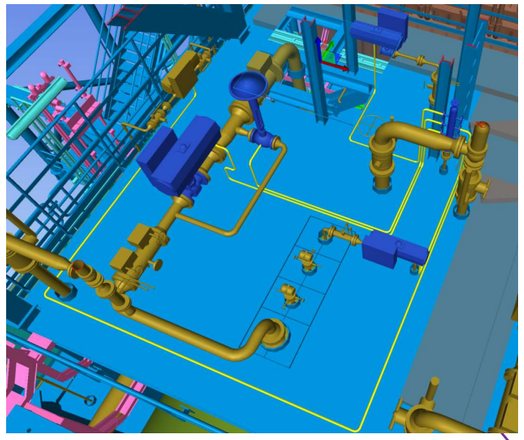
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

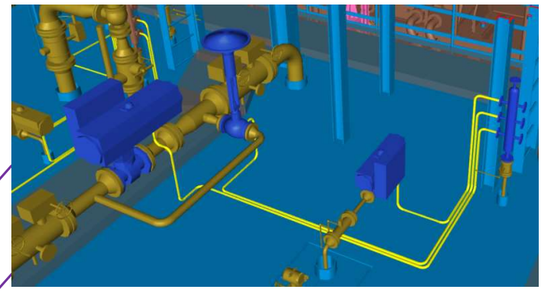
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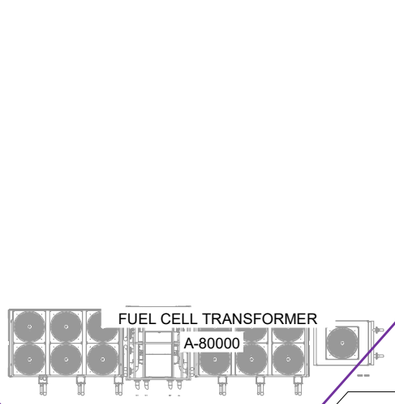
	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-14	2025-02-17	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-14T09:59:42.923Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-17T14:35:56.970Z	

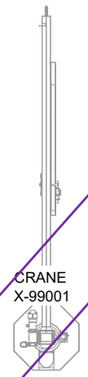
DRAWING NO. 123A90-DDL-IN-DL-40085

REV. 01









AV-63012
+35.085mm
+4.775mm T.O.S

AV-63004
+35.085mm
+4.775mm T.O.S

25-XV-015
+34.479mm
+4.169mm T.O.S

25-PV-043
+34.740mm
+4.430mm T.O.S

25-BDV-022
+34.740mm
+4.430mm T.O.S

AV-63006
+35.085mm
+4.775mm T.O.S

80-XV-001
+34.508mm
+4.198mm T.O.S

25-BDV-013
+34.740mm
+4.430mm T.O.S

25-PV-049
+34.740mm
+4.430mm T.O.S

25-BDV-019
+34.740mm
+4.430mm T.O.S

25-XV-018
+34.508mm
+4.198mm T.O.S

Q-43004
HYDROGEN VENT

25-XV-021
+34.479mm
+4.169mm T.O.S

25-BDV-016
+34.740mm
+4.430mm T.O.S

25-PV-046
+34.740mm
+4.430mm T.O.S

V-25001A V-25001B V-25001C

25-XV-008
+35.245mm
+4.935mm T.O.S

AV-63001
+35.834mm
+5.524mm T.O.S

REFER SHEET-001

HYDROGEN STORAGE VESSELS

AV-63010
+35.834mm
+5.524mm T.O.S

25-XV-011
+35.245mm
+4.935mm T.O.S

25-XV-024
+35.140mm
+4.830mm T.O.S

25-SDV-001
+35.140mm
+4.830mm T.O.S

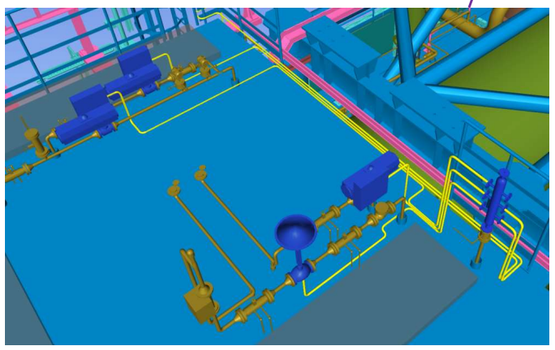
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+4.935mm T.O.S

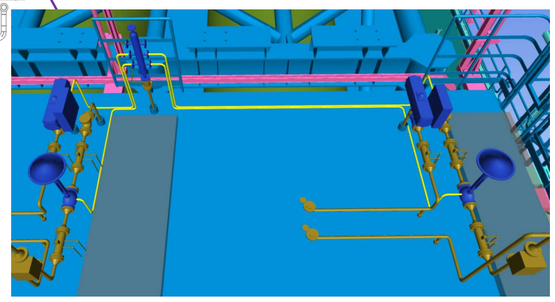
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+4.935mm T.O.S

25-FV-031
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+4.935mm T.O.S

25-FV-032
+35.245mm
+4.935mm T.O.S

A-20000
ELECTROLYSER



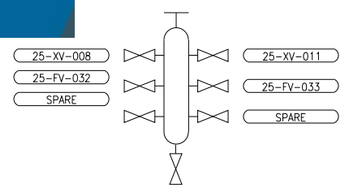


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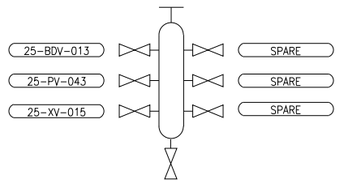
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VIEW EL. 33740mm to 36500mm

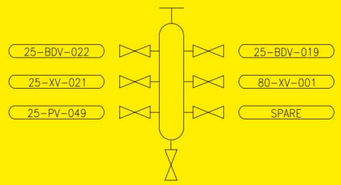
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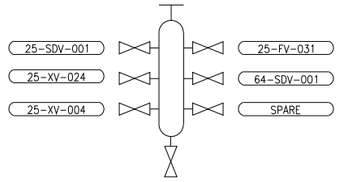
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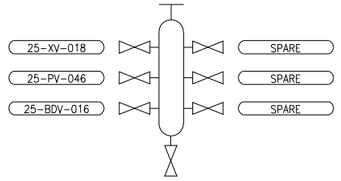
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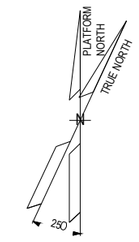


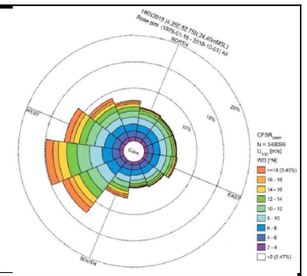
AV-63010



AV-63012







NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40085**

REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

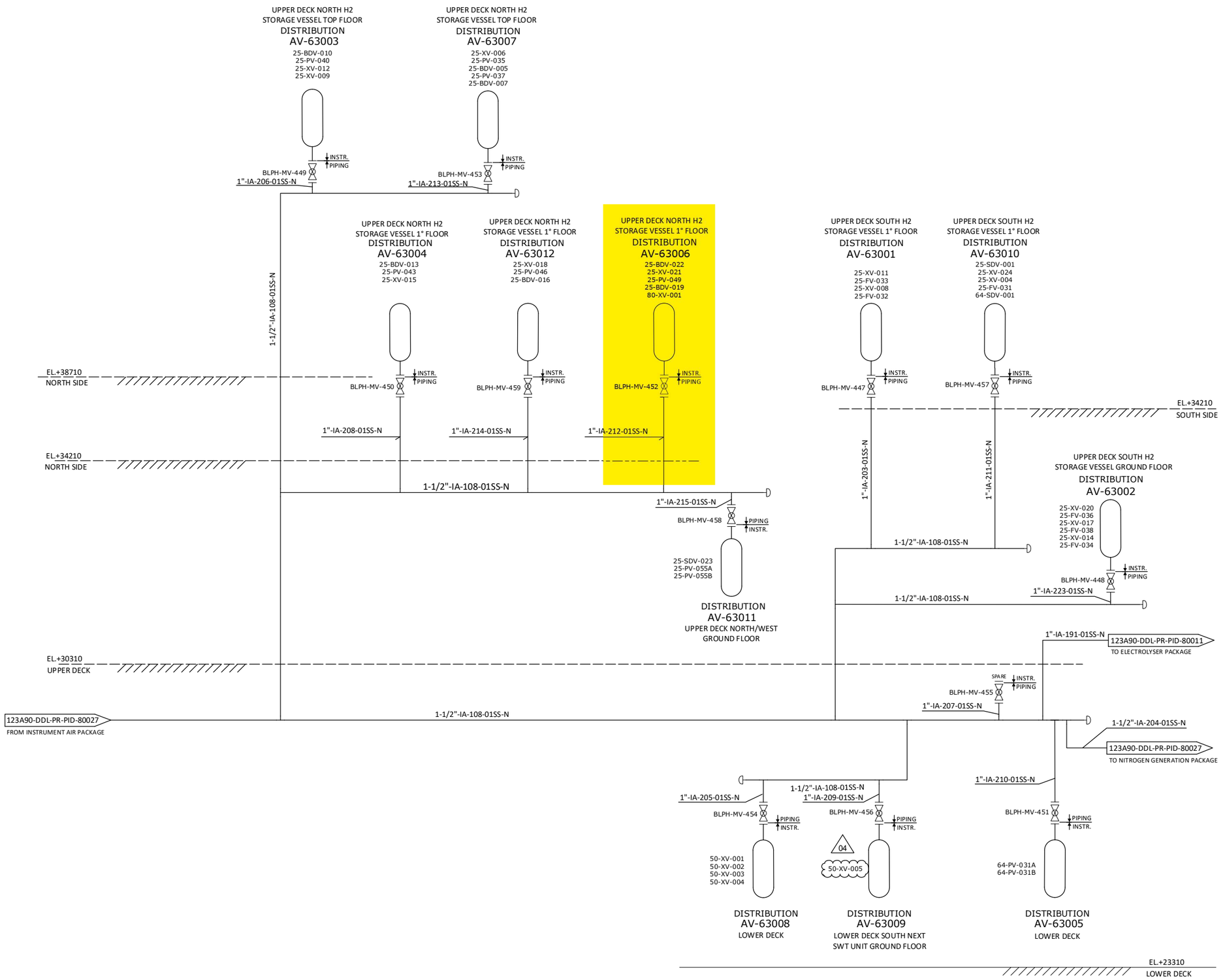
ROSETTI MARINO SpA

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK				SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY		DATE DD/MM/YY
A1	DRAWING NO. 123A90-DDL-IN-DL-40085		SHEET 002	REV. 01

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

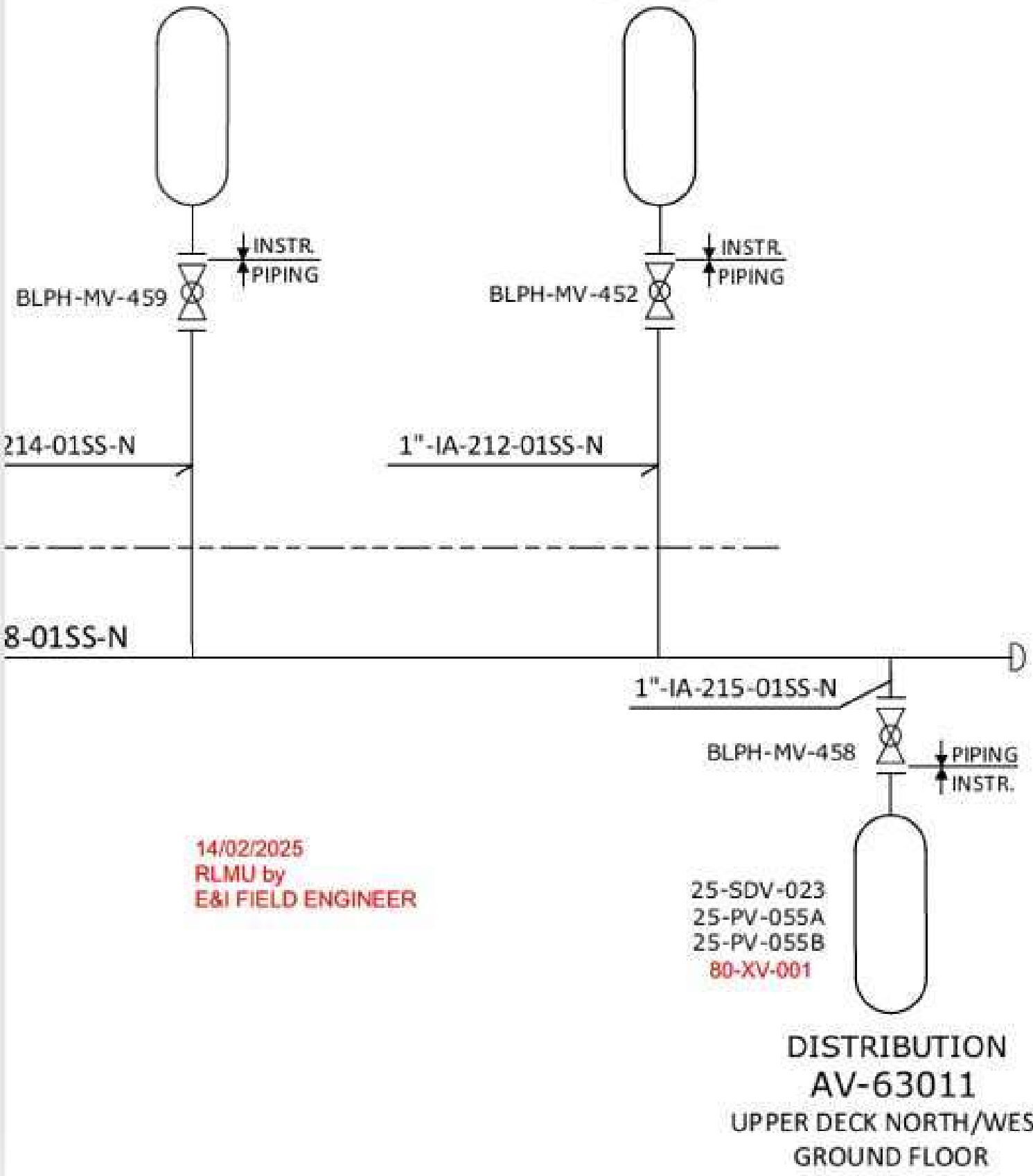
TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001	REV. 04

File Name : FILE_NAME

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63012
25-XV-018
25-PV-046
25-BDV-016

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63006
25-BDV-022
25-XV-021
25-PV-049
25-BDV-019
~~80-XV-001~~



14/02/2025
RLMU by
E&I FIELD ENGINEER

25-SDV-023
25-PV-055A
25-PV-055B
80-XV-001

DISTRIBUTION
AV-63011
UPPER DECK NORTH/WEST
GROUND FLOOR

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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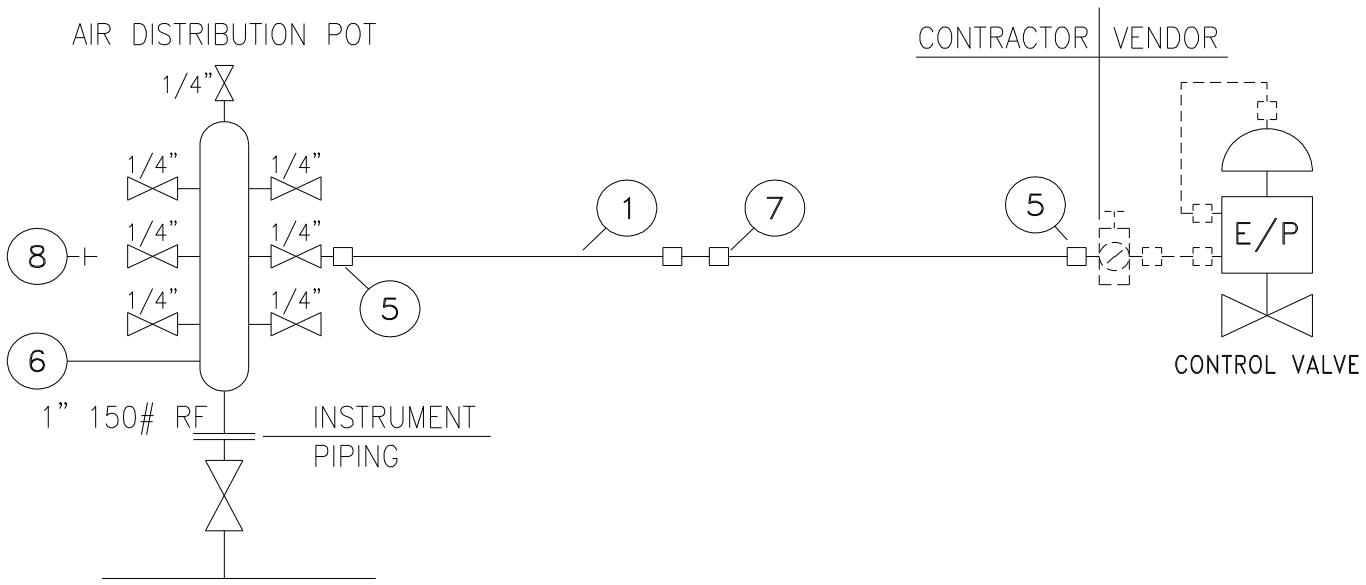
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-FV-031
2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
9	25-PV-040
10	25-PV-043
11	25-PV-046
12	25-PV-049
13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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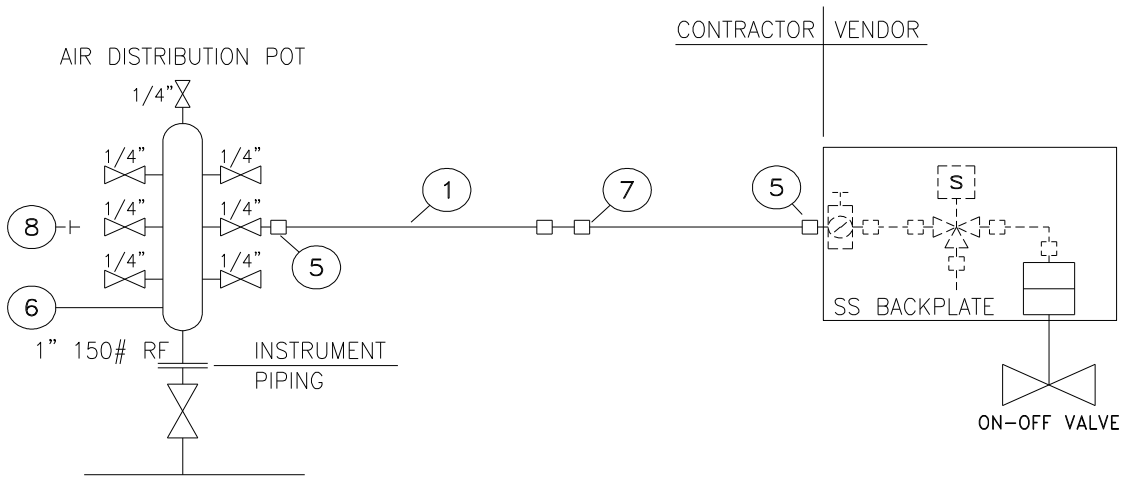
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
17	25-XV-015
18	25-XV-017
19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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ITEM	Tag	AV-63007	: Air Distribution Pot 7			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002009		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

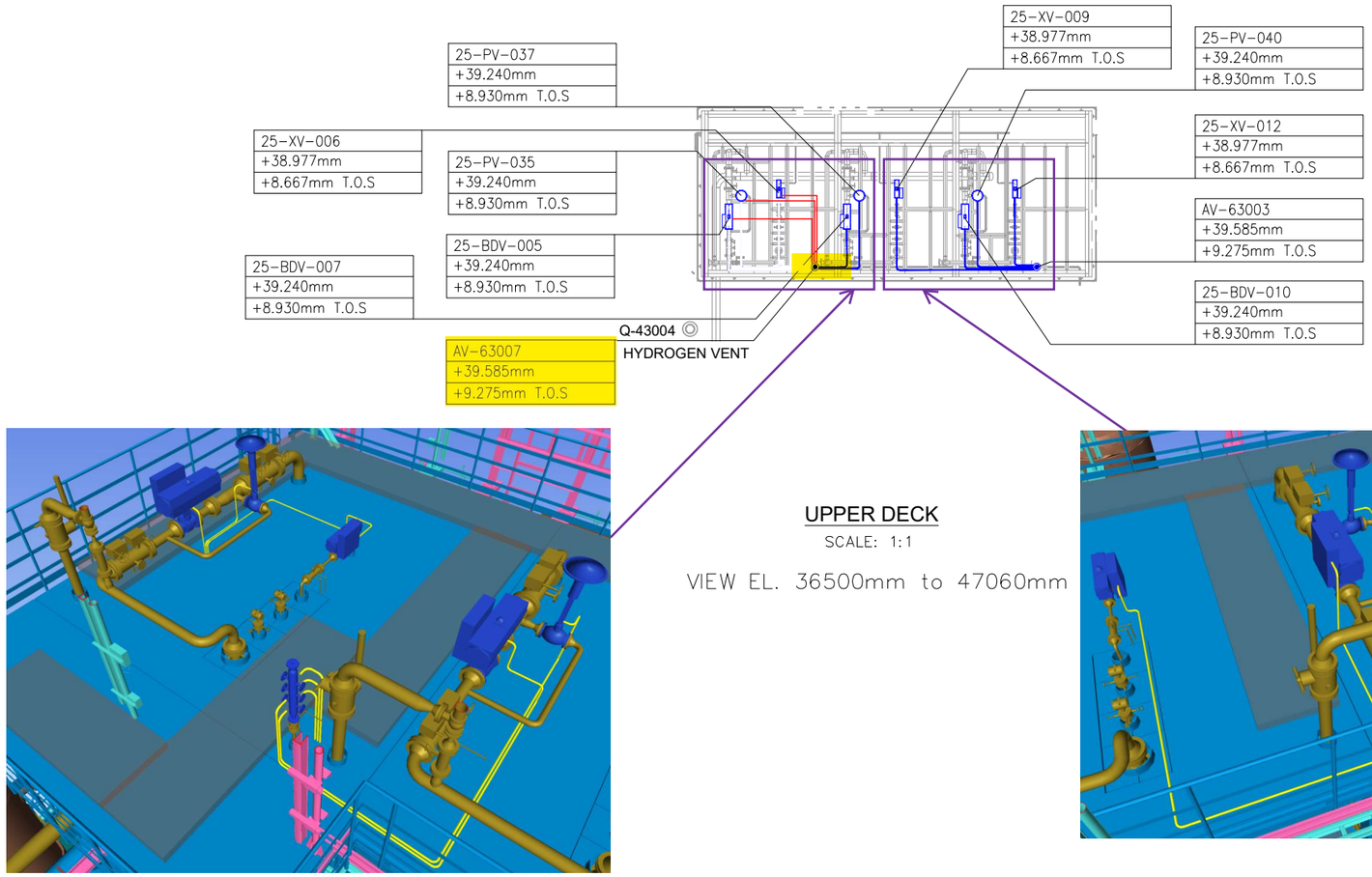
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-12	2025-02-12	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-12T07:44:12.408Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-12T08:25:35.839Z	

DRAWING NO. 12390-DDL-IN-DL-40085

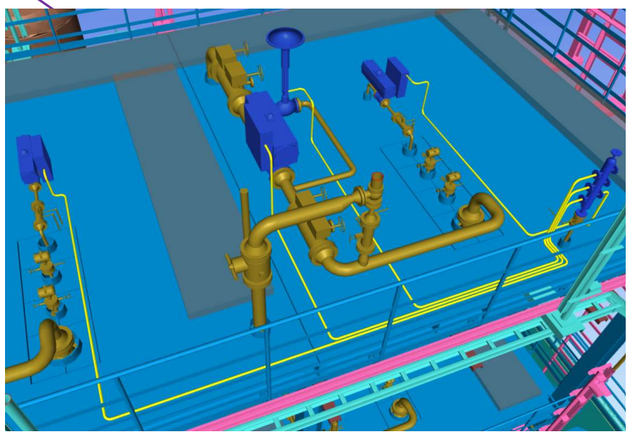
REV. 01

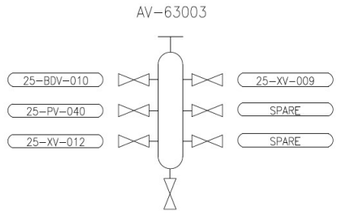


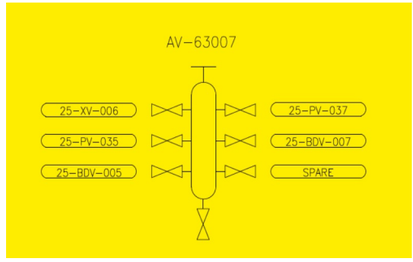
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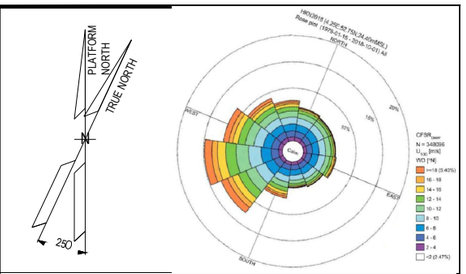
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VIEW EL. 36500mm to 47060mm









NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING
- TUBING GOING UP
- TUBING GOING DOWN

HOLDS

REFERENCE DOCUMENTS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 30.310 m

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY

A1	DRAWING NO.	SHEET	REV.
	123A90-DDL-IN-DL-40085	003	01

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40085

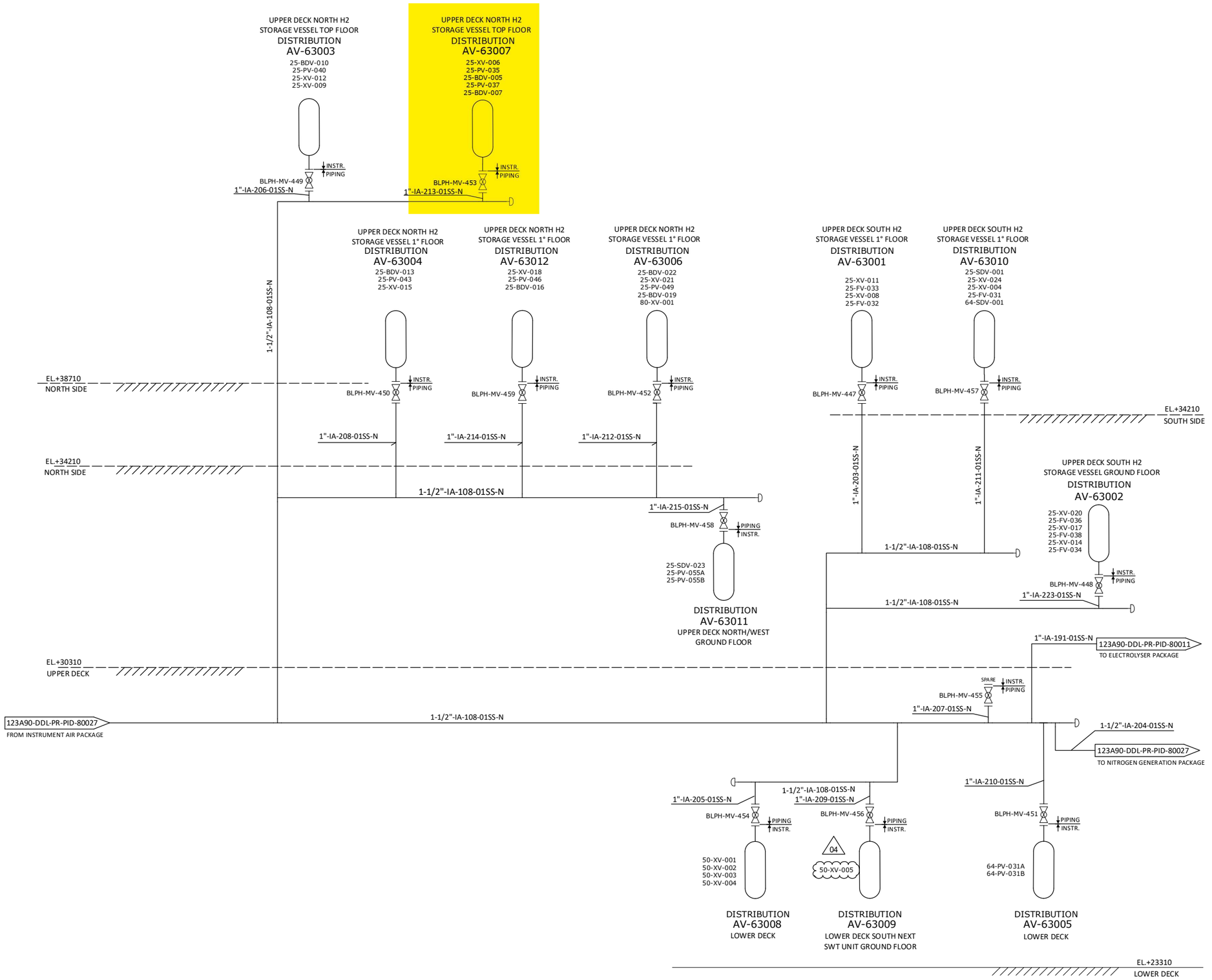
REV.:	DATE:	SIGNATURE:
1_C	12/12/24	C.Pilato

ROSETTI MARINO SpA

File Name : 12390-DDL-IN-DL-40085_Rev.01

DRAWING NO. DRAWING_NO.

REV. REV



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001 / REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

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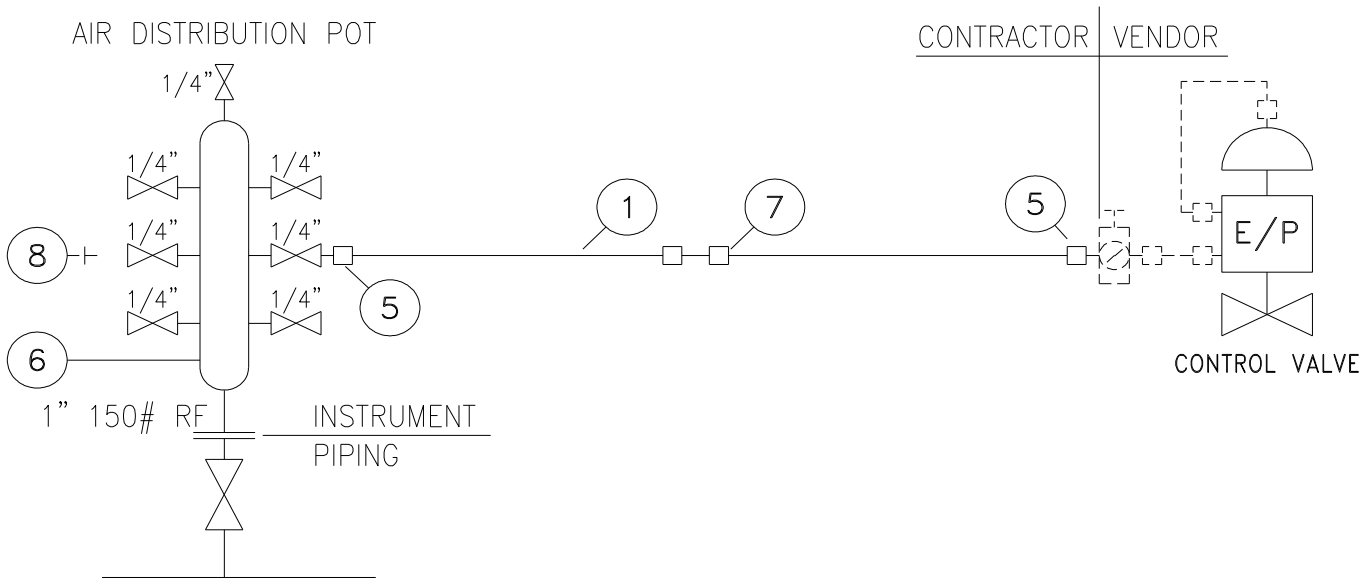
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 5 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR CONTROL VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
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2	25-FV-032
3	25-FV-033
4	25-FV-034
5	25-FV-038
6	25-FV-036
7	25-PV-035
8	25-PV-037
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11	25-PV-046
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13	25-PV-055A
14	25-PV-055B
15	64-PV-031A
16	64-PV-031B
17	
18	
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NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

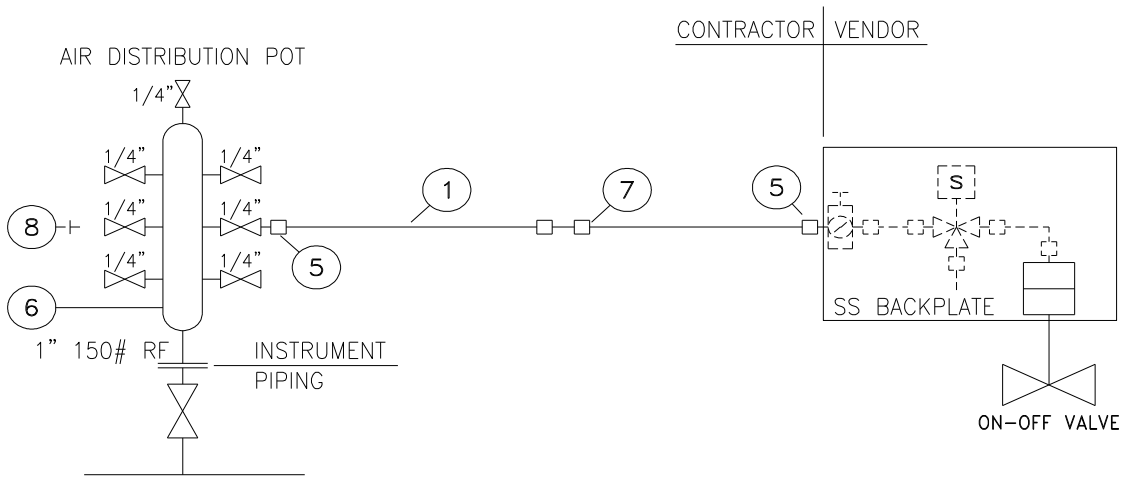
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
12	25-XV-008
13	25-XV-009
14	25-XV-011
15	25-XV-012
16	25-XV-014
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19	25-XV-018
20	25-XV-020
21	25-XV-021
22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

This document undergoes an issuance cycle within EDMS "Fusionlive".
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ITEM	Tag	AV-63008	: Air Distribution Pot 8		Dwg	123A90-DDL-PR-PID-80041	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	UD	
TASK	code	C10002010		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX00 Miscellaneous

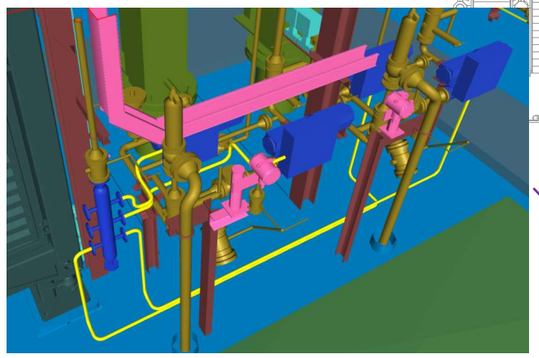
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	PL
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	PL
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

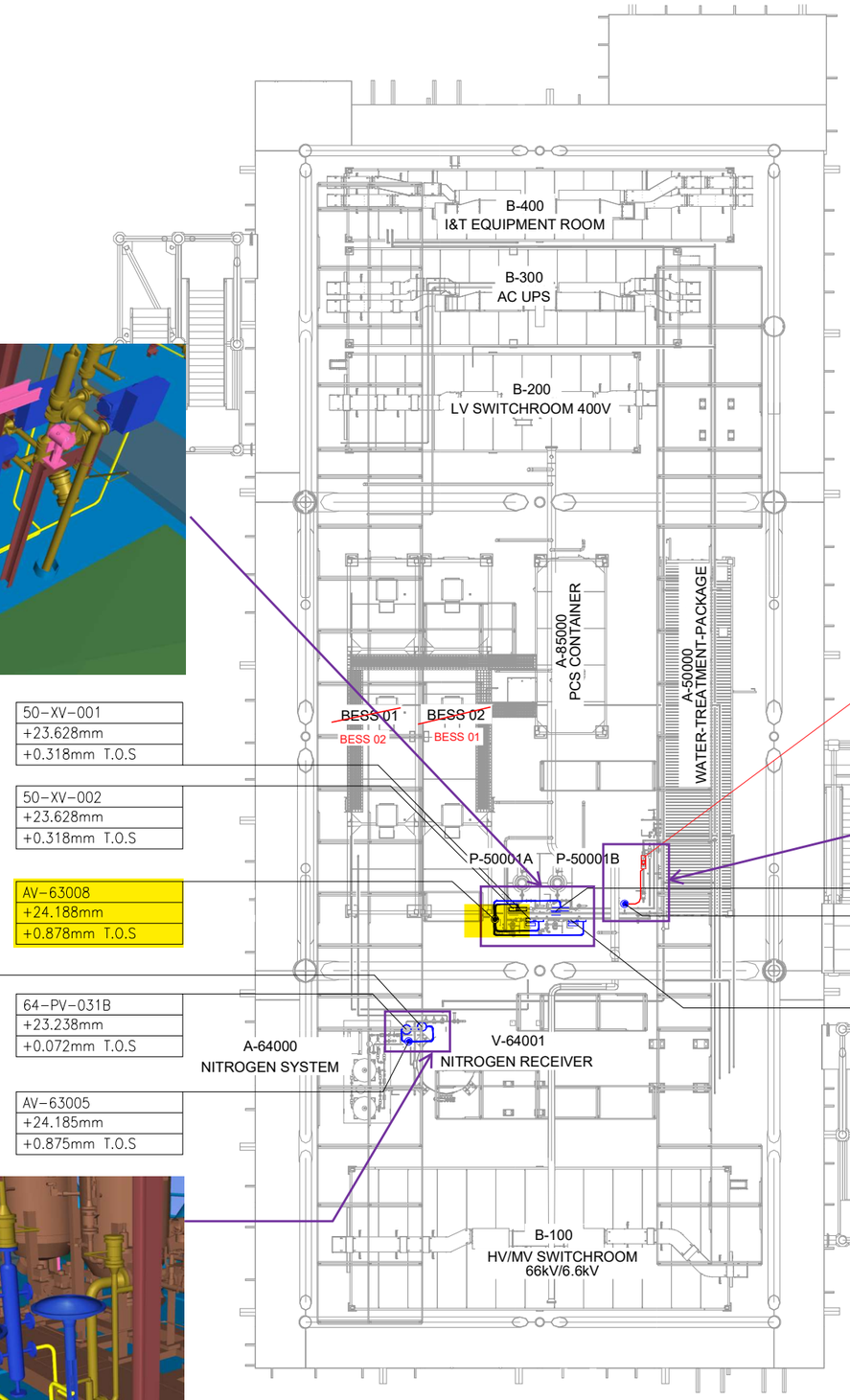
Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Alessio Polo	
Date	2025-02-04	2025-02-04	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-04T13:15:50.977Z	PROVERLIS Digitaly signed by Alessio Polo 2025-02-04T13:58:38.436Z	

DRAWING NO. 123A90-DDL-IN-DL-40084

REV. 01





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+0.318mm T.O.S

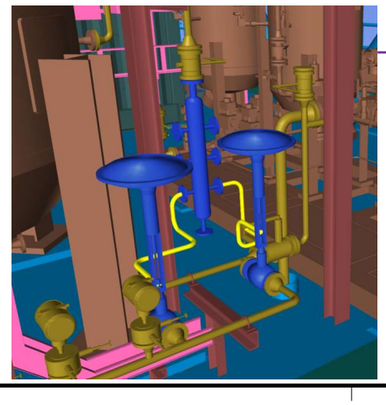
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+0.318mm T.O.S

AV-63008
+24.188mm
+0.878mm T.O.S

64-PV-031A
+23.238mm
+0.072mm T.O.S

64-PV-031B
+23.238mm
+0.072mm T.O.S

AV-63005
+24.185mm
+0.875mm T.O.S

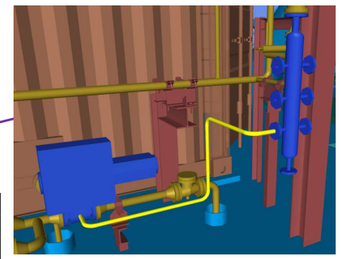


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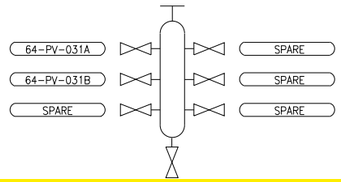
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+0.318mm T.O.S

AV-63009
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+0.925mm T.O.S

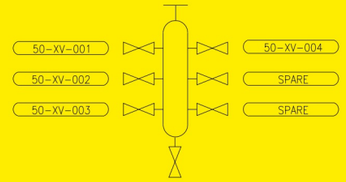
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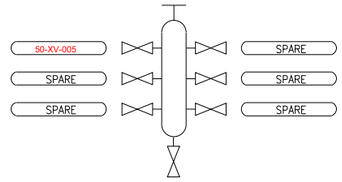
AV-63005



AV-63008



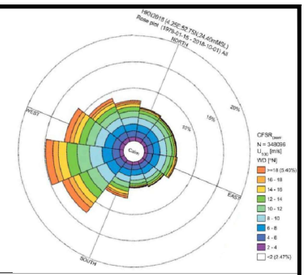
AV-63009



LOWER DECK

SCALE: 1:1

VIEW EL. 23310mm to 29310mm



NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING

HOLDS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40084**

REV.:	DATE:	SIGNATURE:
1_D	12/12/24	C.Pilato

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 23.310M

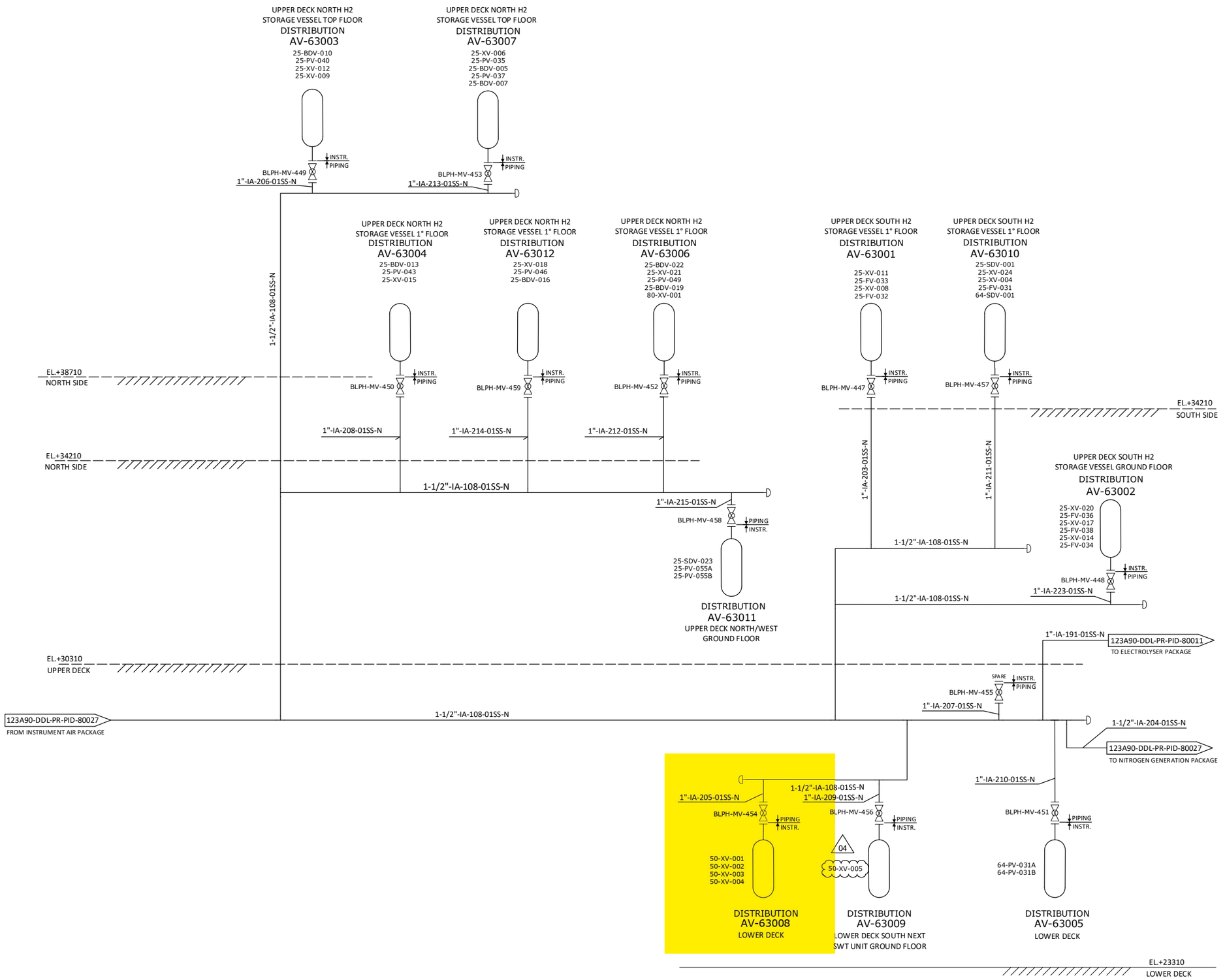
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:100
DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY

A1	DRAWING NO. 123A90-DDL-IN-DL-40084	SHEET 001	REV. 01

File Name : 12390-DDL-IN-DL-40084_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001 / REV. 04

File Name : FILE_NAME

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 4 of 6 Date: 08/07/2024 Rev. #

PNEUMATIC HOOK-UP - MATERIAL TAKE-OFF

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
1		SS316L TUBING (NOTE 1)	1/2" x 0,049"Thk	440 m
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 88
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	N. 12
8		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 44
7		SS316 PLUG	1/4" NPT	N. 24

NOTES:

(1) VENDOR SHALL GUARANTEE THE MATERIAL COUPLING BETWEEN TUBING AND FITTINGS.

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40078

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA

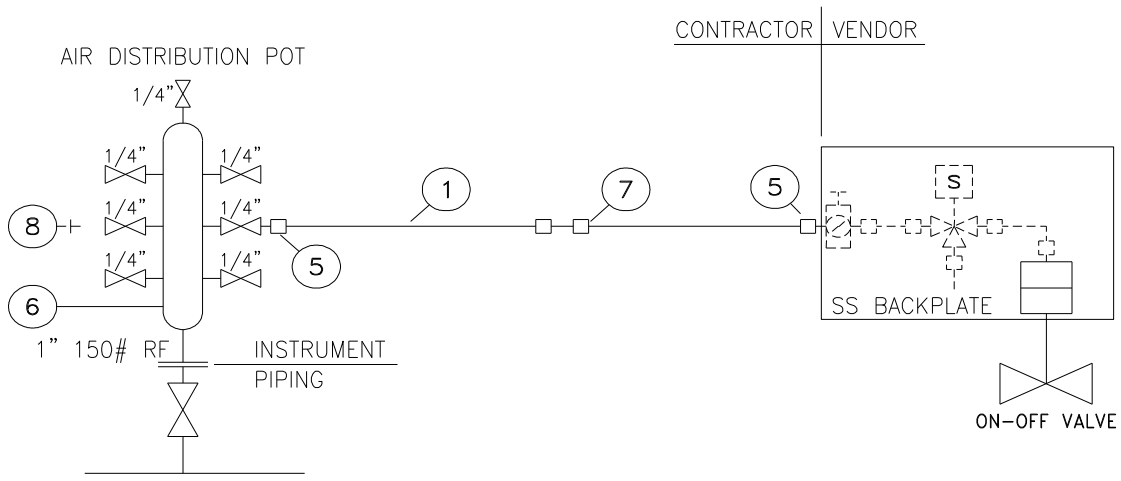
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PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
9	25-SDV-023
10	25-XV-004
11	25-XV-006
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22	25-XV-024
23	50-XV-001
24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

This document undergoes an issuance cycle within EDMS "Fusionlive".
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ITEM	Tag	AV-63009	: Air Distribution Pot 9			Dwg	123A90-DDL-PR-PID-80041
	S/Sys	63-30	: Instrument Air Distribution Network			Module	UD
TASK	code	C10002011		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

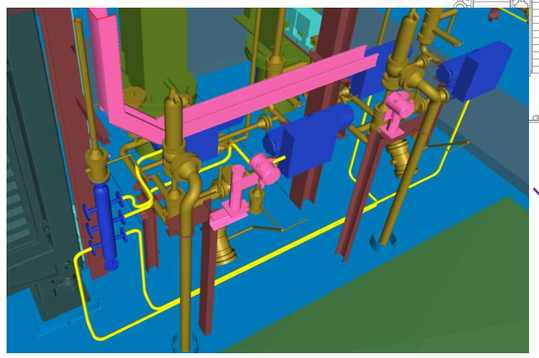
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	OK
5	Check that piping connections provide the block & bleed facility (if required).	OK
6	Check that all stop plugs are properly installed	OK
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	NA
10	If required produce Red Line Mark Up for "AS BUILT"	

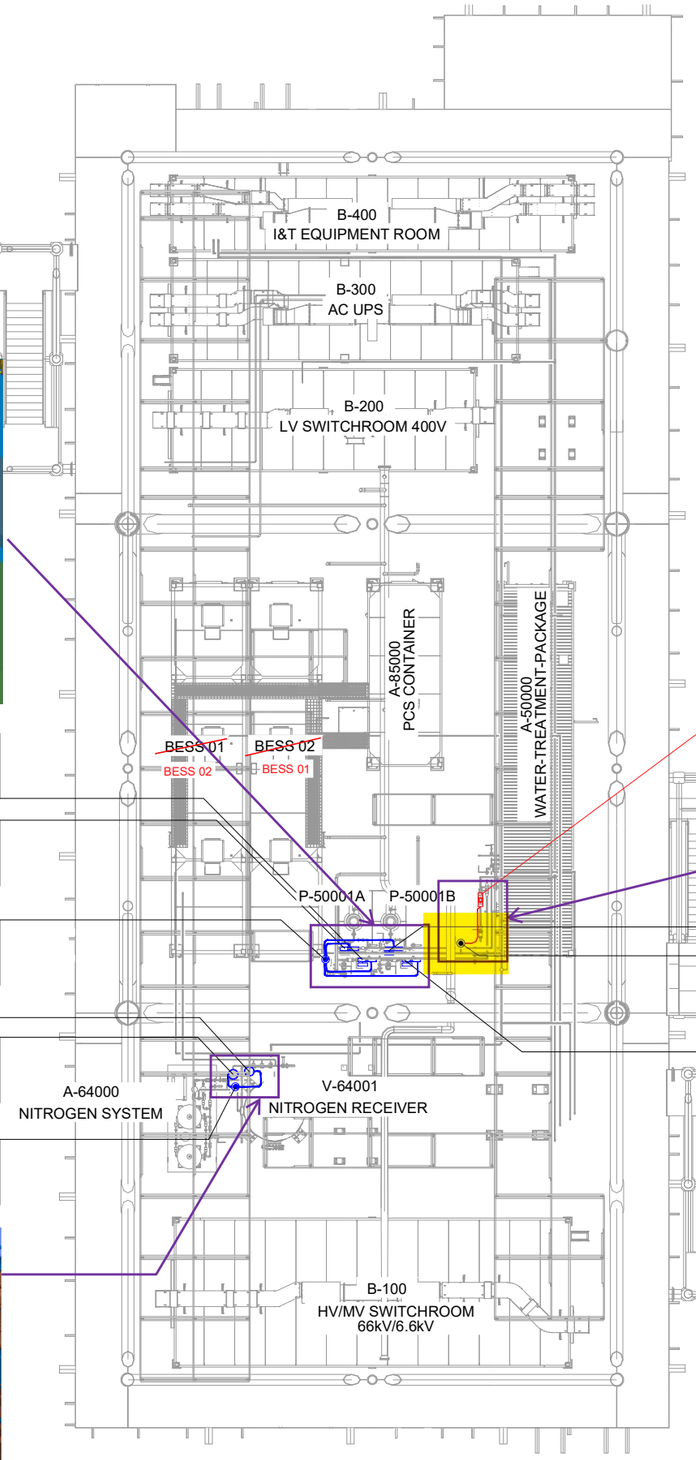
Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Michele Tartaglia	Giovanni Tangianu	
Date	2025-02-14	2025-02-17	
Signature	PROVERLIS Digitaly signed by Michele Tartaglia 2025-02-14T09:59:53.404Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-02-17T17:13:12.938Z	

DRAWING NO. 123A90-DDL-IN-DL-40084

REV. 01





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+0.318mm T.O.S

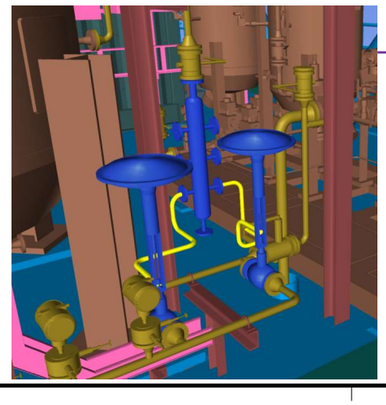
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AV-63008
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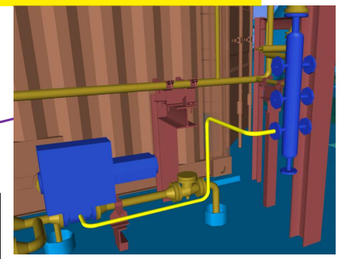
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+0.072mm T.O.S

64-PV-031B
+23.238mm
+0.072mm T.O.S

AV-63005
+24.185mm
+0.875mm T.O.S



50-XV-005
+23.628mm
+0.318mm T.O.S.



50-XV-004
+23.628mm
+0.318mm T.O.S

AV-63009
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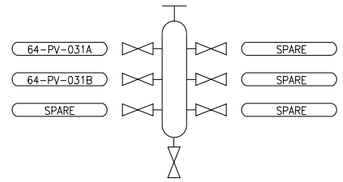
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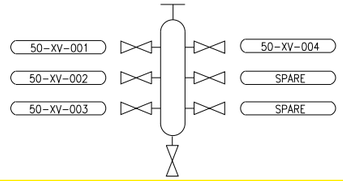
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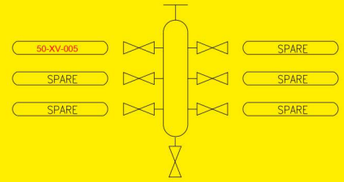
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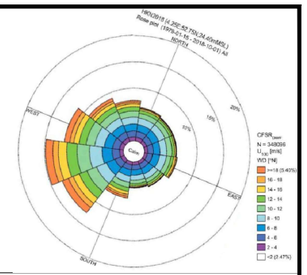


AV-63008



AV-63009





NOTES

1) TUBING ROUTING > 2m IS SHOWN AND IT IS INDICATIVE ONLY.
TUBING ROUTING SHALL BE FINALIZED DURING CONSTRUCTION ACTIVITIES.

LEGEND

- AIR DISTRIBUTION POT
- CONTROL VALVE
- ON-OFF VALVE
- TUBING

HOLDS

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/02/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40084**

REV.:	DATE:	SIGNATURE:
1_D	12/12/24	C.Pilato

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT TUBING LAYOUT
ELEVATION 23.310M

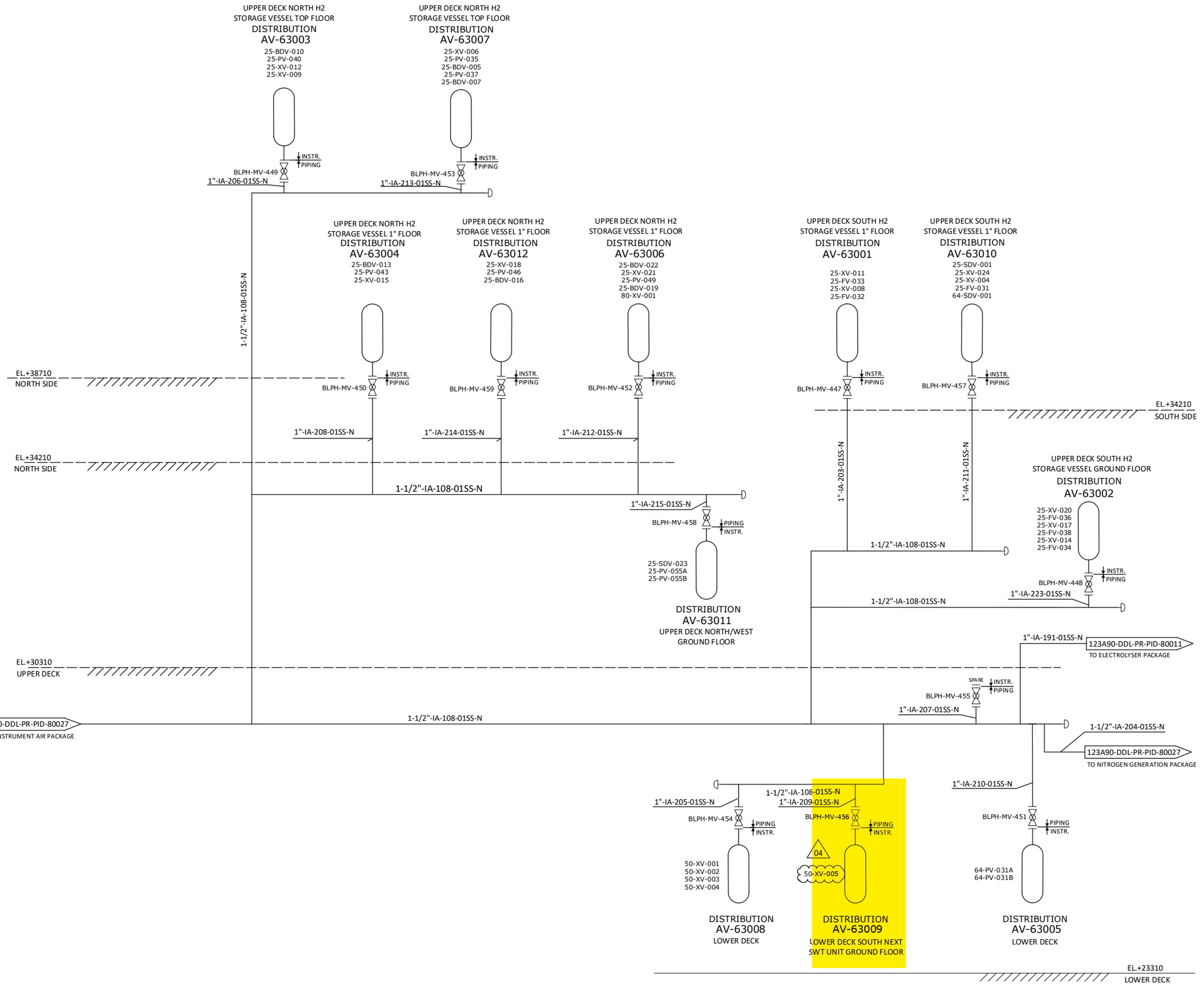
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DRAWN DRAWN_BY	CHECKED CHECKED_BY	APPROVED APPROVED_BY	DATE DD/MM/YY

A1	DRAWING NO. 123A90-DDL-IN-DL-40084	SHEET 001	REV. 01

File Name : 12390-DDL-IN-DL-40084_Rev.01

DRAWING_NO.

REV.



NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE NTS
DRAWN	CHECKED	APPROVED	DATE
A1	DRAWING NO. 123A90-DDL-PR-PID-80041		SHEET 001 / REV. 04

File Name : FILE_NAME

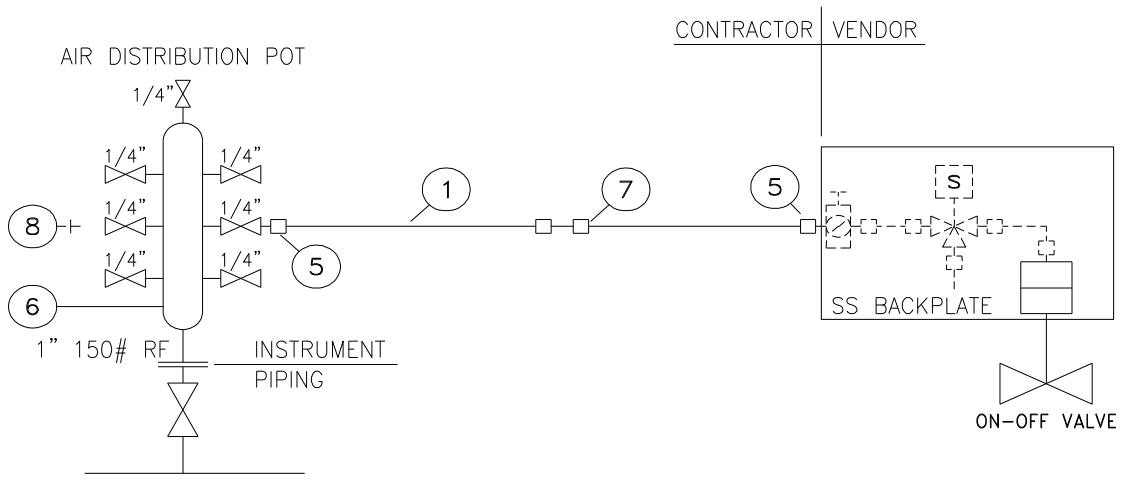
CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	Instrument Pneumatic Hook-Ups	Sh. 6 of 6 Date: 08/07/2024 Rev. 01

PNEUMATIC HOOK-UP FOR ON-OFF VALVES

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-HD-40078**

REV.:	DATE:	SIGNATURE:
1_B	06/11/24	G.Randi

ROSETTI MARINO SpA



INSTRUMENT TAG	
1	25-BDV-022
2	25-BDV-005
3	25-BDV-007
4	25-BDV-010
5	25-BDV-013
6	25-BDV-016
7	25-BDV-019
8	25-SDV-001
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24	50-XV-002
25	50-XV-003
26	50-XV-004
27	80-XV-001
28	64-SDV-001
29	50-XV-005
30	

NOTE:
(1) For Air Distribution Pot quantities see material take-off on sh. 4

POS.	NORM/STD CODE	DESCRIPTION	SIZE/CONNECTION TYPE	Q.TY
8		SS316 PLUG	1/4" NPT	Note 1
7		SS316 UNION	1/2" O.D. x 1/2" O.D.	N. 1
6		SS316 AIR DISTRIBUTION POT	1" 150#RF - N. 7 1/4" BALL VALVES	Note 1
5		SS316 MALE CONNECTOR	1/4" NPT x 1/2" O.D.	N. 2
1		SS 316L TUBING	1/2" x 0,049"Thk	10 m

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Section 7 MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE

NOT APPLICABLE

Section 8 MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE

NOT APPLICABLE

Section 9 MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE

NOT APPLICABLE

Section 10 MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC & discipline : P

Piping	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
036-1-J3	Joint 036-1-J3	ONSHORE	C10004233	TMX27	100	2025-01-13	RFC 1
036-1-J4	Joint 036-1-J4	ONSHORE	C10004234	TMX27	100	2025-01-14	RFC 1
036-1-J5	Joint 036-1-J5	ONSHORE	C10004235	TMX27	100	2025-01-14	RFC 1
095-1-J1	Joint 095-1-J1	ONSHORE	C10004132	TMX27	100	2025-01-13	RFC 1
095-1-J2	Joint 095-1-J2	ONSHORE	C10004133	TMX27	100	2025-01-13	RFC 1
095-1-J3	Joint 095-1-J3	ONSHORE	C10004134	TMX27	100	2025-01-13	RFC 1
101-1-J1	Joint 101-1-J1	ONSHORE	C10004138	TMX27	100	2025-01-13	RFC 1
101-1-J2	Joint 101-1-J2	ONSHORE	C10004139	TMX27	100	2025-01-18	RFC 2
103-1-J1	Joint 103-1-J1	ONSHORE	C10004143	TMX27	100	2025-01-13	RFC 1
103-1-J2	Joint 103-1-J2	ONSHORE	C10004144	TMX27	100	2025-01-18	RFC 2
104-1-J1	Joint 104-1-J1	ONSHORE	C10004145	TMX27	100	2025-01-13	RFC 1
104-1-J2	Joint 104-1-J2	ONSHORE	C10004146	TMX27	100	2025-01-18	RFC 2
105-1-J1	Joint 105-1-J1	ONSHORE	C10004147	TMX27	100	2025-01-13	RFC 1
105-1-J2	Joint 105-1-J2	ONSHORE	C10004148	TMX27	100	2025-01-13	RFC 1
106-1-J1	Joint 106-1-J1	ONSHORE	C10004149	TMX27	100	2025-01-13	RFC 1
106-1-J2	Joint 106-1-J2	ONSHORE	C10004150	TMX27	100	2025-01-20	RFC 2
107-1-J1	Joint 107-1-J1	ONSHORE	C10004151	TMX27	100	2025-01-13	RFC 1
107-1-J2	Joint 107-1-J2	ONSHORE	C10004152	TMX27	100	2025-01-18	RFC 2
108-1-J1	Joint 108-1-J1	ONSHORE	C10004153	TMX27	100	2025-01-13	RFC 1
108-1-J2	Joint 108-1-J2	ONSHORE	C10004154	TMX27	100	2025-01-18	RFC 2
109-1-J1	Joint 109-1-J1	ONSHORE	C10004155	TMX27	100	2025-01-14	RFC 1
109-1-J2	Joint 109-1-J2	ONSHORE	C10004156	TMX27	100	2025-01-20	RFC 2
110-1-J1	Joint 110-1-J1	ONSHORE	C10004157	TMX27	100	2025-01-13	RFC 1
110-1-J2	Joint 110-1-J2	ONSHORE	C10004158	TMX27	100	2025-01-20	RFC 2
111-1-J1	Joint 111-1-J1	ONSHORE	C10004159	TMX27	100	2025-01-15	RFC 1
111-1-J2	Joint 111-1-J2	ONSHORE	C10004160	TMX27	100	2025-01-18	RFC 2
112-1-J1	Joint 112-1-J1	ONSHORE	C10004161	TMX27	100	2025-01-13	RFC 1
112-1-J2	Joint 112-1-J2	ONSHORE	C10004162	TMX27	100	2025-01-20	RFC 2
113-1-J1	Joint 113-1-J1	ONSHORE	C10004163	TMX27	100	2025-01-13	RFC 1

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-30 & process: MC & discipline : P

Piping	63-30 Instrument Air Distribution Network						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
113-1-J2	Joint 113-1-J2	ONSHORE	C10004164	TMX27	100	2025-01-20	RFC 2
119-1-J1	Joint 119-1-J1	ONSHORE	C10004165	TMX27	100	2025-01-13	RFC 1
119-1-J2	Joint 119-1-J2	ONSHORE	C10004166	TMX27	100	2025-01-18	RFC 2
63-30-TP-027	Test Pack 63-30-TP-027	ONSHORE	C10003436	CLX02A	100	2024-12-20	RFC 2
		ONSHORE	C10003437	CLX02B	100	2025-02-03	RFC 2
		ONSHORE	C10003438	CXX02	100	2025-02-05	RFC 2
		ONSHORE	C10003439	TMX03	100	2024-12-24	RFC 2
		ONSHORE	C10003440	TMX05	100	2024-12-24	RFC 2
		ONSHORE	C10003442	TPLX05	100	2024-12-31	RFC 2

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027			Dwg	123A90-DDL-PR-PID-80011-27-41
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10003436		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	CLX02A Pipework Before Test

1	Check for each line of the Test Pack the NDT clearance.	OK
2	Confirm that materials conforms to the line specifications (ref. to the last issued revision of the isometric material table)	OK
3	Check the installation of all pipe – supports are in accordance with the specifications and drawings.	PL
4	Check that pipework at pump and vessel nozzles are free from spring.	PL
5	Check that the pipe flanges have been mounted square to each other. Also that the bolting and gaskets are correct (all TMX27 are complete, if necessary).	PL
6	Check bolt tightening and flange management (excluded battery limit joints).	PL
7	Check that the flow direction of the valves and check – valve is in the correct sense / direction (ball valves to be set at half open).	Note
8	Check that the removed equipment is in accordance with the agreed list of fragile devices. Check valve should be removed or flappers locked.	Note
9	Check that spool pieces or other substitution means have been put in place instead of the removed fragile device.	OK
10	Check the Blind list.	NA
11	Check that all the temporary material to perform the task are conforms to the procedure & suitable pressure rating.	OK
12	If required produce Red Line Mark Up for "AS BUILT".	

Comments: Ball Valve split body BLPH-MV-210 has not been installed in the line (differently as marked in P&I and isometric battery limit) before the pressure test.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (Rosetti marino)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-12-20	2024-12-20	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-12-20T05:18:27.185Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-12-20T12:58:51.503Z	

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027		Dwg	123A90-DDL-PR-PID-80011-27-41	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10003437	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	CLX02B	Pipework After Test

1	Check that the pipework and equipment are drained as per procedure.	OK
2	Check if all temporary equipment (test spades, filters ,spool pieces..etc) have been removed.	OK
3	All plugs installed on vents and drains for test have been removed.	OK
4	Check that all removed devices and valves have been re-installed.	OK
5	Check that the new gaskets have been installed after pipework and equipment reinstallation.	OK
6	All specific blinds and / or spectacle blinds have been correctly installed as per P&ID.	OK
7	Check that the pipework, valves , check valves are undamaged. Also check the ancillaries and any other components.	OK
8	After the (re) installation of a valve check that it operates freely.	OK
9	Check that the flow direction of the valves and check – valve is in correct sense /direction in correct open/closed position as per P&ID.	OK
10	Check all locking device.	OK
11	Check that the valves have been correctly lubricated and that they have the correct spindle packing.	NA
12	Check that all the bolts and fasteners are suitably lubricated inline with the flange management procedure.	OK
13	Check that the bolts have been tightned at opened joints.	OK
14	Check that all golden welds (final tie-ins without hydrotest) have been performed as per procedure.	NA
15	Check for the correct tagging, labeling and colour coding of pipework and equipment (only for bare pipe lines).	NA
16	Check that the pipework and equipment (re) installation conforms to the specifications, drawings and to the P&ID's.	PL
17	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-28	2025-02-03	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-28T14:49:30.800Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-02-03T08:32:21.295Z	

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027			Dwg	123A90-DDL-PR-PID-80011-27-41
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10003438		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Piping	Form	CXX02
							Painting Line

1	Check that the completed painting is in accordance with the specifications covering quality and thickness.	OK
2	Check that the color coding conforms to the specifications.	PL
3	Check that the fluid direction is correct.	PL
4	Check that line marking is correct.	NA
5	Check that the painting of piping systems and of the equipment is "touched-up" and conforms to the specifications.	PL
6	If required produce Red Line Mark Up for "AS BUILT".	

Comments: 1. Checked the painting report made by Vendor and signed by RM coating Dpt.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	IMPRESA DONELLI	RM (ROSETTI MARINO)	
Name	Alex Sanna	Kangi Albonetti	
Date	2025-02-04	2025-02-05	
Signature	PROVERLIS Digitaly signed by Alex Sanna 2025-02-04T12:34:44.462Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-02-05T12:41:12.601Z	

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027		Dwg	123A90-DDL-PR-PID-80011-27-41	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10003439	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX03	Cleaning

CLEANING MEDIUM

Air	Water	Steam	Oil	Other	Mechanical
☐	●	☐	☐	☐	☐

Component	NA					
Chemical treatment	No	NA	Filtration	No	Screen size	NA

EQUIPMENTS

Equipment **removed**	Yes	Agreed list of removed fragile devices to be attached to this Test Sheet	NA
Excepted removed equipments, pipework installation is conform to the specifications & PID's			OK
Equipment **added**	No	Exhaustive list to be attached (temporary filters, spools…etc)	NA

TEST RESULTS

Test date	21/12/2024	Start time	10:15	End time	10:45
Flow rate	NA	Duration	30 min	Medium T°	NA

Operation Description

Connected the water source to the lowest point of the piping system.
Maintained a high flow rate to help dislodging and carry away debrises.
Flushing flow kept until the water exiting the system was clear and free of visible contaminants. Expelled water inspected for any debris to be noted.

Safety Precautions

Restricting access to the area.

Result and comments

Water has been found clear of debris. All contaminants have been expelled.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (Rosetti Marino)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-12-20	2024-12-24	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-12-20T05:18:40.459Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-12-24T11:44:47.547Z	

ROSETTI MARINO | CROSSWIND

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027		Dwg	123A90-DDL-PR-PID-80011-27-41	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10003440	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX05	Pressure Test

TEST DATA

Reference procedure	123A90-PML-QHSE-PRO-00092				
Design pressure	12 barg	Max test pressure	18 barg	Min hold period	30 min

TEST PREPARATION

Check all equipments used for the test are safe for use under pressure (valide certificate)	Yes
Pressure relief devices are installed and in line and set to correct pressure (calibration certificate)	Yes

Medium

Test medium	WATER

TEST RESULTS

Test date	See attachment	Start time	See attachment	End time	See attachment
Ambient temperature is recorded	NA			Test medium temperature is recorded	No
Pressure recorded during test hold period	Min See attachment	Max See attachment		Variation	See attachment
Line has been depressurised to	NA			At maximum of bar/min	See attachment
Pressure test completed sucessfully and approved	Yes			Temperature and pressure disc chart attached	NA
Instrument calibration certificates attached	Yes			Dead-weight tester log attached	NA
Record of failures and corrective action attached	No			Battery limits of the test attached	Yes
If required produce Red Line Mark Up for "AS BUILT".					

Comments:

Page 1/1	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-12-20	2024-12-24	
Signature	Digitaly signed by Emanuele Delfino 2024-12-20T05:18:52.410Z	Digitaly signed by Massimo Bruschi 2024-12-24T11:42:47.608Z	

Logger protocol
Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-30-TP-027 (2)

Instrument
Strumento

Electrical pressure gauge *Misuratore di pressione elettronico*	
Model *Modello*	CPG1500
Serial number *Numero di serie*	1A014ILNH2N
Log temperature *Registrazioni di Temperatura*	Active *Attivo*
Scale range *Campo scala*	(0 ... 1000) bar a
Accuracy *Accuratezza*	0.1 % FS
Tag number *Numero tag*	
Communication *Comunicazione*	Wireless (00:13:43:85:E0:AF)

Measurement conditions
Condizioni di misura

Settings *Impostazioni*	
Mode *Modalità*	Automatic *Automatico*
Interval (ms) *Intervallo (ms)*	60000
Duration (hh:mm:ss) *Durata (hh:mm:ss)*	00:57:19
Start time (hh:mm:ss) *Tempo di avvio (hh:mm:ss)*	11:04:49 am

Logger protocol

Protocollo di acquisizione elenco dati

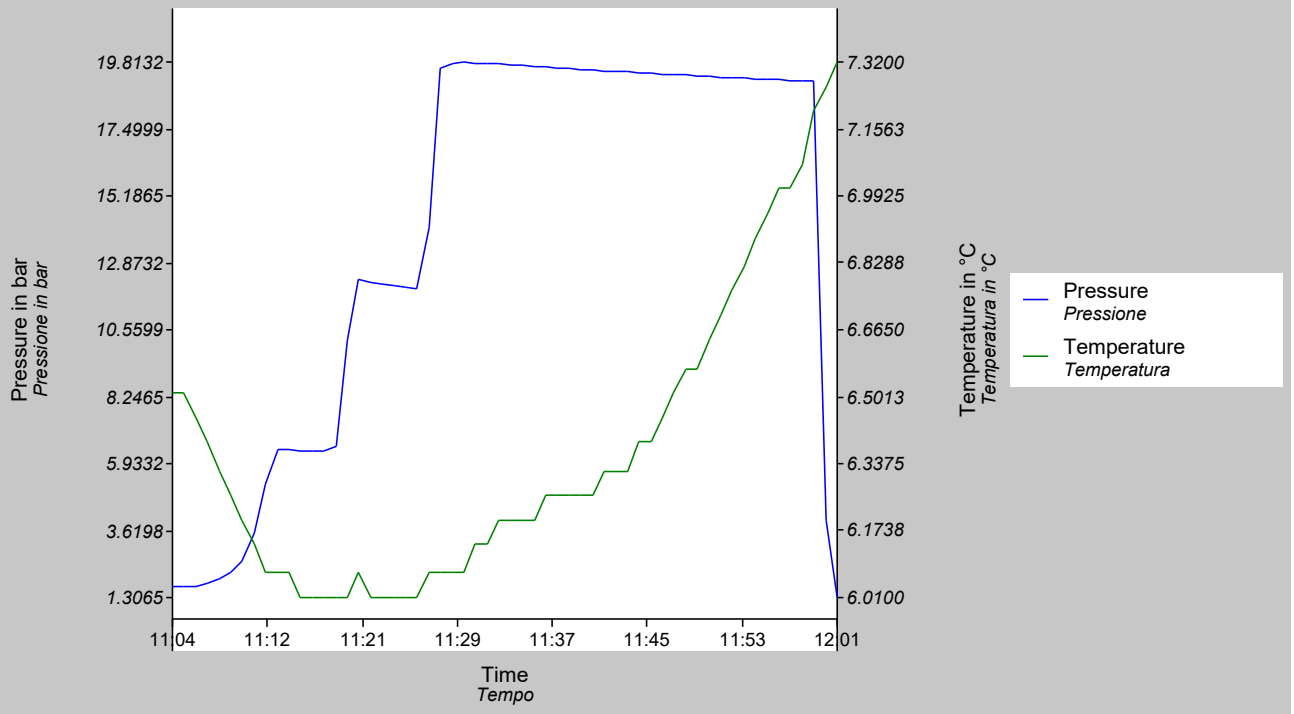
ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-30-TP-027 (2)

Measurement results

Risultati della misura

Graphical representation of progression
Rappresentazione grafica dell'andamento



Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
12/21/2024 11:04:49.000	1.6785	6.5100
12/21/2024 11:05:49.000	1.6845	6.5100
12/21/2024 11:06:49.000	1.7110	6.4500
12/21/2024 11:07:49.000	1.7860	6.3900
12/21/2024 11:08:49.000	1.9443	6.3200
12/21/2024 11:09:49.000	2.1743	6.2600
12/21/2024 11:10:49.000	2.5376	6.2000
12/21/2024 11:11:49.000	3.5483	6.1400
12/21/2024 11:12:49.000	5.2424	6.0700
12/21/2024 11:13:49.000	6.4104	6.0700
12/21/2024 11:14:49.000	6.3987	6.0700
12/21/2024 11:15:49.000	6.3841	6.0100
12/21/2024 11:16:49.000	6.3723	6.0100
12/21/2024 11:17:49.000	6.3576	6.0100
12/21/2024 11:18:49.000	6.5423	6.0100
12/21/2024 11:19:49.000	10.1883	6.0100
12/21/2024 11:20:49.000	12.2850	6.0700

Logger protocol

Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-30-TP-027 (2)

Measurement results

Risultati della misura

Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
12/21/2024 11:21:49.000	12.2171	6.0100
12/21/2024 11:22:49.000	12.1575	6.0100
12/21/2024 11:23:49.000	12.0951	6.0100
12/21/2024 11:24:49.000	12.0411	6.0100
12/21/2024 11:25:49.000	11.9924	6.0100
12/21/2024 11:26:49.000	14.0772	6.0700
12/21/2024 11:27:49.000	19.6058	6.0700
12/21/2024 11:28:49.000	19.7443	6.0700
12/21/2024 11:29:49.000	19.8132	6.0700
12/21/2024 11:30:49.000	19.7844	6.1400
12/21/2024 11:31:49.000	19.7598	6.1400
12/21/2024 11:32:49.000	19.7329	6.2000
12/21/2024 11:33:49.000	19.7081	6.2000
12/21/2024 11:34:49.000	19.6843	6.2000
12/21/2024 11:35:49.000	19.6574	6.2000
12/21/2024 11:36:49.000	19.6317	6.2600
12/21/2024 11:37:49.000	19.6065	6.2600
12/21/2024 11:38:49.000	19.5790	6.2600
12/21/2024 11:39:49.000	19.5521	6.2600
12/21/2024 11:40:49.000	19.5298	6.2600
12/21/2024 11:41:49.000	19.5068	6.3200
12/21/2024 11:42:49.000	19.4834	6.3200
12/21/2024 11:43:49.000	19.4633	6.3200
12/21/2024 11:44:49.000	19.4413	6.3900
12/21/2024 11:45:49.000	19.4192	6.3900
12/21/2024 11:46:49.000	19.3967	6.4500
12/21/2024 11:47:49.000	19.3751	6.5100
12/21/2024 11:48:49.000	19.3526	6.5700
12/21/2024 11:49:49.000	19.3349	6.5700
12/21/2024 11:50:49.000	19.3154	6.6400
12/21/2024 11:51:49.000	19.2941	6.7000
12/21/2024 11:52:49.000	19.2731	6.7600
12/21/2024 11:53:49.000	19.2547	6.8200
12/21/2024 11:54:49.000	19.2365	6.8900
12/21/2024 11:55:49.000	19.2180	6.9500
12/21/2024 11:56:49.000	19.1996	7.0100
12/21/2024 11:57:49.000	19.1833	7.0100
12/21/2024 11:58:49.000	19.1688	7.0700
12/21/2024 11:59:49.000	19.1515	7.2000
12/21/2024 12:00:49.000	3.9985	7.2600
12/21/2024 12:01:49.000	1.3065	7.3200

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I Traversa, n. 8
70026 - Modugno (BA) • Italy
www.wika.it

Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

CERTIFICATO DI TARATURA LAT 114 0514-SM-24

Certificate of Calibration

- data di emissione date of issue	2024-10-31
- cliente customer	FAST AUTOMATION SRL VIA DELLA PREVIDENZA SOCIALE, 8 IT-42124 REGGIO EMILIA (RE)
- destinatario receiver	ROSETTI MARINO SPA - YARD PIOMBONI VIA DEL MARCHESATO, 37 IT-48122 MARINA DI RAVENNA (RA)

Il presente certificato di taratura è emesso in base all'accreditamento LAT N. 114 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali ed internazionali delle unità del Sistema Internazionale delle Unità (SI).
Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

Si riferisce a
referring to

- oggetto *item*	Misuratore di pressione elettronico Electrical pressure gauge
- costruttore *manufacturer*	WIKA
- modello *model*	CPG1500
- matricola *serial number*	1A014ILNH2N
- data di ricev. oggetto *date of receipt of item*	2024-10-24
- data delle misure *date of measurements*	2024-10-31
- registro di laboratorio *laboratory reference*	0514-SM-24

This certificate of calibration is issued in compliance with the accreditation LAT No.114 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, metrological competence of the Centre and the traceability of calibration results to the national and International standards of the International System of Units (SI).
This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura *k* corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore *k* vale 2.

The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.

Direzione Tecnica
(Approving Officer)

Enrico Reccagni

Enrico Reccagni

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Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

CARATTERISTICHE DELLO STRUMENTO IN TARATURA/ Properties of devices under calibration

Misuratore di pressione elettronico *Electrical pressure gauge*	
Tipo *Model*	Misuratore di pressione elettronico Electrical pressure gauge
Numero di matricola *Serial No.*	1A014ILNH2N
Campo di misura *Scale range*	(0 ... 1000) bar g
Accuratezza dichiarata dal costruttore *Accuracy declared by the manufacturer*	0,1 % FS
Risoluzione *Resolution (scale division)*	0,1 bar
Tag. N. *Tag No.*	--

Procedura di taratura e catena di riferibilità
Calibration procedure and traceability chain

La taratura è stata effettuata in accordo alla linea guida DKD-R 6-1 "Taratura di strumenti di pressione" (versione 03/2014) procedura B, per confronto fra i valori dello strumento in taratura con quelli di riferimento dati dal campione di lavoro.

Calibration was carried out according to DKD-R 6-1 "Kalibrierung von Druckmessgeräten" (Ausgabe 03/2014) procedure B, by comparing the measured values of the calibration item with those of the reference or working standard.

I risultati riportati sono stati ottenuti applicando le procedure n° LMO-PT-01 rev.2

The results have been obtained using the procedures n° LMO-PT-01 rev.2

La catena di riferibilità ha inizio dai campioni di riferimento n° PM1-09

The traceability chain starts from the reference standards n° PM1-09

muniti di certificati validi di taratura, rispettivamente n° D21090

with the relevant valid calibration certificates n° D21090

Luogo di taratura
Place of calibration

Laboratorio WIKA ITALIA - Laboratorio di Modugno (BA)
WIKA ITALY Laboratory - Modugno (BA)

Campione di lavoro
Working Standard

Norma di riferimento (RS) Bilancia di pressione *Reference standard (RS) Dead-weight tester*	
Tipo *Model*	PM1-09
Certificato di taratura *Calibration mark*	D-K-15105/D21090
Campo di misura *Scale range*	(10 ... 2500) bar g
Accuratezza *Accuracy*	0,015 % della lettura + 255 Pa

Operatore
Technichian

Francesco Donatelli

WIKA Italia S.r.l. & C. s.a.s.
Viale dell'Artigianato,
I Traversa, n. 8
70026 - Modugno (BA) • Italy
www.wika.it

Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

Condizioni di misura
Measurement conditions

Schema di collegamento *Assembly*	
Fluido utilizzato	Sebacate
Pressure medium	*Sebacate*
Livello di riferimento	Superficie di tenuta DUT
Refence height (for reference value)	*Sealing face DUT*
Posizione di montaggio	verticale
Position during calibration	*vertical*

Note di taratura
Calibration Note

Lo strumento è stato tarato e riconsegnato nelle stesse condizioni in cui è arrivato nel laboratorio, in accordo con il metodo "as found as left" / The device under test (DUT) was calibrated in the same conditions it was arrived in laboratory, according to the method "as found as left".

Condizioni Ambientali
Environmental conditions

Temperatura *Temperature*	(22 ± 1,5)	°C
Pressione atmoferica *Atmospheric pressure*	(1016,6 ± 0,2)	hPa
Umidità relativa *Rel. Humidity*	(50 ± 15)	% UR

I dati meteo sono stati acquisiti tramite stazione meteo WIKA CPU6000-W s/n.1A00VCX6GJ2

Weather data were acquired via the WIKA CPU6000-W weather station s/n.1A00VCX6GJ2

Misure rilevate
Measurement results

Valore di riferimento *Reference value RS* bar	**Letture** *Reading DUT* bar		
	M1	**M2**	**M3**
0,00	0,0	0,0	0,0
99,91	99,9	100,0	99,9
199,82	199,9	199,9	199,9
299,72	299,8	299,9	299,8
399,63	399,7	399,8	399,7
499,53	499,6	499,6	499,6
599,43	599,5	599,5	599,5
699,33	699,3	699,4	699,4
799,24	799,2	799,2	799,2
899,13	899,1	899,1	899,1
999,03	999,0	999,0	999,0

WIKA Italia S.r.l. & C. s.a.s.
Viale dell'Artigianato,
I Traversa, n. 8
70026 - Modugno (BA) • Italy
www.wika.it

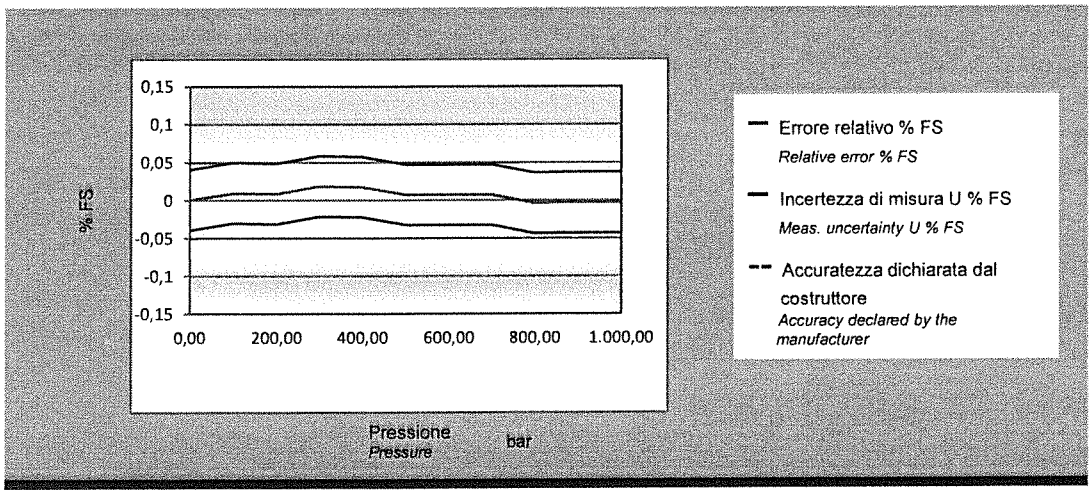
Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

Incertezza di misura
Uncertainty of measurement

Valori di riferimento *Reference value RS* bar	Media delle misure *Mean value* bar	Errore *Error* bar	Ripetibilità *Repeatability* bar	Isteresi *Hysteresis* bar	Incertezza di misura *Meas. Uncertainty* bar
0,00	0,0	0,0	0,0	0,0	0,40
99,91	100,0	0,1	0,0	0,1	0,40
199,82	199,9	0,1	0,0	0,0	0,40
299,72	299,9	0,2	0,0	0,1	0,40
399,63	399,8	0,2	0,0	0,1	0,40
499,53	499,6	0,1	0,0	0,0	0,40
599,43	599,5	0,1	0,0	0,0	0,40
699,33	699,4	0,1	0,1	0,1	0,40
799,24	799,2	0,0	0,0	0,0	0,40
899,13	899,1	0,0	0,0	0,0	0,40
999,03	999,0	0,0	0,0	0,0	0,40

Grafico degli errori di misura
Graphical representation of measurement uncertainty



L'incertezza estesa senza correzione del DUT è pari a 0,6 bar
The expanded uncertainty of the DUT without correction is equal to

Questo dato è ottenuto come MAX{Incertezza_di_misura$_i$ + |Errore$_i$|} della tabella precedente
This data is obatined as MAX{Meas._uncertainty$_i$ + |Error$_i$|} of the previous table

Il presente certificato non rappresenta una dichiarazione di conformità a specifica
This certificate is not a statement of compliance

Base Load Power Hub (BLPH)

TEST PACK

N°63-30-TP-027
SUB-SYSTEM N° 63-30

System	63
Sub-System	63-30
Test Pressure	18 barg
Test Fluid	WATER
Test Duration	30 min

Rev.	Date	Prepared by	Checked by
0	27/09/2024	J.Q.	L.M.

List of Contents

1. COLOURED MARKED P&IDs
2. PIPING TEST 3D CIRCUIT
3. MATERIAL LIST FOR TEST
4. EXTRACT OF LINE LIST
5. ISOMETRIC RED-MARKED DRAWINGS & EXTRACT OF ISO LIST
6. EXTRACT OF SUPPORT LIST AND DETAILS
7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD
8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:
   - 8.1 CLX02A - Pipework Before test
   - 8.2 CLX02B - Pipework After Test
   - 8.3 CXX01 - Thermal insulation – NOT APPLICABLE
   - 8.4 CXX02 – Painting Line
   - 8.5 TMX03 – Cleaning
   - 8.6 TMX05 – Pressure test
   - 8.7 TMX25 – Gross Air Leak Test – NOT APPLICABLE
   - 8.8 TMX27 – Bolt Tensioning / Torquing
   - 8.9 TPLX05 - Drying

1. COLOURED MARKED P&IDs

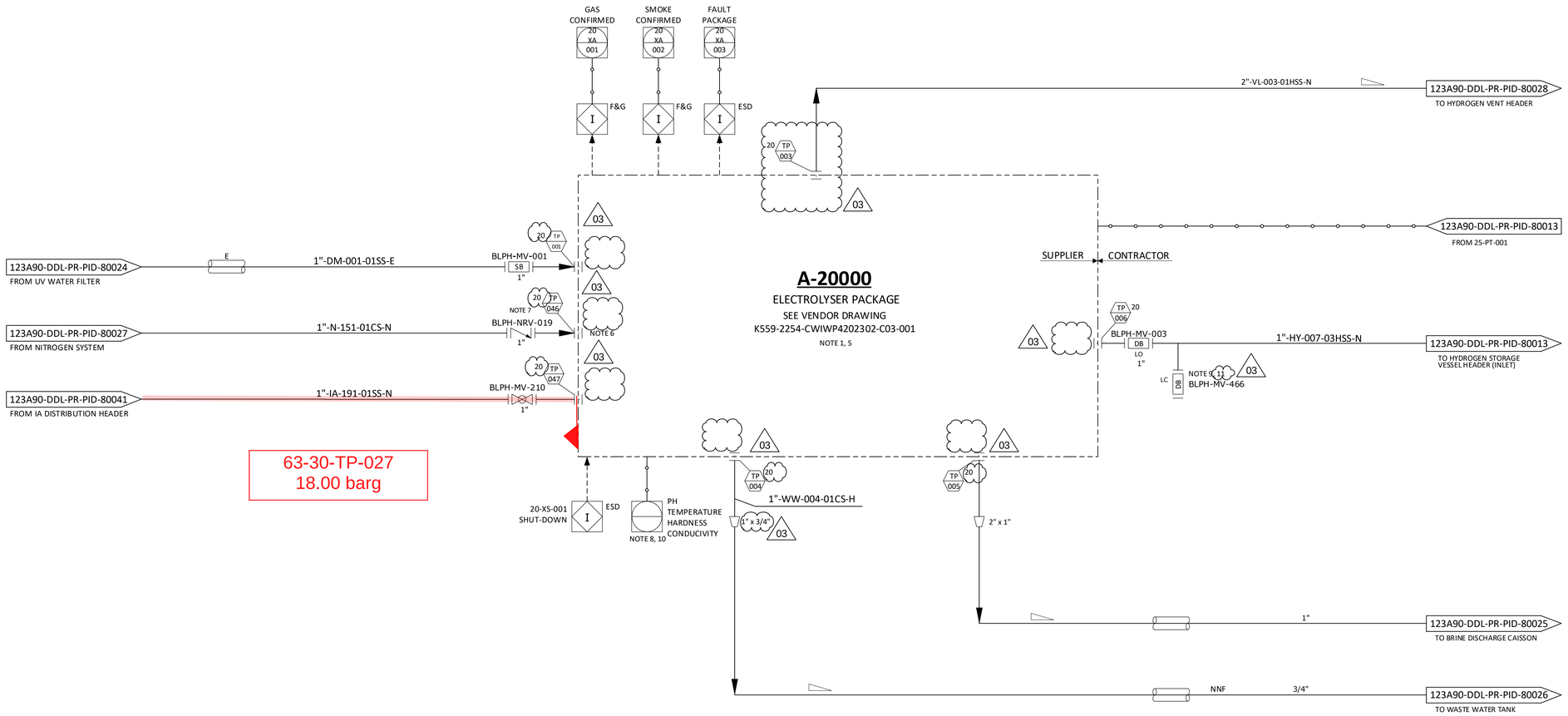
DRAWING NO. DRAWING_NO.

REV. REV

A-20000

ELECTROLYSER PACKAGE

DUTY: 2.5MW
DESIGN PRESSURE: 40 barg
DESIGN TEMPERATURE: 80 °C
H2 GENERATING CAPACITY: 500 Nm³/h



NOTES

1. PACKAGE SUPPLIED WITH POWER FROM THE BLPH ELECTRICAL SYSTEM.
2. DELETED.
3. DELETED.
4. DELETED.
5. ELECTROLYSER PACKAGE INCLUDES AN OXYGEN VENT LINE WHICH IS IN THE SCOPE OF SUPPLY OF THE ELECTROLYSER PACKAGE UP TO THE ATMOSPHERE. NO PHYSICAL INTERFACE IS PRESENT BETWEEN ELECTROLYSER PACKAGE AND CONTRACTOR ON THIS LINE.
6. AN ISOLATION VALVE DOWNSTREAM THE CHECK VALVE NRV-019 IS PROVIDED WITHIN THE PACKAGE A-20000.
7. CHECK VALVE NRV-019 TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE ELECTROLYSER PACKAGE A-20000.
8. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
9. NITROGEN PURGING CONNECTION TO BE LOCATED AS CLOSE AS POSSIBLE TO MANUAL VALVE BLPH-MV-003.
10. PH, TEMPERATURE, HARDNESS AND CONDUCTIVITY SHALL BE SENT FROM CONTROL SYSTEM TO ELECTROLISER UCP IN ADDITION TO THE OTHER SOFTWARE SIGNALS. 03
11. MANUAL VALVE BLPH-MV-466 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-275 (INSTALLED ON NITROGEN GENERATION PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION.

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
ELECTROLYSER PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE

A1	DRAWING NO. 123A90-DDL-PR-PID-80011	SHEET 001	REV. 03

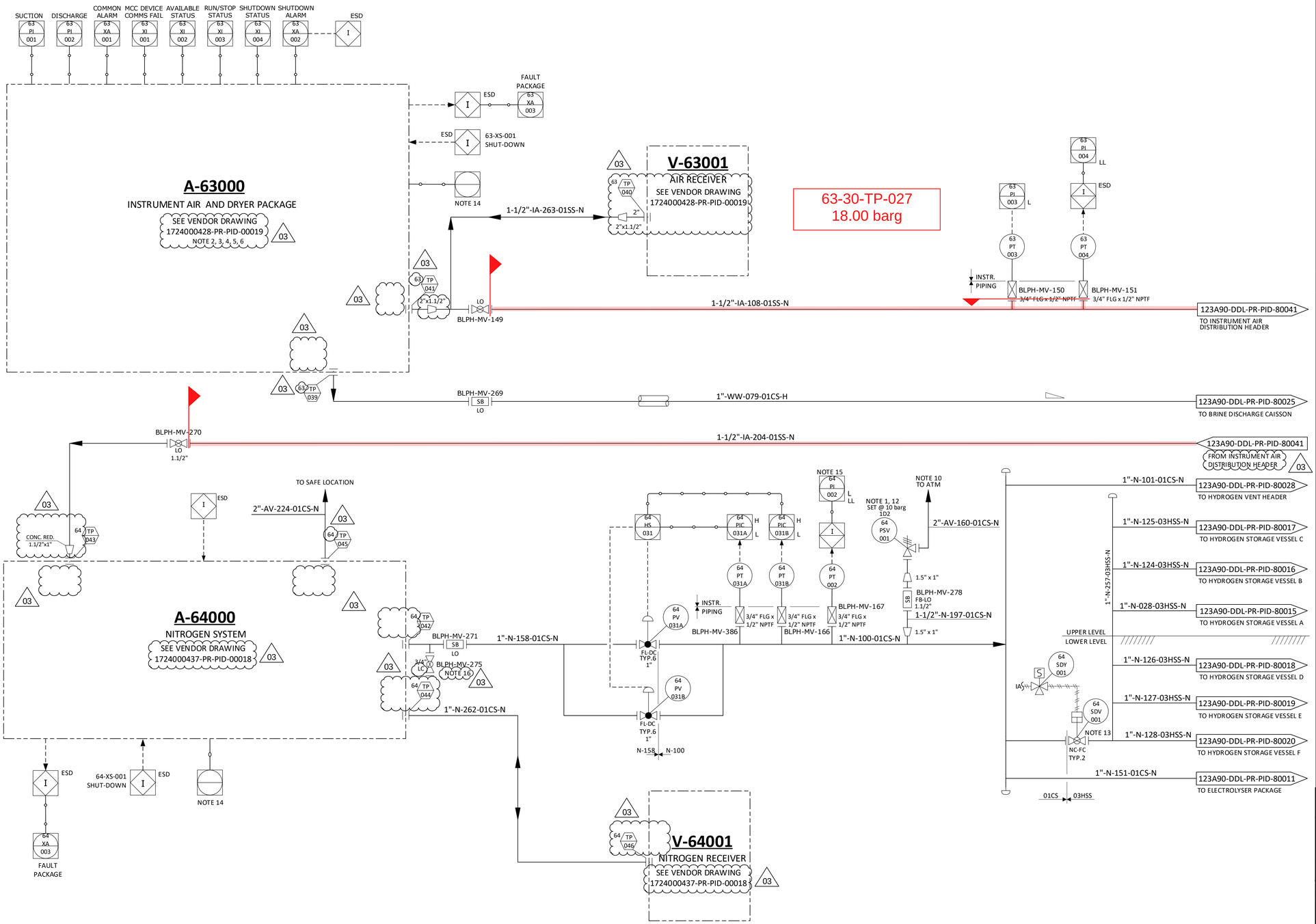
File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)



NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE.
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION.

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV

UPPER DECK NORTH H2
STORAGE VESSEL TOP FLOOR
DISTRIBUTION
AV-63003
25-BDV-010
25-PV-040
25-XV-012
25-XV-009

UPPER DECK NORTH H2
STORAGE VESSEL TOP FLOOR
DISTRIBUTION
AV-63007
25-XV-006
25-PV-035
25-BDV-005
25-PV-037
25-BDV-007

INSTR.
PIPING

BLPH-MV-449
1"-IA-206-01SS-N

BLPH-MV-453
1"-IA-213-01SS-N

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63004
25-BDV-013
25-PV-043
25-XV-015

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63012
25-XV-018
25-PV-046
25-BDV-016

UPPER DECK NORTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63006
25-BDV-022
25-XV-021
25-PV-049
25-BDV-019
80-XV-001

1-1/2"-IA-108-01SS-N

EL.+38710
NORTH SIDE

BLPH-MV-450
BLPH-MV-459
BLPH-MV-452

1"-IA-208-01SS-N
1"-IA-214-01SS-N
1"-IA-212-01SS-N

EL.+34210
NORTH SIDE

1-1/2"-IA-108-01SS-N

1"-IA-215-01SS-N

BLPH-MV-458

25-SDV-023
25-PV-055A
25-PV-055B

DISTRIBUTION
AV-63011
UPPER DECK NORTH/WEST
GROUND FLOOR

UPPER DECK SOUTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63001
25-XV-011
25-FV-033
25-XV-008
25-FV-032

UPPER DECK SOUTH H2
STORAGE VESSEL 1° FLOOR
DISTRIBUTION
AV-63010
25-SDV-001
25-XV-024
25-XV-004
25-FV-031
64-SDV-001

BLPH-MV-447
BLPH-MV-457

EL.+34210
SOUTH SIDE

1"-IA-203-01SS-N
1"-IA-211-01SS-N

UPPER DECK SOUTH H2
STORAGE VESSEL GROUND FLOOR
DISTRIBUTION
AV-63002
25-XV-020
25-FV-036
25-XV-017
25-FV-038
25-XV-014
25-FV-034

BLPH-MV-448

1-1/2"-IA-108-01SS-N
1"-IA-223-01SS-N

1-1/2"-IA-108-01SS-N

1"-IA-191-01SS-N

123A90-DDL-PR-PID-80011
TO ELECTROLYSER PACKAGE

EL.+30310
UPPER DECK

SPARE
BLPH-MV-455

1"-IA-207-01SS-N

1-1/2"-IA-204-01SS-N

123A90-DDL-PR-PID-80027
TO NITROGEN GENERATION PACKAGE

123A90-DDL-PR-PID-80027
FROM INSTRUMENT AIR PACKAGE

1-1/2"-IA-108-01SS-N

1"-IA-210-01SS-N

1"-IA-205-01SS-N

1-1/2"-IA-108-01SS-N
1"-IA-209-01SS-N

BLPH-MV-454
BLPH-MV-456
BLPH-MV-451

PIPING
INSTR.

50-XV-001
50-XV-002
50-XV-003
50-XV-004

04
50-XV-005

64-PV-031A
64-PV-031B

DISTRIBUTION
AV-63008
LOWER DECK

DISTRIBUTION
AV-63009
LOWER DECK SOUTH NEXT
SWT UNIT GROUND FLOOR

DISTRIBUTION
AV-63005
LOWER DECK

EL.+23310
LOWER DECK

63-30-TP-027
18.00 barg

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	11/10/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

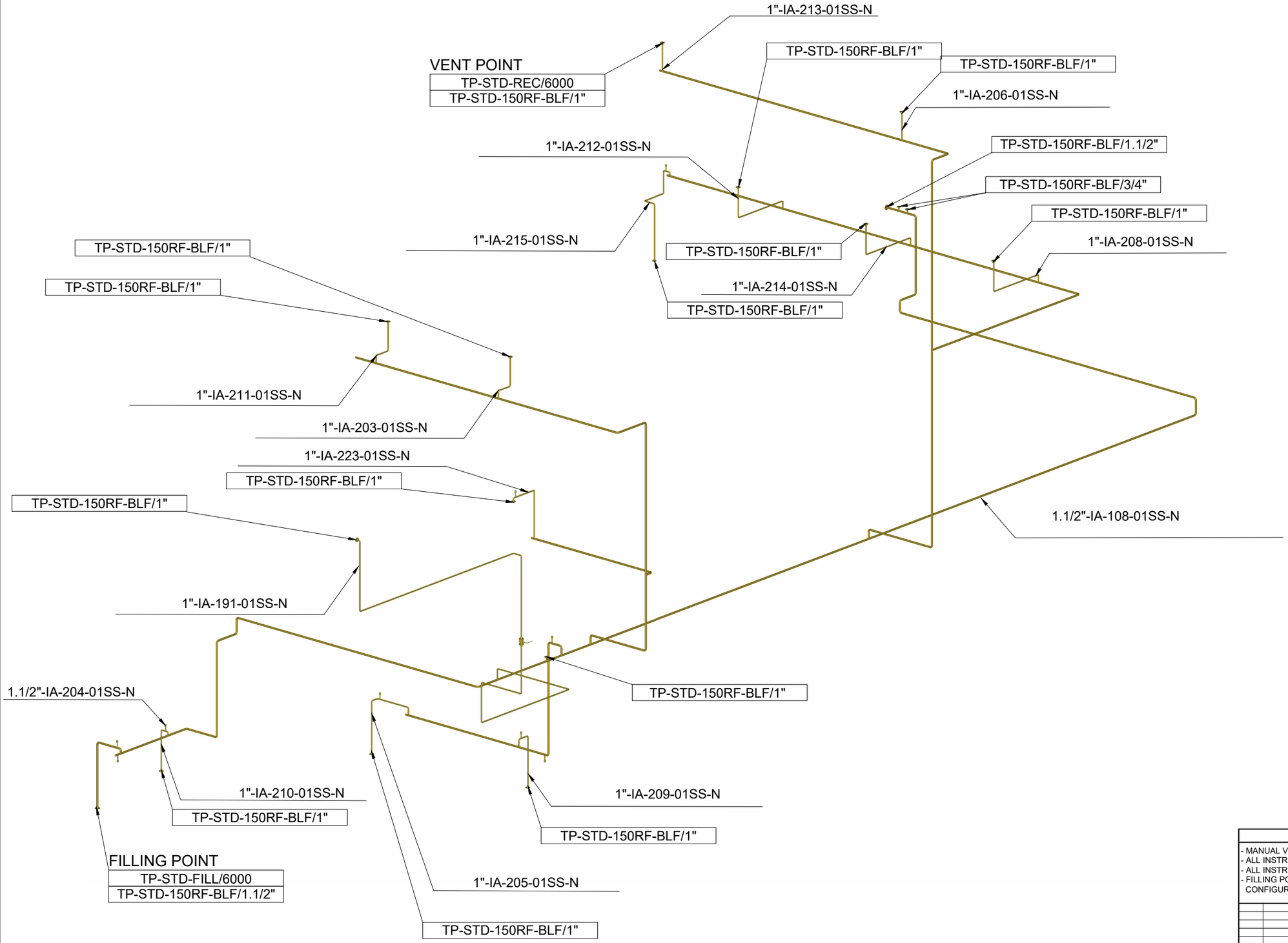
TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR DISTRIBUTION HEADER

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE

A1 | DRAWING NO. 123A90-DDL-PR-PID-80041 | SHEET 001 | REV. 04

File Name : FILE_NAME

2. HYDROSTATIC TEST 3D CIRCUIT



63-30-TP-027

18 barg

NOTES

- MANUAL VALVES MAY BE EXCLUDED FROM THE TEST
- ALL INSTRUMENTS (PG, TT, etc.) SHALL BE EXCLUDED FROM THE TEST
- ALL INSTRUMENT VALVES (SDV, PCV, etc.) SHALL BE EXCLUDED FROM THE TEST
- FILLING POINT, VENTS & DRAINS SHALL BE DEFINED ON SITE AS FOR REAL TEST CIRCUIT CONFIGURATION

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	27-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

CROSSWIND

ROSETTI MARINO

HOLLANDSE KUST NOORD WIND PARK

PIPING TEST 3D CIRCUIT
63-30-TP-027

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	N/A	00	1 OF 1

3. MATERIAL LIST FOR TEST

CROSSWIND / ROSETTI MARINO	CONTRACTOR: Rosetti Marino SpA	JOB :	123A90
	PROJECT: Base Load Power Hub (BLPH)	DATE :	20/09/2024
	TITLE: MATERIAL LIST FOR HYDROSTATIC TEST	REV. :	00

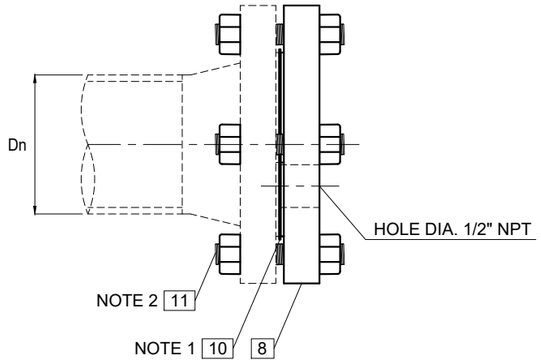
TEST REF.	TYPICAL ITEM CODE	ROSETTI CODE	ROSETTI DESCRIPTION	Q.TY X SINGLE STD	Q.TY STD X TP	Q.ty x TP	NOTES
ALL TEST	TP-STD-FILL/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5	1	5	
ALL TEST	TP-STD-FILL/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7	1	7	
ALL TEST	TP-STD-FILL/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3	1	3	
ALL TEST	TP-STD-FILL/6000	1MECH069	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4	1	4	
ALL TEST	TP-STD-REC/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9	1	9	
ALL TEST	TP-STD-REC/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	CAPFSS00200H00	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	CPL0SS00240H00	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	E900SS00340H00	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-PLGNPT/1/2"	PLGHSS00090H00	Plug Hex. Head THRD-M NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
TP-027	TP-STD-150RF-BLF/3/4"	FLBHCS01363Q0H	Flange Blind c/w NPT Hole ø3/4"x1/2" 150LB RF ASTM/ASME A/SA105	1	2	2	
TP-027	TP-STD-150RF-BLF/3/4"	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ø3/4" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	2	2	
TP-027	TP-STD-150RF-BLF/3/4"	SB20BO00980200	Stud Bolt + 2 Heavy Nuts 1/2" L=80MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	2	8	
TP-027	TP-STD-150RF-BLF/1"	FLBHCS0022010H	Flange Blind c/w NPT Hole ø1"x1/2" 150LB RF ASTM/ASME A/SA105	1	14	14	
TP-027	TP-STD-150RF-BLF/1"	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ø1" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	14	14	
TP-027	TP-STD-150RF-BLF/1"	SB20BO00980200	Stud Bolt + 2 Heavy Nuts 1/2" L=80MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	14	56	
TP-027	TP-STD-150RF-BLF/1.1/2"	FLBHCS00241H0H	Flange Blind c/w NPT Hole ø1.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1	2	2	
TP-027	TP-STD-150RF-BLF/1.1/2"	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ø1.1/2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	2	2	
TP-027	TP-STD-150RF-BLF/1.1/2"	SB20BO00980200	Stud Bolt + 2 Heavy Nuts 1/2" L=80MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	2	8	

STD NAME	RATING	DESCRIPTION
TP-STD-150RF	150 RF	STANDARD FOR BLIND POINT

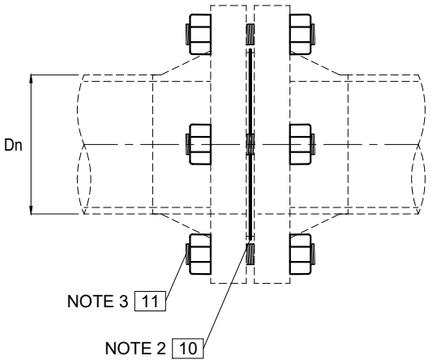
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-150RF-___/1/2"	8	Flange Blind c/w NPT Hole ø1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=60 MM	4
TP-STD-150RF-___/3/4"	8	Flange Blind c/w NPT Hole ø3/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1"	8	Flange Blind c/w NPT Hole ø1"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1.1/4"	8	Flange Blind c/w NPT Hole ø1.1/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/1.1/2"	8	Flange Blind c/w NPT Hole ø1.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/2"	8	Flange Blind c/w NPT Hole ø2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=85 MM	4
TP-STD-150RF-___/2.1/2"	8	Flange Blind c/w NPT Hole ø2.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/3"	8	Flange Blind c/w NPT Hole ø3"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/4"	8	Flange Blind c/w NPT Hole ø4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	8
TP-STD-150RF-___/6"	8	Flange Blind c/w NPT Hole ø6"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø6" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=105 MM	8
TP-STD-150RF-___/8"	8	Flange Blind c/w NPT Hole ø8"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø8" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=110 MM	8
TP-STD-150RF-___/10"	8	Flange Blind c/w NPT Hole ø10"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø10" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=120 MM	12
TP-STD-150RF-___/12"	8	Flange Blind c/w NPT Hole ø12"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø12" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=125 MM	12
TP-STD-150RF-___/14"	8	Flange Blind c/w NPT Hole ø14"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø14" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=135 MM	12
TP-STD-150RF-___/16"	8	Flange Blind c/w NPT Hole ø16"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø16" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=140 MM	16
TP-STD-150RF-___/18"	8	Flange Blind c/w NPT Hole ø18"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø18" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=150 MM	16
TP-STD-150RF-___/20"	8	Flange Blind c/w NPT Hole ø20"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø20" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=160 MM	20
TP-STD-150RF-___/24"	8	Flange Blind c/w NPT Hole ø24"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø24" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/4" L=175 MM	20



TP-STD-150RF-BLF/Dn
BLIND FLANGE



TP-STD-150RF-GSK/Dn
GASKET ONLY

NOTES

1. GASKET MATERIAL AS PER PIPING CLASS
2. STUD BOLTS AND NUTS MATERIAL AS PER TEST MTO

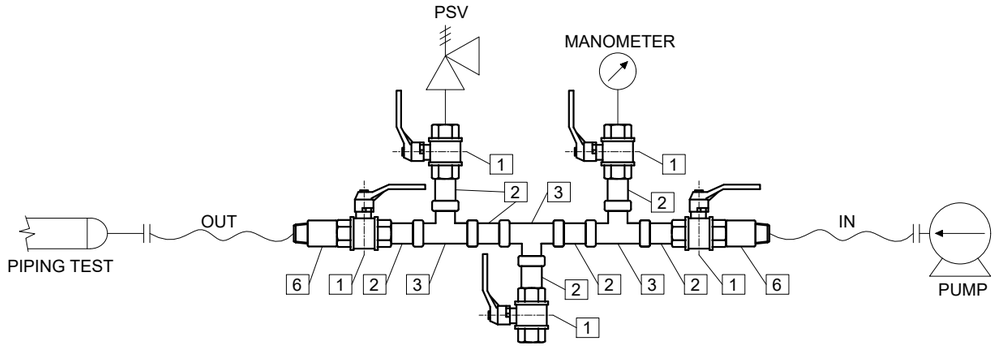
REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-150RF
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_150RF	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-FILL	3000 / 6000 / 9000	STANDARD FOR FILLING POINT
TP-STD-FILL/RATING		



TP-STD-FILL/RATING

FILLING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-FILL/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 523 bar 304SS	2

NOTES

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING

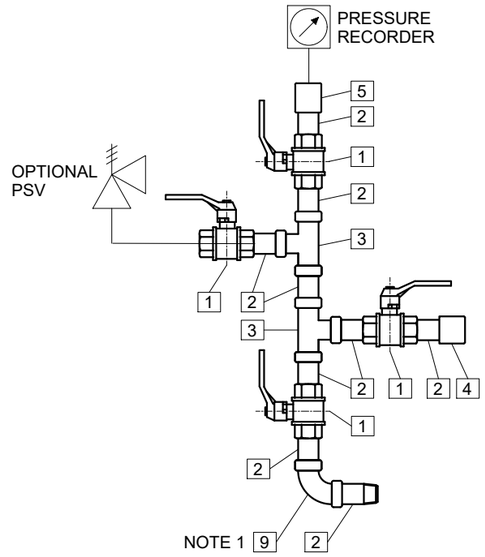
TP-STD-FILL

TP-STD-FILL/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_FILL	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-REC	3000 / 6000 / 9000	STANDARD FOR RECORDING POINT

TP-STD-REC/RATING



TP-STD-REC/RATING
RECORDING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-REC/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1

NOTES

1. 90 DEG ELBOW SHALL BE INSTALLED WHERE APPLICABLE ONLY

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-REC
TP-STD-REC/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_REC	00	1 OF 1

4. EXTRACT OF LINE LIST

Isometric N°	Short Line N°	Sequential Number	Size [in]	Piping Class	Insulation Type	Pipe Wall Thicknes [mm]	Pipe Schedule	Tracing	Line Number	PID Number	Design Pressure [barg]	Commissioning System Code	Commissioning SubSystem Code	Test Pack N°	Test Fluid	Test Pressure [barg]	Fluid Service	Class Base Material	Line INF/SUP/TL	Ped Category	Painting System	Line Base Ral
36	IA-108	108	1.1/2	01SS	N	3,68	40S	N/A	1-1/2"-IA-108-01SS-N	123A90-DDL-PR-PID-80027	12,00	63	63-00 / 63-30	TP-025/TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
95	IA-191	191	1	01SS	N	3,38	40S	N/A	1"-IA-191-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
101	IA-203	203	1	01SS	N	3,38	40S	N/A	1"-IA-203-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
102	IA-204	204	1.1/2	01SS	N	3,68	40S	N/A	1-1/2"-IA-204-01SS-N	123A90-DDL-PR-PID-80027	12,00	63 / 64	63-30 / 64-00	TP-027/TP-029	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
103	IA-205	205	1	01SS	N	3,38	40S	N/A	1"-IA-205-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
104	IA-206	206	1	01SS	N	3,38	40S	N/A	1"-IA-206-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
105	IA-207	207	1	01SS	N	3,38	40S	N/A	1"-IA-207-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
106	IA-208	208	1	01SS	N	3,38	40S	N/A	1"-IA-208-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
107	IA-209	209	1	01SS	N	3,38	40S	N/A	1"-IA-209-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
108	IA-210	210	1	01SS	N	3,38	40S	N/A	1"-IA-210-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
109	IA-211	211	1	01SS	N	3,38	40S	N/A	1"-IA-211-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
110	IA-212	212	1	01SS	N	3,38	40S	N/A	1"-IA-212-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
111	IA-213	213	1	01SS	N	3,38	40S	N/A	1"-IA-213-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
112	IA-214	214	1	01SS	N	3,38	40S	N/A	1"-IA-214-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
113	IA-215	215	1	01SS	N	3,38	40S	N/A	1"-IA-215-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
119	IA-223	223	1	01SS	N	3,38	40S	N/A	1"-IA-223-01SS-N	123A90-DDL-PR-PID-80041	12,00	63	63-30	TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002

5. ISOMETRIC RED MARKED DRAWING & EXTRACT OF ISO LIST

CROSSWIND

ROSETTI MARINO

PROJECT

BASE LOAD POWER HUB (BLPH)

JOB: **123A90**

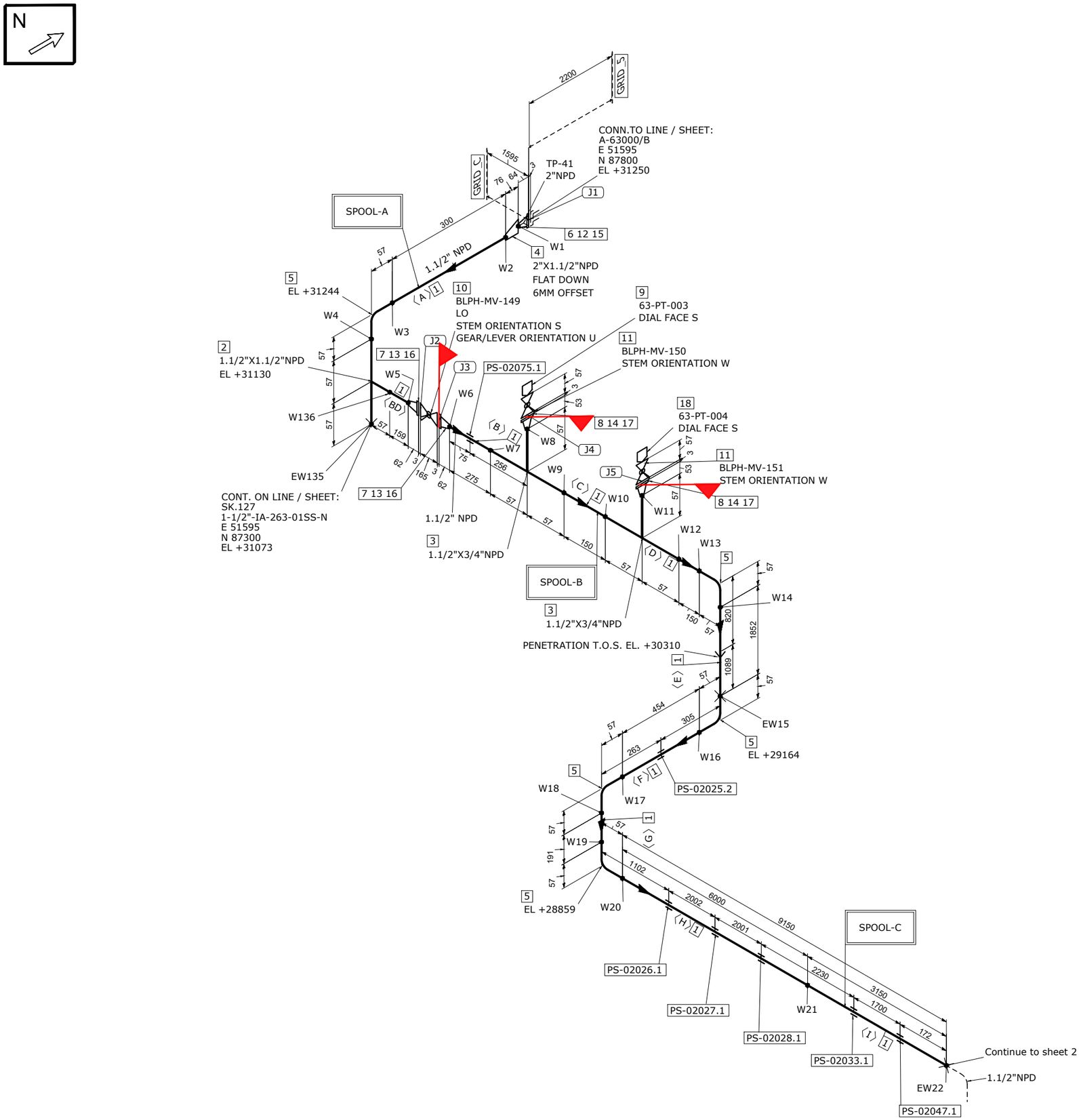
DOCUMENT NR: **123A90-FDL-ST-LIS-00001** | REV.: **05**

TITLE

SHOP DRAWING ISOMETRIC LIST

DATE: **17/09/2024**

POS.	DOCUMENT NR	ROSETTI SKETCH NR	SHEET	DOCUMENT TITLE	Rev. 00	Rev. 01	Rev. 02	Rev. 03	Rev. 04	Rev. 05	Rev. 06	Rev. 07	Rev. 08	Rev. 09	Rev. 10	Mark-up Rev.	Mark-up Data	LAST REV	LIST REV	NOTES	TEST PACK NR
49	123A90-FDL-PP-DI-00036-01	**036**	01	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-025/TP-027**
50	123A90-FDL-PP-DI-00036-02	**036**	02	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
51	123A90-FDL-PP-DI-00036-03	**036**	03	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
52	123A90-FDL-PP-DI-00036-04	**036**	04	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
53	123A90-FDL-PP-DI-00036-05	**036**	05	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
54	123A90-FDL-PP-DI-00036-06	**036**	06	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
55	123A90-FDL-PP-DI-00036-07	**036**	07	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
56	123A90-FDL-PP-DI-00036-08	**036**	08	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-027**
126	123A90-FDL-PP-DI-00095-01	**095**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-191-01SS-N	20/08/2024													**00**	**02**		**TP-027**
132	123A90-FDL-PP-DI-00101-01	**101**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-203-01SS-N	20/08/2024													**00**	**02**		**TP-027**
133	123A90-FDL-PP-DI-00102-01	**102**	01	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-204-01SS-N	20/08/2024													**00**	**02**		**TP-027/TP-029**
134	123A90-FDL-PP-DI-00103-01	**103**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-205-01SS-N	20/08/2024													**00**	**02**		**TP-027**
135	123A90-FDL-PP-DI-00104-01	**104**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-206-01SS-N	20/08/2024													**00**	**02**		**TP-027**
136	123A90-FDL-PP-DI-00105-01	**105**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-207-01SS-N	20/08/2024													**00**	**02**		**TP-027**
137	123A90-FDL-PP-DI-00106-01	**106**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-208-01SS-N	20/08/2024													**00**	**02**		**TP-027**
138	123A90-FDL-PP-DI-00107-01	**107**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-209-01SS-N	20/08/2024													**00**	**02**		**TP-027**
139	123A90-FDL-PP-DI-00108-01	**108**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-210-01SS-N	20/08/2024													**00**	**02**		**TP-027**
140	123A90-FDL-PP-DI-00109-01	**109**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-211-01SS-N	20/08/2024													**00**	**02**		**TP-027**
141	123A90-FDL-PP-DI-00110-01	**110**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-212-01SS-N	20/08/2024													**00**	**02**		**TP-027**
142	123A90-FDL-PP-DI-00111-01	**111**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-213-01SS-N	20/08/2024													**00**	**02**		**TP-027**
143	123A90-FDL-PP-DI-00112-01	**112**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-214-01SS-N	20/08/2024													**00**	**02**		**TP-027**
144	123A90-FDL-PP-DI-00113-01	**113**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-215-01SS-N	20/08/2024													**00**	**02**		**TP-027**
152	123A90-FDL-PP-DI-00119-01	**119**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-IA-223-01SS-N	20/08/2024													**00**	**02**		**TP-027**



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

63-30-TP-027

MASTER

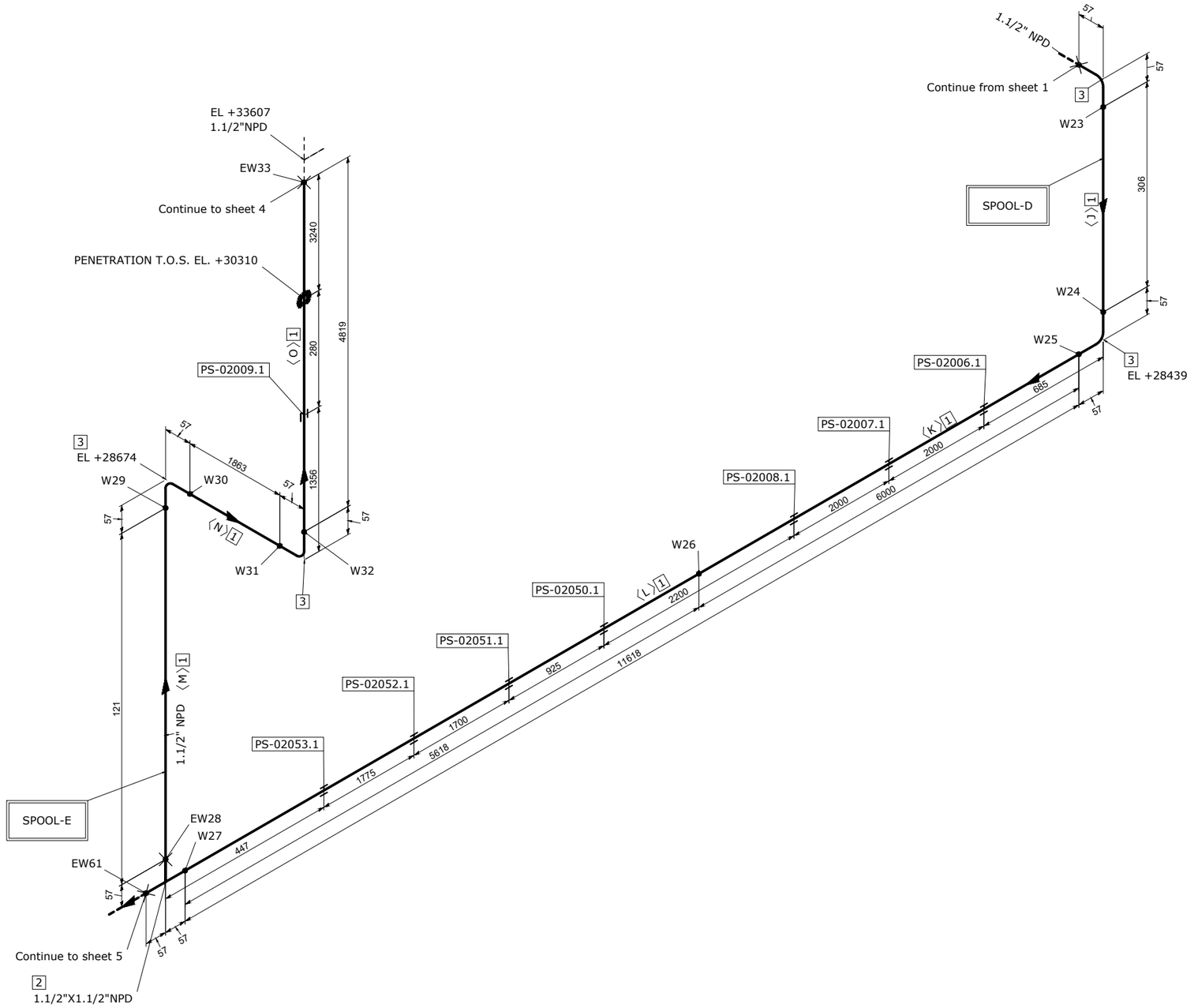
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	18.7M	77.0
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	4	1.5

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

FABRICATION WEIGHT [kg]	79.3
ERECTION WEIGHT [kg]	0.0
OVERALL WEIGHT [kg]	79.3

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W23	1.1/2	BW
W24	1.1/2	BW
W25	1.1/2	BW
W26	1.1/2	BW
W27	1.1/2	BW
EW28	1.1/2	BW
W29	1.1/2	BW
W30	1.1/2	BW
W31	1.1/2	BW
W32	1.1/2	BW
EW33	1.1/2	BW
EW61	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
J	1.1/2	306	BEVEL	BEVEL
K	1.1/2	6000	BEVEL	BEVEL
L	1.1/2	5618	BEVEL	BEVEL
M	1.1/2	121	BEVEL	BEVEL
N	1.1/2	1863	BEVEL	BEVEL
O	1.1/2	4819	BEVEL	BEVEL

SUPPORT LIST

PS-02006.1
PS-02007.1
PS-02008.1
PS-02050.1
PS-02051.1
PS-02052.1
PS-02053.1
PS-02009.1

SPOOL	WELD [inches]	WEIGHT [kg]
D	7.5	50.6
E	6	28.7
MONT	4.5	0.0

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

63-30-TP-027

MASTER

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

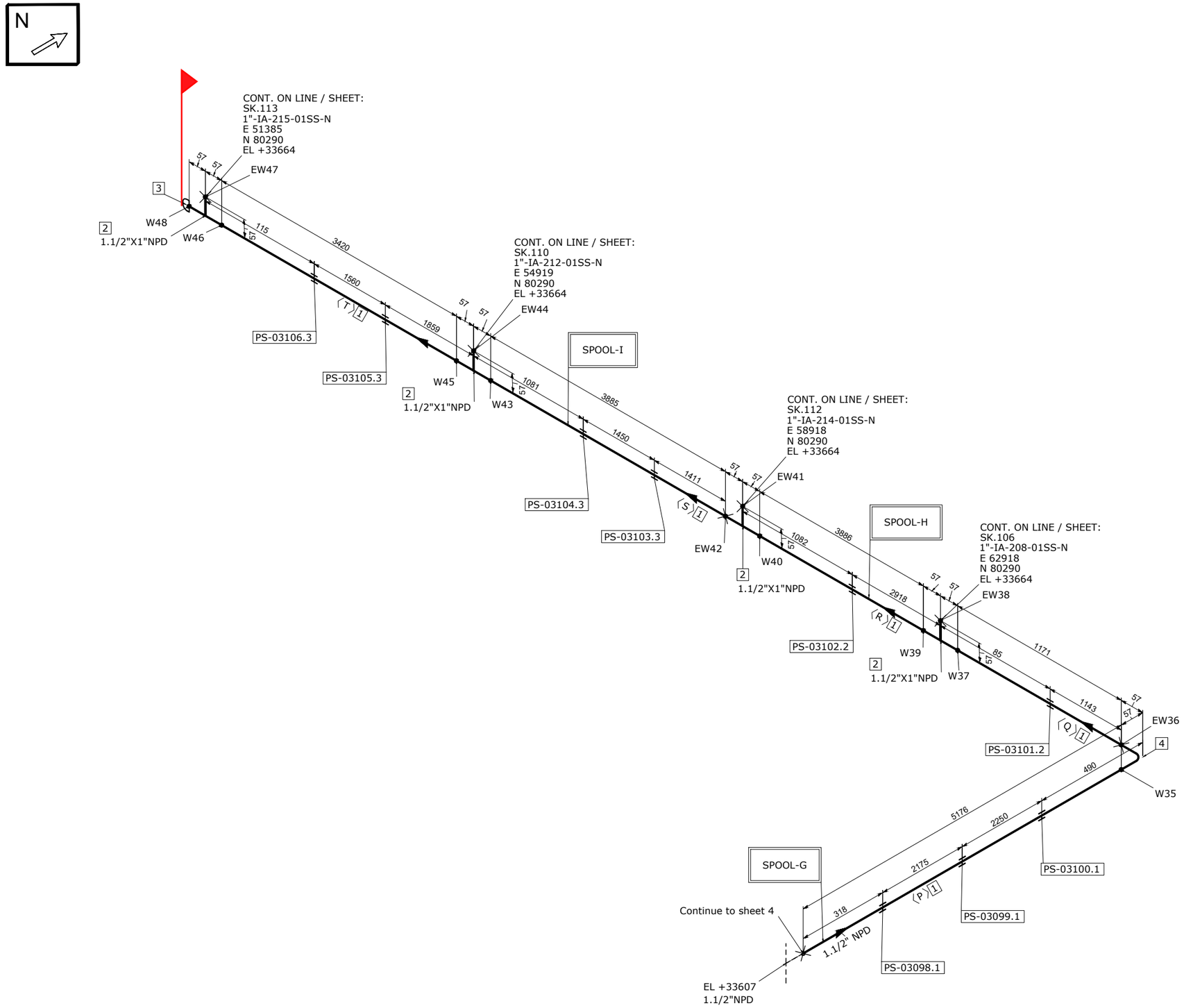
SK.036

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 2/8 | REV.: 00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	17.5M	72.1
2	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	4	3.0
3	1.1/2	CAP0SS01041H00	Cap ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.2
4	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

FABRICATION WEIGHT [kg]	75.7
ERECTION WEIGHT [kg]	0.0
OVERALL WEIGHT [kg]	75.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W35	1.1/2	BW
EW36	1.1/2	BW
W37	1.1/2	BW
EW38	1	BW
W39	1.1/2	BW
W40	1.1/2	BW
EW41	1	BW
EW42	1.1/2	BW
W43	1.1/2	BW
EW44	1	BW
W45	1.1/2	BW
W46	1.1/2	BW
EW47	1	BW
W48	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
P	1.1/2	5176	BEVEL	BEVEL
Q	1.1/2	1171	BEVEL	BEVEL
R	1.1/2	3886	BEVEL	BEVEL
S	1.1/2	3885	BEVEL	BEVEL
T	1.1/2	3420	BEVEL	BEVEL

SUPPORT LIST

PS-03098.1
PS-03099.1
PS-03100.1
PS-03101.2
PS-03102.2
PS-03103.3
PS-03104.3
PS-03105.3
PS-03106.3

SPOOL	WELD [inches]	WEIGHT [kg]
G	1.5	21.6
H	4.5	22.3
I	6	31.7
MONT	7	0.0

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

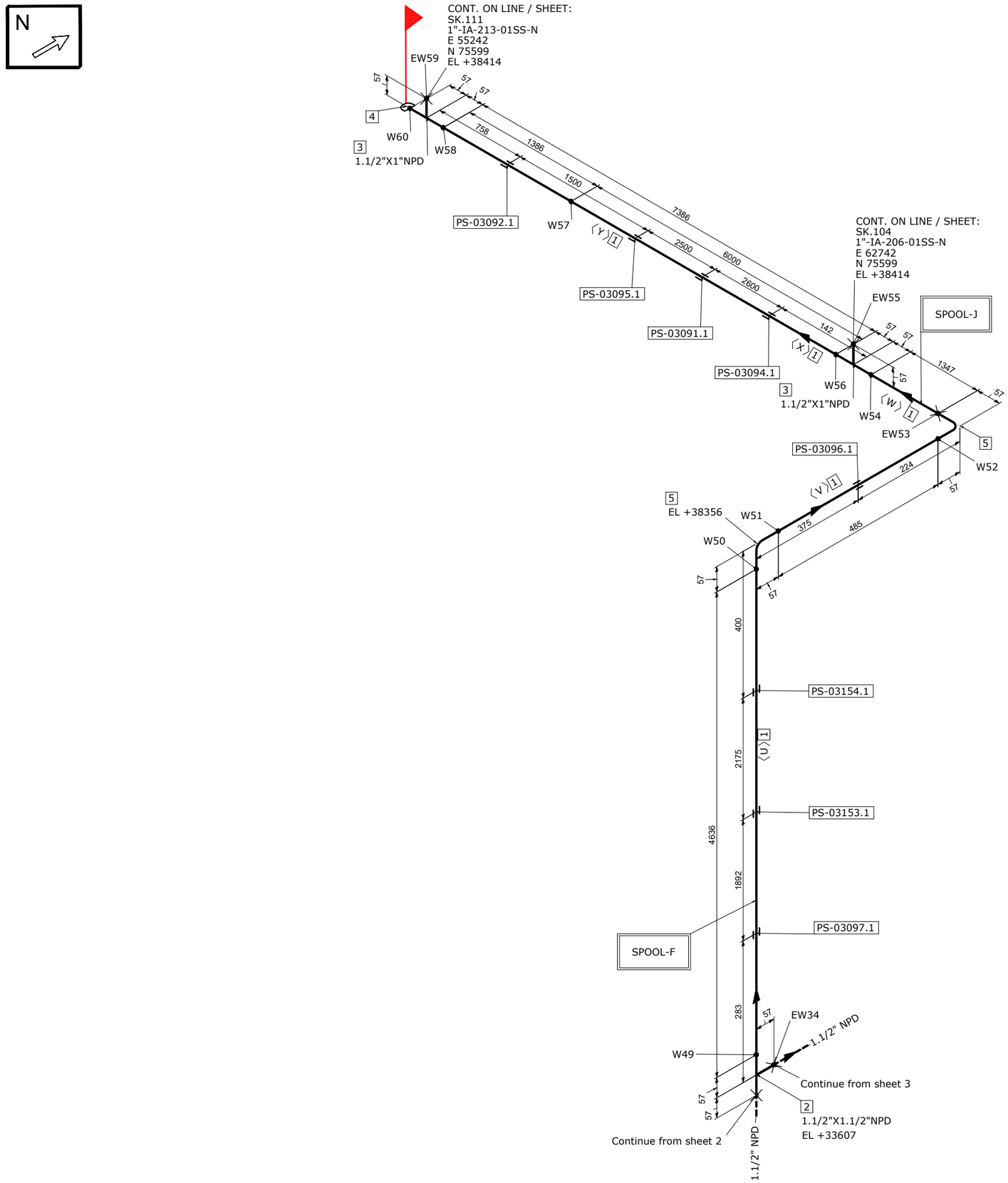
CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00036	SHEET / OF	3/8
				DATE	27-08-2024
				REV.	00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	13.9M	56.9
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	1.1/2	CAP0SS01041H00	Cap ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.2
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	2	0.7

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

FABRICATION WEIGHT [kg]	60.1
ERECTION WEIGHT [kg]	0.0
OVERALL WEIGHT [kg]	60.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
EW34	1.1/2	BW
W49	1.1/2	BW
W50	1.1/2	BW
W51	1.1/2	BW
W52	1.1/2	BW
EW53	1.1/2	BW
W54	1.1/2	BW
EW55	1	BW
W56	1.1/2	BW
W57	1.1/2	BW
W58	1.1/2	BW
EW59	1	BW
W60	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
U	1.1/2	4636	BEVEL	BEVEL
V	1.1/2	485	BEVEL	BEVEL
W	1.1/2	1347	BEVEL	BEVEL
X	1.1/2	6000	BEVEL	BEVEL
Y	1.1/2	1386	BEVEL	BEVEL

SUPPORT LIST

PS-03097.1
PS-03153.1
PS-03154.1
PS-03096.1
PS-03094.1
PS-03091.1
PS-03095.1
PS-03092.1

SPOOL	WELD [inches]	WEIGHT [kg]
F	6	22.6
J	7.5	37.6
MONT	5	0.0

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

63-30-TP-027

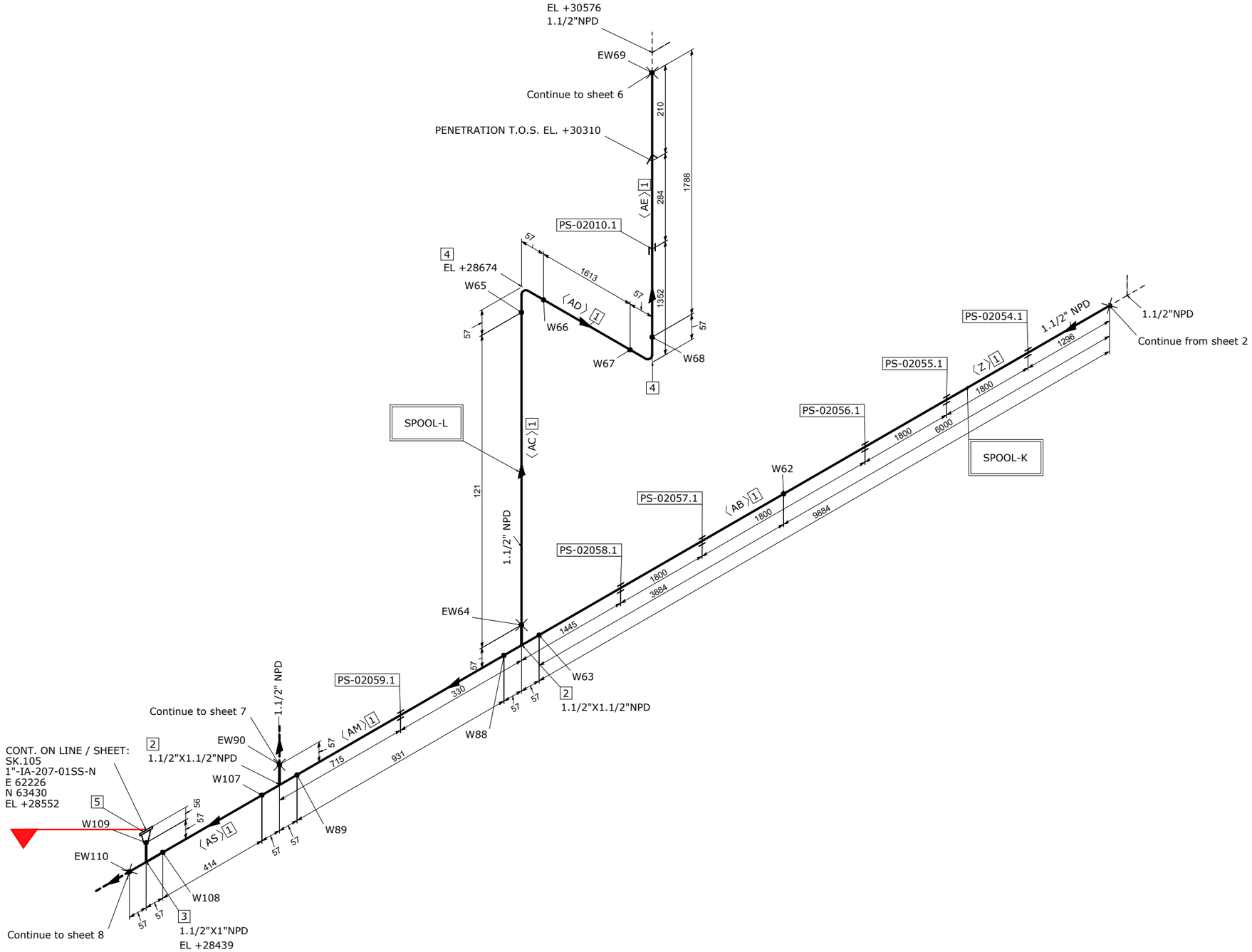
MASTER

LINE DATA									
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS	
P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	N/A
DRAWN	STAFF SRL	CHECKED RT	APPROVED LM	DATE 27-08-2024
FORMAT	DRAWING NO.		SHEET / OF	REV.
A3	123A90-FDL-PP-DI-00036		4/8	00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	14.8M	60.6
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	2	1.6
3	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	1	0.8
4	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	2	0.7
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

FABRICATION WEIGHT [kg]	65.1
ERECTION WEIGHT [kg]	0.0
OVERALL WEIGHT [kg]	65.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W62	1.1/2	BW
W63	1.1/2	BW
EW64	1.1/2	BW
W65	1.1/2	BW
W66	1.1/2	BW
W67	1.1/2	BW
W68	1.1/2	BW
EW69	1.1/2	BW
W88	1.1/2	BW
W89	1.1/2	BW
EW90	1.1/2	BW
W107	1.1/2	BW
W108	1.1/2	BW
W109	1	BW
EW110	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
AB	1.1/2	3884	BEVEL	BEVEL
AC	1.1/2	121	BEVEL	BEVEL
AD	1.1/2	1613	BEVEL	BEVEL
AE	1.1/2	1789	BEVEL	BEVEL
AM	1.1/2	931	BEVEL	BEVEL
AS	1.1/2	414	BEVEL	BEVEL
Z	1.1/2	6000	BEVEL	BEVEL

SUPPORT LIST

PS-02054.1
PS-02055.1
PS-02056.1
PS-02057.1
PS-02058.1
PS-02010.1
PS-02059.1

SPOOL	WELD [inches]	WEIGHT [kg]
K	10	50.0
L	6	15.2
MONT	6	0.0

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

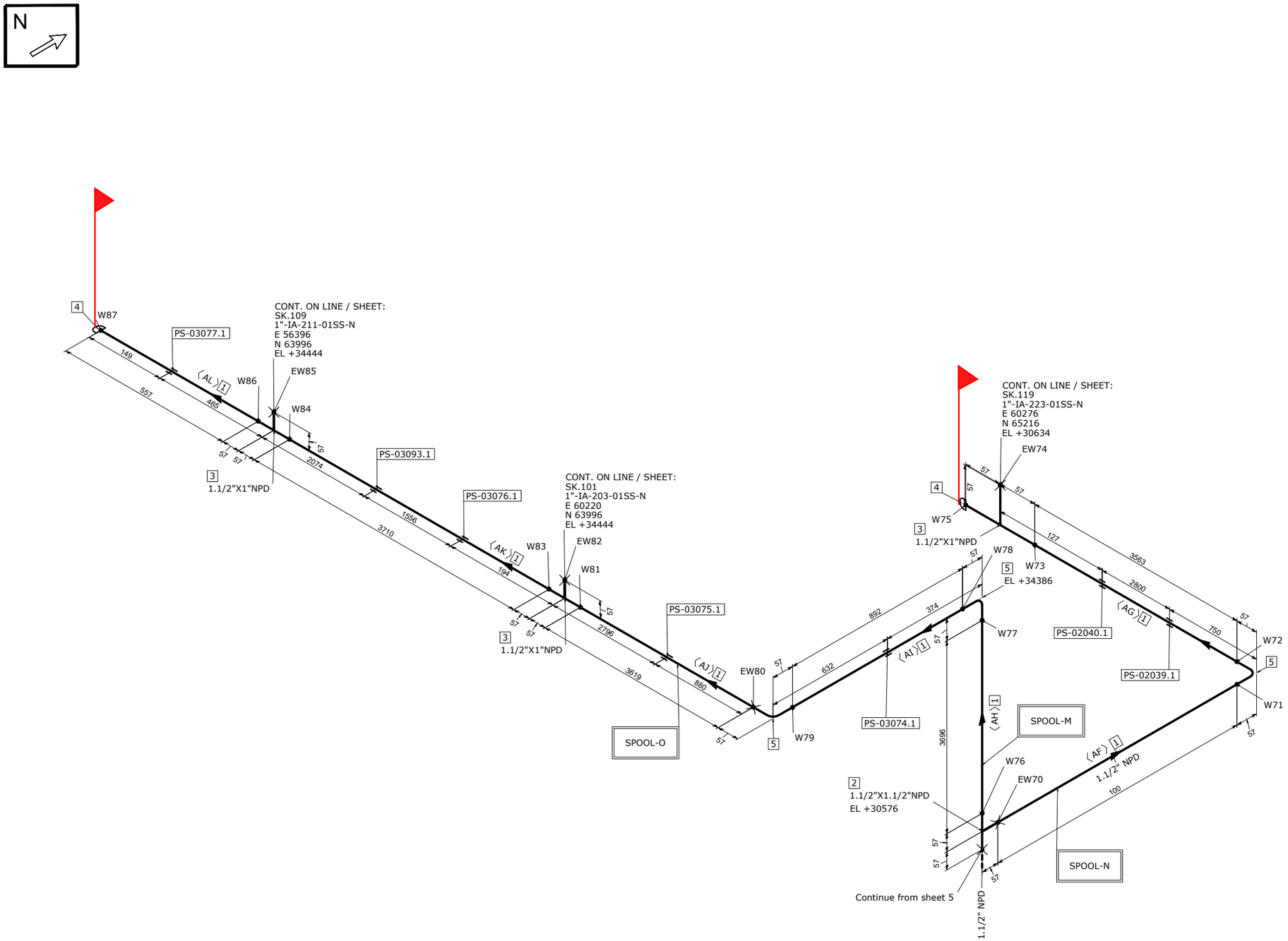
CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	27-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00036			SHEET / OF	5/8	REV.	00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	16.1M	66.3
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	3	2.3
4	1.1/2	CAP0SS01041H00	Cap ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	2	0.4
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	3	1.1

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

FABRICATION WEIGHT [kg]	70.9
ERECTION WEIGHT [kg]	0.0
OVERALL WEIGHT [kg]	70.9

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
EW70	1.1/2	BW
W71	1.1/2	BW
W72	1.1/2	BW
W73	1.1/2	BW
EW74	1	BW
W75	1.1/2	BW
W76	1.1/2	BW
W77	1.1/2	BW
W78	1.1/2	BW
W79	1.1/2	BW
EW80	1.1/2	BW
W81	1.1/2	BW
EW82	1	BW
W83	1.1/2	BW
W84	1.1/2	BW
EW85	1	BW
W86	1.1/2	BW
W87	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
AF	1.1/2	100	BEVEL	BEVEL
AG	1.1/2	3563	BEVEL	BEVEL
AH	1.1/2	3696	BEVEL	BEVEL
AI	1.1/2	892	BEVEL	BEVEL
AJ	1.1/2	3619	BEVEL	BEVEL
AK	1.1/2	3710	BEVEL	BEVEL
AL	1.1/2	557	BEVEL	BEVEL

SUPPORT LIST

PS-02039.1
PS-02040.1
PS-03074.1
PS-03075.1
PS-03076.1
PS-03093.1
PS-03077.1

SPOOL	WELD [inches]	WEIGHT [kg]
M	6	20.4
N	6	16.4
O	7.5	34.1
MONT	6	0.0

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

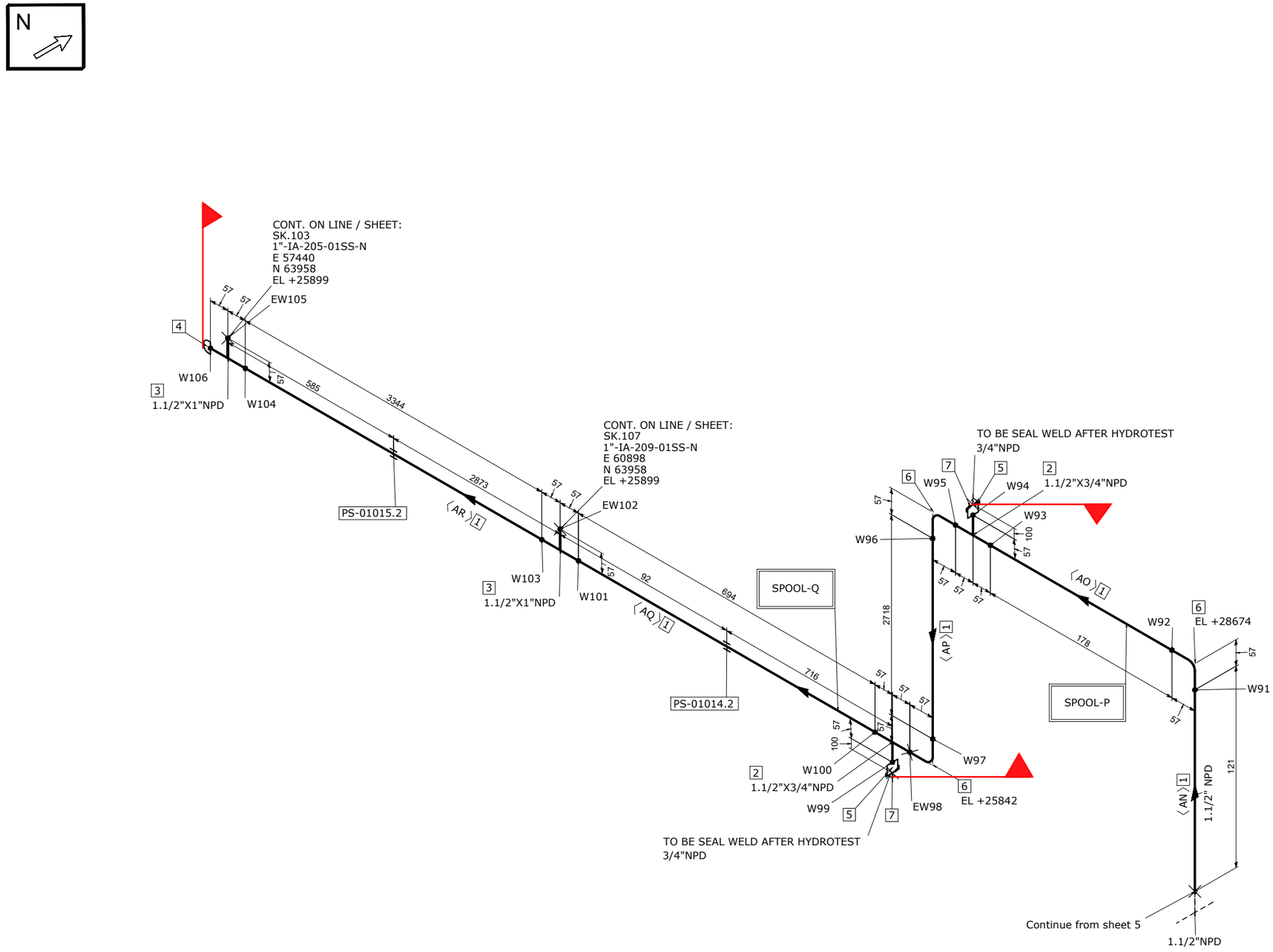
CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 27-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00036	SHEET / OF 6/8	REV. 00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	7.1M	29.0
2	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
3	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	1.1/2	CAP0SS01041H00	Cap ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.2
5	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	2	0.3
6	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	3	1.1

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
7	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	2	0.4

FABRICATION WEIGHT [kg]	33.6
ERECTION WEIGHT [kg]	0.4
OVERALL WEIGHT [kg]	34.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W91	1.1/2	BW
W92	1.1/2	BW
W93	1.1/2	BW
W94	3/4	BW
W95	1.1/2	BW
W96	1.1/2	BW
W97	1.1/2	BW
EW98	1.1/2	BW
W99	3/4	BW
W100	1.1/2	BW
W101	1.1/2	BW
EW102	1	BW
W103	1.1/2	BW
W104	1.1/2	BW
EW105	1	BW
W106	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
AN	1.1/2	121	BEVEL	BEVEL
AO	1.1/2	178	BEVEL	BEVEL
AP	1.1/2	2718	BEVEL	BEVEL
AQ	1.1/2	694	BEVEL	BEVEL
AR	1.1/2	3344	BEVEL	BEVEL

SUPPORT LIST

PS-01014.2
PS-01015.2

SPOOL	WELD [inches]	WEIGHT [kg]
P	9.75	14.4
Q	8.25	19.2
MONT	3.5	0.4

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM	Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

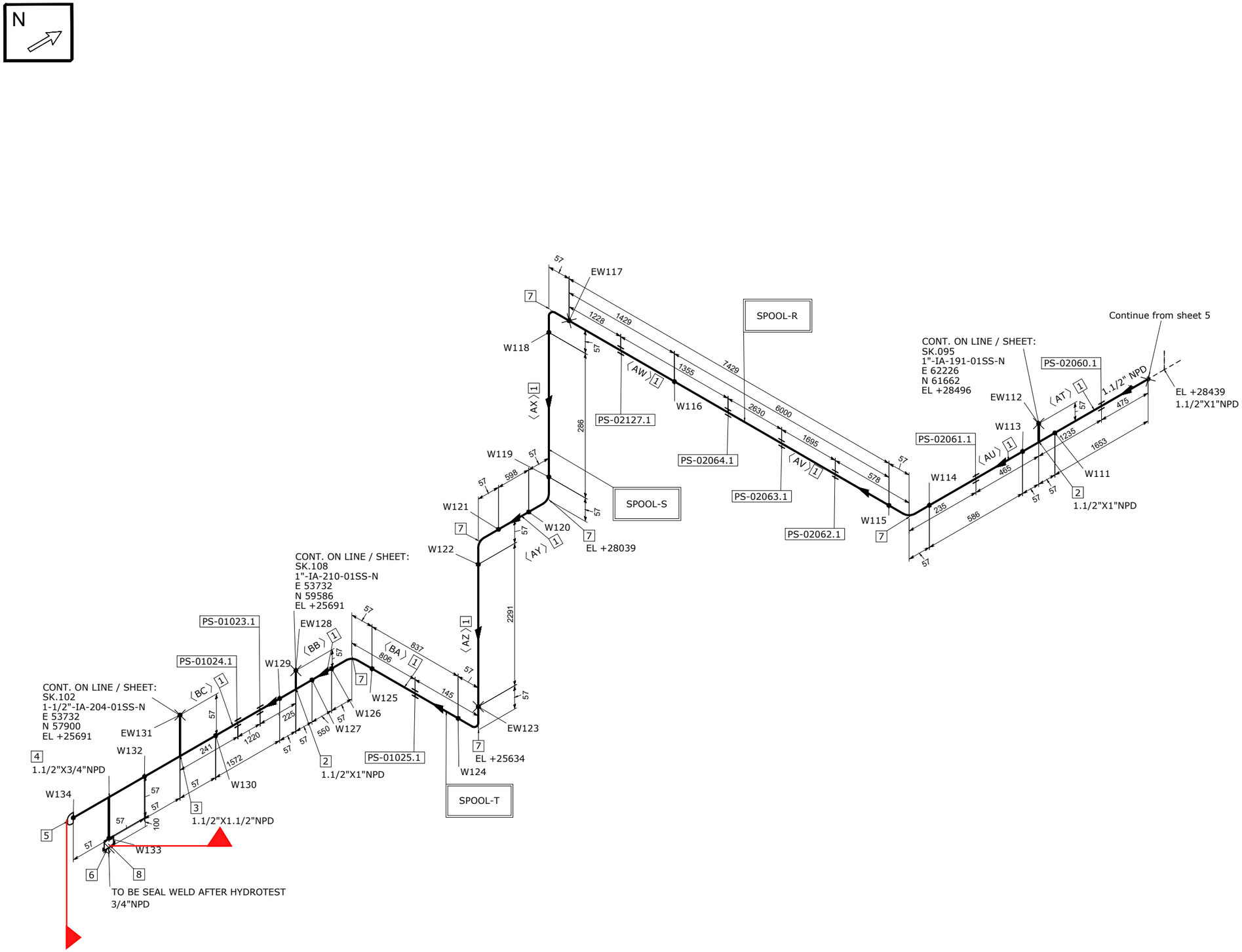
CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	27-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00036			SHEET / OF	7/8	REV.	00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	15.8M	64.7
2	1.1/2X1	TER0SS01741H01	Tee Reducing ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	2	1.5
3	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
4	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.8
5	1.1/2	CAP0SS01041H00	Cap ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.2
6	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
7	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	6	2.2

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
8	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2

FABRICATION WEIGHT [kg]	70.3
ERECTION WEIGHT [kg]	0.2
OVERALL WEIGHT [kg]	70.5

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W111	1.1/2	BW
EW112	1	BW
W113	1.1/2	BW
W114	1.1/2	BW
W115	1.1/2	BW
W116	1.1/2	BW
EW117	1.1/2	BW
W118	1.1/2	BW
W119	1.1/2	BW
W120	1.1/2	BW
W121	1.1/2	BW
W122	1.1/2	BW
EW123	1.1/2	BW
W124	1.1/2	BW
W125	1.1/2	BW
W126	1.1/2	BW
W127	1.1/2	BW
EW128	1	BW
W129	1.1/2	BW
W130	1.1/2	BW
EW131	1.1/2	BW
W132	1.1/2	BW
W133	3/4	BW
W134	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
AT	1.1/2	1653	BEVEL	BEVEL
AU	1.1/2	586	BEVEL	BEVEL
AV	1.1/2	6000	BEVEL	BEVEL
AW	1.1/2	1429	BEVEL	BEVEL
AX	1.1/2	286	BEVEL	BEVEL
AY	1.1/2	598	BEVEL	BEVEL
AZ	1.1/2	2291	BEVEL	BEVEL
BA	1.1/2	837	BEVEL	BEVEL
BB	1.1/2	550	BEVEL	BEVEL
BC	1.1/2	1572	BEVEL	BEVEL

SUPPORT LIST

PS-02060.1
PS-02061.1
PS-02062.1
PS-02063.1
PS-02064.1
PS-02127.1
PS-01025.1
PS-01023.1
PS-01024.1

SPOOL	WELD [inches]	WEIGHT [kg]
R	7.5	40.9
S	7.5	14.2
T	12.75	15.4
MONT	6.5	0.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N
SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3
DRAWING NO.: 123A90-FDL-PP-DI-00036
SHEET / OF: 8/8
REV.: 00

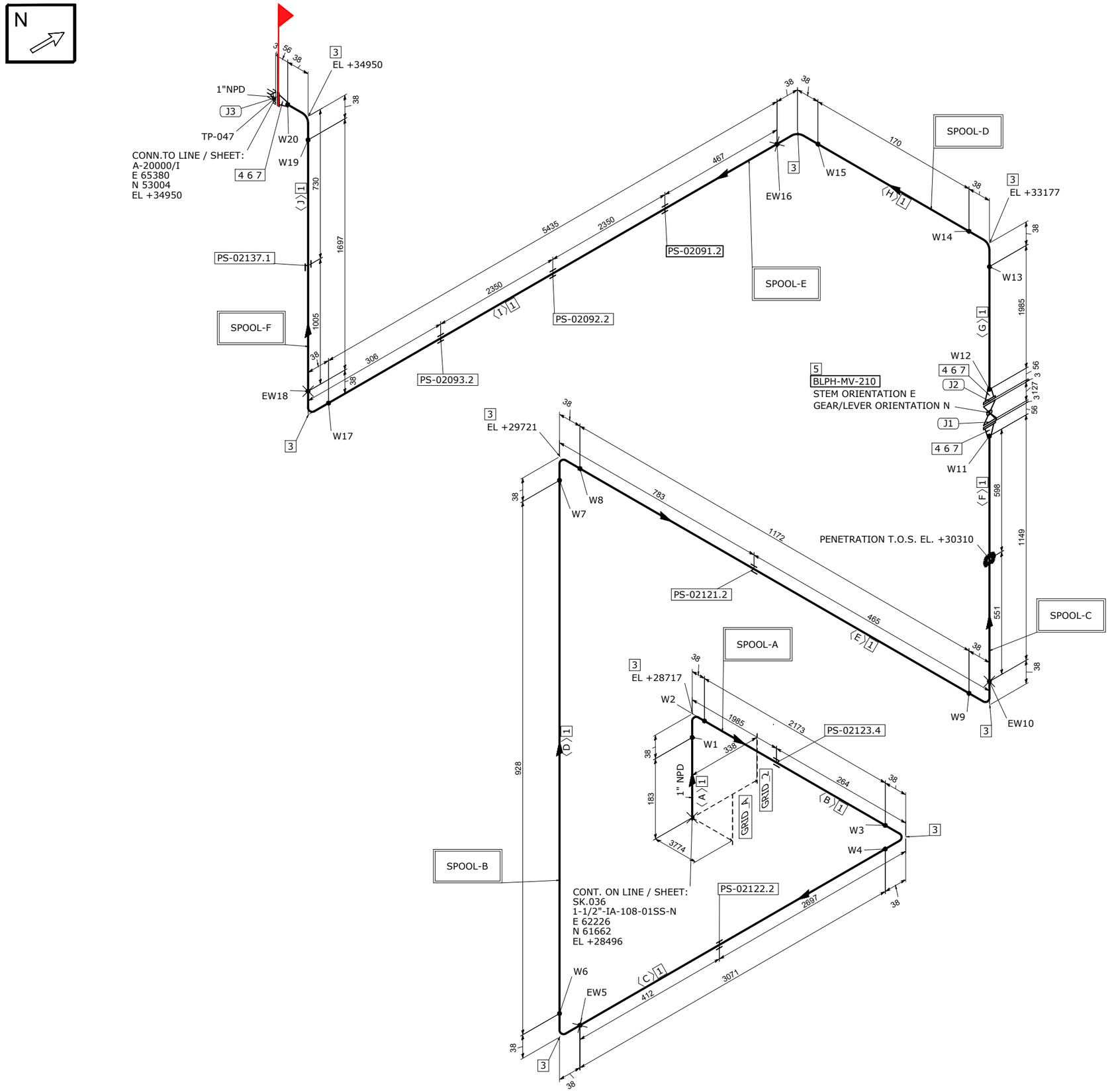
LINE DATA

NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	17.9M	45.6
3	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	9	1.3
4	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG	3	4.3

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	3	0.2
7	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	12	1.4

FABRICATION WEIGHT [kg]	51.2
ERECTION WEIGHT [kg]	7.6
OVERALL WEIGHT [kg]	58.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	1	BW
EW5	1	BW
W6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
EW10	1	BW
W11	1	BW
W12	1	BW
W13	1	BW
W14	1	BW
W15	1	BW
EW16	1	BW
W17	1	BW
EW18	1	BW
W19	1	BW
W20	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	183	BEVEL	BEVEL
B	1	2173	BEVEL	BEVEL
C	1	3071	BEVEL	BEVEL
D	1	928	BEVEL	BEVEL
E	1	1172	BEVEL	BEVEL
F	1	1149	BEVEL	BEVEL
G	1	1985	BEVEL	BEVEL
H	1	170	BEVEL	BEVEL
I	1	5435	BEVEL	BEVEL
J	1	1697	BEVEL	BEVEL

SUPPORT LIST

PS-02123.4
PS-02122.2
PS-02121.2
PS-02091.2
PS-02092.2
PS-02093.2
PS-02137.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	14.1
B	4	5.8
C	1	4.3
D	4	7.3
E	1	13.7
F	2	5.9
MONT	4	7.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-191-01SS-N

SK.095

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK					SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00095			SHEET / OF	1/1
						REV.	00

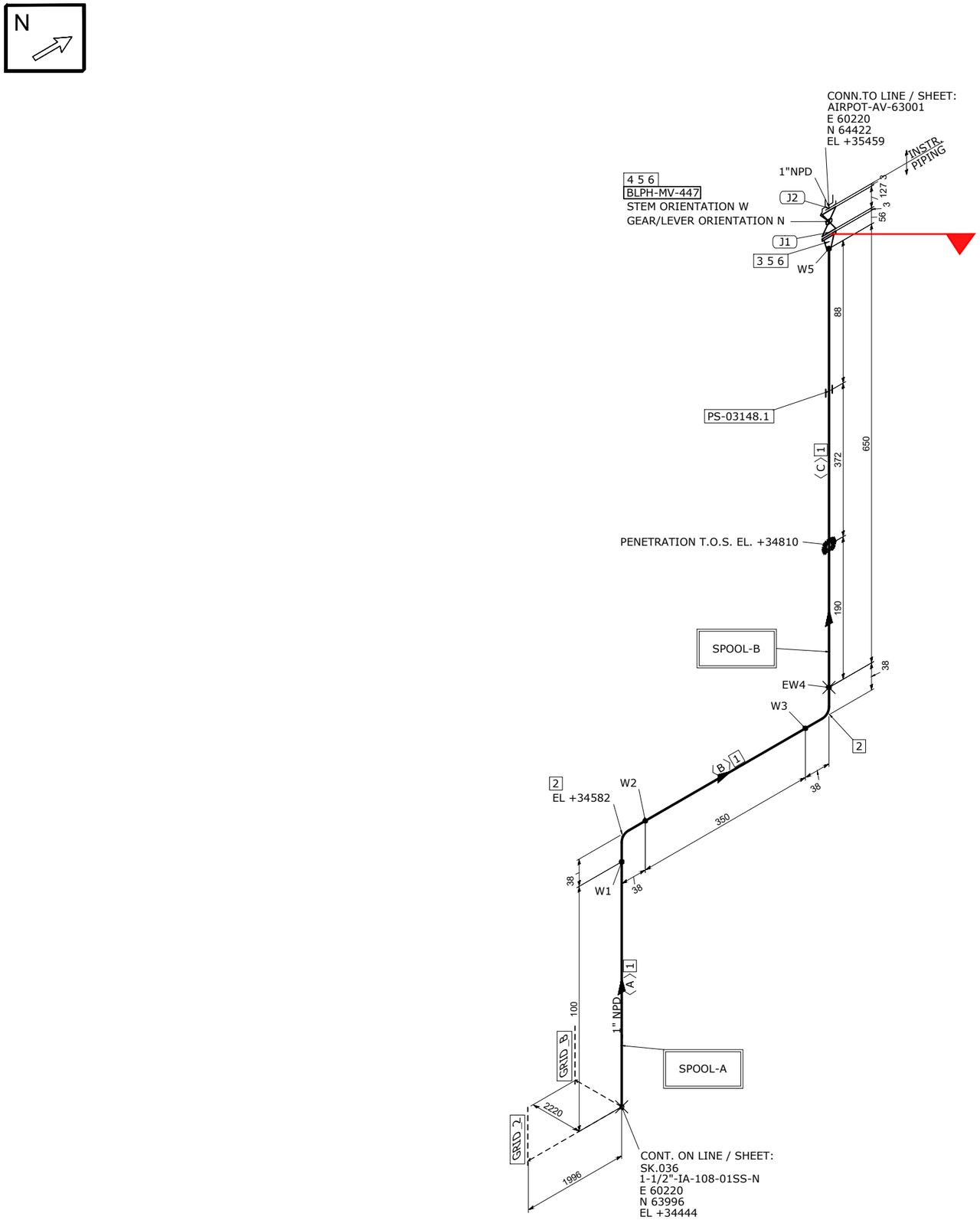
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	GAS				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03148.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-203-01SS-N

SK.101

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00101 | SHEET / OF: 1/1 | REV.: 00

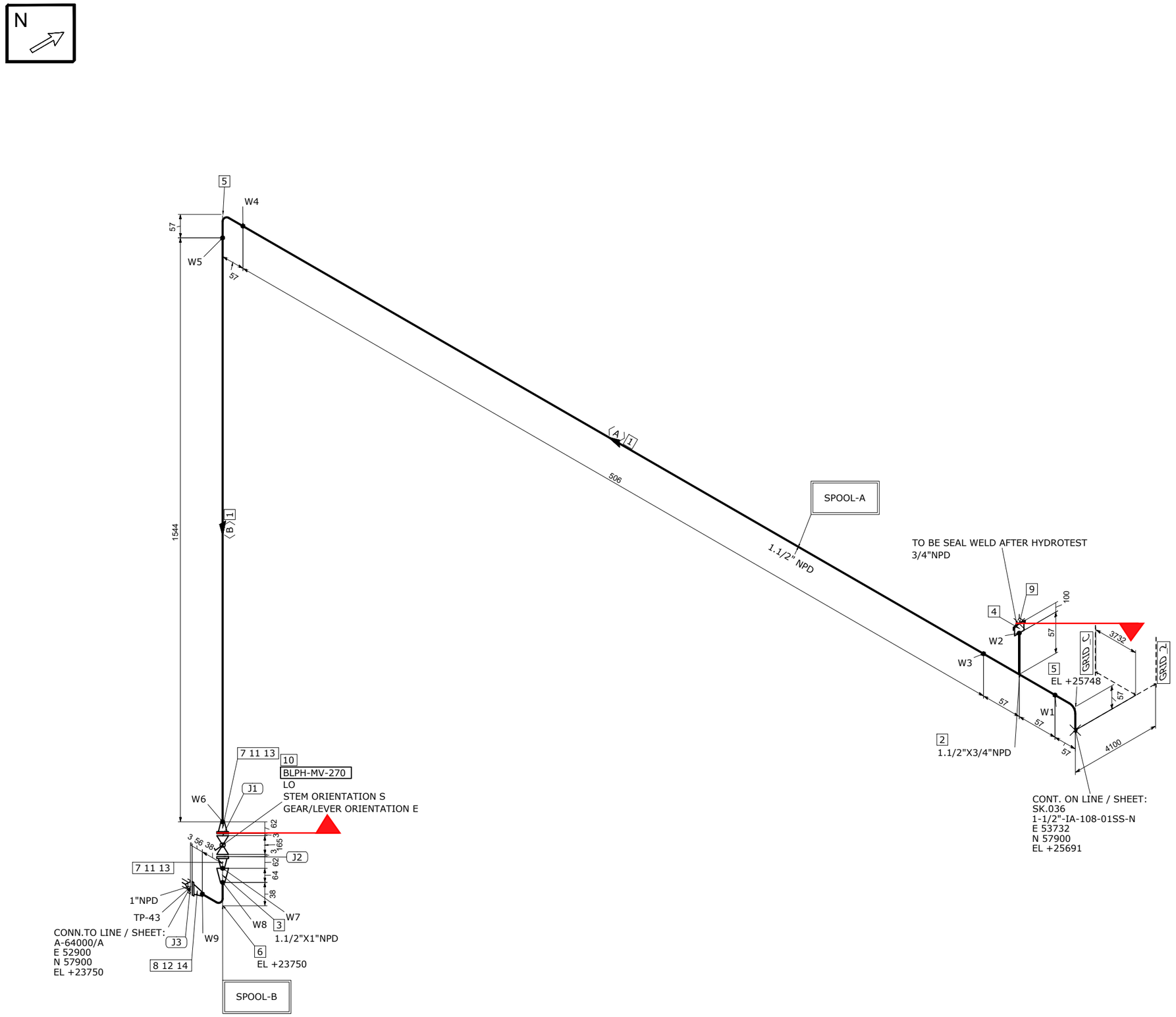
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	2.1M	8.6
2	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X1	REC0SS03191H01	Reducer Concentric ASME B16.9 BW 3,68x3,38 WRS ASTM A403 Gr.WP316/316L	1	0.3
4	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	2	0.7
6	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	1	0.1
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
12	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
14	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	0.5

FABRICATION WEIGHT [kg]	15.8
ERECTION WEIGHT [kg]	14.6
OVERALL WEIGHT [kg]	30.4

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1.1/2	BW
W2	3/4	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	1	BW
W9	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	506	BEVEL	BEVEL
B	1.1/2	1544	BEVEL	BEVEL

SUPPORT LIST

SPOOL	WELD [inches]	WEIGHT [kg]
A	8.25	12.1
B	3.5	3.7
MONT	0	14.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-204-01SS-N

SK.102

63-30-TP-027

MASTER

LINE DATA

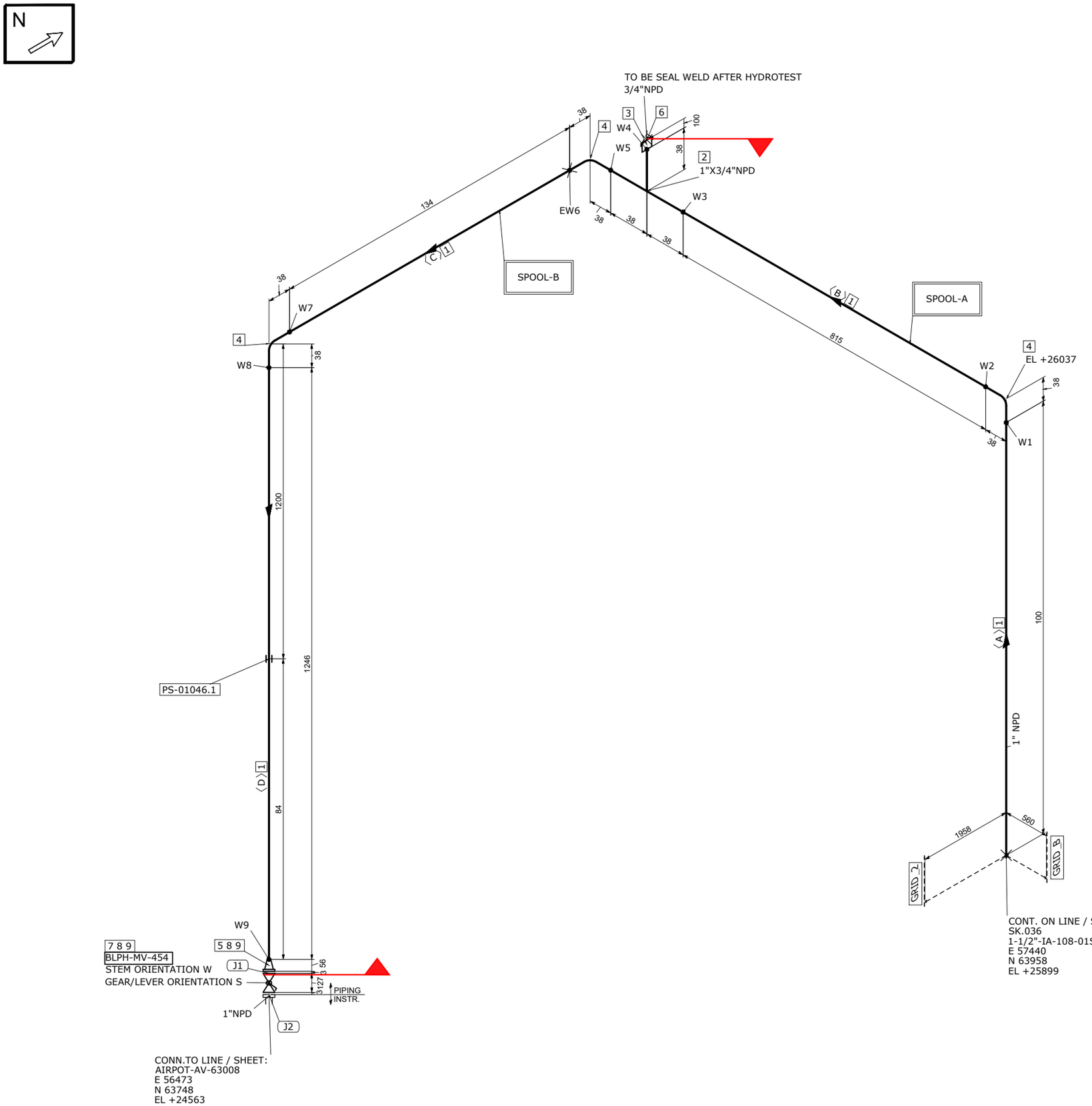
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	N/A
DRAWN	STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00102		SHEET / OF 1/1	REV. 00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	3	0.4
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	8.1
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	15.4

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	815	BEVEL	BEVEL
C	1	134	BEVEL	BEVEL
D	1	1246	BEVEL	BEVEL

SUPPORT LIST

PS-01046.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	3.1
B	3	5.1
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-205-01SS-N
SK.103

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00103 | SHEET / OF: 1/1 | REV.: 00

63-30-TP-027

MASTER

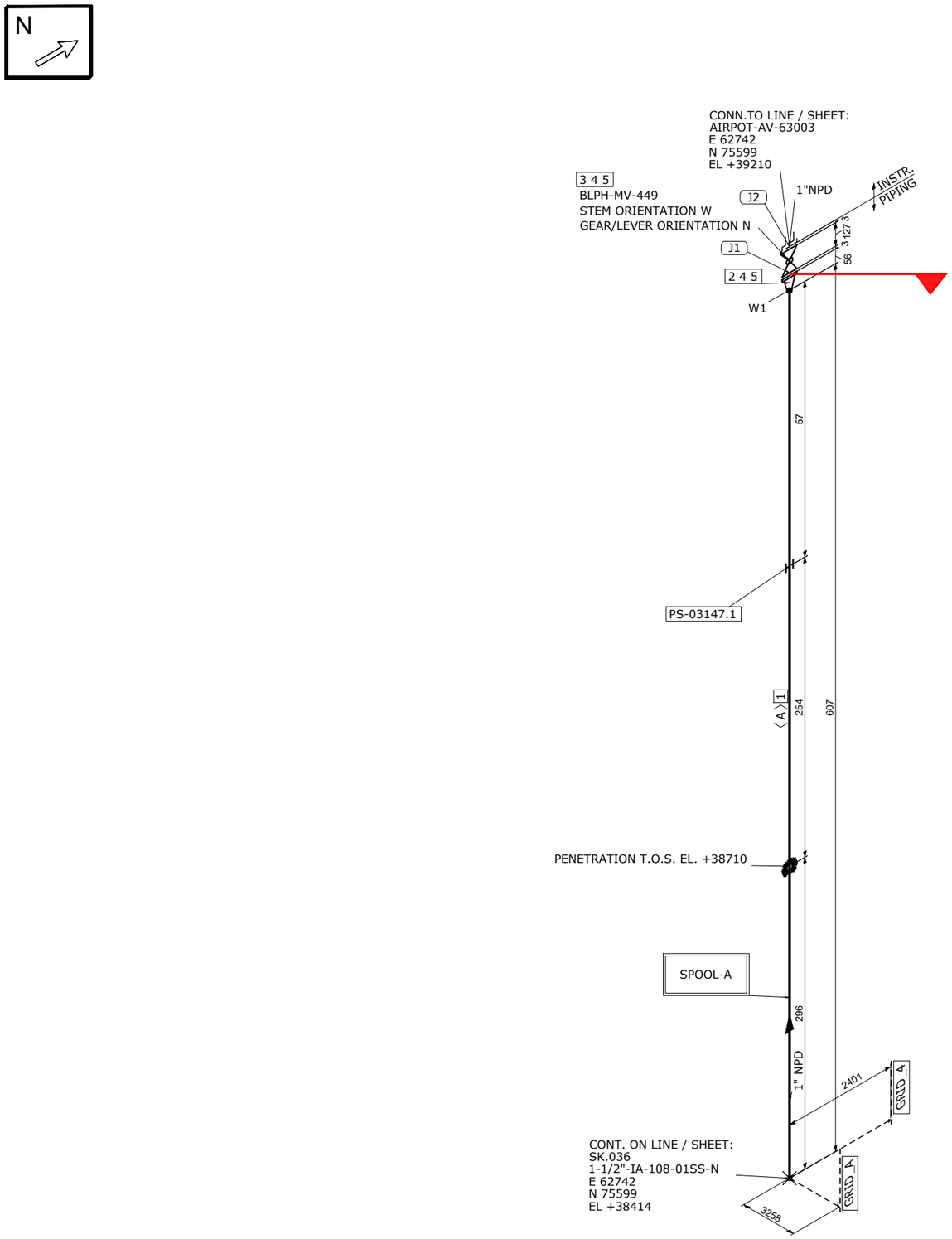
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NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03147.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-206-01SS-N

SK.104

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00104 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

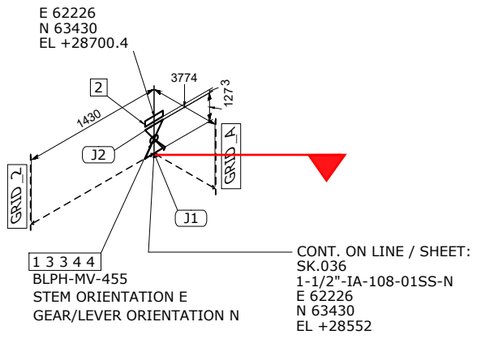
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

N



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
2	1	FLB0SS00490100	Flange Blind ASME B16.5 150LB RF FRG ASTM A182 Gr.F316/316L	1	1.4
3	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
4	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	0.0
ERECTION WEIGHT [kg]	8.5
OVERALL WEIGHT [kg]	8.5

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2

SUPPORT LIST

SPOOL	WELD [inches]	WEIGHT [kg]
MONT	0	8.5

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-207-01SS-N

SK.105

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00105 | SHEET / OF: 1/1 | REV.: 00

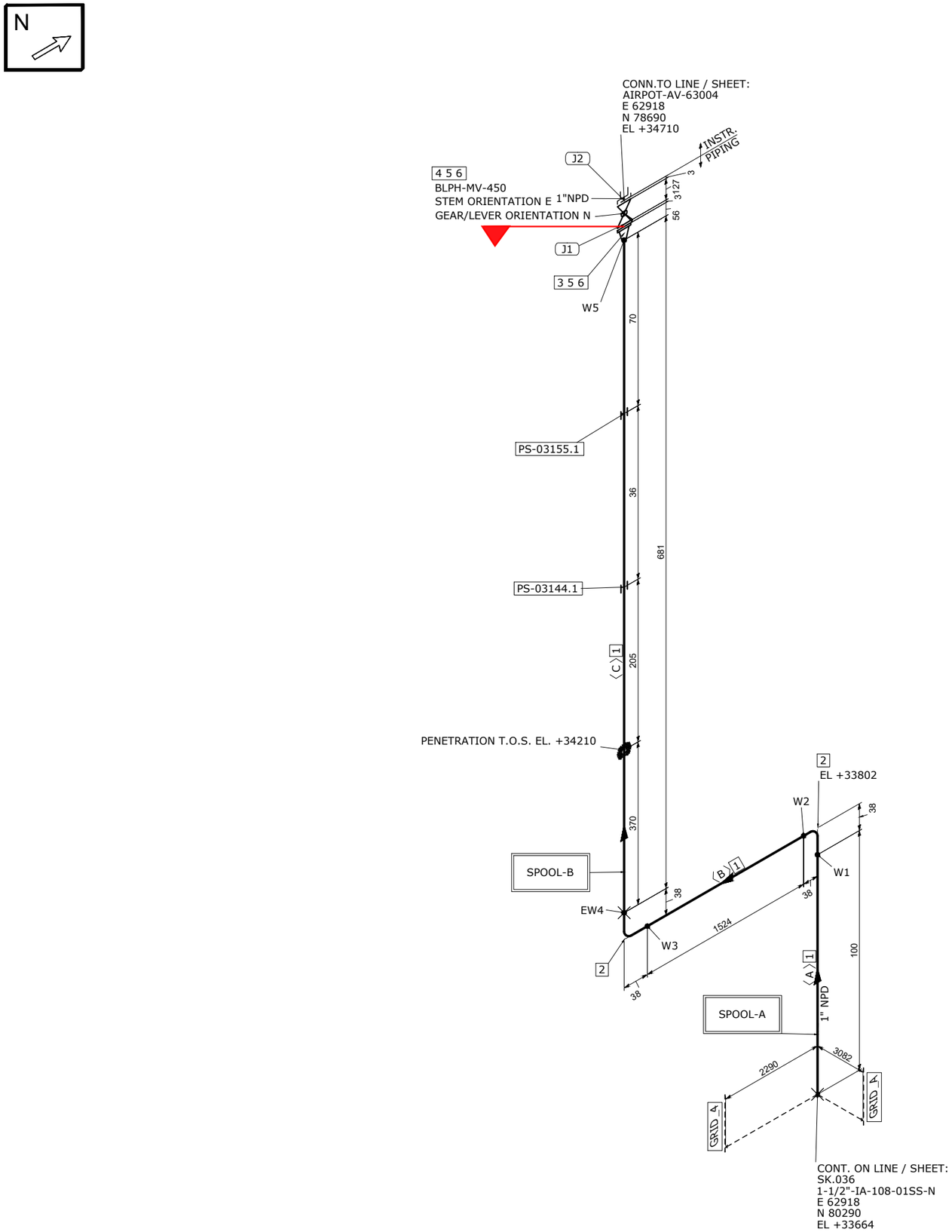
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03144.1
PS-03155.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-208-01SS-N

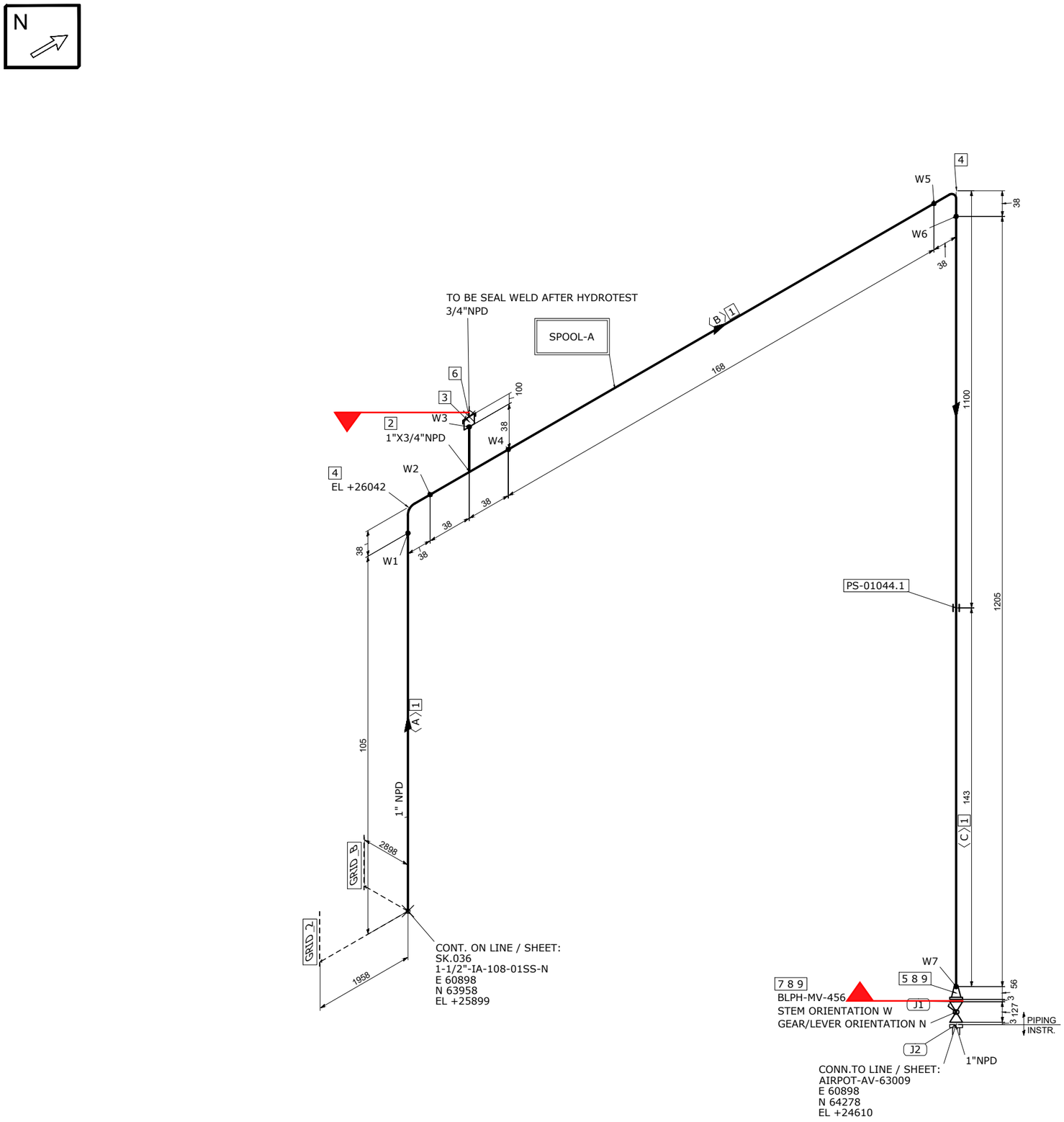
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CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00106 | SHEET / OF: 1/1 | REV.: 00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.5M	3.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.0
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.3

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
W6	1	BW
W7	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	105	BEVEL	BEVEL
B	1	168	BEVEL	BEVEL
C	1	1205	BEVEL	BEVEL

SUPPORT LIST

PS-01044.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	6.75	5.9
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-209-01SS-N

SK.107

63-30-TP-027

MASTER

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK					SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00107			SHEET / OF	1/1
						REV.	00

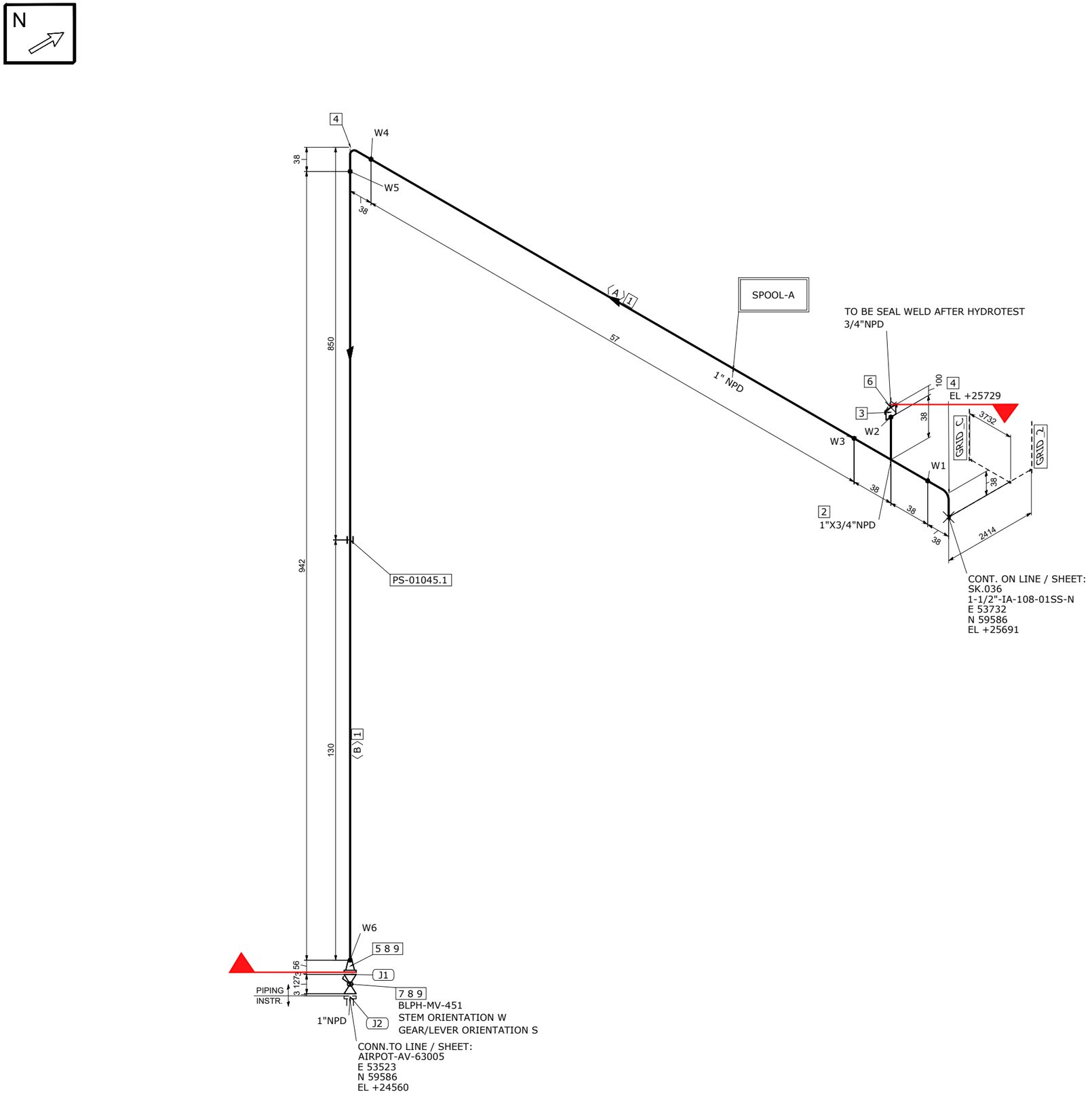
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.0M	2.5
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.7
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	12.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	3/4	BW
W3	1	BW
W4	1	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	57	BEVEL	BEVEL
B	1	942	BEVEL	BEVEL

SUPPORT LIST

PS-01045.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	4.7
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

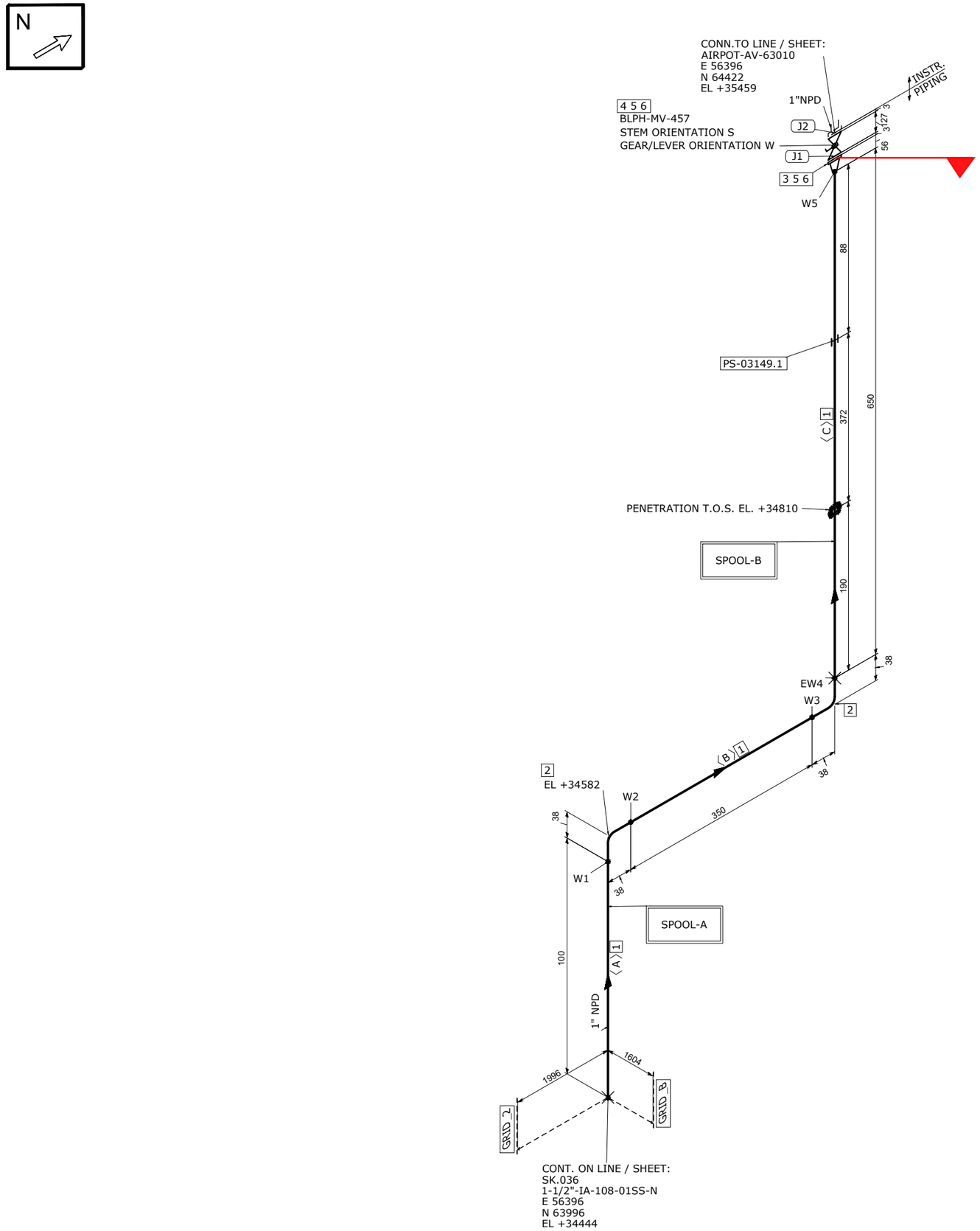
CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-210-01SS-N

SK.108

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00108	SHEET / OF	1/1
				DATE	20-08-2024
				REV.	00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03149.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-211-01SS-N

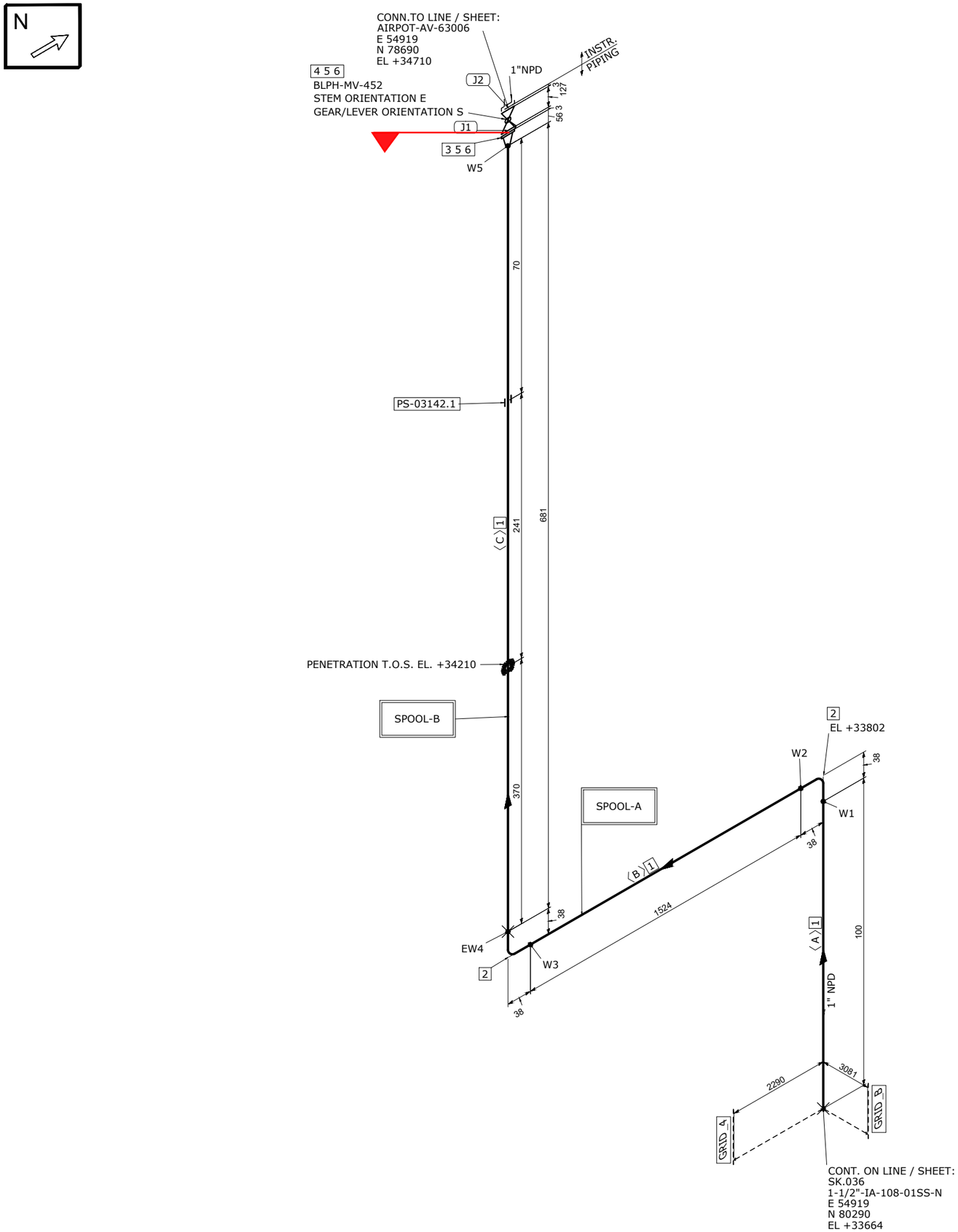
SK.109

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00109 | SHEET / OF: 1/1 | REV.: 00



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03142.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-212-01SS-N
SK.110

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3
DRAWING NO.: 123A90-FDL-PP-DI-00110
SHEET / OF: 1/1
REV.: 00

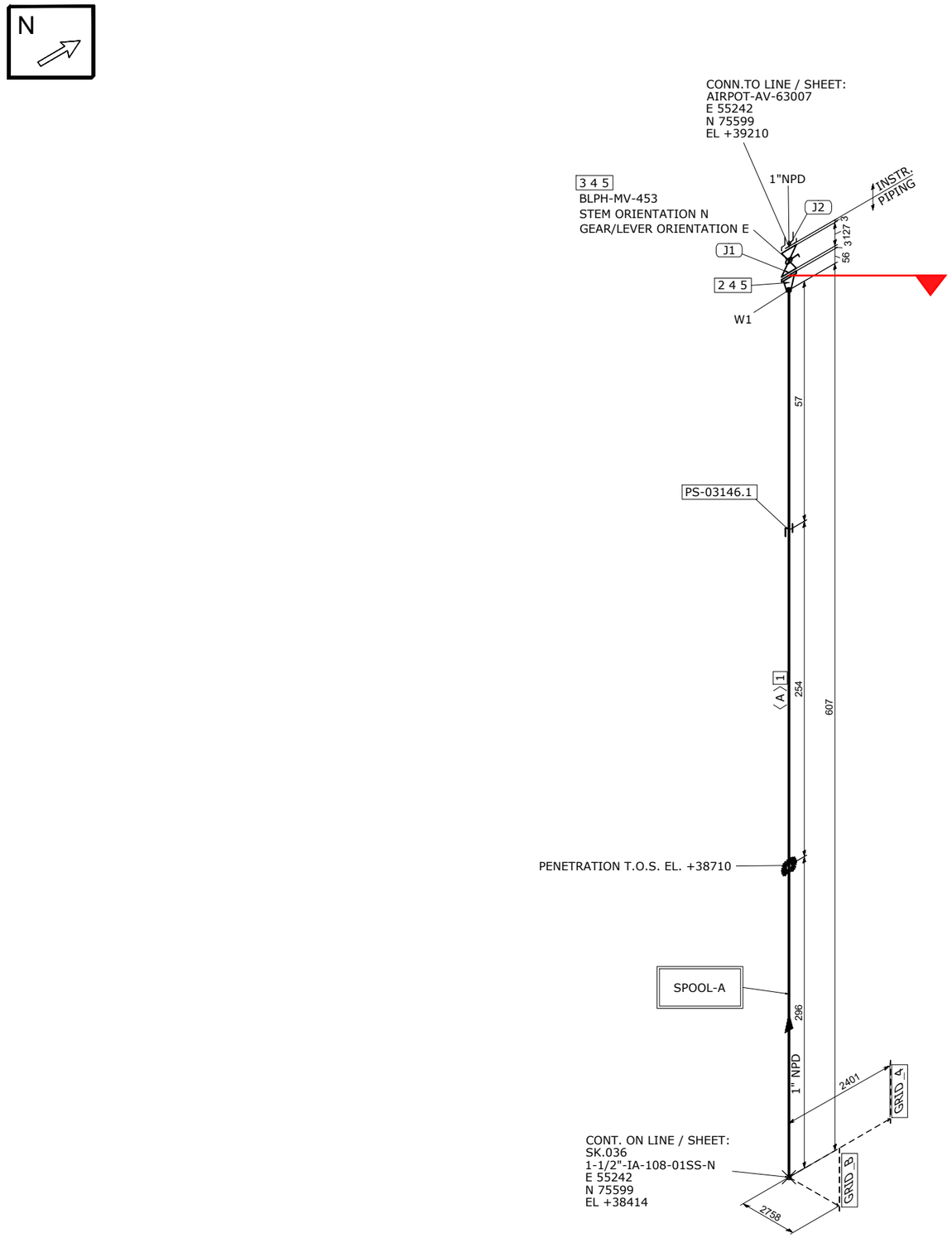
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03146.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

63-30-TP-027

MASTER

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-213-01SS-N
SK.111

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00111 | SHEET / OF: 1/1 | REV.: 00

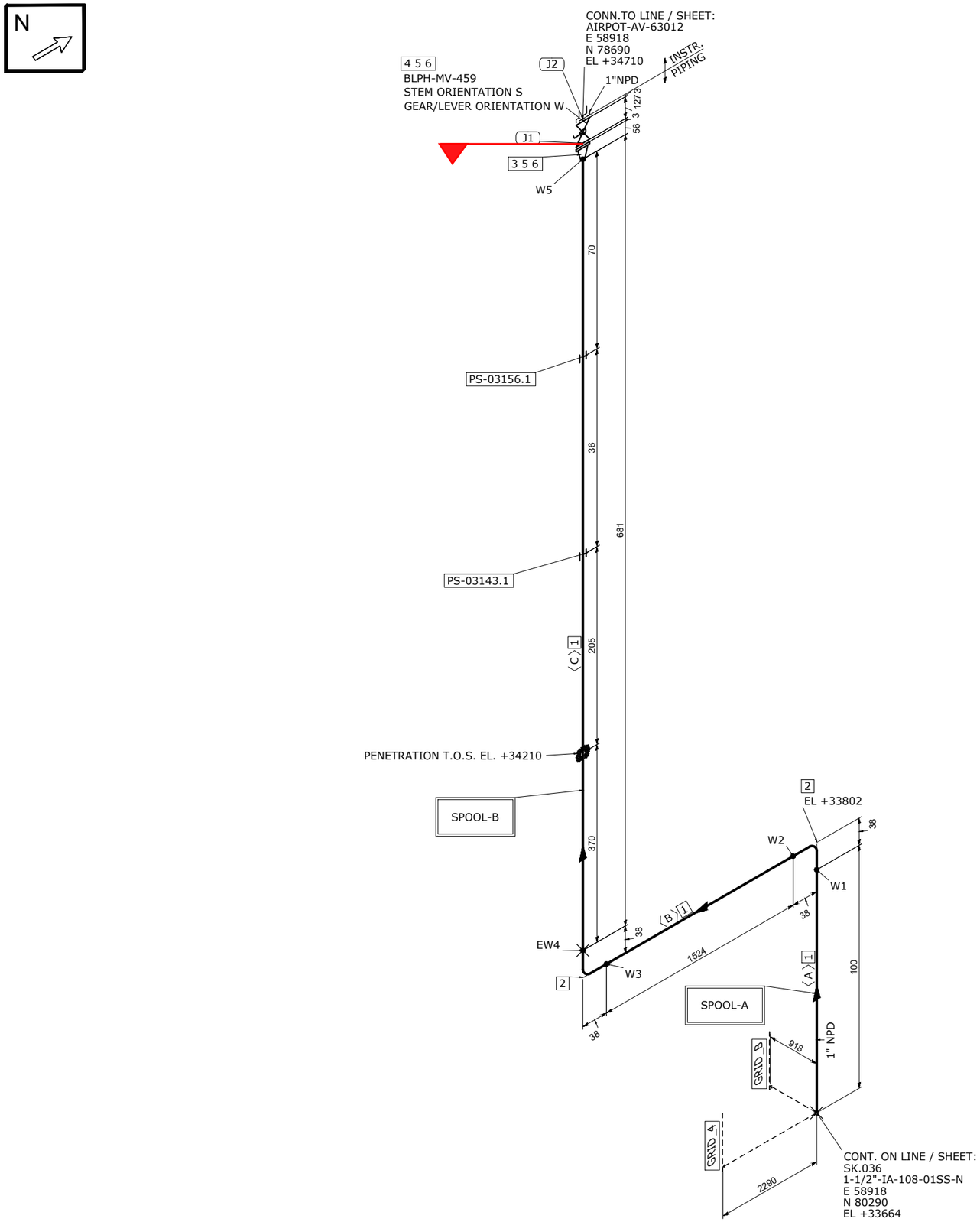
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]				
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water			

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03143.1
PS-03156.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-214-01SS-N

SK.112

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT
APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00112
SHEET / OF	1/1	REV.	00

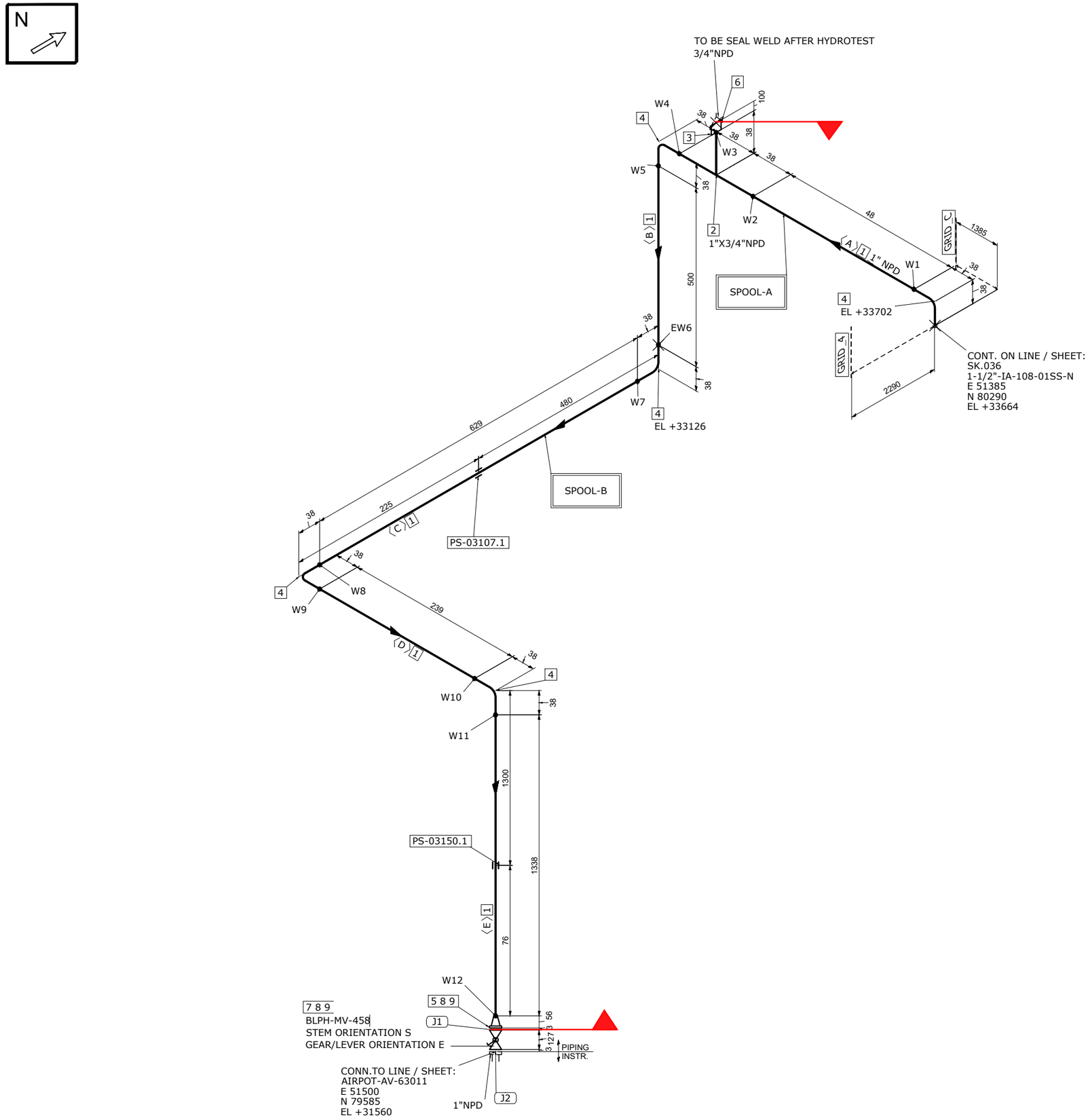
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS.12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS.18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.8M	7.0
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	5	0.7
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	9.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	17.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	48	BEVEL	BEVEL
B	1	500	BEVEL	BEVEL
C	1	629	BEVEL	BEVEL
D	1	239	BEVEL	BEVEL
E	1	1338	BEVEL	BEVEL

SUPPORT LIST

PS-03107.1
PS-03150.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	2.2
B	6	7.4
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-215-01SS-N

SK.113

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00113 | SHEET / OF: 1/1 | REV.: 00

63-30-TP-027

MASTER

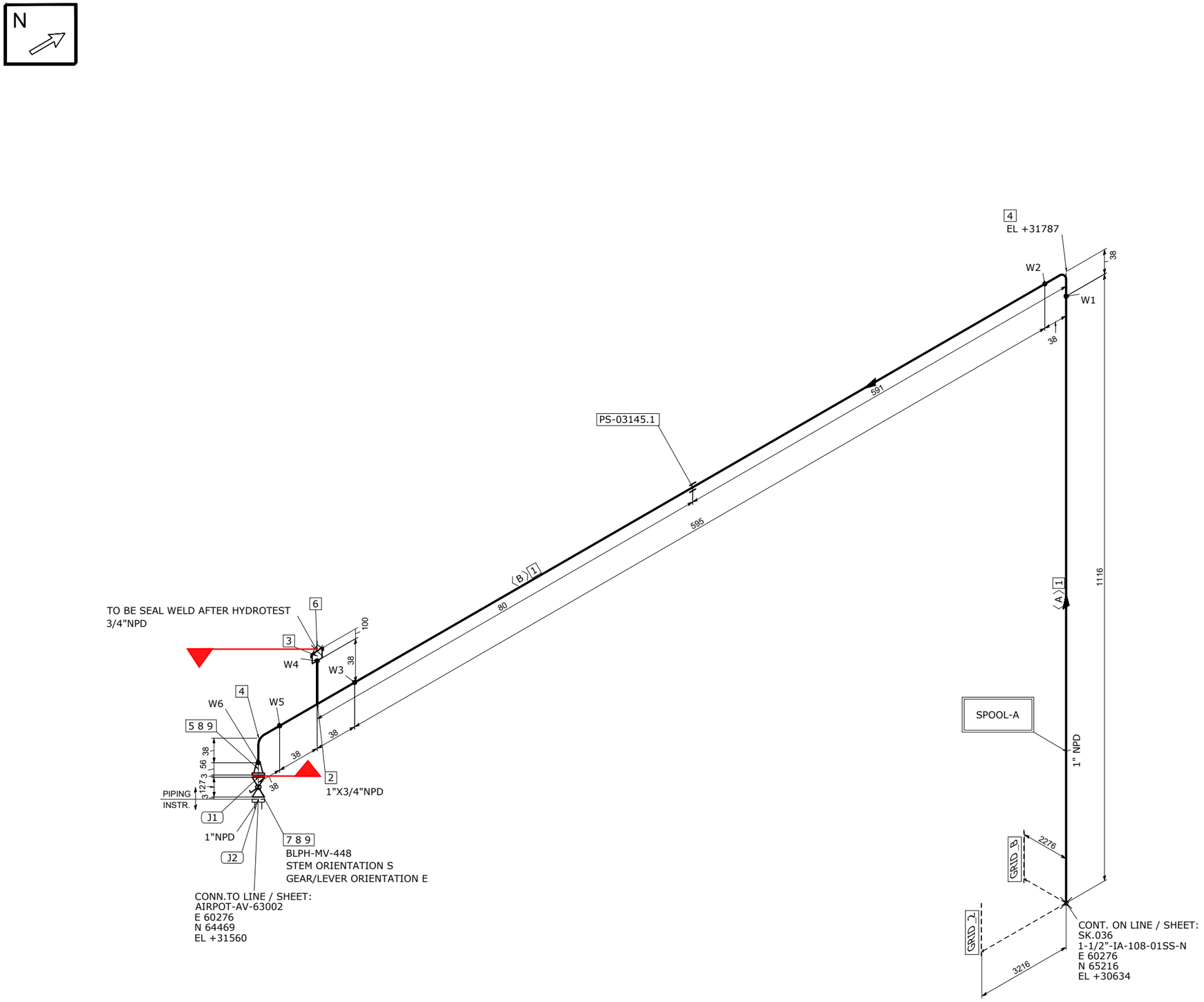
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.7M	4.3
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	1116	BEVEL	BEVEL
B	1	595	BEVEL	BEVEL

SUPPORT LIST

PS-03145.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	6.5
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-30-TP-027

MASTER

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-223-01SS-N

SK.119

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

SCALE: N/A

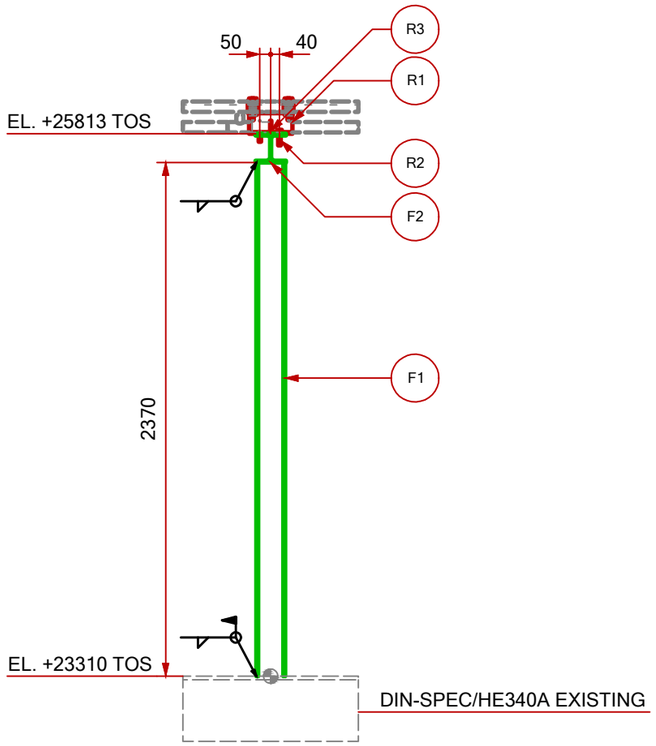
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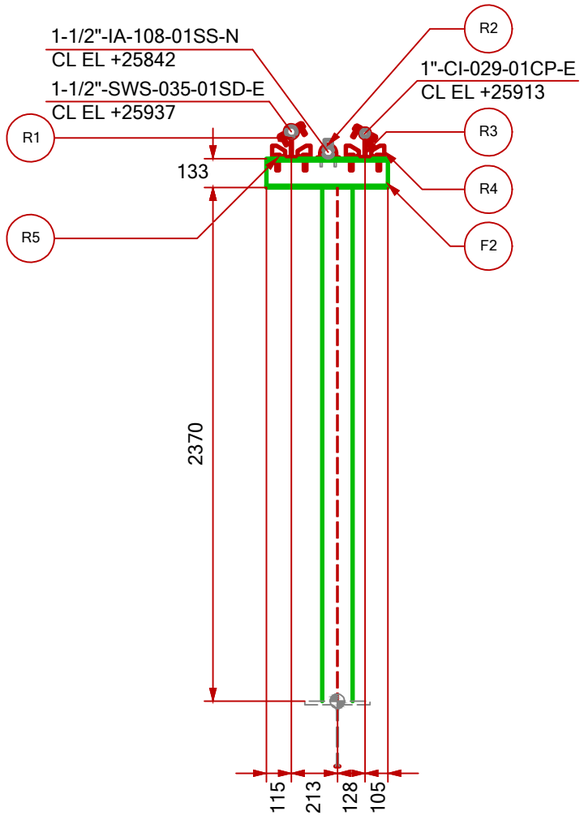
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SUPPORT LIST

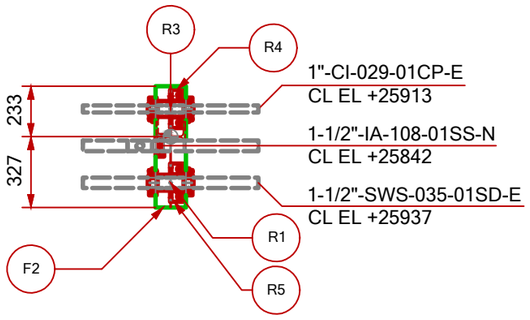
SUPPORT	SUFFIX	SERVICE	DECK IDENTIFICATION	SUB ASSEMBLY	LINE	SUPPORTS STANDARD	NDT CATEGORY	QUANTITY	TOT. WEIGTH (KG)	PAINTING SURFACE (SQM)	REV	DATE	STATUS	NOTES	Test Pack N°
PS-01014	B2	PIP	LOWER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-01015	B2	PIP	LOWER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-01023	B1	PIP	LOWER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-01024	B1	PIP	LOWER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-01025	B1	PIP	LOWER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-01044	B1	PIP	LOWER DECK		1"-IA-209-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-01045	B1	PIP	LOWER DECK		1"-IA-210-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-01046	B1	PIP	LOWER DECK		1"-IA-205-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02006	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02007	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02008	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02009	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02010	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02025	B2	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02026	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02027	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02028	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02033	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02039	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02040	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02047	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02050	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02051	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02052	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02053	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02054	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02055	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02056	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02057	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02058	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02059	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02060	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02061	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02062	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02063	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02064	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02075	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02081	B2	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
~~PS-02082~~	~~B2~~	~~PIP~~	~~UPPER DECK~~		~~1"-IA-191-01SS-N~~	S-211 - 1"		~~1~~	~~0,286~~	~~0,000~~	~~01~~	~~04/11/2024~~	~~AFC~~		TP-027
PS-02083	B2	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02121	B2	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02122	B2	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02123	B4	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02127	B1	PIP	UPPER DECK		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-02137	B1	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-02141	B1	PIP	UPPER DECK		1"-IA-191-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03074	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03075	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03076	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03077	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03091	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03092	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03093	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03094	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03095	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03096	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03097	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
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PS-03099	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03100	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03101	B2	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03102	B2	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03103	B2	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03104	B3	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03105	B3	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03106	B3	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03107	B1	PIP	PAU		1"-IA-215-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03142	B1	PIP	PAU		1"-IA-212-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03143	B1	PIP	PAU		1"-IA-214-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03144	B1	PIP	PAU		1"-IA-208-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03145	B1	PIP	PAU		1"-IA-223-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03146	B1	PIP	PAU		1"-IA-213-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03147	B1	PIP	PAU		1"-IA-206-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03148	B1	PIP	PAU		1"-IA-203-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03149	B1	PIP	PAU		1"-IA-211-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03150	B1	PIP	PAU		1"-IA-215-01SS-N	S-211 - 1"		1	0,286	0,000	01	04/11/2024	AFC		TP-027
PS-03153	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027
PS-03154	B1	PIP	PAU		1-1/2"-IA-108-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	01	04/11/2024	AFC		TP-027



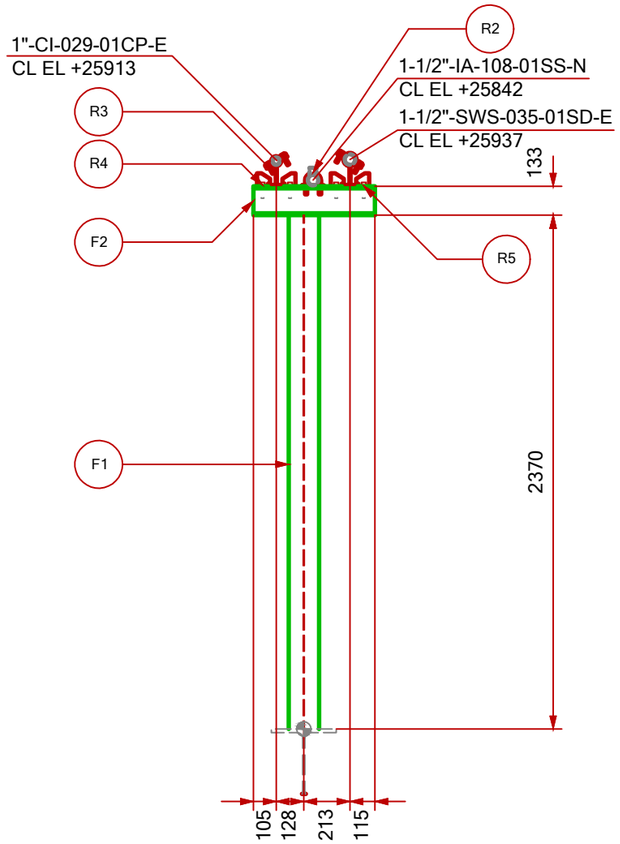
VIEW LOOKING NORTH



VIEW LOOKING WEST



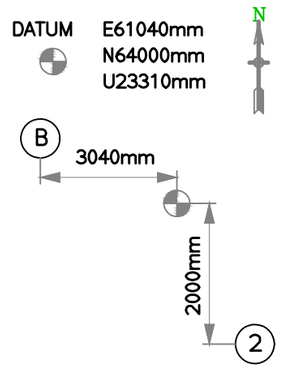
PLAN VIEW

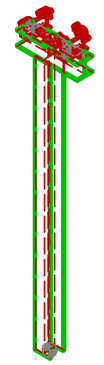


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-64-1.1/2"-100-200	-	-	1	-	4.00	0.108
R2	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R3	STD	S-64-1"-100-200	-	-	1	-	3.81	0.102
R4	STD	C-33-1-C-2	-	-	1	-	2.28	0.028
R5	STD	C-33-1-I-2	-	-	1	-	2.28	0.028
F1	BEAM	HEA140	Carbon Steel	2370	1	24.75	58.66	1.888
F2	BEAM	HEA140	Carbon Steel	560	1	24.75	13.86	0.451
						TOTAL	85.4	2.60





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

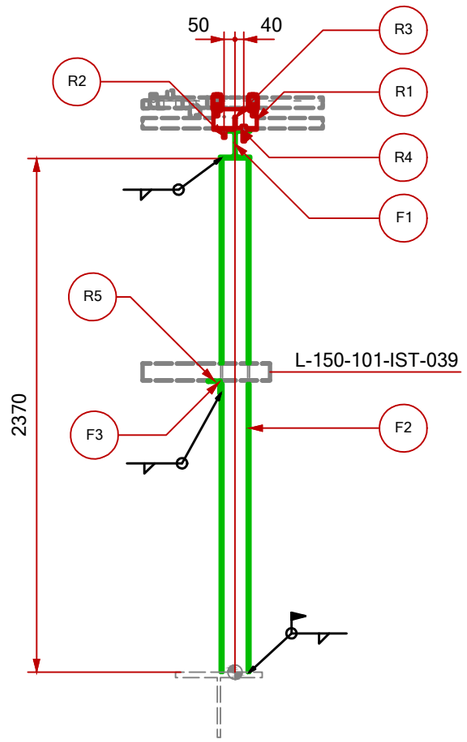
ROSETTI MARINO

TITLE :

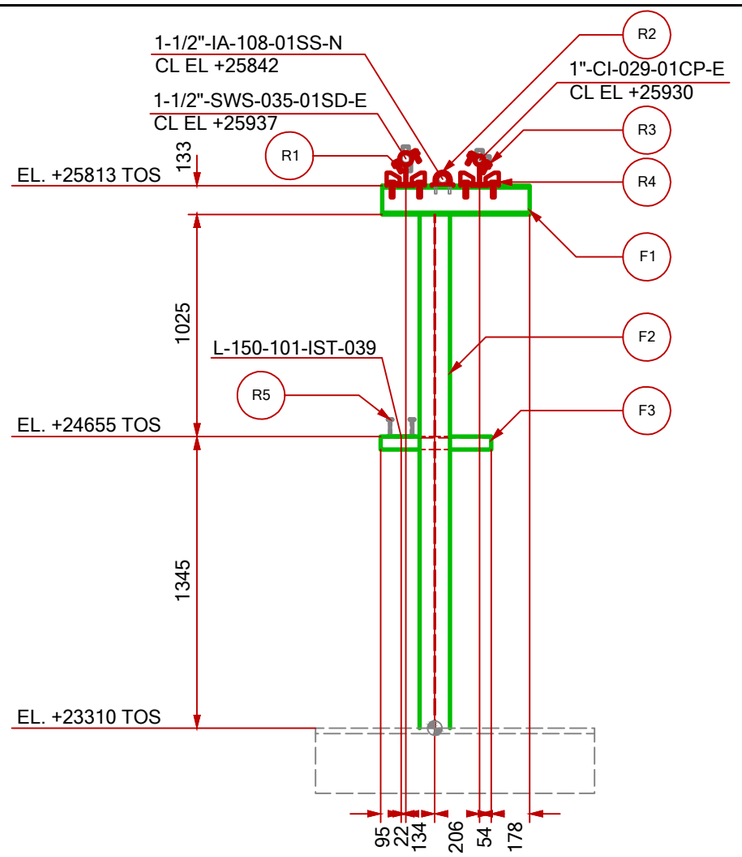
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01014

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1 : 20
DRAWN	CHECKED	APPROVED		DATE	19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1	REV. 00

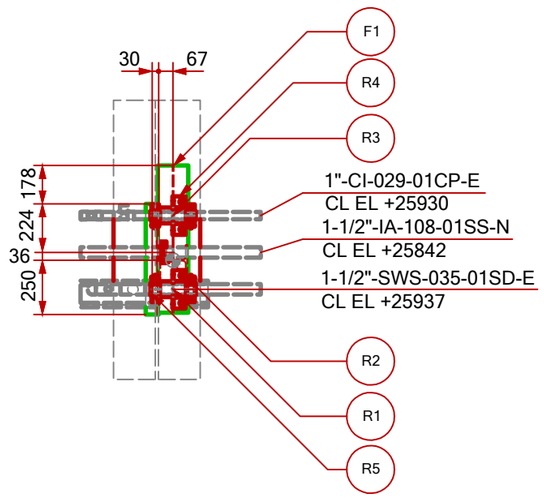
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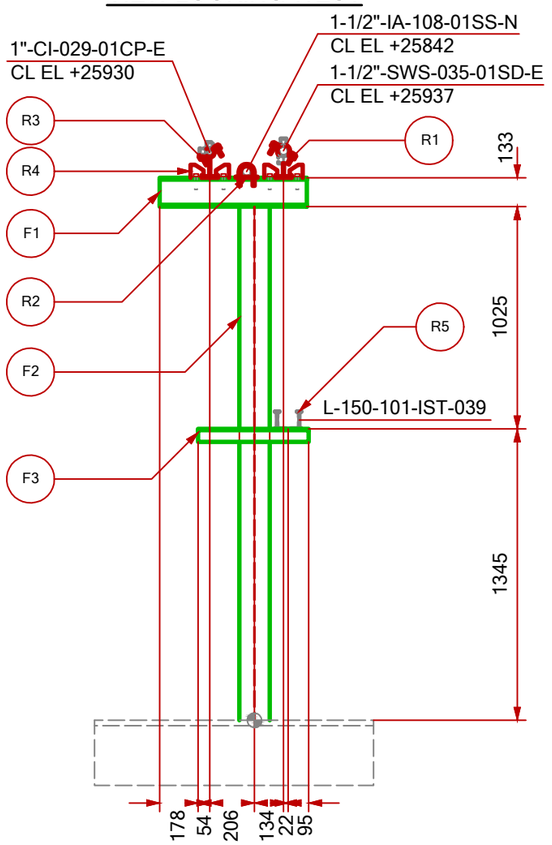
VIEW LOOKING NORTH



VIEW LOOKING WEST



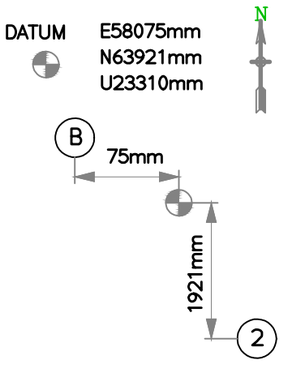
PLAN VIEW

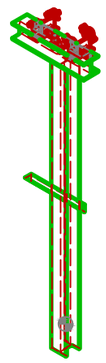


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-64-1.1/2"-100-200	-	-	1	-	4.00	0.108
R2	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R3	STD	S-64-1"-100-200	-	-	1	-	3.81	0.102
R4	STD	C-33-1-I-2	-	-	2	-	2.28	0.028
R5	STD	RACK SUPPORT	-	-	1	-	0.00	-
F1	BEAM	HEA140	Carbon Steel	680	1	24.75	16.83	0.546
F2	BEAM	HEA140	Carbon Steel	2370	1	24.75	58.66	1.888
F3	BEAM	L60x60x6	Carbon Steel	510	1	5.42	2.77	0.120
						TOTAL	91.1	2.82





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

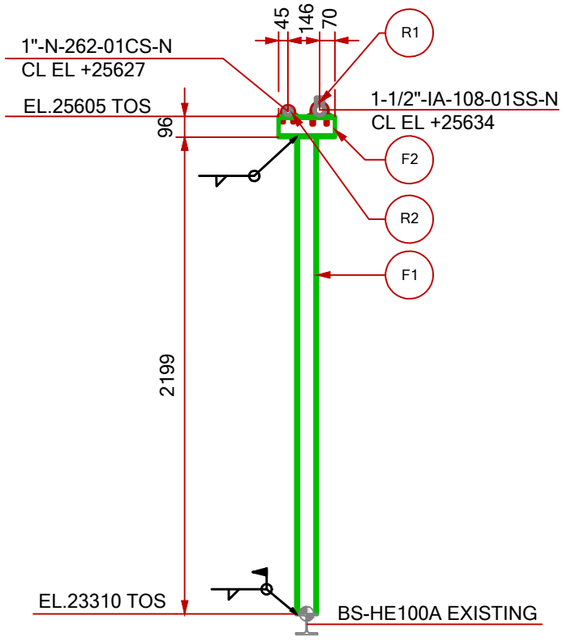
ROSETTI MARINO

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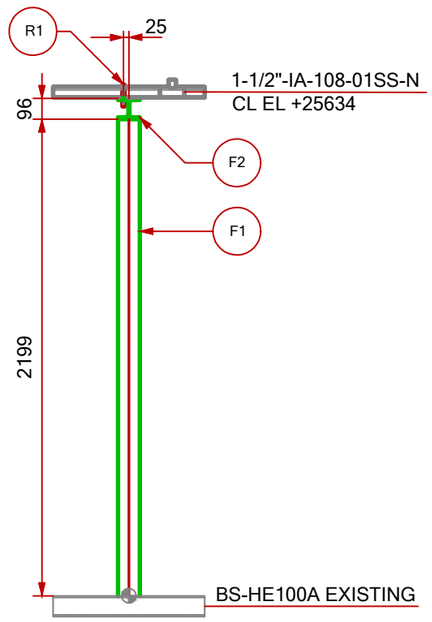
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01015

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

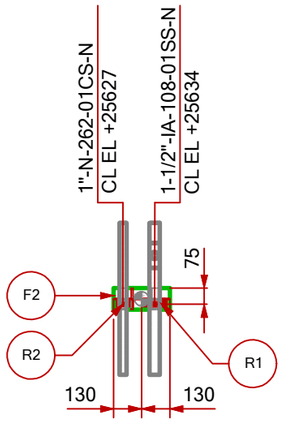
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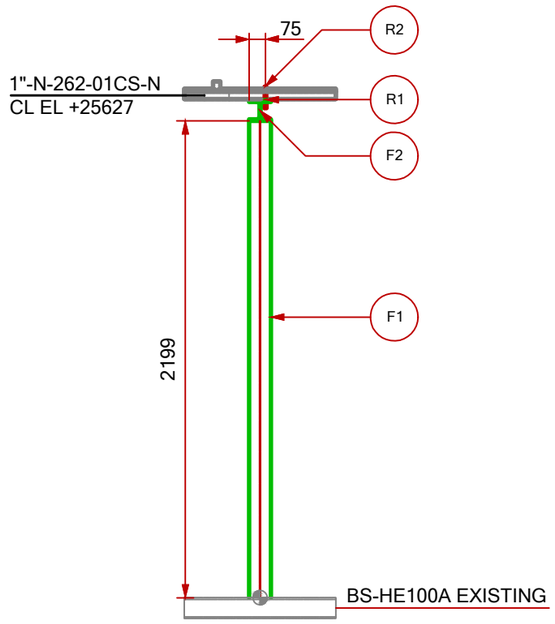
VIEW LOOKING NORTH



VIEW LOOKING WEST



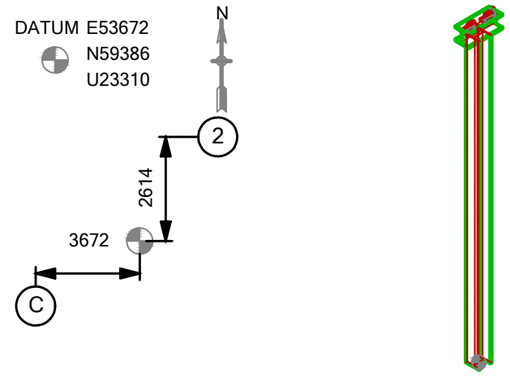
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	HEA100	Carbon Steel	2199	1	16.76	36.86	1.238
F2	BEAM	HEA100	Carbon Steel	260	1	16.76	4.36	0.150
						TOTAL	42.0	1.39



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

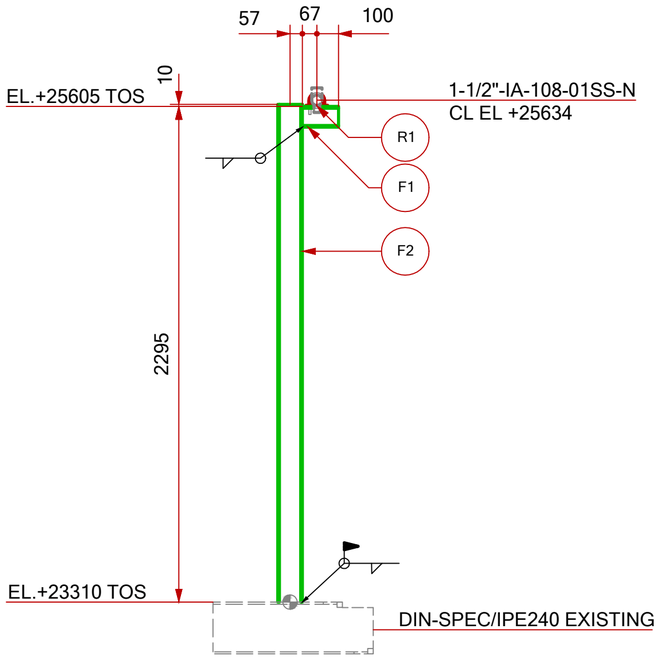
ROSETTI MARINO

TITLE :

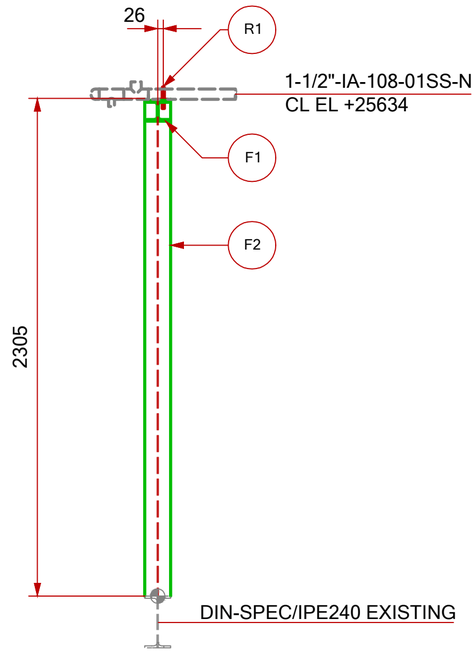
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01023

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 20
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

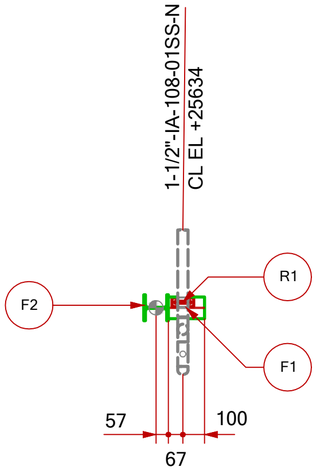
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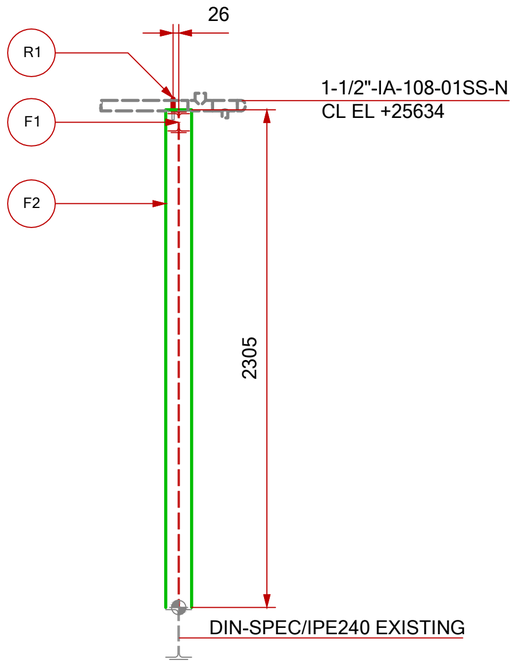
VIEW LOOKING NORTH



VIEW LOOKING WEST



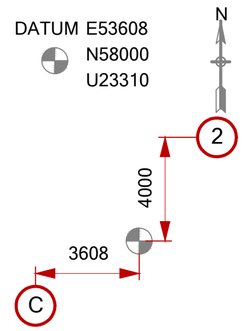
PLAN VIEW

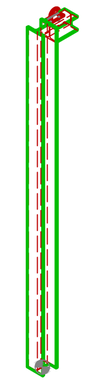


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	HEA100	Carbon Steel	167	1	16.76	2.80	0.098
F2	BEAM	HEA120	Carbon Steel	2305	1	19.98	46.05	1.565
						TOTAL	49.3	1.66





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

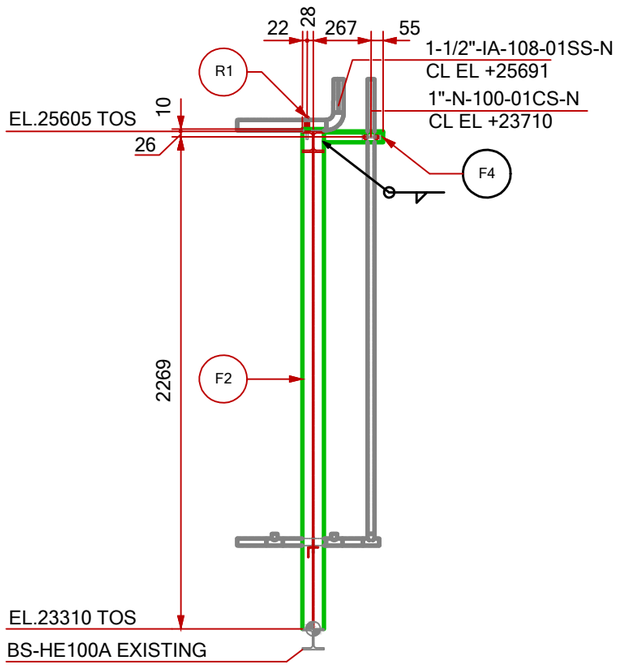
ROSETTI MARINO

TITLE :

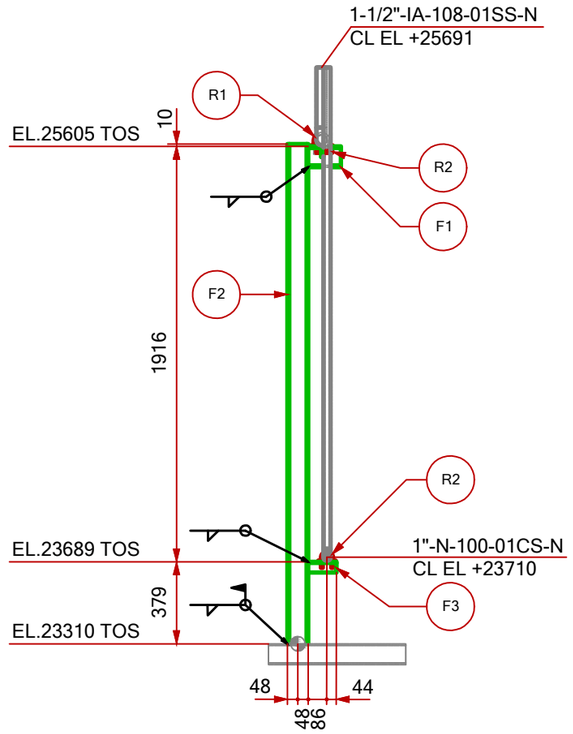
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01024

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000	SHEET 1 of 1	REV. 00

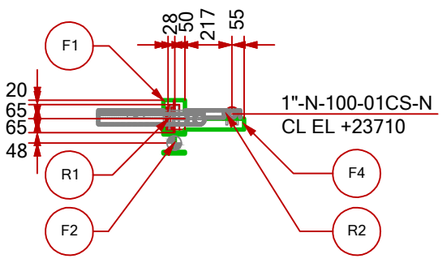
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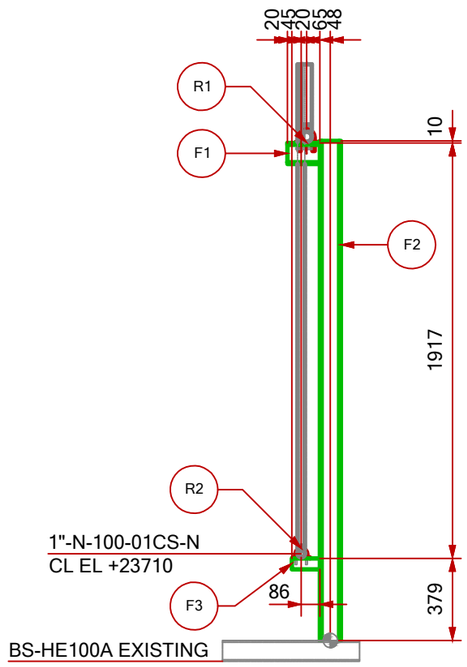
VIEW LOOKING NORTH



VIEW LOOKING WEST



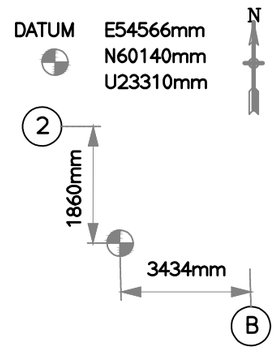
PLAN VIEW

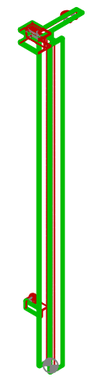


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
F1	BEAM	HEA100	Carbon Steel	150	1	16.76	2.51	0.088
F2	BEAM	HEA100	Carbon Steel	2305	1	16.76	38.63	1.297
F3	BEAM	L50x50x5	Carbon Steel	130	1	3.78	0.49	0.026
F4	BEAM	L50x50x5	Carbon Steel	320	1	3.78	1.21	0.063
						TOTAL	43.9	1.47





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

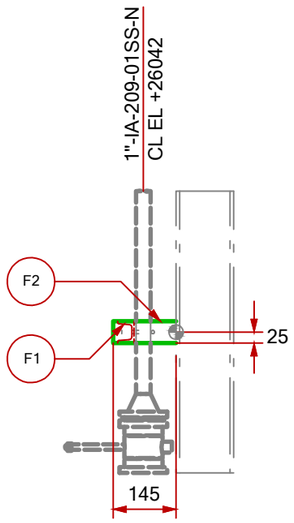
ROSETTI MARINO

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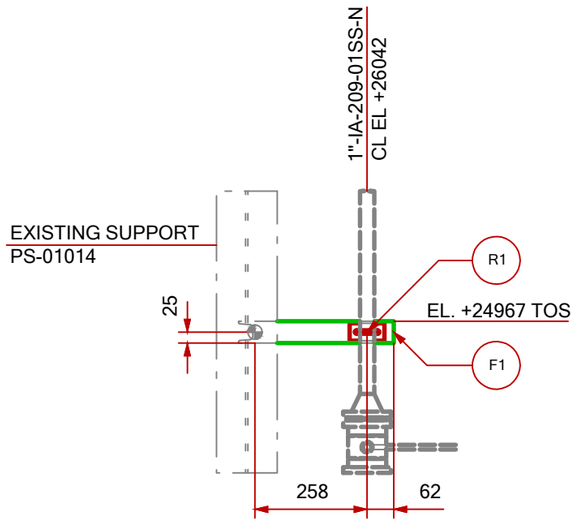
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01025

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

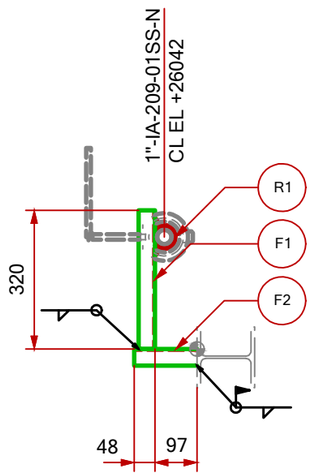
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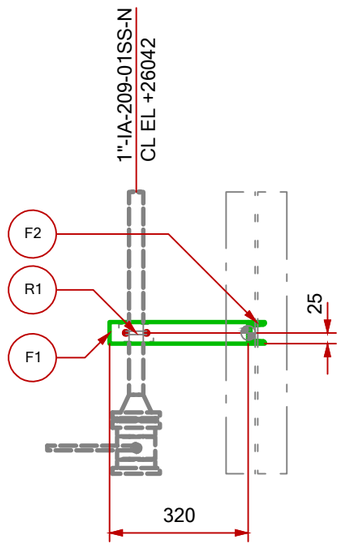
VIEW LOOKING NORTH



VIEW LOOKING WEST



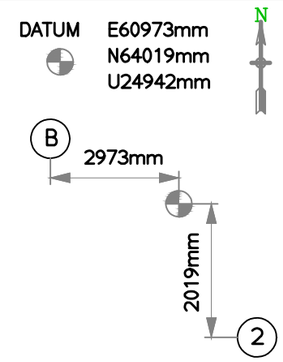
PLAN VIEW

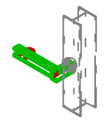


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	320	1	5.61	1.79	0.075
F2	BEAM	UPN50	Carbon Steel	145	1	5.61	0.81	0.035
						TOTAL	2.9	0.11





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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CROSSWIND

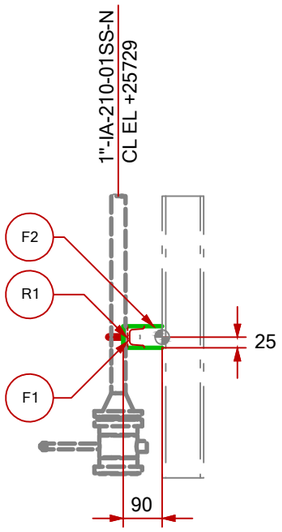
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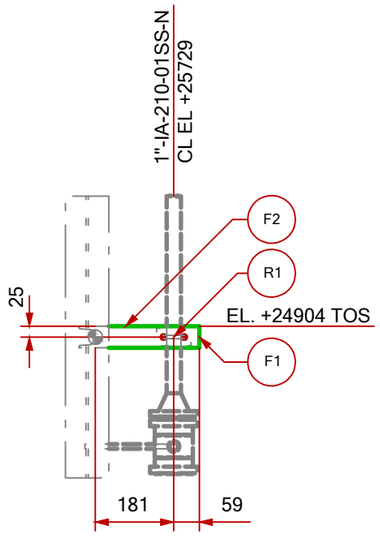
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01044

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

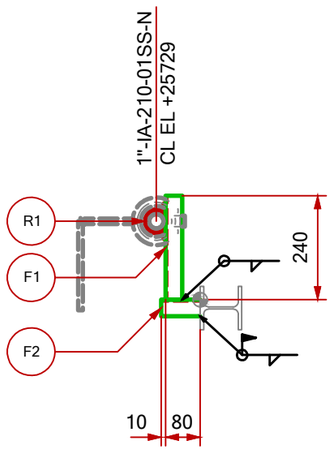
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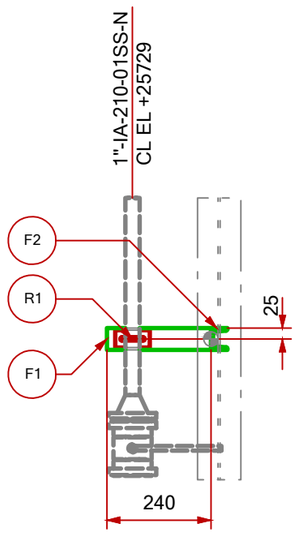
VIEW LOOKING NORTH



VIEW LOOKING WEST



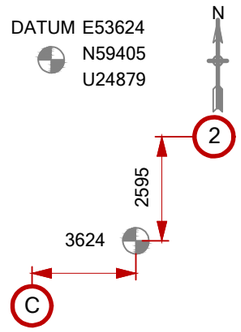
PLAN VIEW

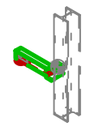


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	240	1	5.61	1.35	0.056
F2	BEAM	UPN50	Carbon Steel	90	1	5.61	0.50	0.022
						TOTAL	2.1	0.08





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

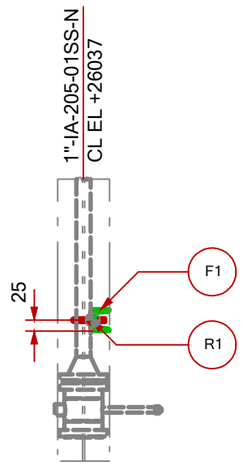
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

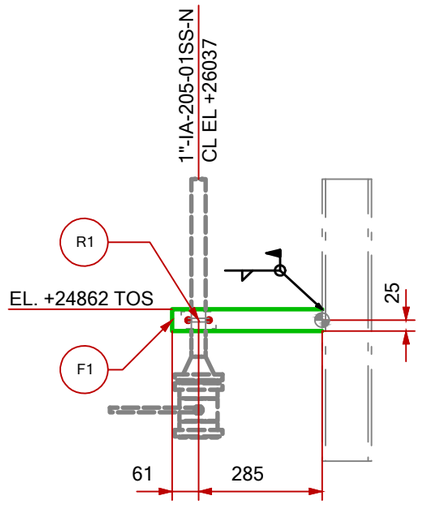
PS-01045

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

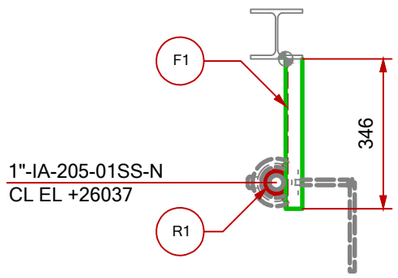
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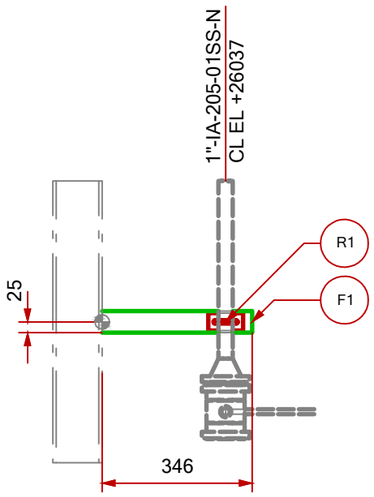
VIEW LOOKING NORTH



VIEW LOOKING WEST



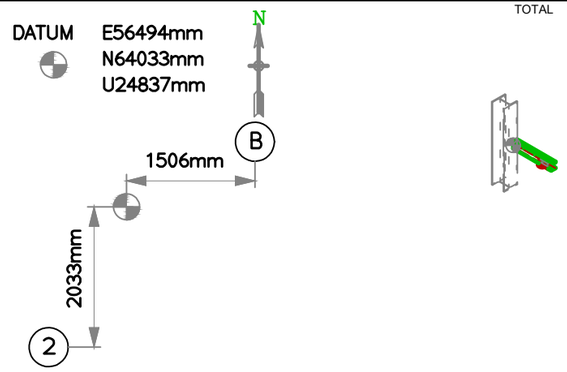
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	346	1	5.61	1.94	0.081
						TOTAL	2.2	0.08



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

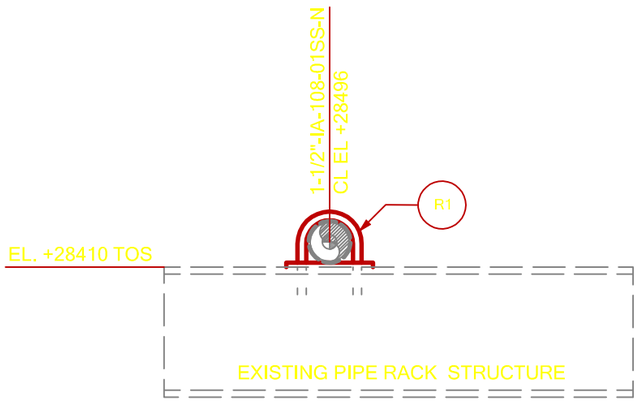
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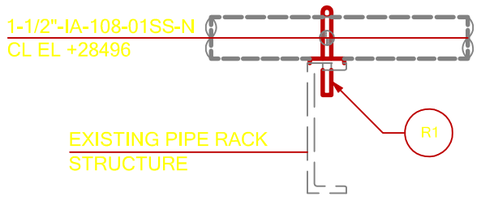
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-01046

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

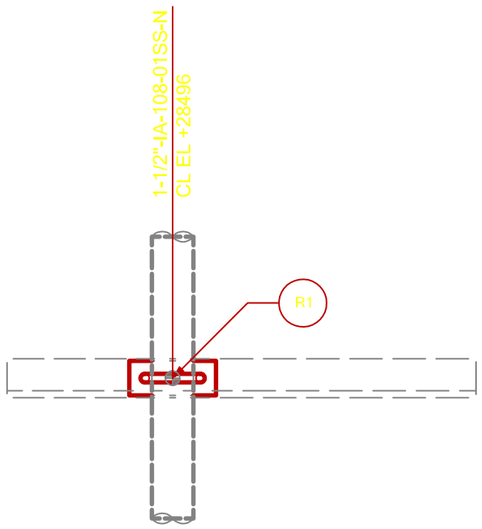
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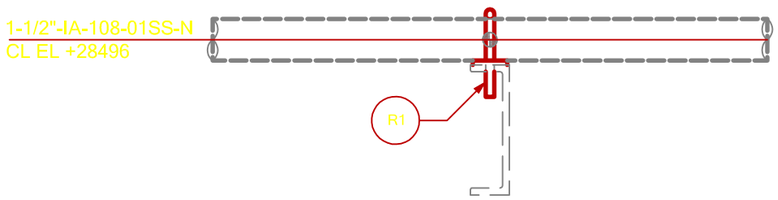
VIEW LOOKING NORTH



VIEW LOOKING WEST



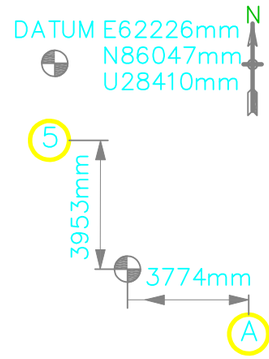
PLAN VIEW

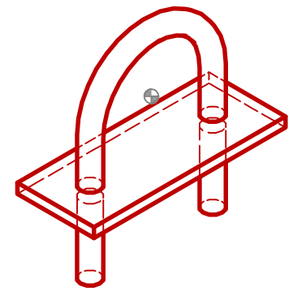


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

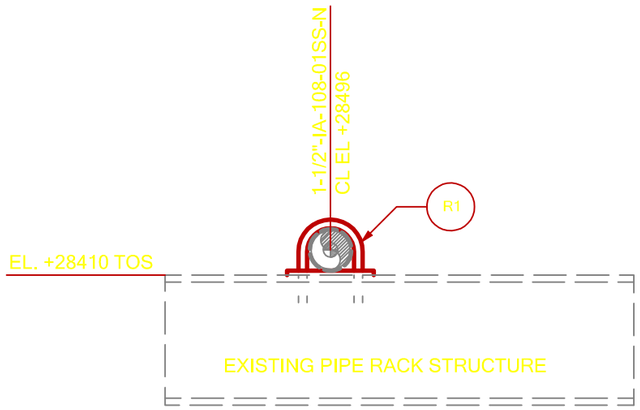
ROSETTI MARINO

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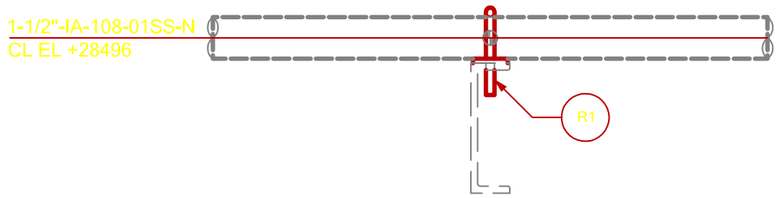
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02006

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

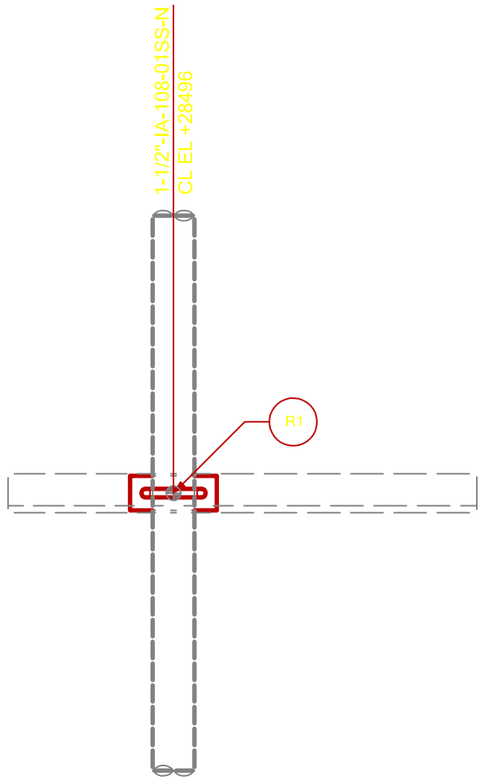
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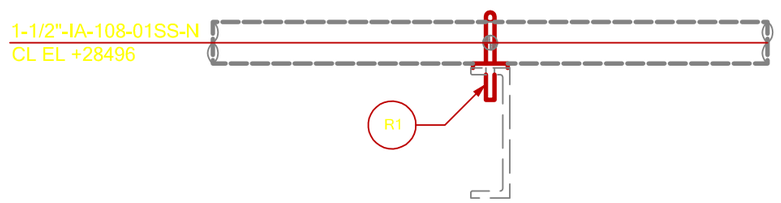
VIEW LOOKING NORTH



VIEW LOOKING WEST



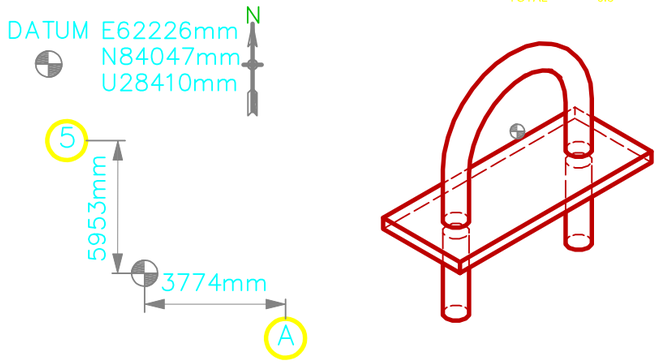
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

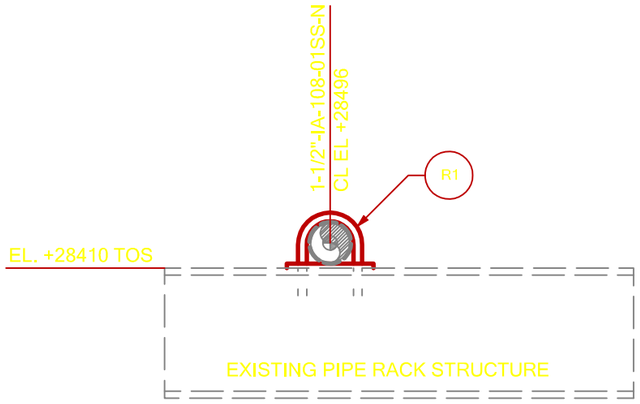
ROSETTI MARINO

TITLE :

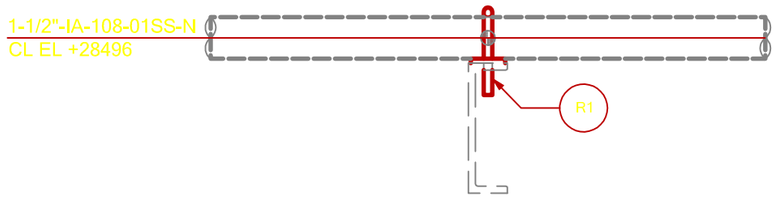
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02007

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

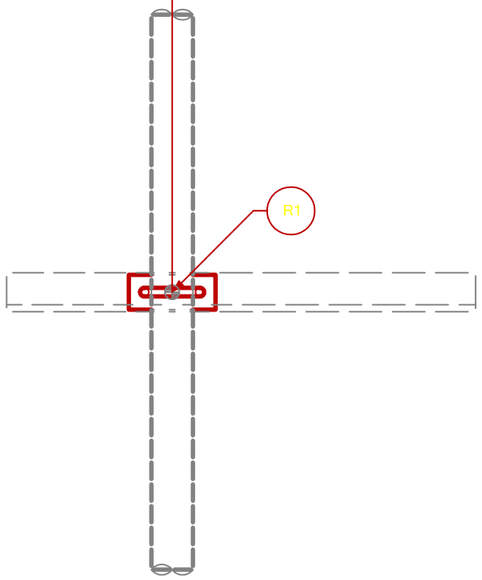
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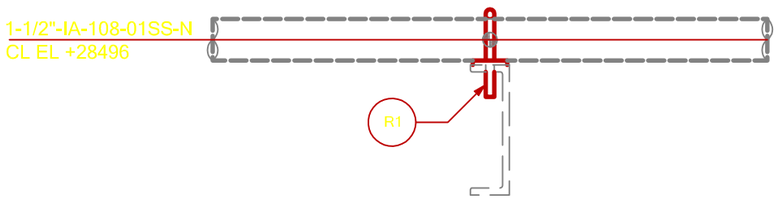
VIEW LOOKING NORTH



VIEW LOOKING WEST



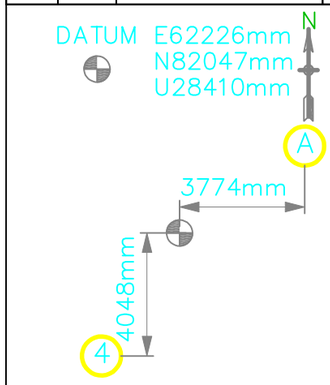
PLAN VIEW

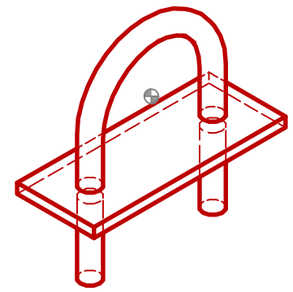


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

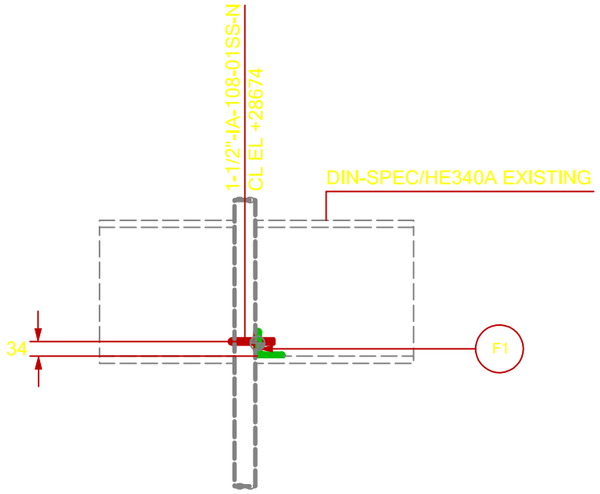
ROSETTI MARINO

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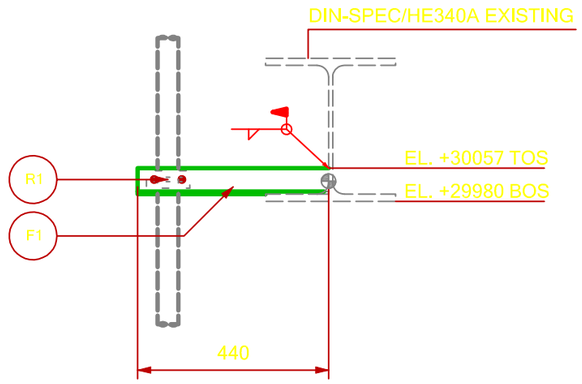
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02008

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

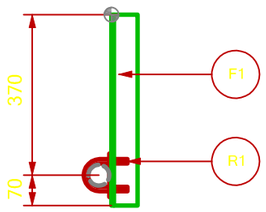
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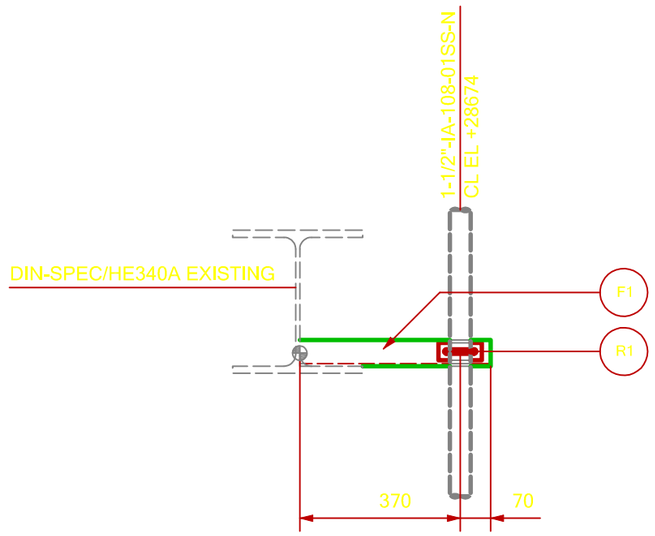
VIEW LOOKING NORTH



VIEW LOOKING WEST



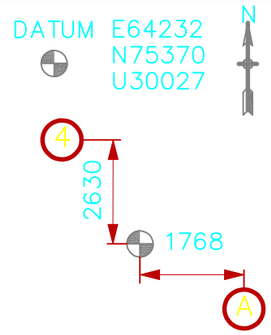
PLAN VIEW

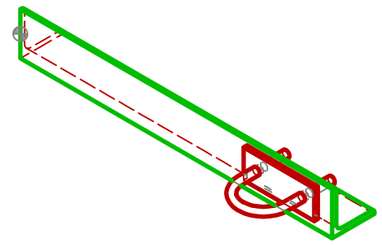


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	440	1	5.42	2.39	0.104
						TOTAL	2.9	0.10





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

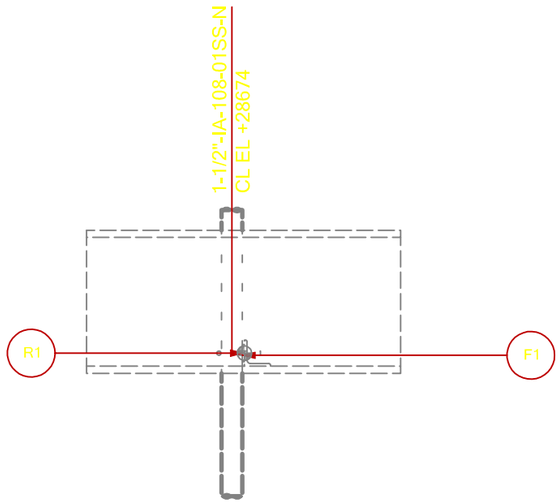
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TITLE :

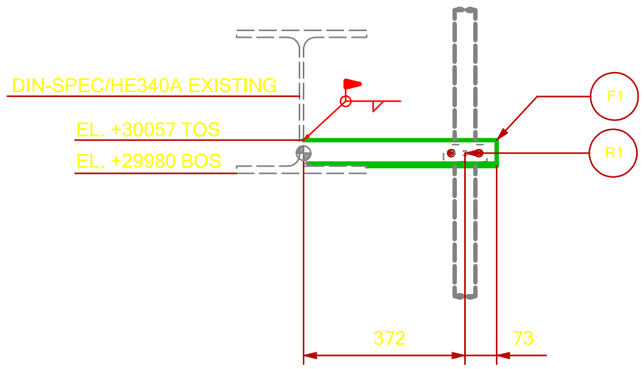
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02009

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

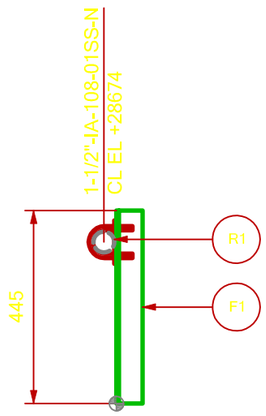
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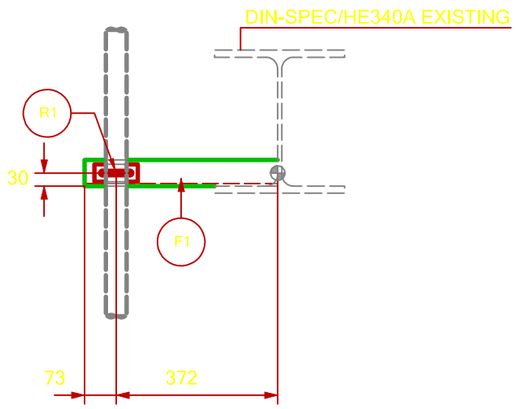
VIEW LOOKING NORTH



VIEW LOOKING WEST



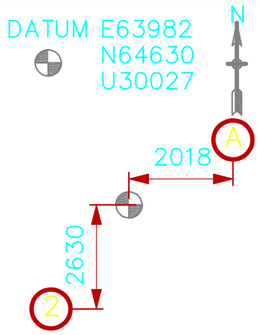
PLAN VIEW

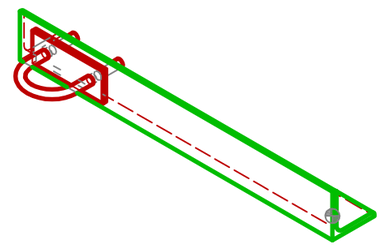


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	445	1	5.42	2.42	0.105
						TOTAL	2.9	0.11





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

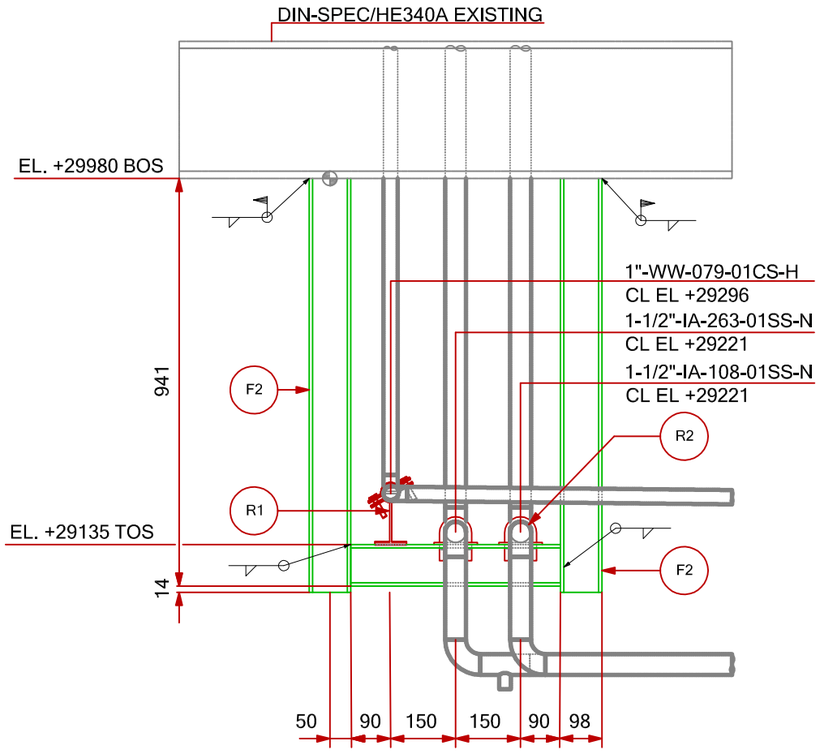
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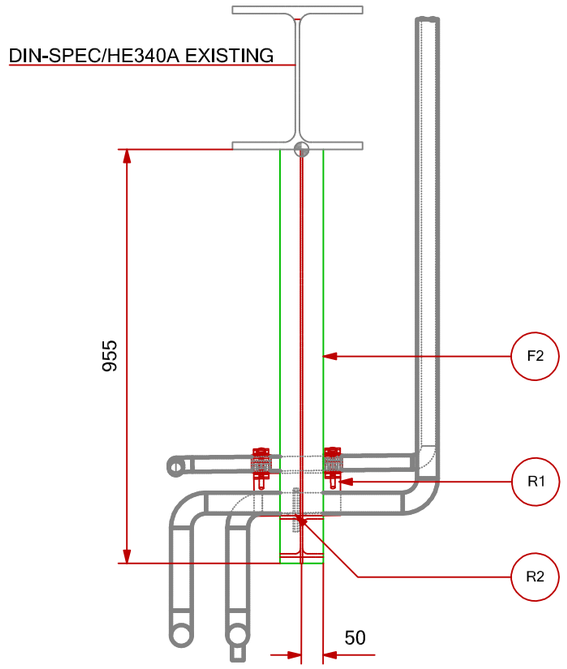
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02010

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

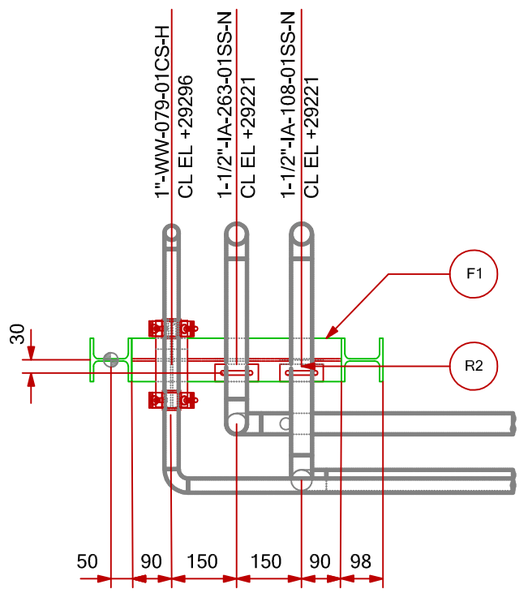
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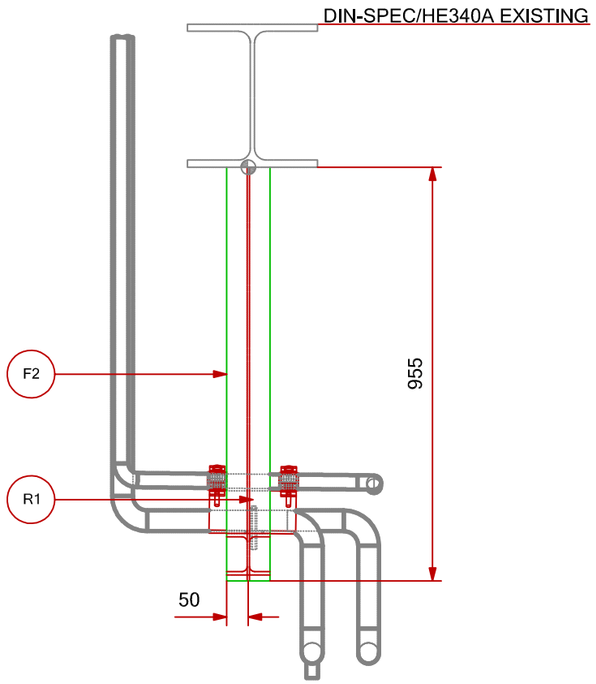
VIEW LOOKING NORTH



VIEW LOOKING WEST



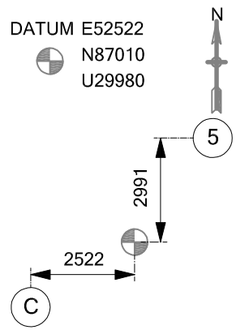
PLAN VIEW

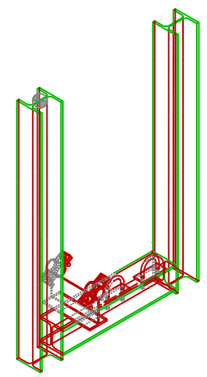


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	HEA100	CarbonSteel	480	1	16.76	8.05	0.274
F2	BEAM	HEA100	CarbonSteel	955	2	16.76	32.00	1.080
						TOTAL	45.7	1.39





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

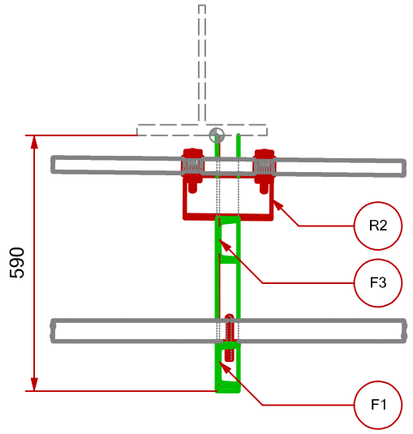
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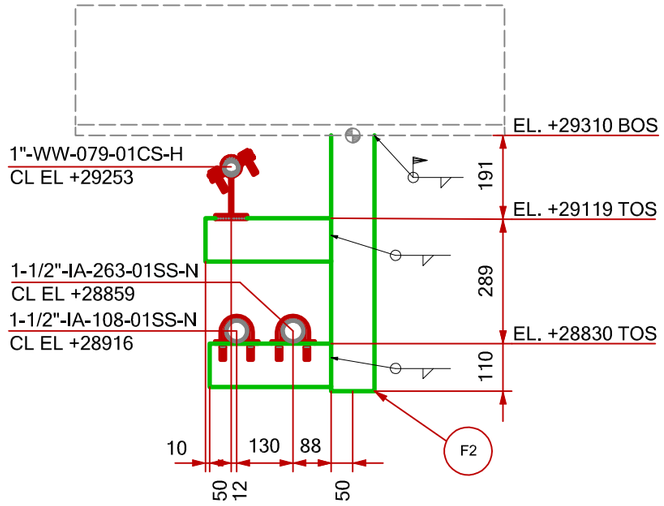
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02025

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 10
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

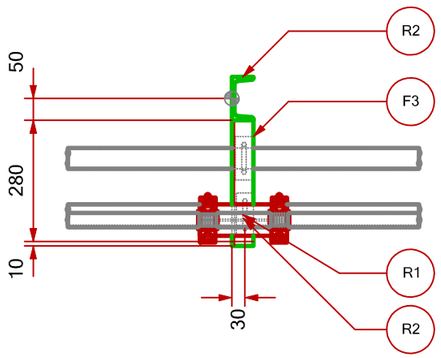
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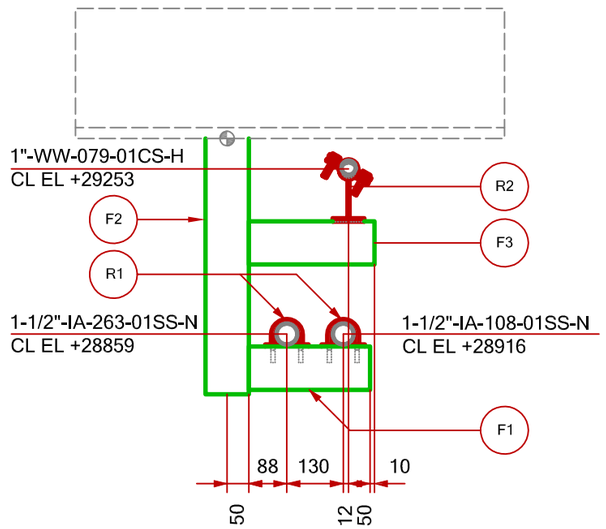
VIEW LOOKING NORTH



VIEW LOOKING WEST



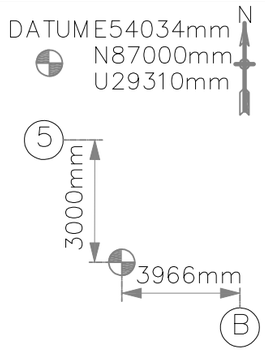
PLAN VIEW

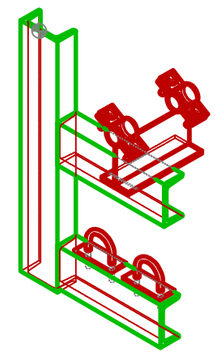


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
F1	BEAM	UPN100	Carbon Steel	280	1	10.57	2.96	0.107
F2	BEAM	UPN100	Carbon Steel	590	1	10.57	6.24	0.222
F3	BEAM	UPN100	Carbon Steel	290	1	10.57	3.07	0.110
						TOTAL	17.9	0.47





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

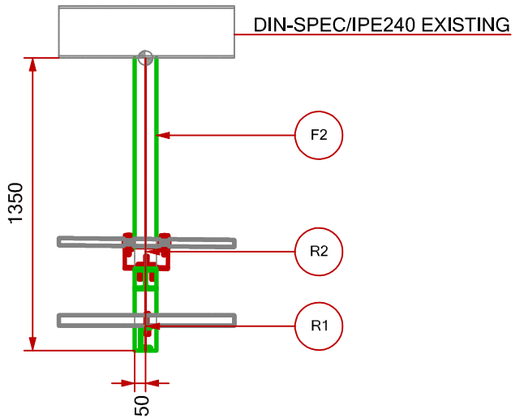
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

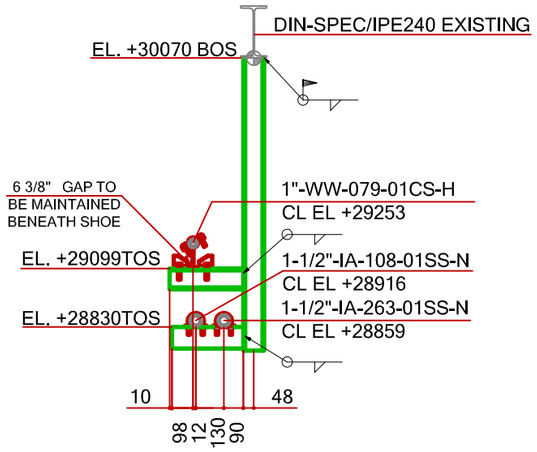
PS-02026

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

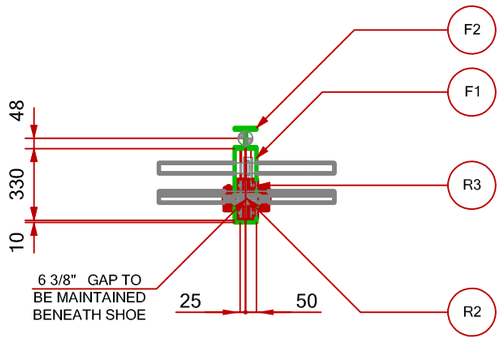
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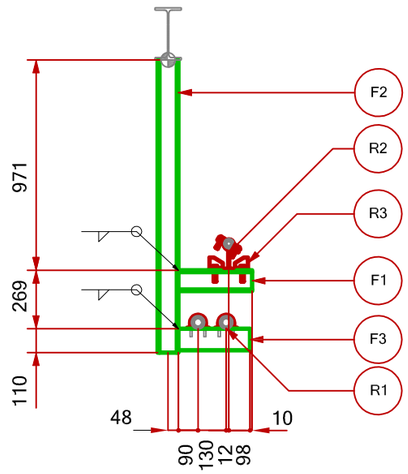
VIEW LOOKING NORTH



VIEW LOOKING WEST



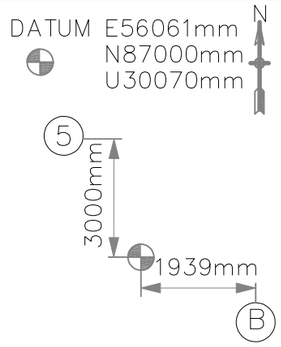
PLAN VIEW

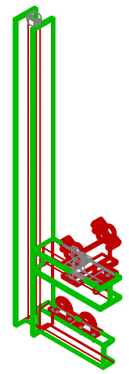


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
R3	STD	C-33-2-A-2	-	-	1	-	4.30	0.044
F1	BEAM	HEA100	Carbon Steel	340	1	16.76	5.70	0.195
F2	BEAM	HEA100	Carbon Steel	1350	1	16.76	22.63	0.762
F3	BEAM	UPN100	Carbon Steel	330	1	10.57	3.49	0.125
						TOTAL	41.7	1.16





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

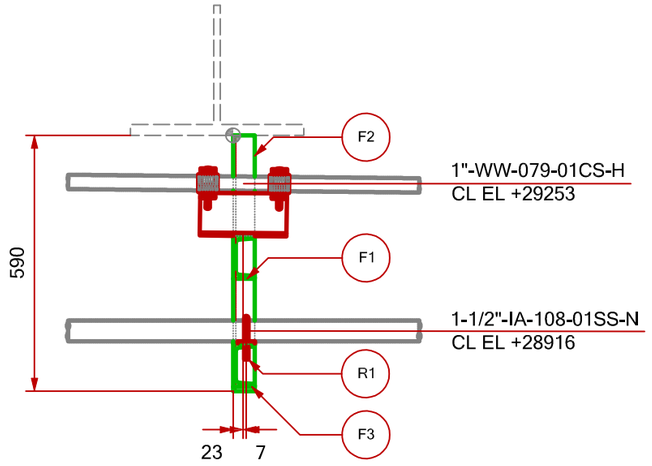
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TITLE :

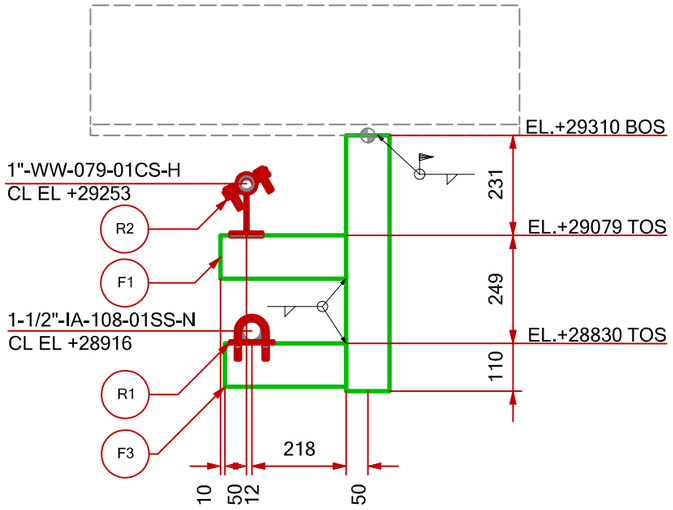
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02027

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

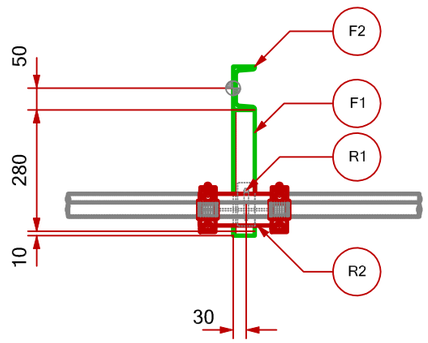
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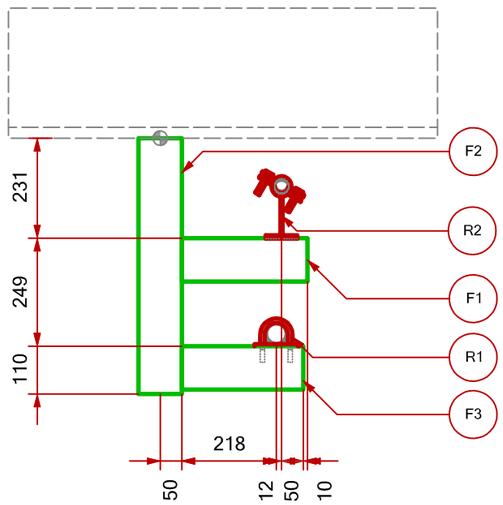
VIEW LOOKING NORTH



VIEW LOOKING WEST



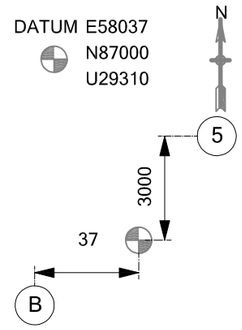
PLAN VIEW

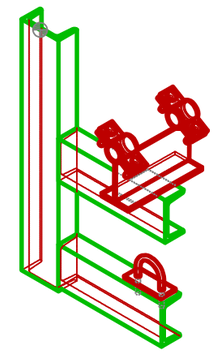


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
F1	BEAM	UPN100	Carbon Steel	290	1	10.57	3.07	0.110
F2	BEAM	UPN100	Carbon Steel	590	1	10.57	6.24	0.222
F3	BEAM	UPN100	Carbon Steel	280	1	10.57	2.96	0.107
						TOTAL	17.4	0.47





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

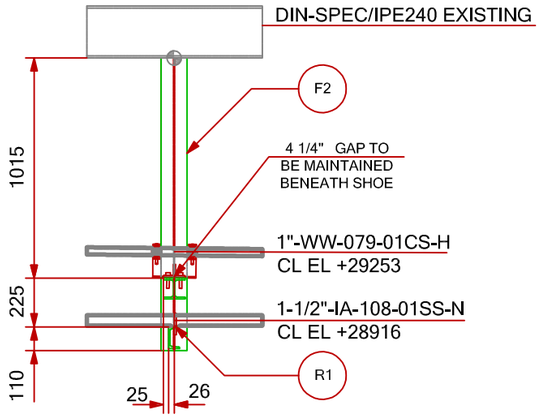
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

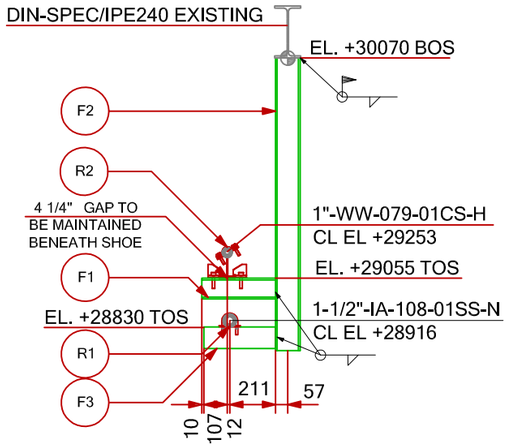
PS-02028

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

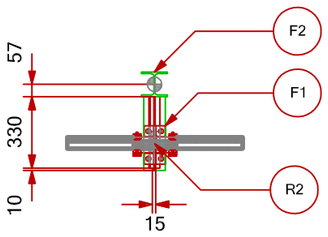
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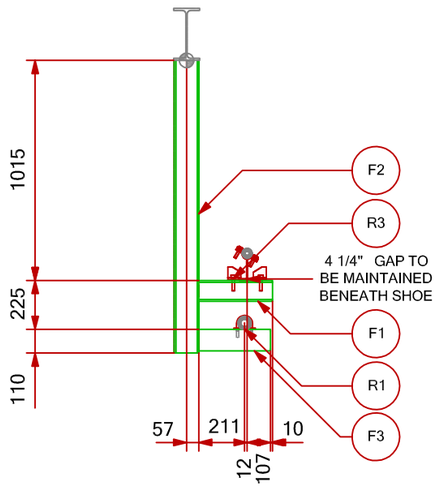
VIEW LOOKING NORTH



VIEW LOOKING WEST



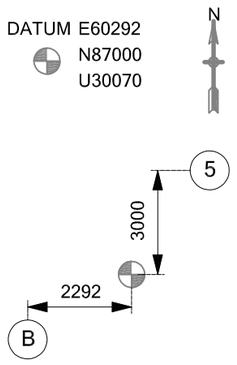
PLAN VIEW

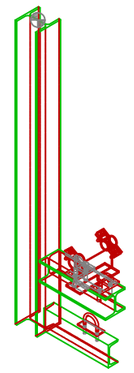


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
R3	STD	C-33-2-A-2	-	-	1	-	4.30	0.044
F1	BEAM	HEA100	Carbon Steel	340	1	16.76	5.70	0.195
F2	BEAM	HEA120	Carbon Steel	1350	1	19.98	26.97	0.919
F3	BEAM	UPN100	Carbon Steel	330	1	10.57	3.49	0.125
						TOTAL	45.6	1.32





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

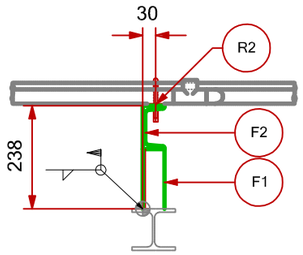
ROSETTI MARINO

TITLE :

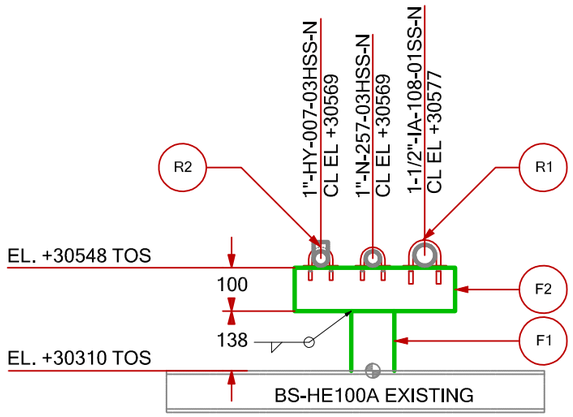
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02033

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

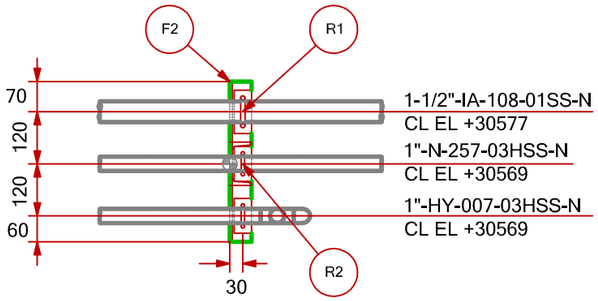
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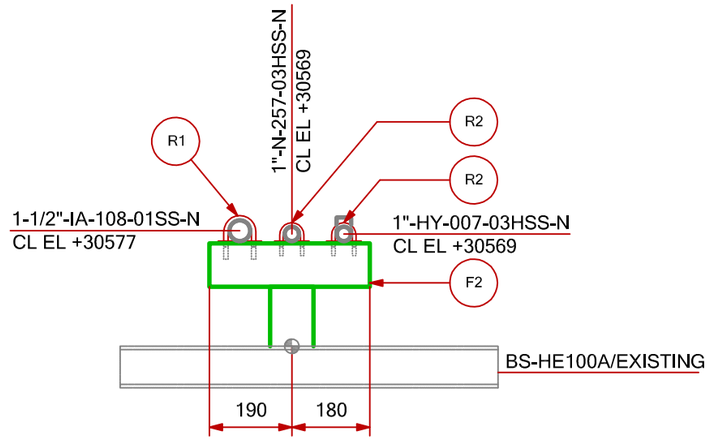
VIEW LOOKING NORTH



VIEW LOOKING WEST



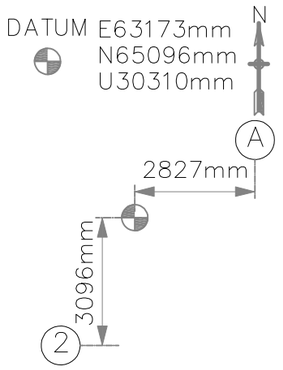
PLAN VIEW

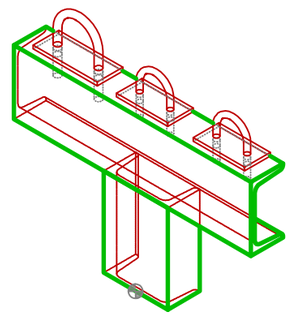


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
F1	BEAM	UPN100	Carbon Steel	138	1	10.57	1.45	0.054
F2	BEAM	UPN100	Carbon Steel	370	1	10.57	3.91	0.140
						TOTAL	6.4	0.19





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

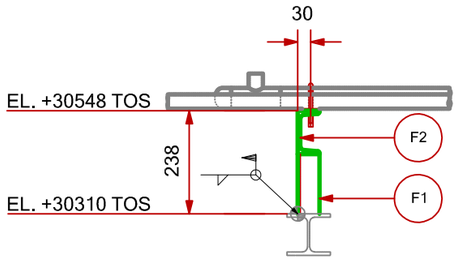
ROSETTI MARINO

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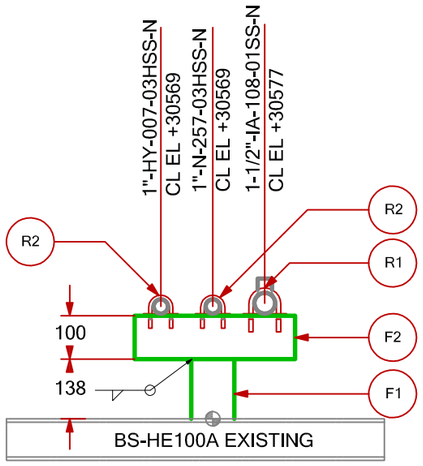
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02039

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1 : 10
DRAWN	CHECKED	APPROVED		DATE	19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1	REV. 00

File Name :



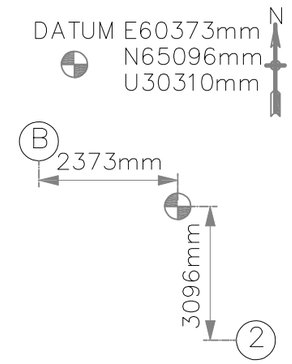
VIEW LOOKING NORTH

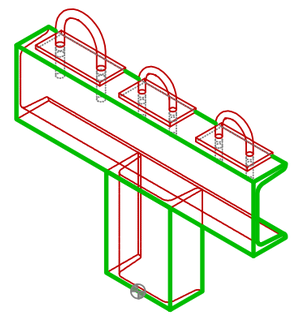


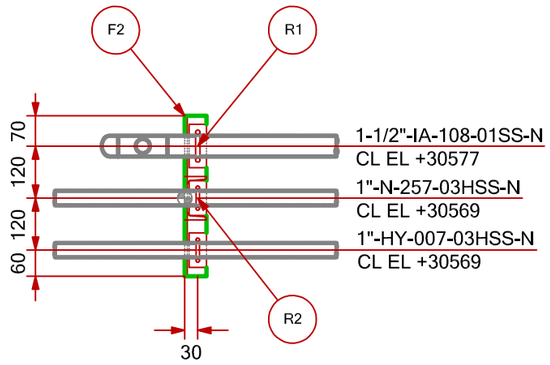
VIEW LOOKING WEST

SUPPORT MATERIAL LIST

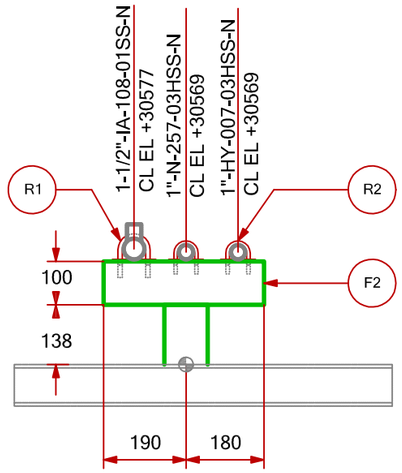
POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
F1	BEAM	UPN100	Carbon Steel	138	1	10.57	1.45	0.054
F2	BEAM	UPN100	Carbon Steel	370	1	10.57	3.91	0.140
						TOTAL	6.4	0.19







PLAN VIEW



VIEW LOOKING EAST

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

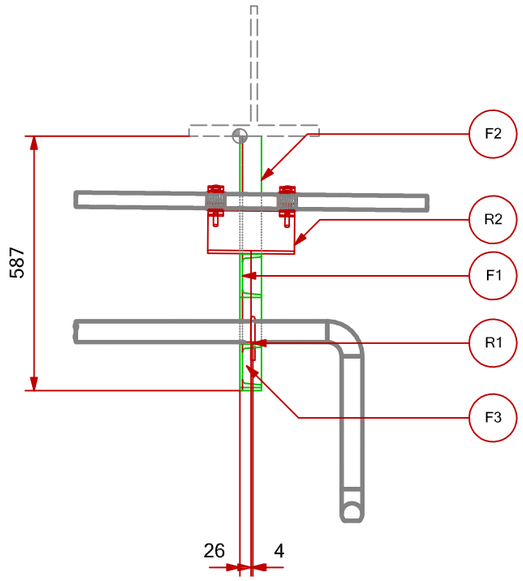
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

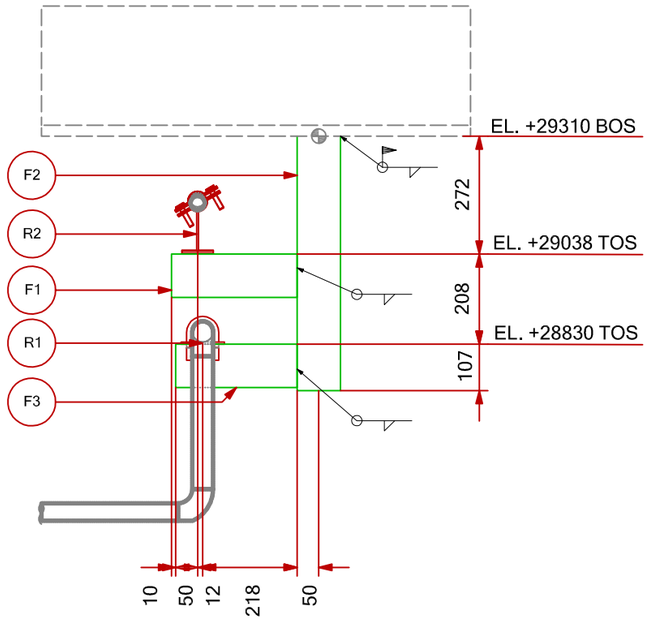
PS-02040

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 10
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

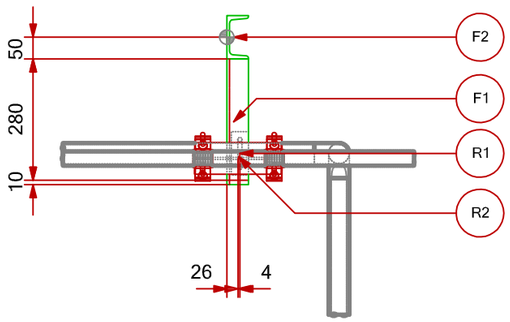
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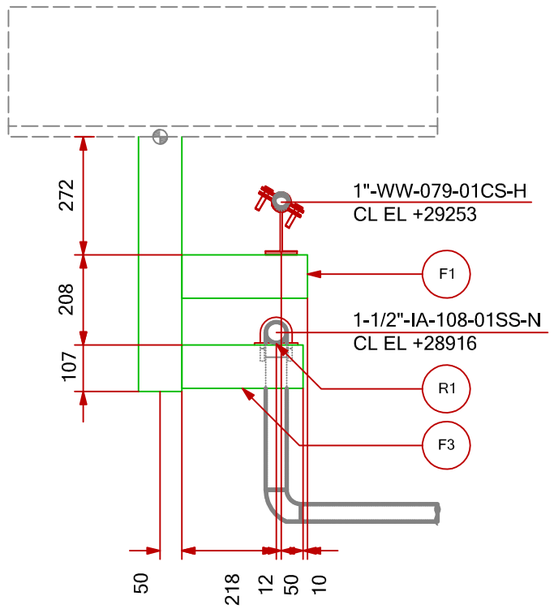
VIEW LOOKING NORTH



VIEW LOOKING WEST



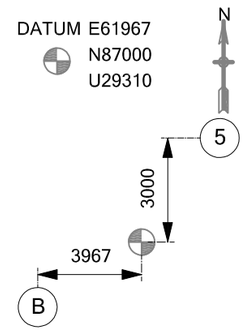
PLAN VIEW

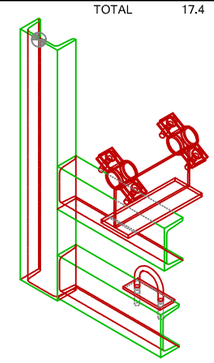


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
F1	BEAM	UPN100	Carbon Steel	290	1	10.57	3.07	0.110
F2	BEAM	UPN100	Carbon Steel	587	1	10.57	6.21	0.221
F3	BEAM	UPN100	Carbon Steel	280	1	10.57	2.96	0.107
						TOTAL	17.4	0.47





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

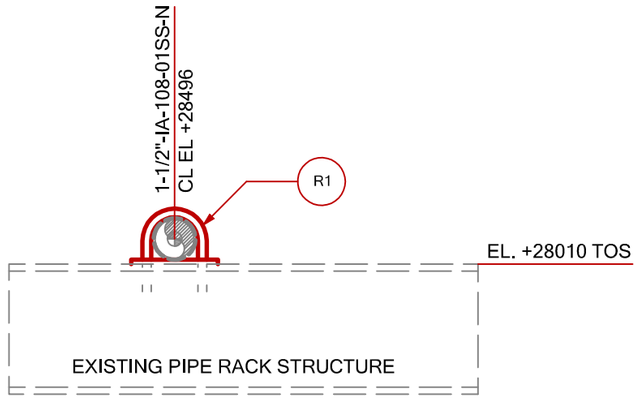
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

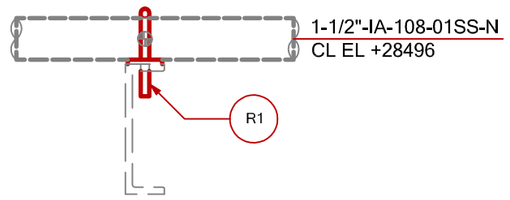
PS-02047

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

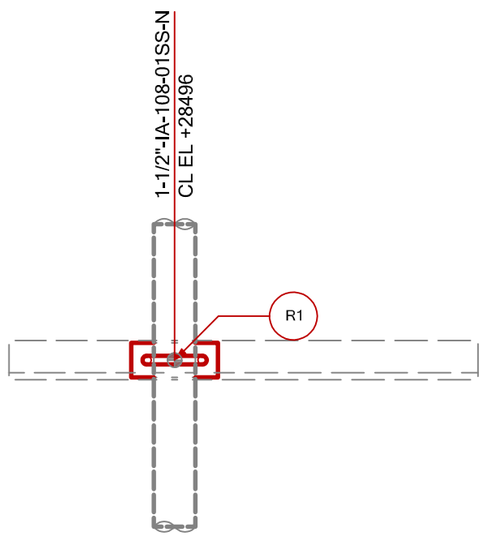
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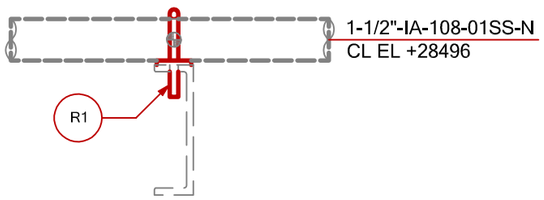
VIEW LOOKING NORTH



VIEW LOOKING WEST



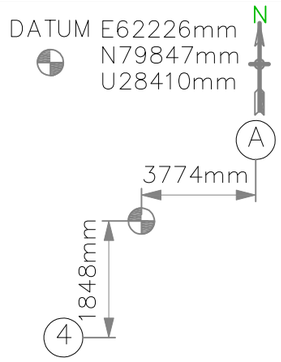
PLAN VIEW

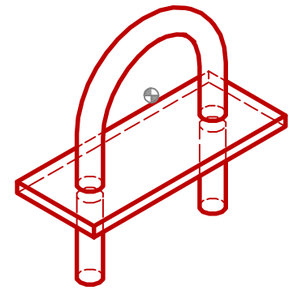


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

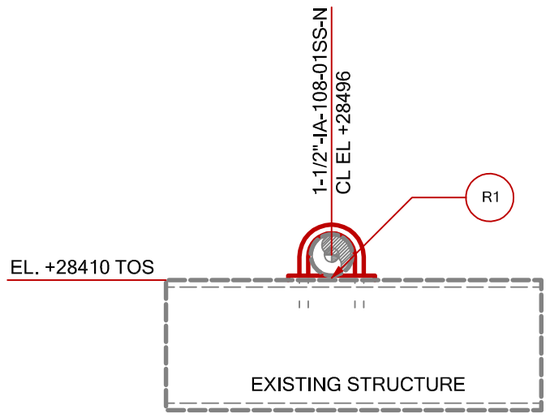
ROSETTI MARINO

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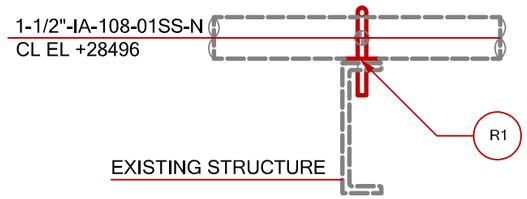
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02050

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

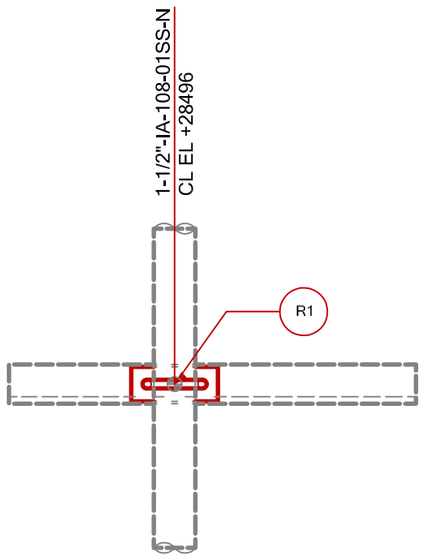
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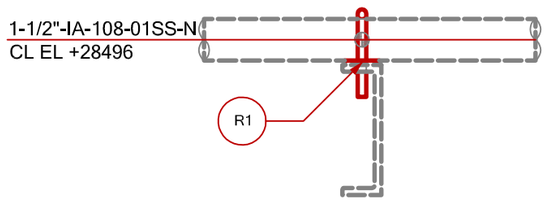
VIEW LOOKING NORTH



VIEW LOOKING WEST



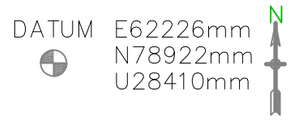
PLAN VIEW

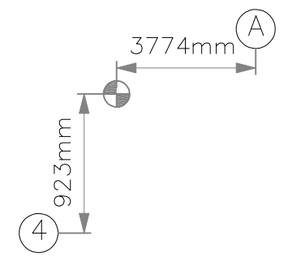


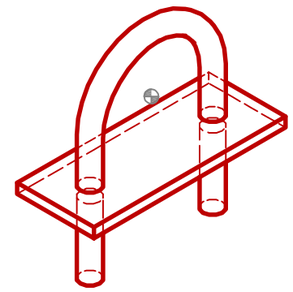
VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00







REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

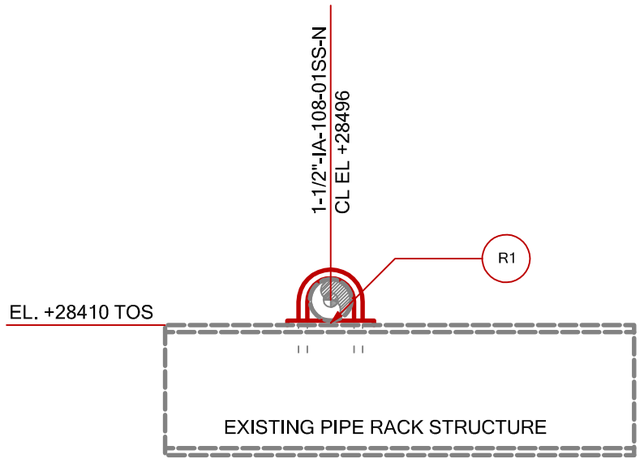
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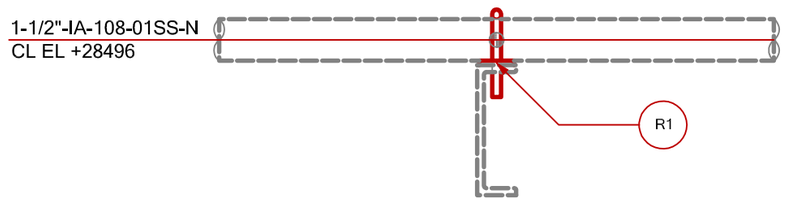
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02051

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

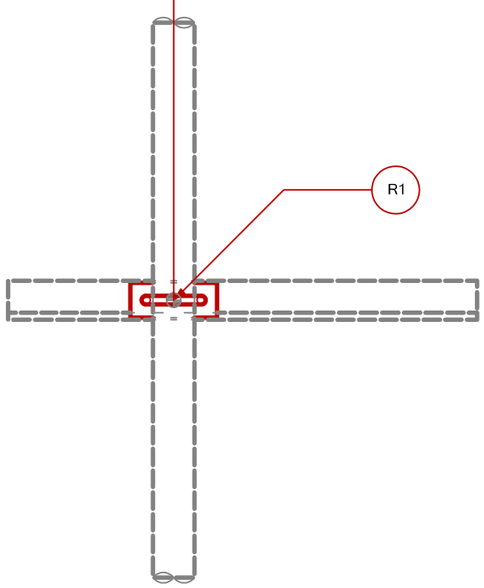
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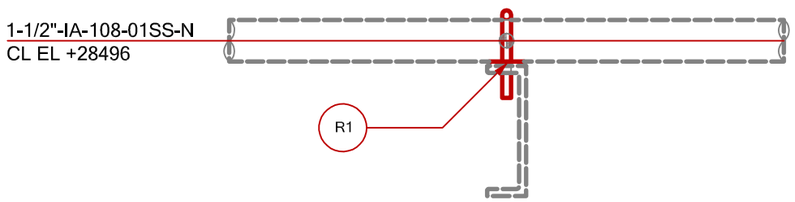
VIEW LOOKING NORTH



VIEW LOOKING WEST



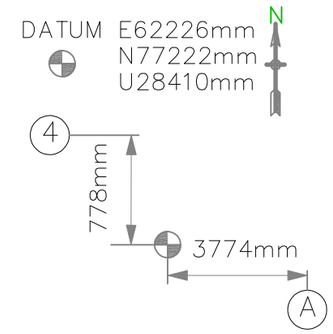
PLAN VIEW

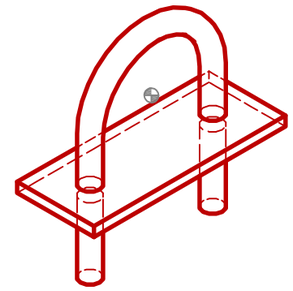


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

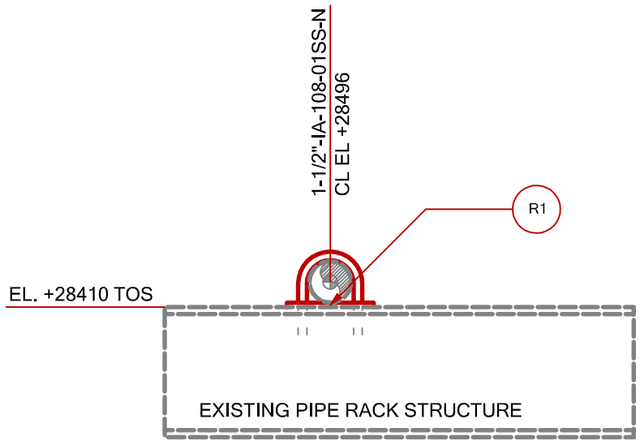
ROSETTI MARINO

TITLE :

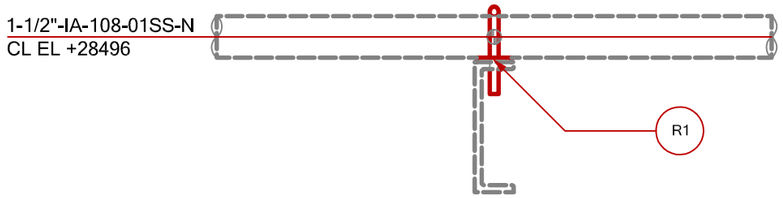
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02052

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

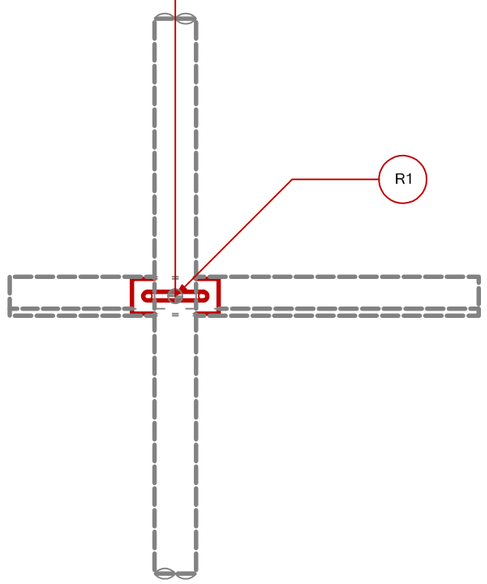
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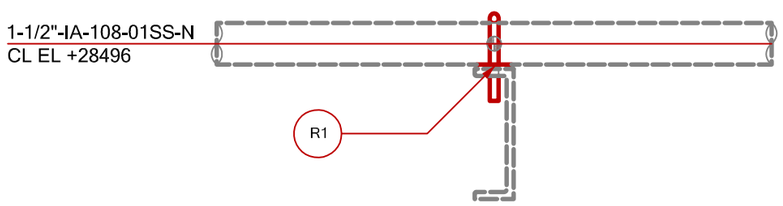
VIEW LOOKING NORTH



VIEW LOOKING WEST



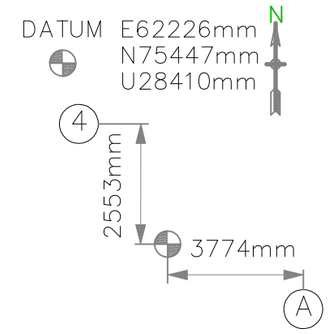
PLAN VIEW

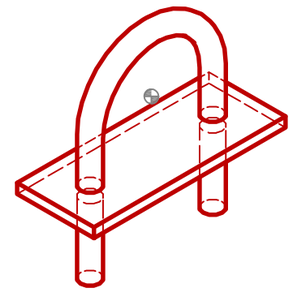


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

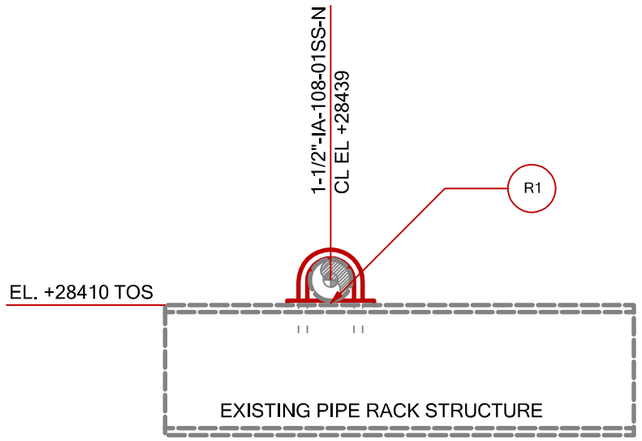
ROSETTI MARINO

TITLE :

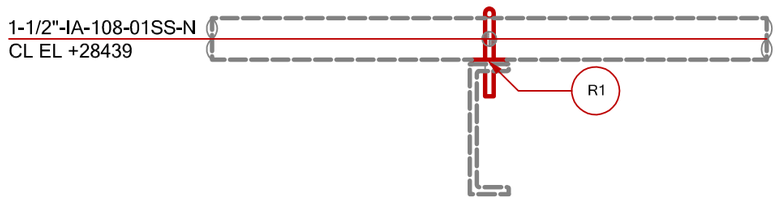
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02053

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1 : 5
DRAWN	CHECKED	APPROVED		DATE	19/08/24
	DRAWING NO.			SHEET	REV.
	123A90-DDL-PP-DD-72000			1 of 1	00

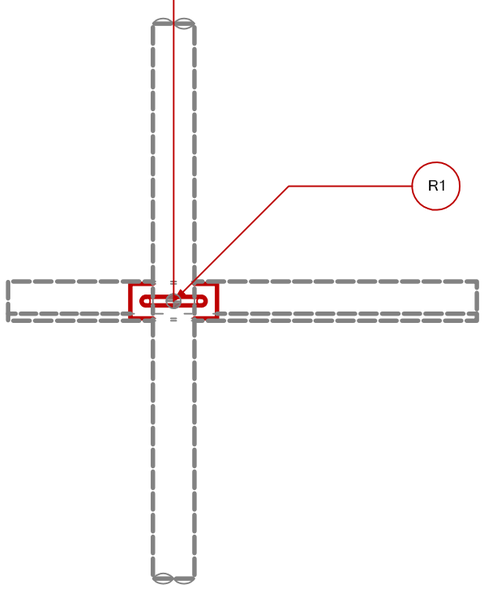
File Name :



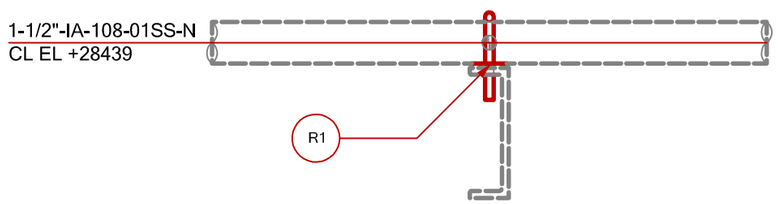
VIEW LOOKING NORTH



VIEW LOOKING WEST



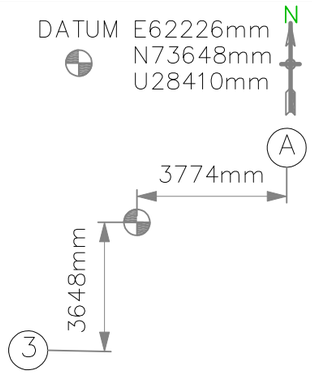
PLAN VIEW

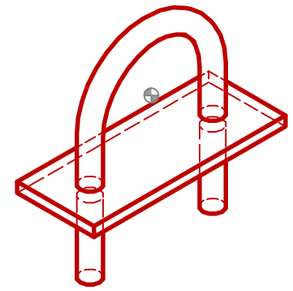


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

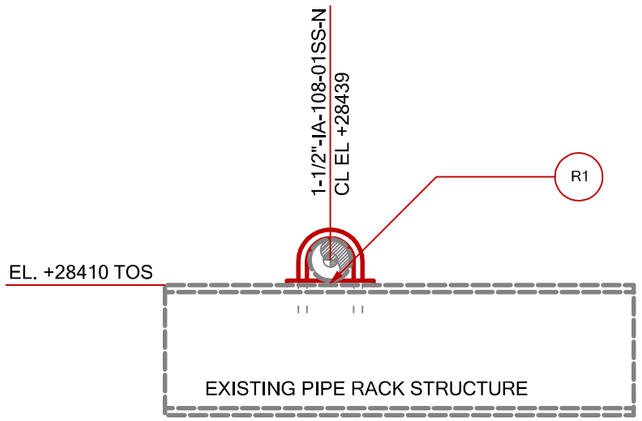
ROSETTI MARINO

TITLE :

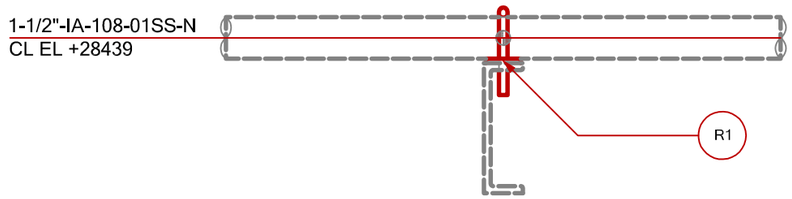
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02054

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

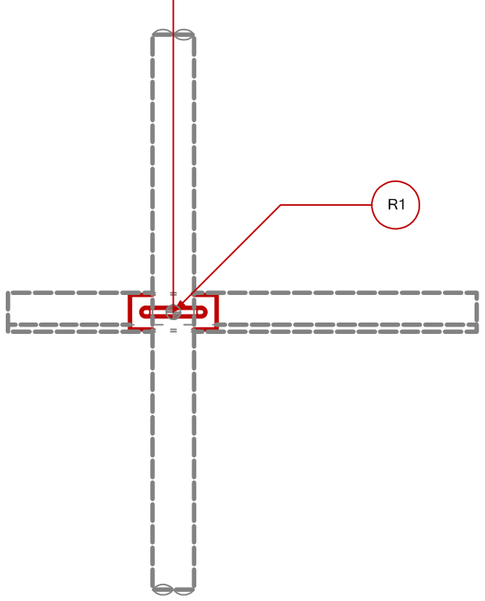
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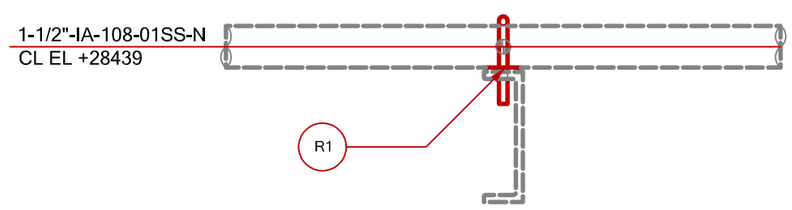
VIEW LOOKING NORTH



VIEW LOOKING WEST



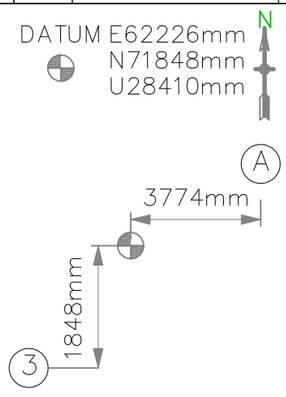
PLAN VIEW

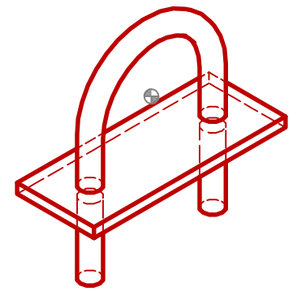


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

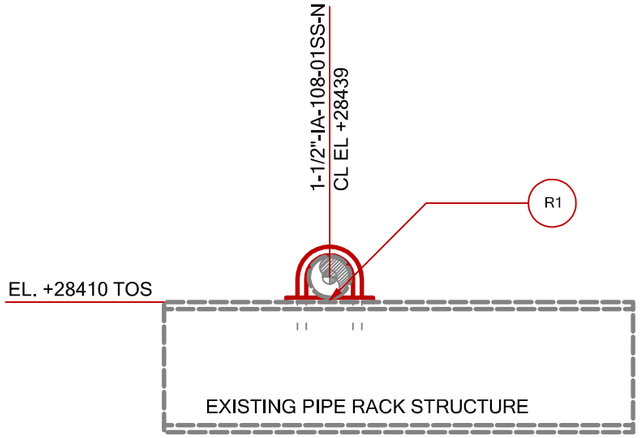
ROSETTI MARINO

TITLE :

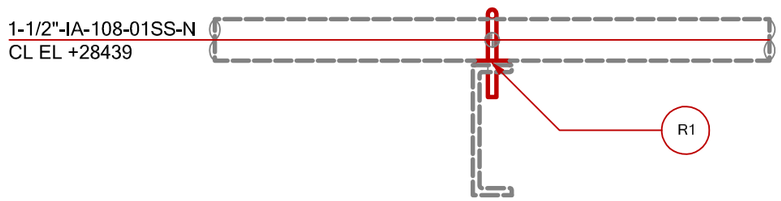
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02055

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

File Name :

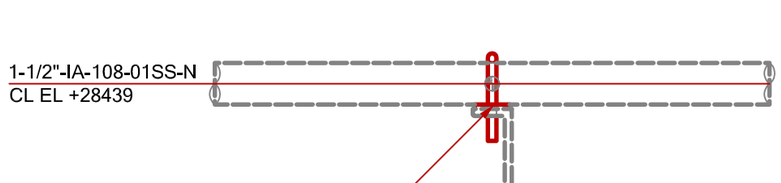


VIEW LOOKING NORTH



VIEW LOOKING WEST

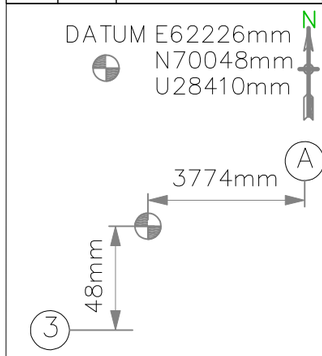
PLAN VIEW

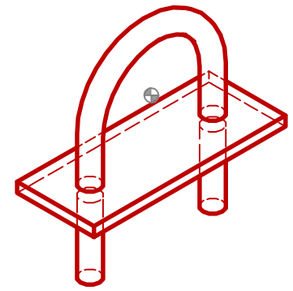


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

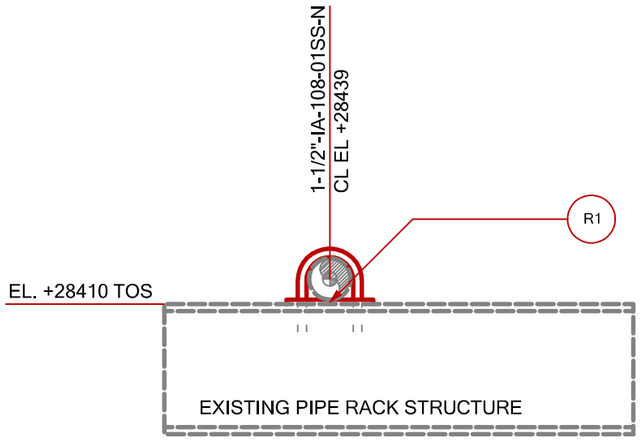
ROSETTI MARINO

TITLE :

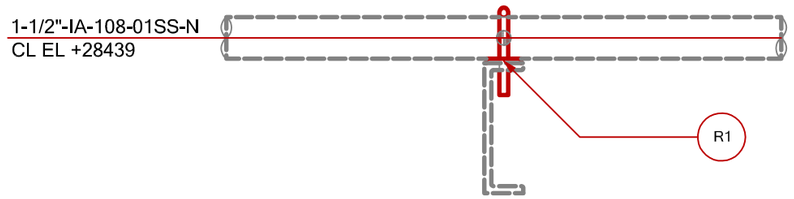
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02056

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

File Name :

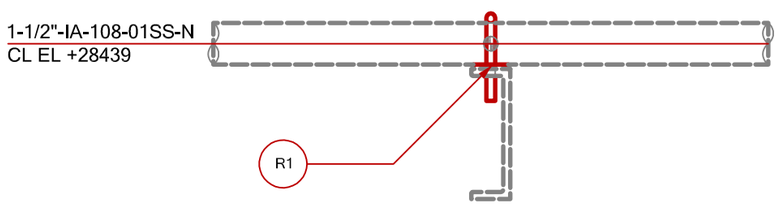


VIEW LOOKING NORTH



VIEW LOOKING WEST

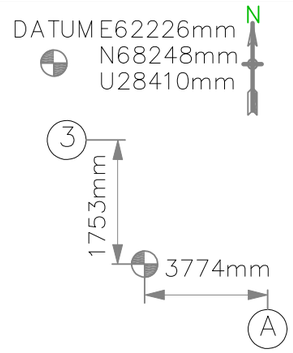
PLAN VIEW

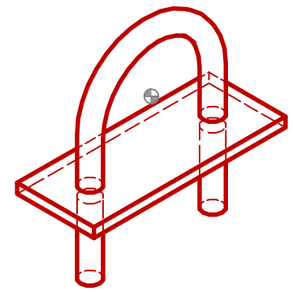


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

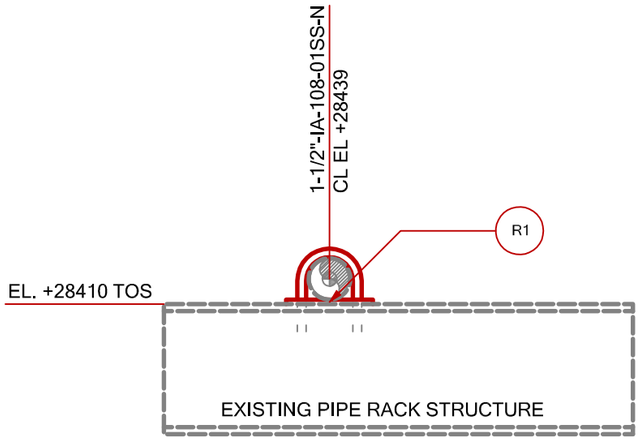
ROSETTI MARINO

TITLE :

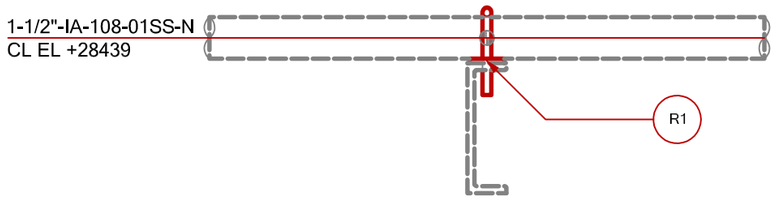
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02057

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

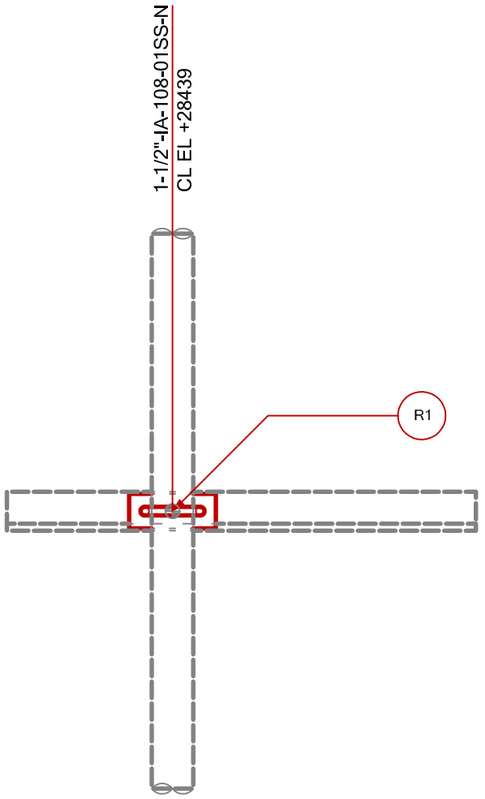
File Name :



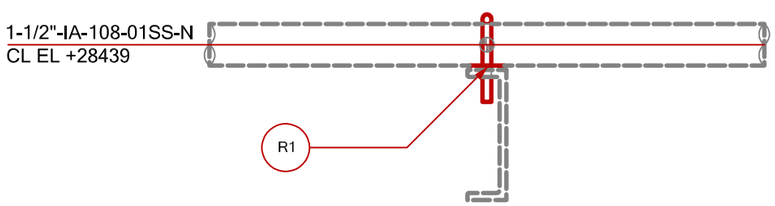
VIEW LOOKING NORTH



VIEW LOOKING WEST



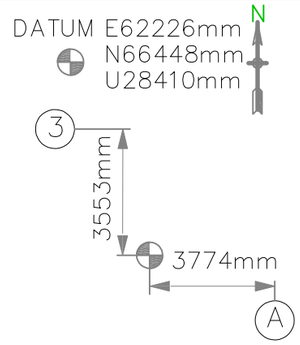
PLAN VIEW

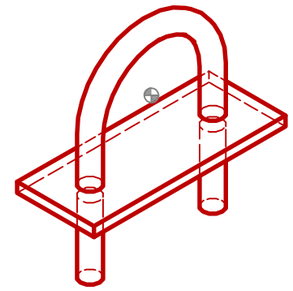


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

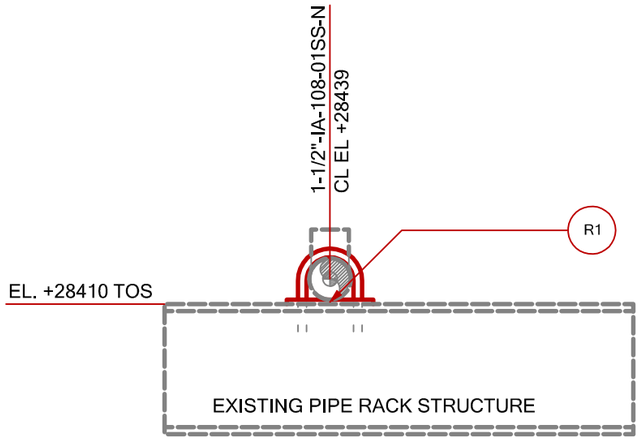
ROSETTI MARINO

TITLE :

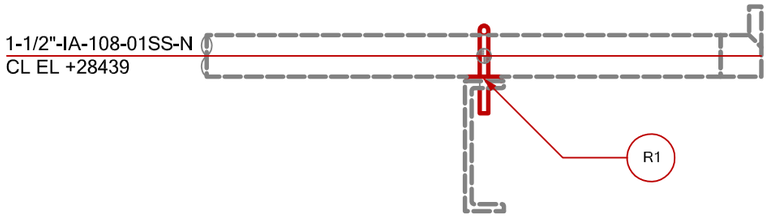
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02058

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1 / REV. 00

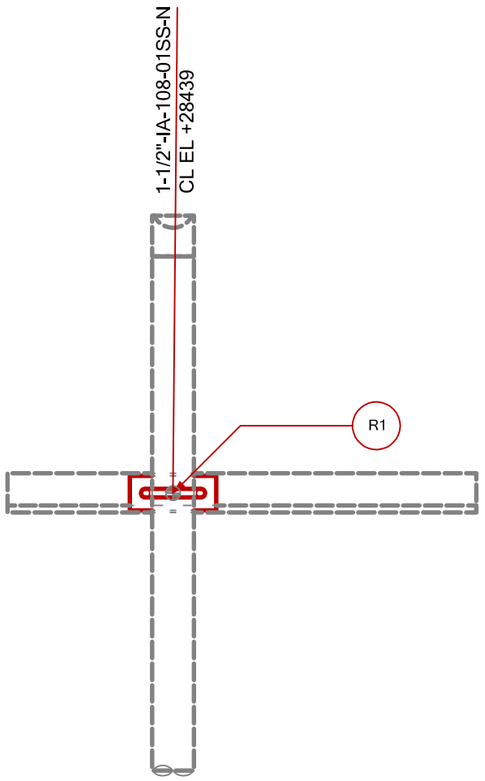
File Name :



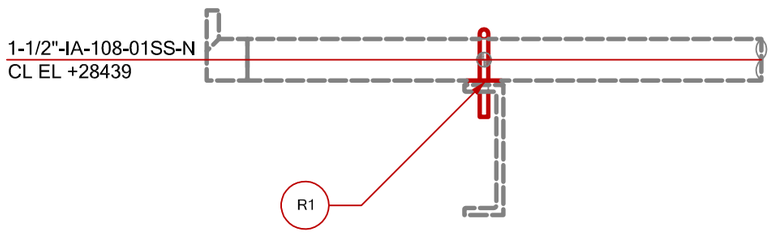
VIEW LOOKING NORTH



VIEW LOOKING WEST



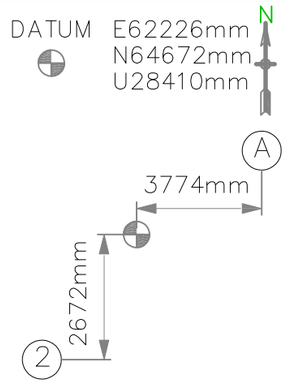
PLAN VIEW

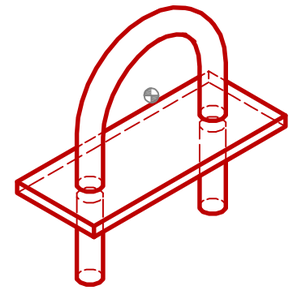


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

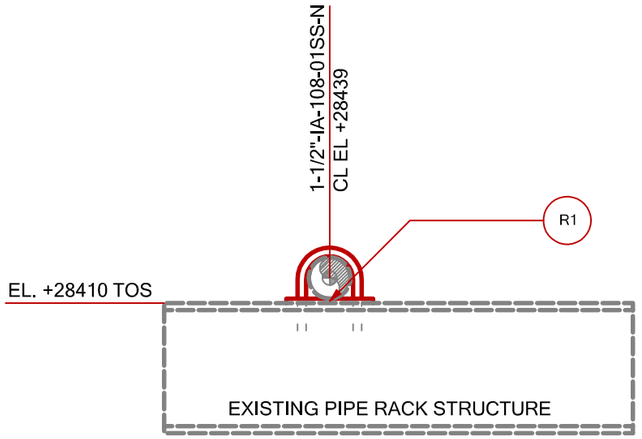
ROSETTI MARINO

TITLE :

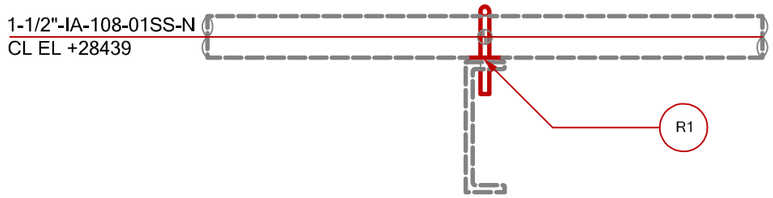
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02059

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000	SHEET 1 of 1	REV. 00

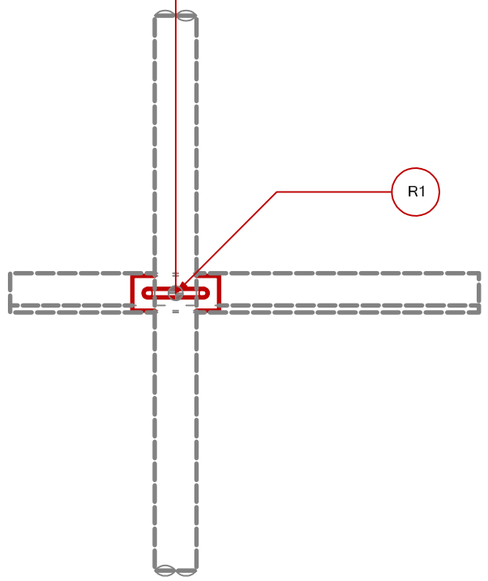
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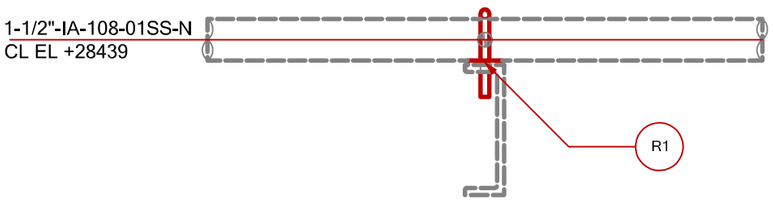
VIEW LOOKING NORTH



VIEW LOOKING WEST



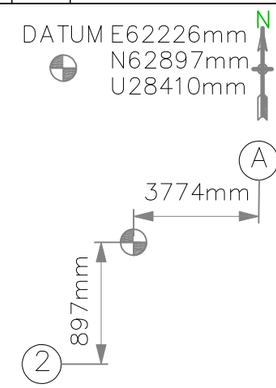
PLAN VIEW

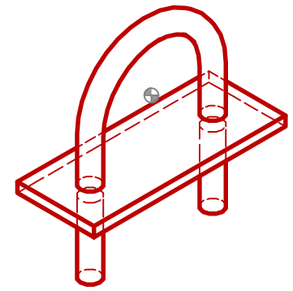


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

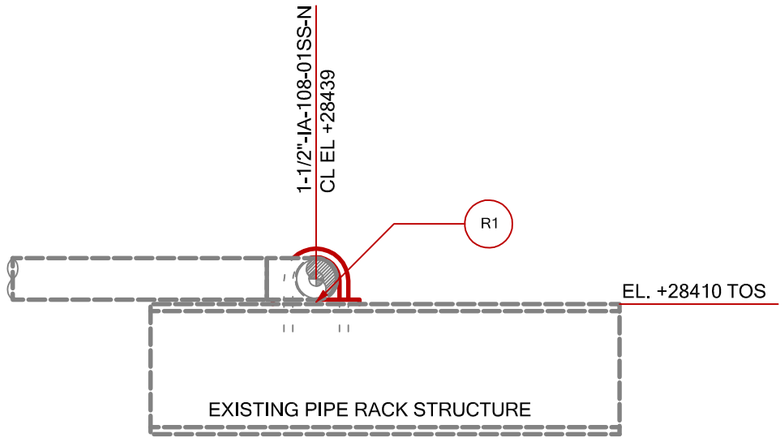
ROSETTI MARINO

TITLE :

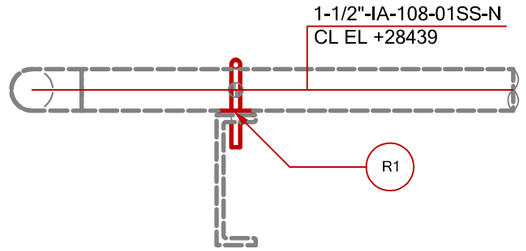
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02060

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

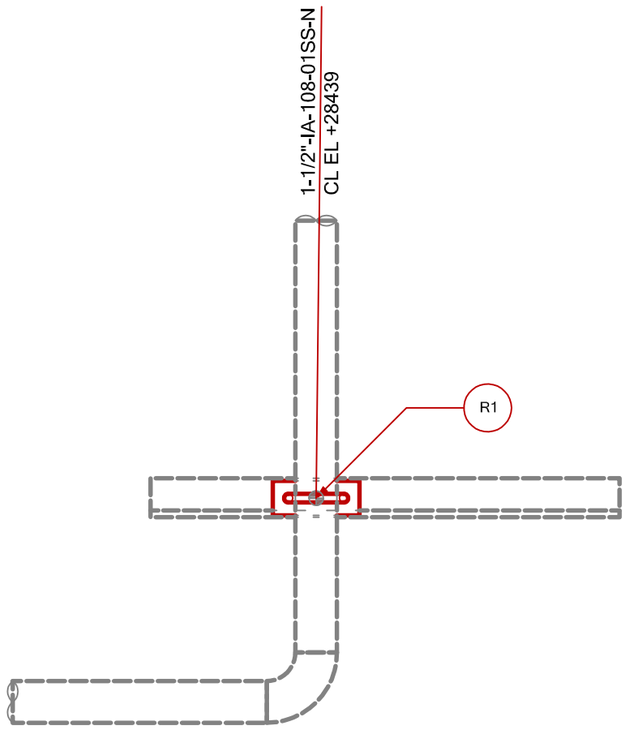
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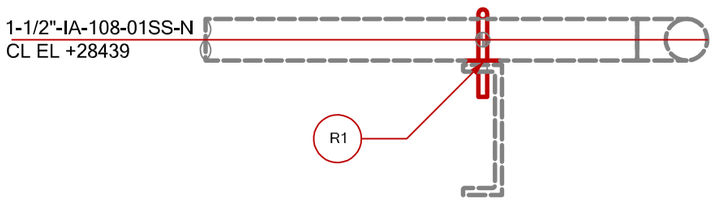
VIEW LOOKING NORTH



VIEW LOOKING WEST



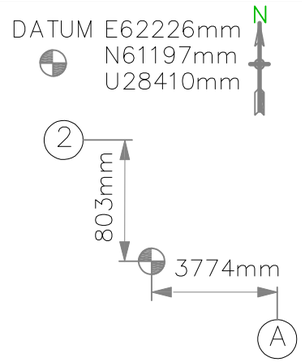
PLAN VIEW

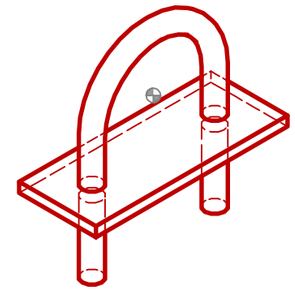


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

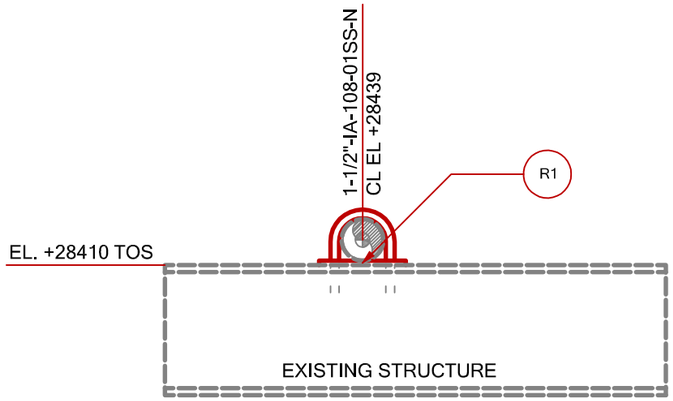
ROSETTI MARINO

TITLE :

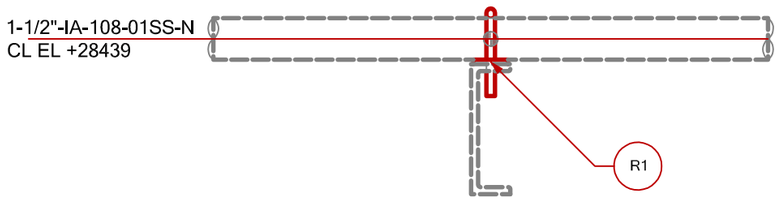
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02061

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1 : 5
DRAWN	CHECKED	APPROVED		DATE	19/08/24
	DRAWING NO.			SHEET	REV.
	123A90-DDL-PP-DD-72000			1 of 1	00

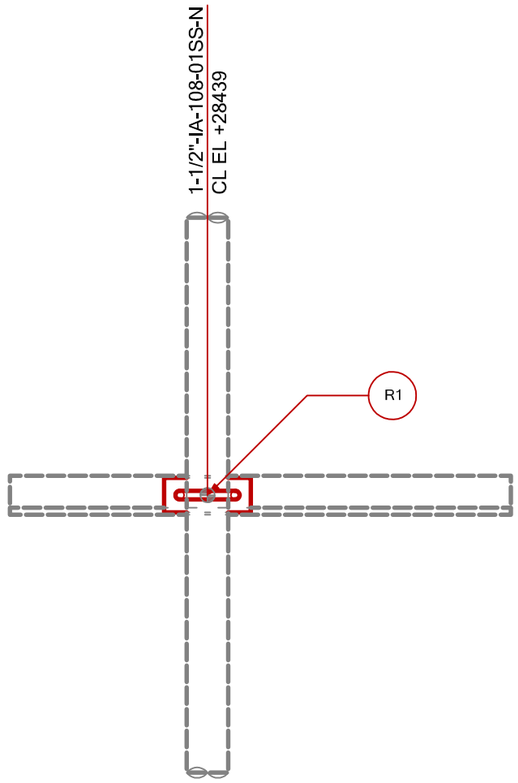
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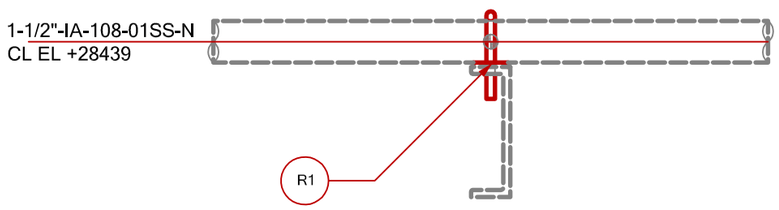
VIEW LOOKING EAST



VIEW LOOKING NORTH



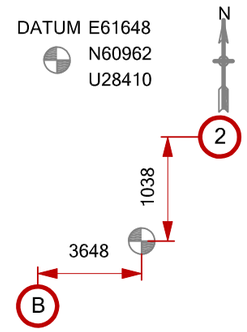
PLAN VIEW

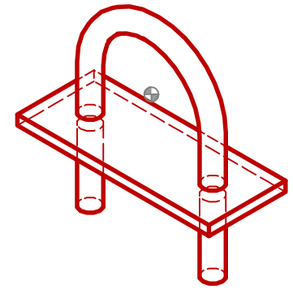


VIEW LOOKING SOUTH

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

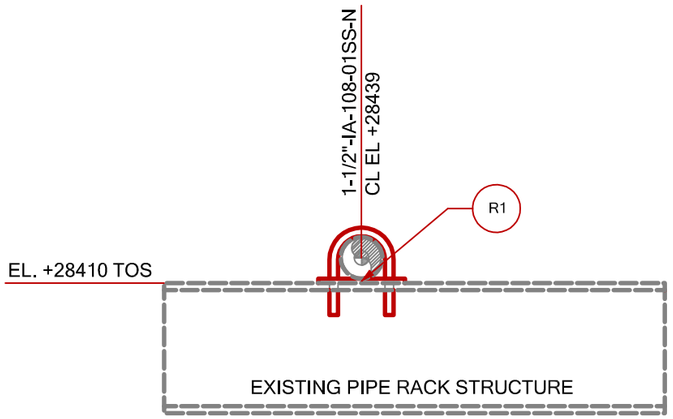
ROSETTI MARINO

TITLE :

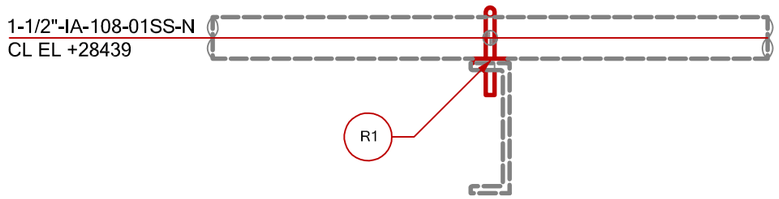
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02062

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

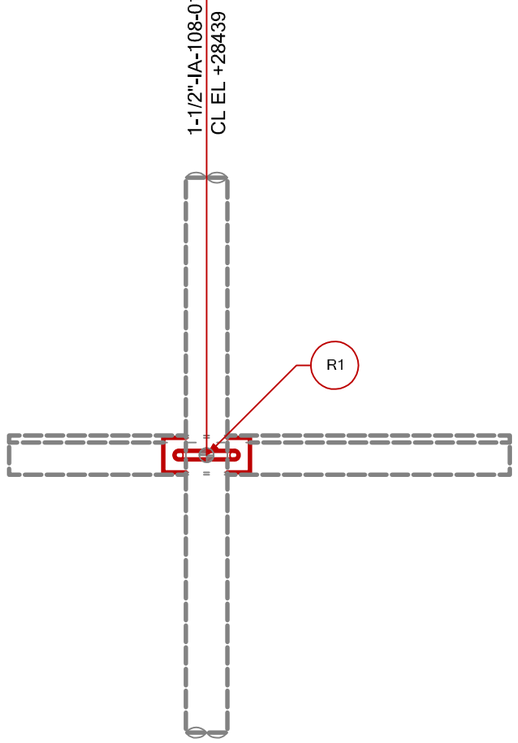
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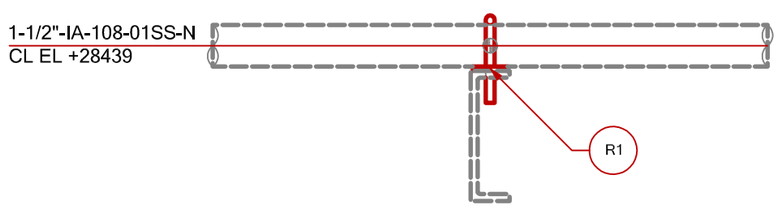
VIEW LOOKING EAST



VIEW LOOKING NORTH



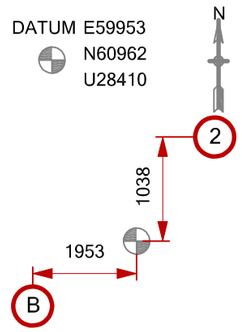
PLAN VIEW

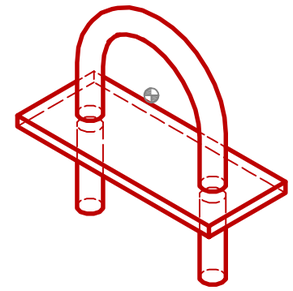


VIEW LOOKING SOUTH

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

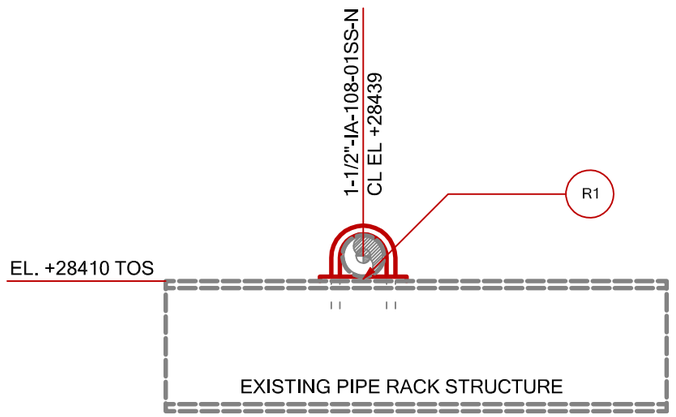
ROSETTI MARINO

TITLE :

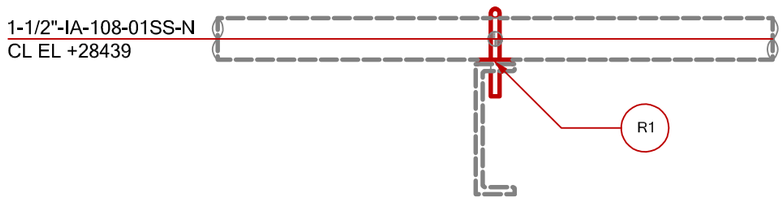
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02063

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000	SHEET 1 of 1	REV. 00

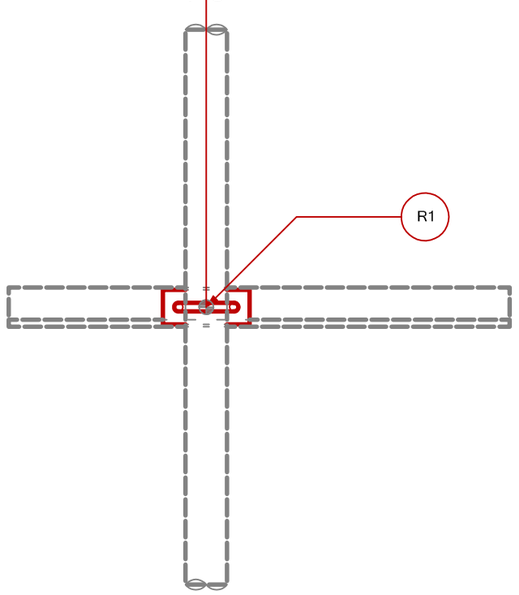
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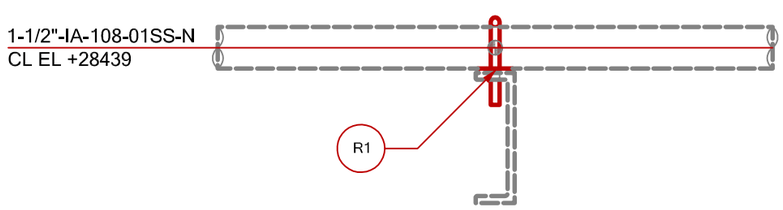
VIEW LOOKING EAST



VIEW LOOKING NORTH



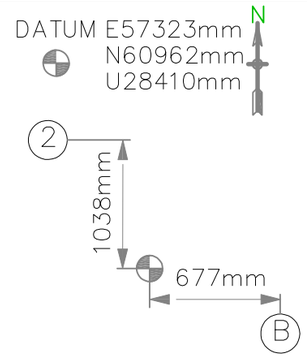
PLAN VIEW

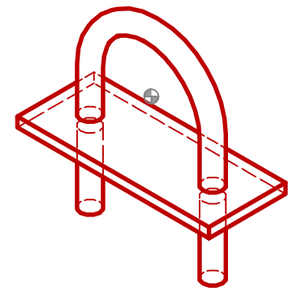


VIEW LOOKING SOUTH

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
						TOTAL	0.5	0.00





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

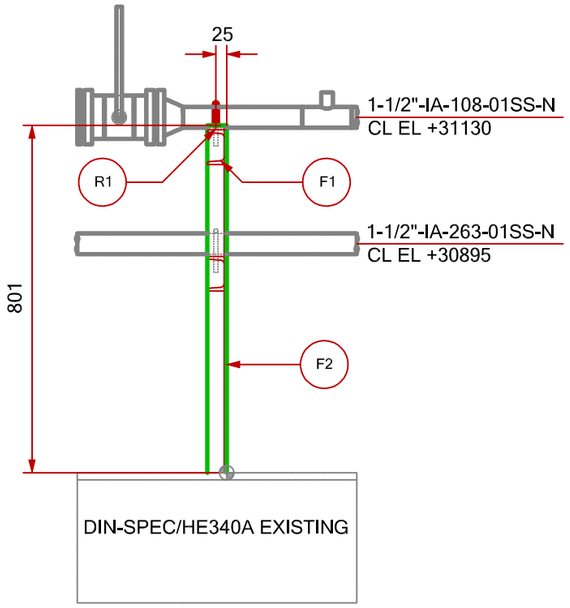
ROSETTI MARINO

TITLE :

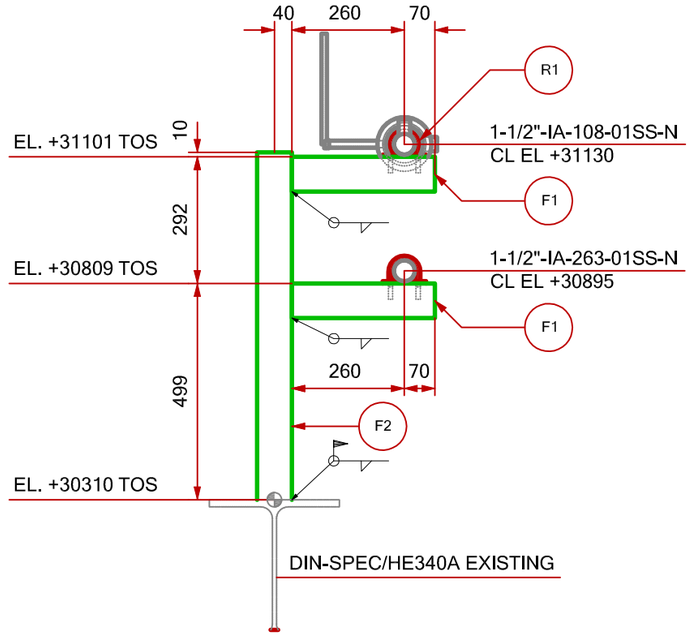
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02064

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 5
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

File Name :



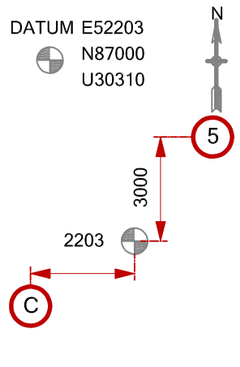
VIEW LOOKING NORTH

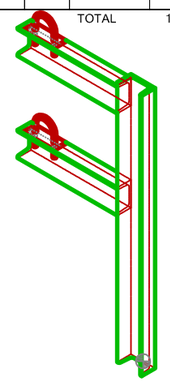


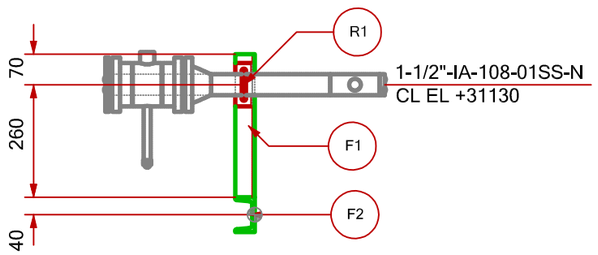
VIEW LOOKING WEST

SUPPORT MATERIAL LIST

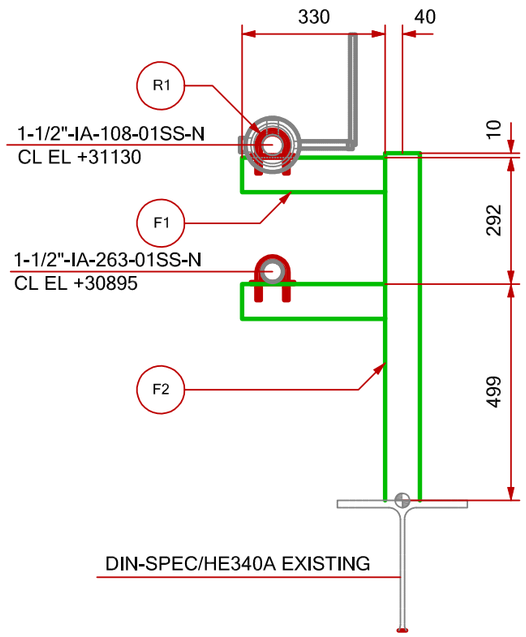
POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN80	Carbon Steel	330	2	8.66	5.72	0.212
F2	BEAM	UPN80	Carbon Steel	801	1	8.66	6.94	0.253
						TOTAL	13.6	0.46







PLAN VIEW



VIEW LOOKING EAST

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

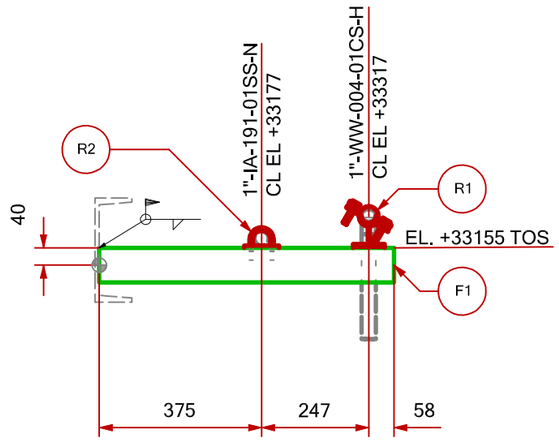
ROSETTI MARINO

TITLE :

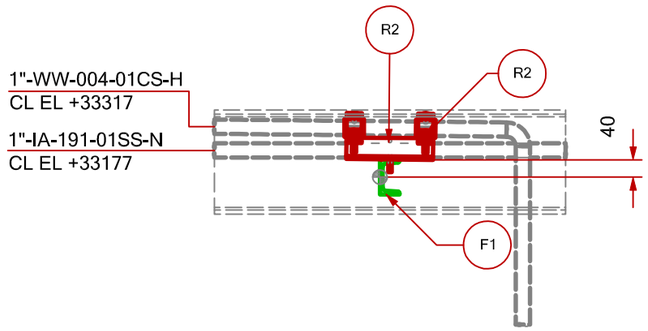
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02075

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

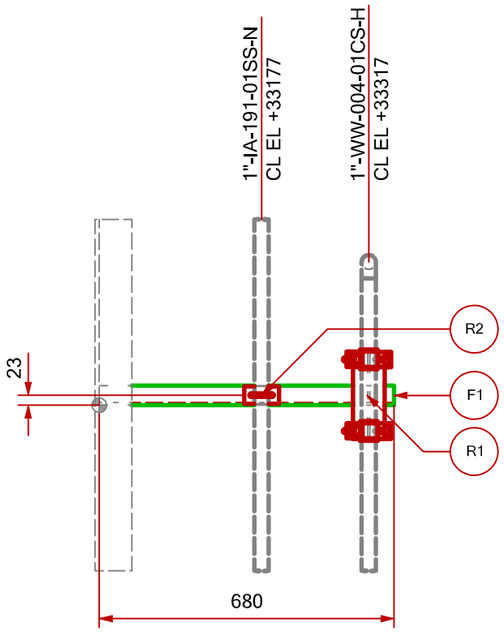
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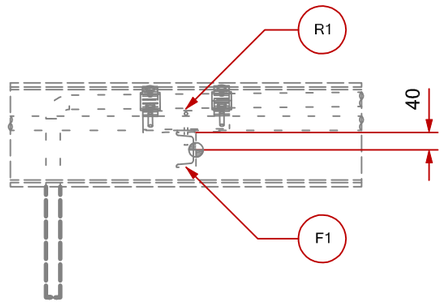
VIEW LOOKING NORTH



VIEW LOOKING WEST



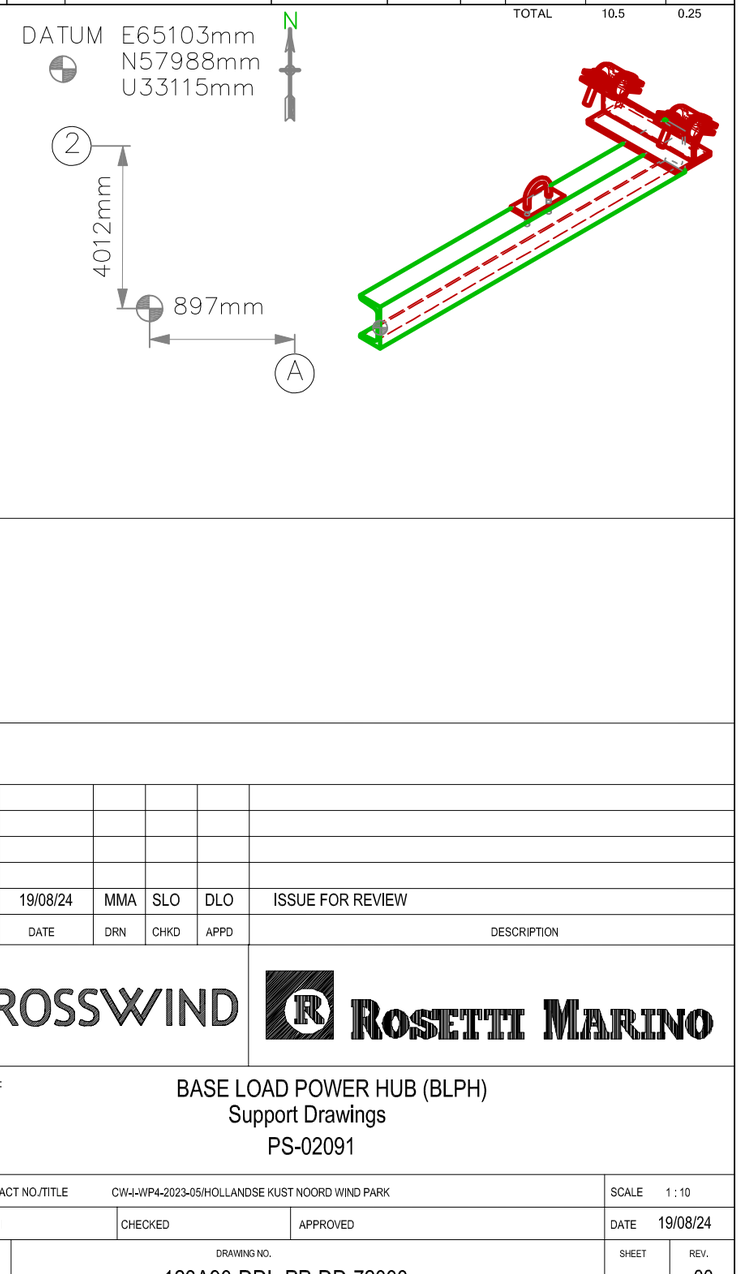
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-75-1"-49-43-200	-	-	1	-	4.28	0.034
R2	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN80	Carbon Steel	680	1	8.66	5.89	0.215
						TOTAL	10.5	0.25



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

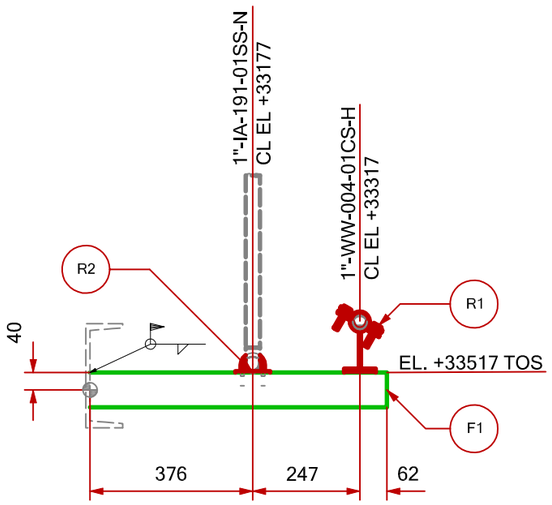
ROSETTI MARINO

TITLE :

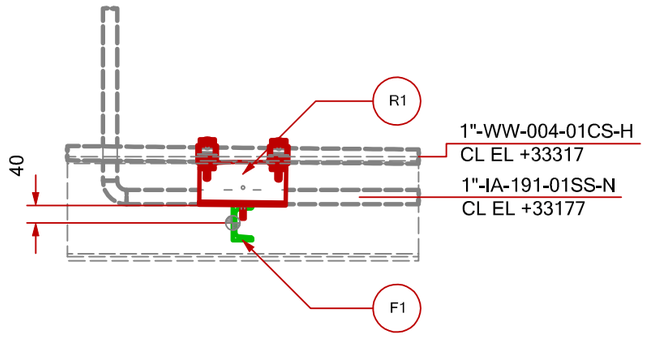
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02091

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 10
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

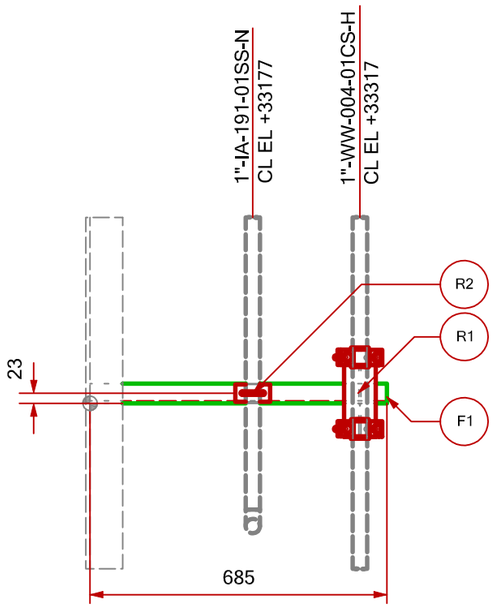
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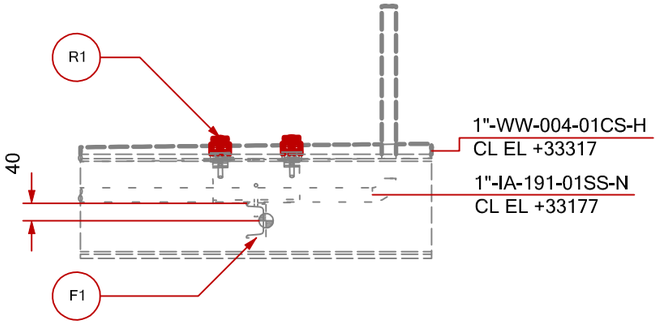
VIEW LOOKING NORTH



VIEW LOOKING WEST



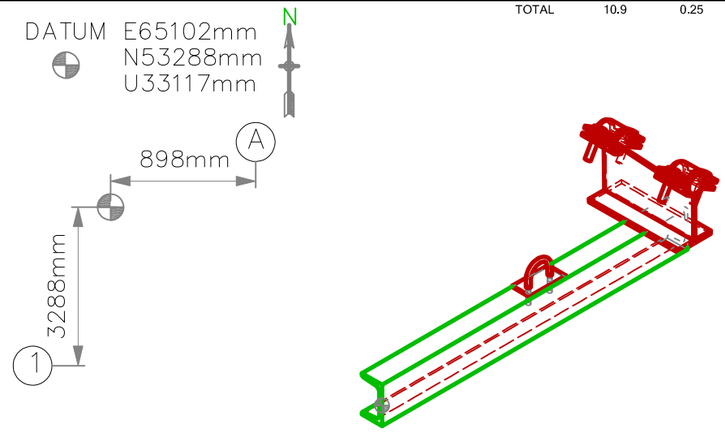
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-75-1"-94-102-200	-	-	1	-	4.65	0.034
R2	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN80	Carbon Steel	685	1	8.66	5.93	0.217
						TOTAL	10.9	0.25



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

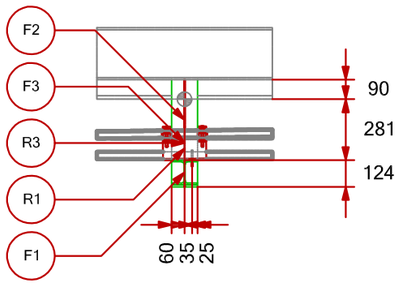
ROSETTI MARINO

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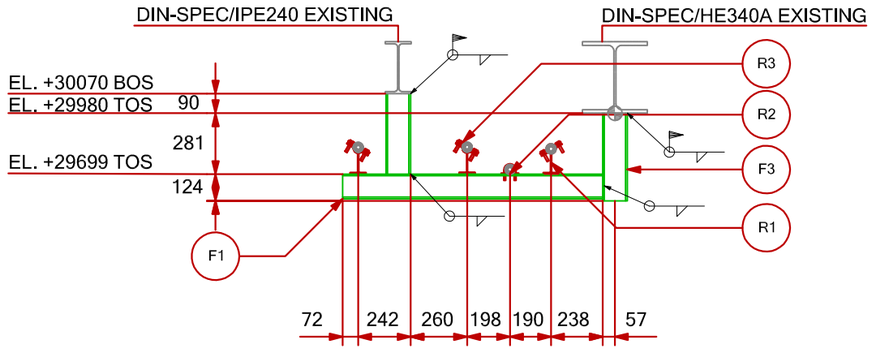
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02093

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

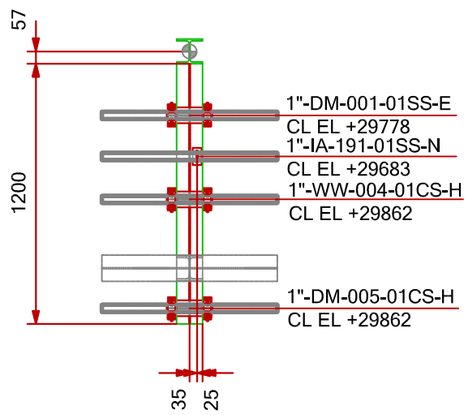
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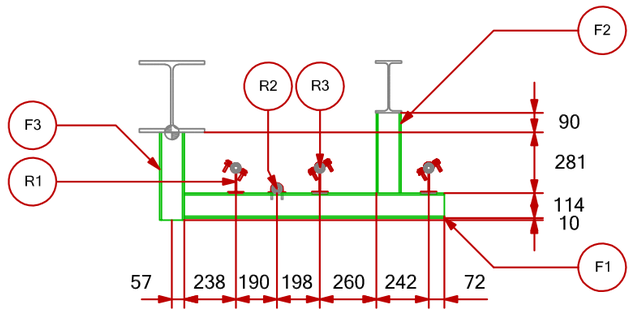
VIEW LOOKING NORTH



VIEW LOOKING WEST



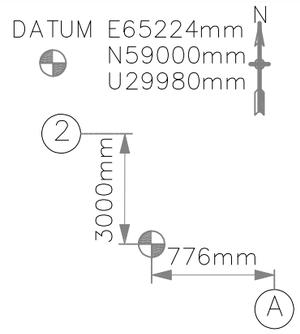
PLAN VIEW

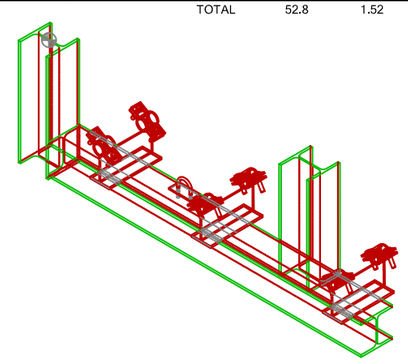


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-64-1"-100-200	-	-	1	-	3.81	0.102
R2	STD	S-211-1"	-	-	1	-	0.29	-
R3	STD	S-75-1"-98-92-200	-	-	2	-	4.64	0.034
F1	BEAM	HEA120	Carbon Steel	1200	1	19.98	23.98	0.817
F2	BEAM	HEA120	Carbon Steel	371	1	19.98	7.41	0.256
F3	BEAM	HEA120	Carbon Steel	405	1	19.98	8.09	0.279
						TOTAL	52.8	1.52





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

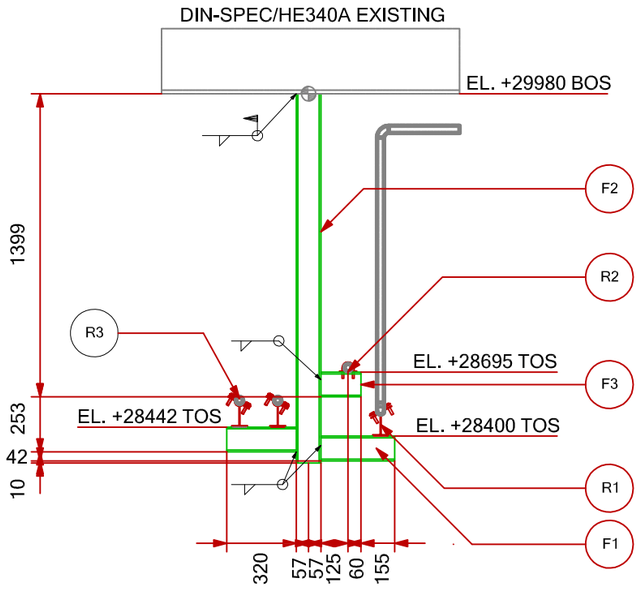
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

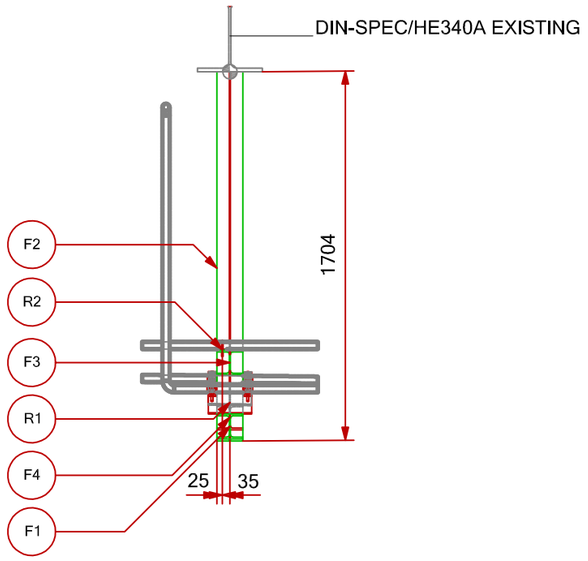
PS-02121

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

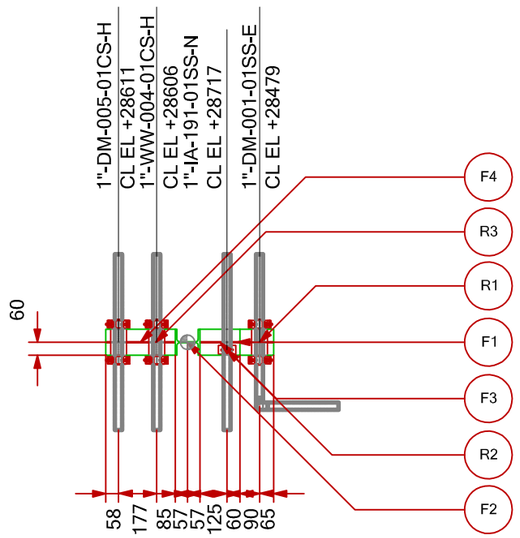
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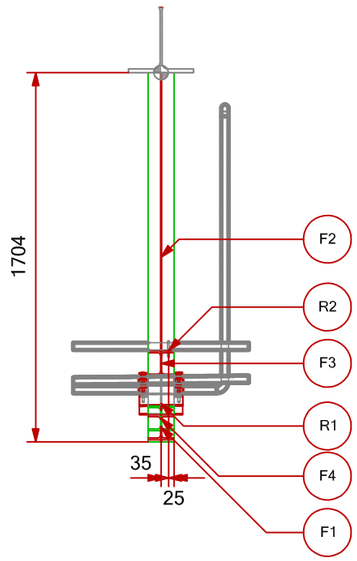
VIEW LOOKING NORTH



VIEW LOOKING WEST



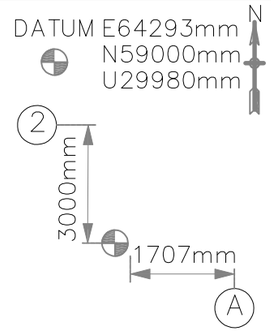
PLAN VIEW

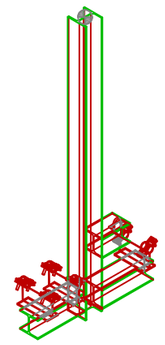


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-64-1"-100-200	-	-	1	-	3.81	0.102
R2	STD	S-211-1"	-	-	1	-	0.29	-
R3	STD	S-75-1"-98-92-200	-	-	2	-	4.64	0.034
F1	BEAM	HEA120	Carbon Steel	340	1	19.98	6.79	0.235
F2	BEAM	HEA120	Carbon Steel	1704	1	19.98	34.04	1.158
F3	BEAM	HEA120	Carbon Steel	185	1	19.98	3.70	0.130
F4	BEAM	HEA120	Carbon Steel	320	1	19.98	6.39	0.222
						TOTAL	64.3	1.91





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

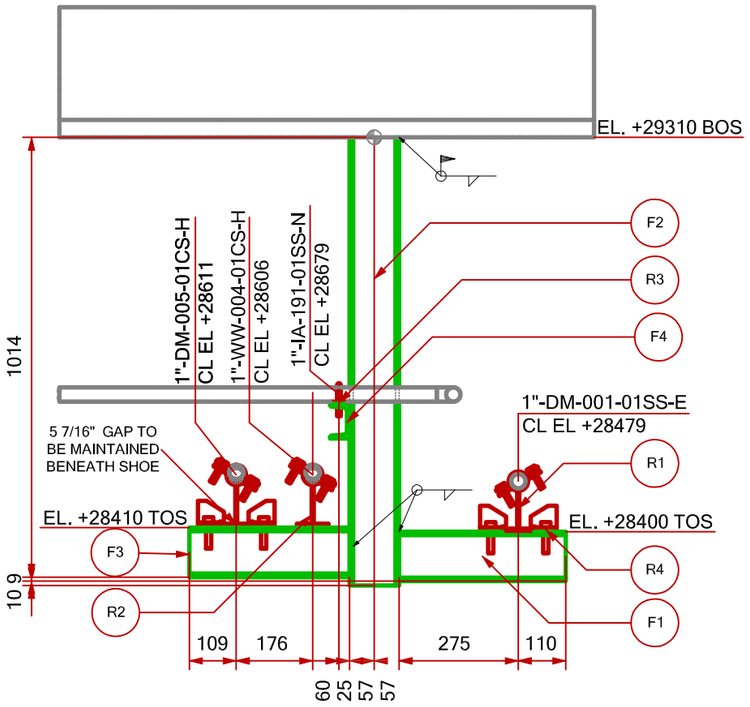
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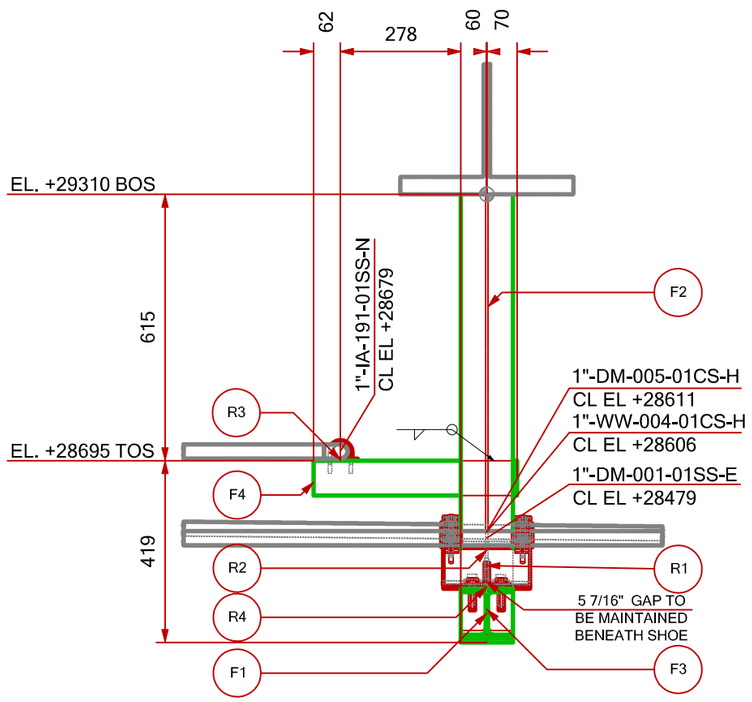
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02122

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

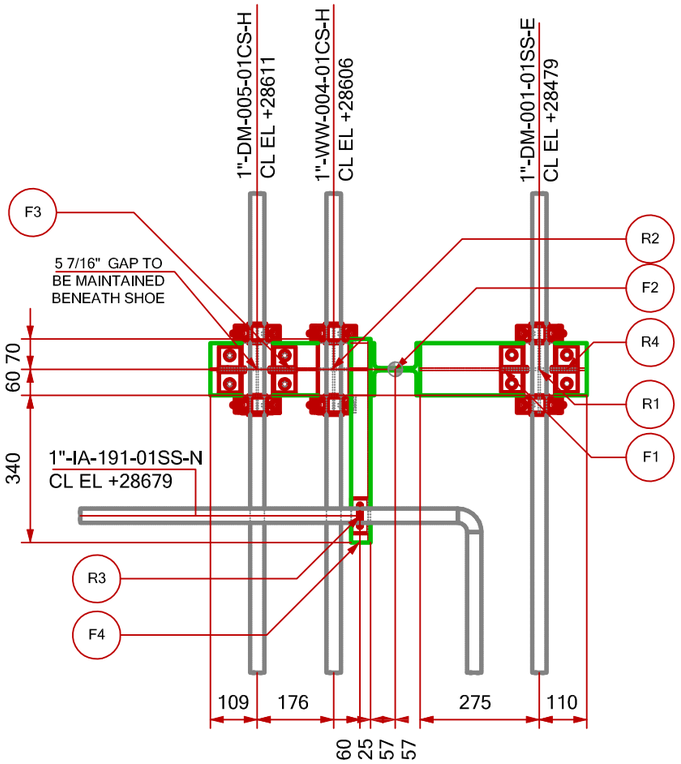
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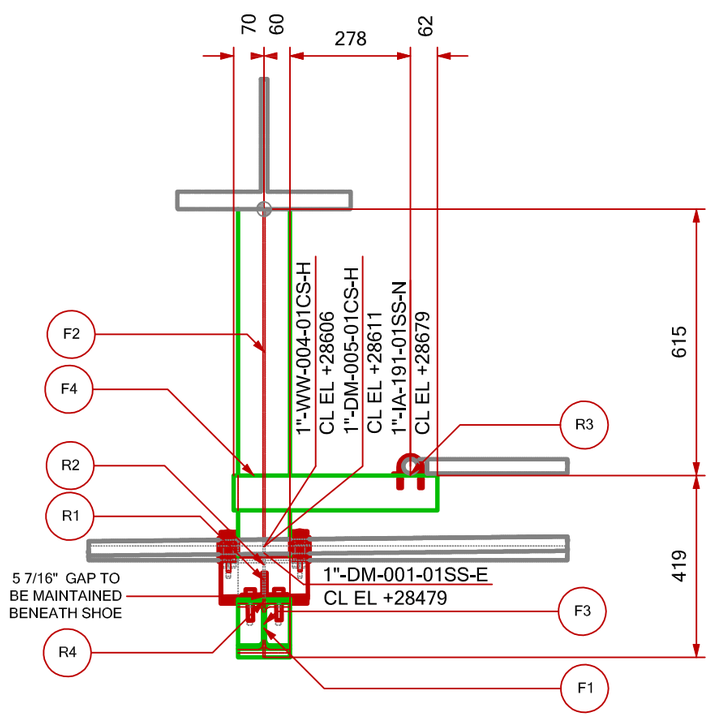
VIEW LOOKING NORTH



VIEW LOOKING WEST



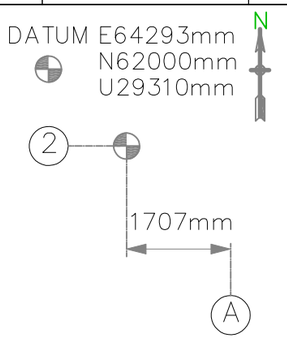
PLAN VIEW

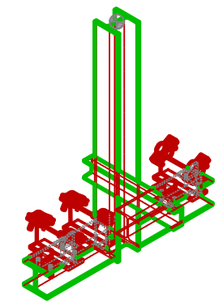


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-64-1"-100-200	-	-	1	-	3.81	0.102
R2	STD	S-75-1"-98-92-200	-	-	2	-	4.64	0.034
R3	STD	S-211-1"	-	-	1	-	0.29	-
R4	STD	C-33-2-B-2	-	-	2	-	4.36	0.048
F1	BEAM	HEA120	Carbon Steel	385	1	19.98	7.69	0.266
F2	BEAM	HEA120	Carbon Steel	1034	1	19.98	20.65	0.705
F3	BEAM	HEA120	Carbon Steel	370	1	19.98	7.39	0.256
F4	BEAM	UPN80	Carbon Steel	470	1	8.66	4.07	0.149
						TOTAL	61.9	1.64





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

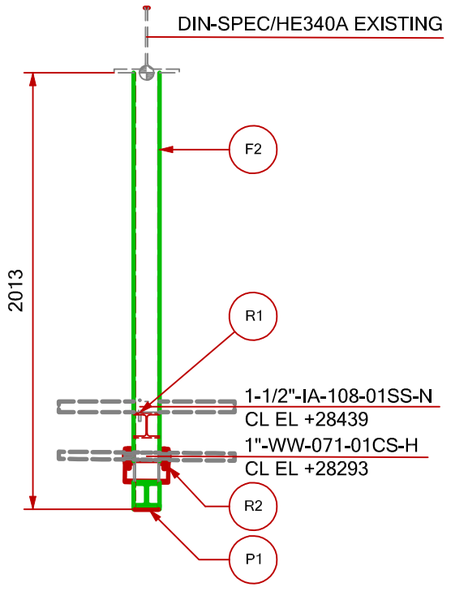
ROSETTI MARINO

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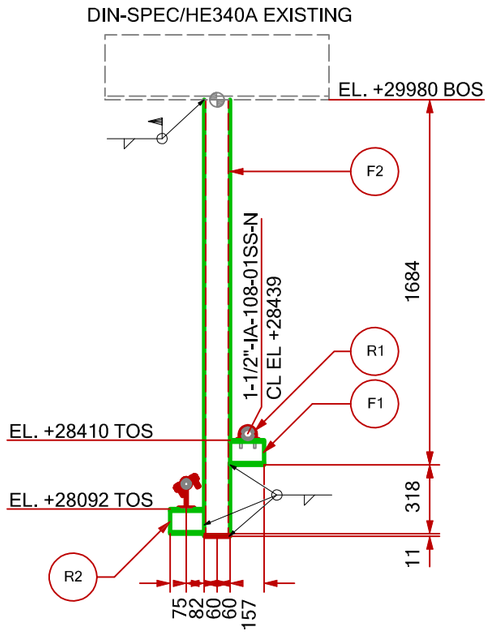
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02123

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

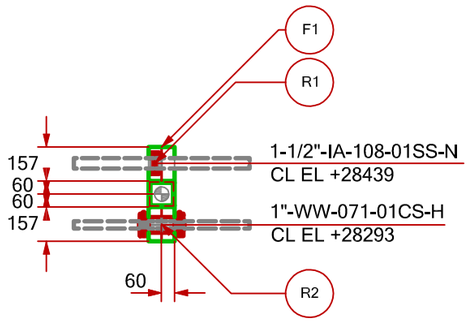
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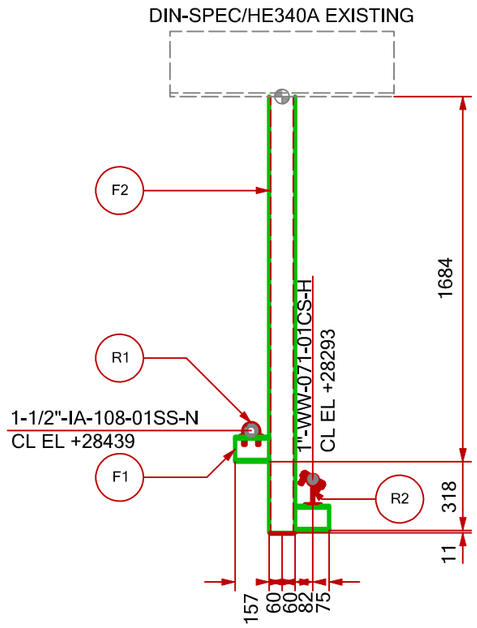
VIEW LOOKING NORTH



VIEW LOOKING WEST



PLAN VIEW

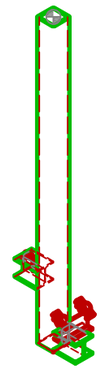


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
F1	BEAM	HEA120	Carbon Steel	157	2	19,98	6.28	0.222
F2	BEAM	RHS120x120x8	Carbon Steel	2013	1	27.79	55.94	1.768
P1	PLATE	3	Carbon Steel	110x110	1	-	0.28	0.012
						TOTAL	67.6	2.04





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

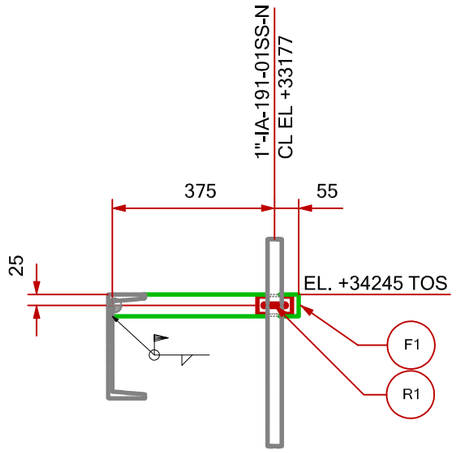
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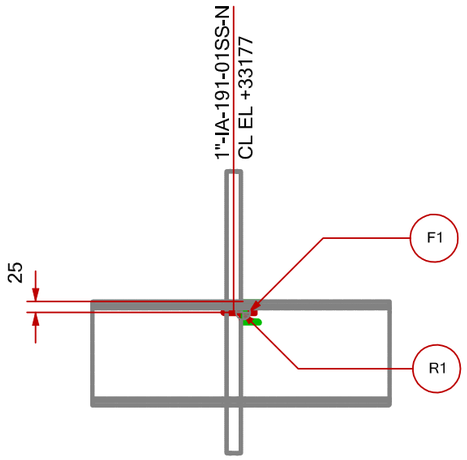
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02127

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

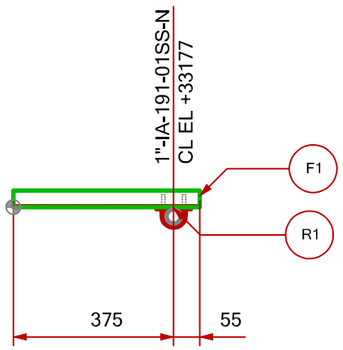
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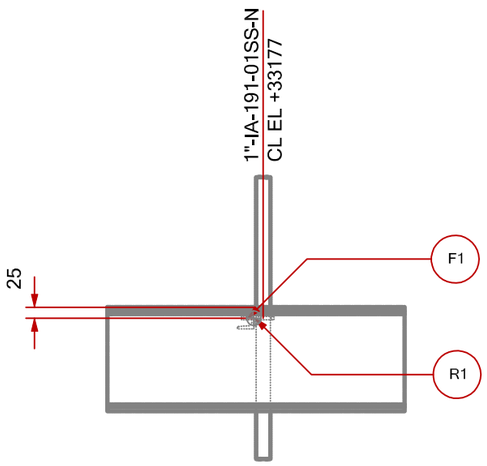
VIEW LOOKING NORTH



VIEW LOOKING WEST



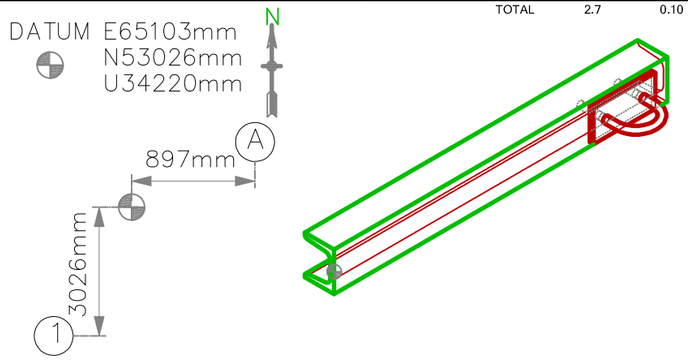
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	430	1	5.61	2.41	0.100
						TOTAL	2.7	0.10



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

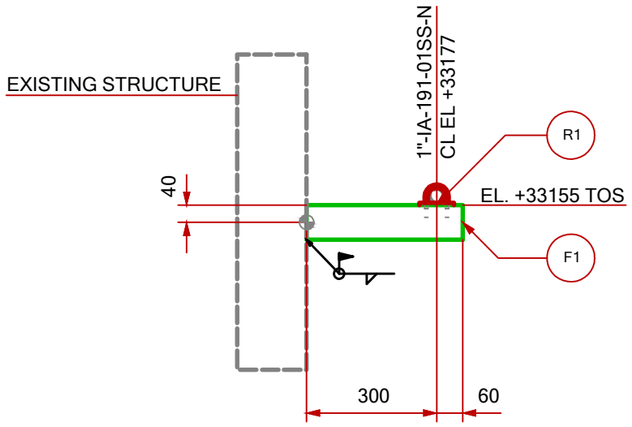
ROSETTI MARINO

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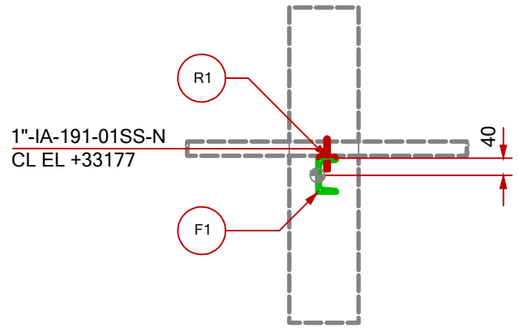
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02137

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

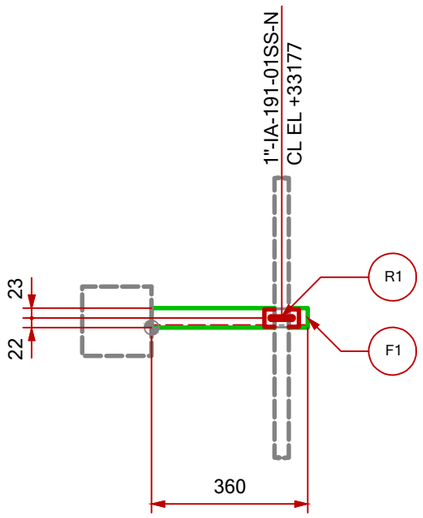
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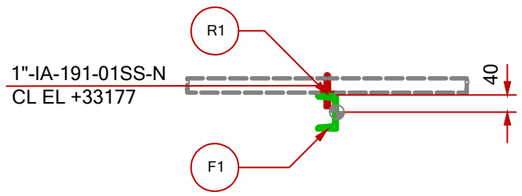
VIEW LOOKING NORTH



VIEW LOOKING WEST



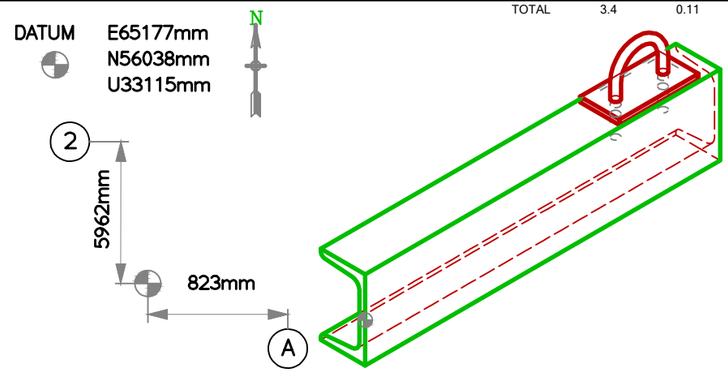
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN80	Carbon Steel	360	1	8.66	3.12	0.115
						TOTAL	3.4	0.11



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/11/24	MMA	SLO	DLO	ACCEPTED FOR CONSTRUCTION

CROSSWIND

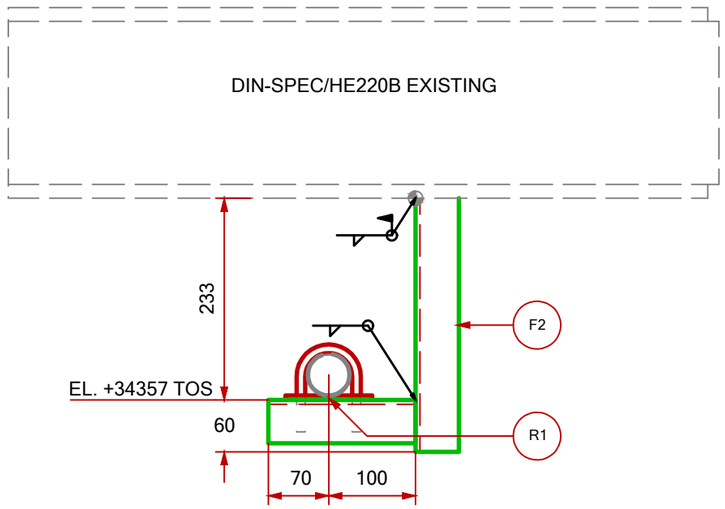
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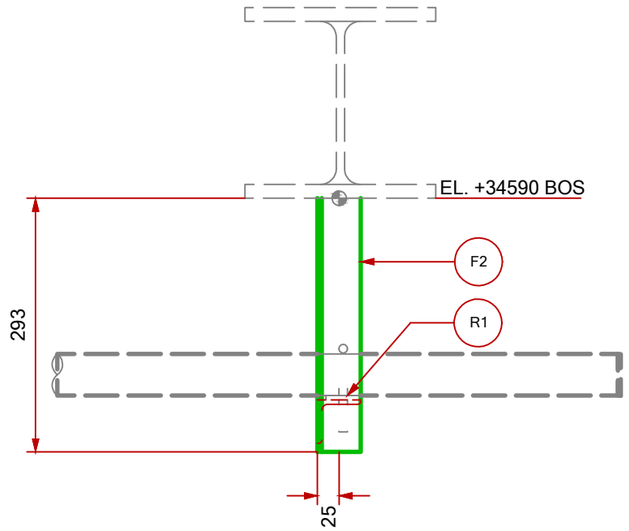
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02141

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 04/11/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 01

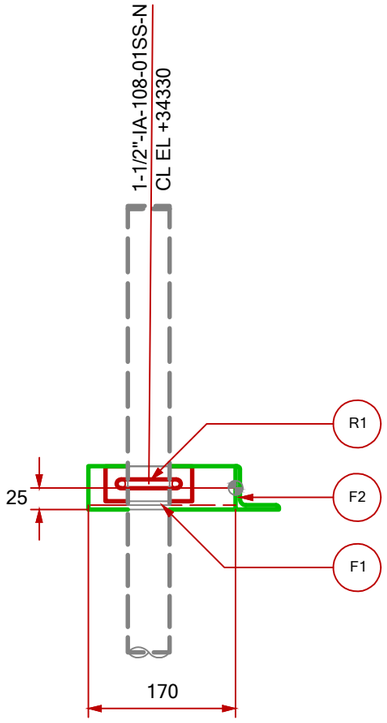
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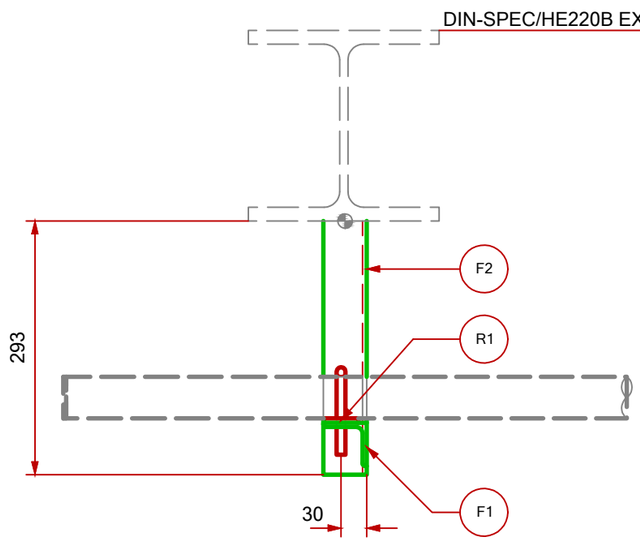
VIEW LOOKING NORTH



VIEW LOOKING WEST



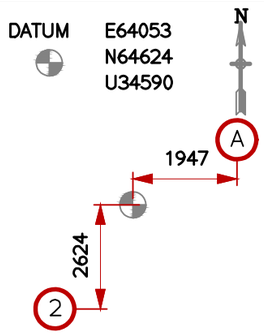
PLAN VIEW

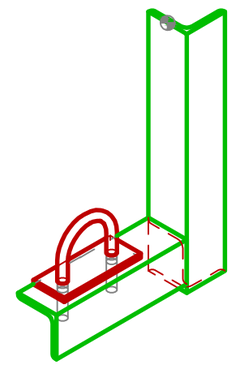


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L50x50x5	Carbon Steel	170	1	3.78	0.64	0.034
F2	BEAM	L50x50x5	Carbon Steel	293	1	3.78	1.10	0.058
						TOTAL	2.2	0.09





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

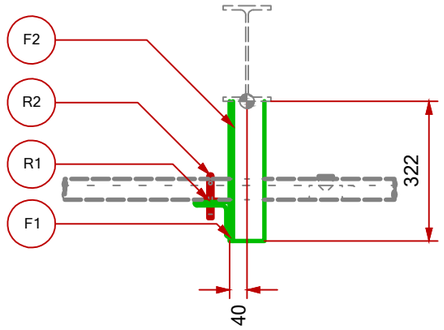
ROSETTI MARINO

TITLE :

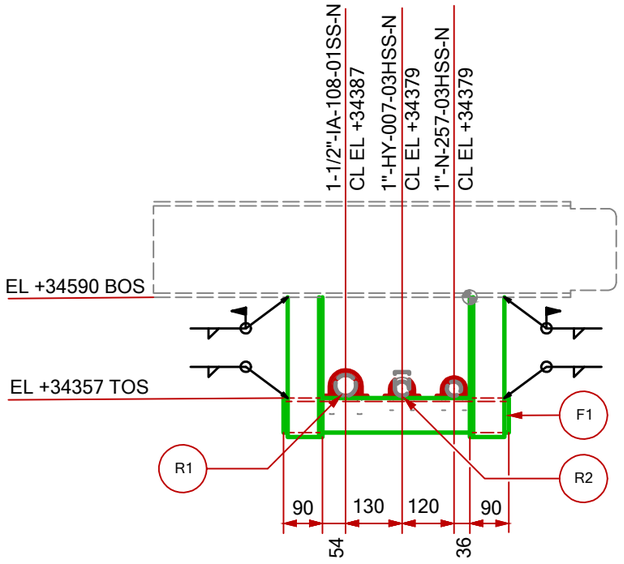
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03074

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

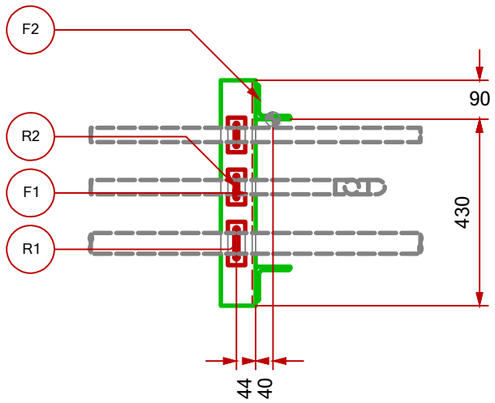
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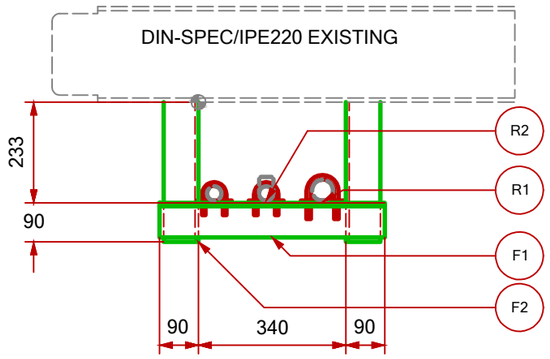
VIEW LOOKING NORTH



VIEW LOOKING WEST



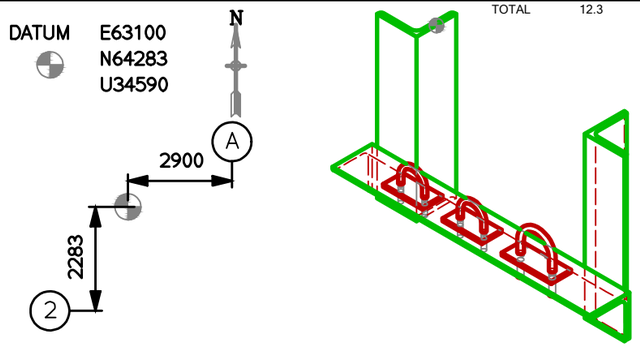
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
F1	BEAM	L80x80x8	Carbon Steel	520	1	9.63	5.01	0.164
F2	BEAM	L80x80x8	Carbon Steel	322	2	9.63	6.22	0.206
						TOTAL	12.3	0.37



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

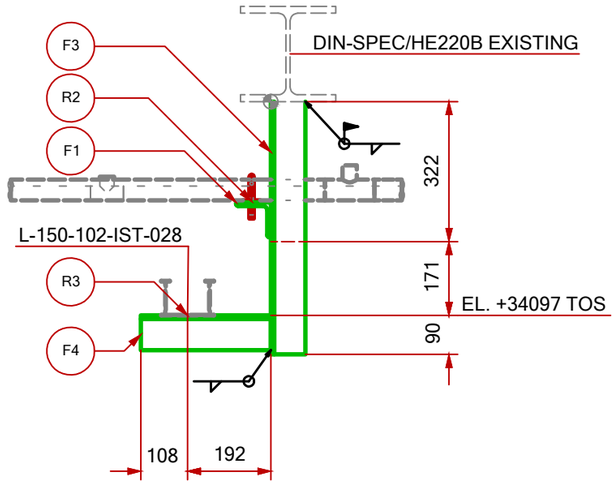
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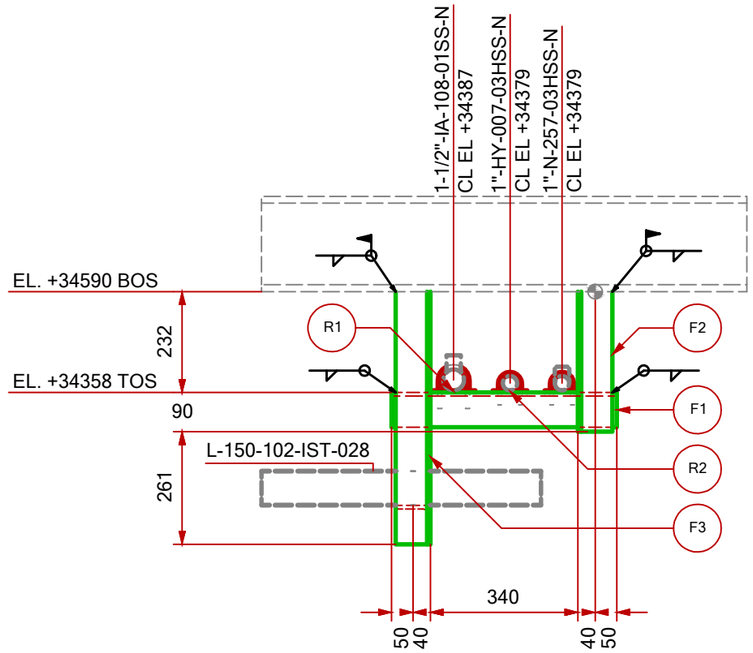
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03075

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

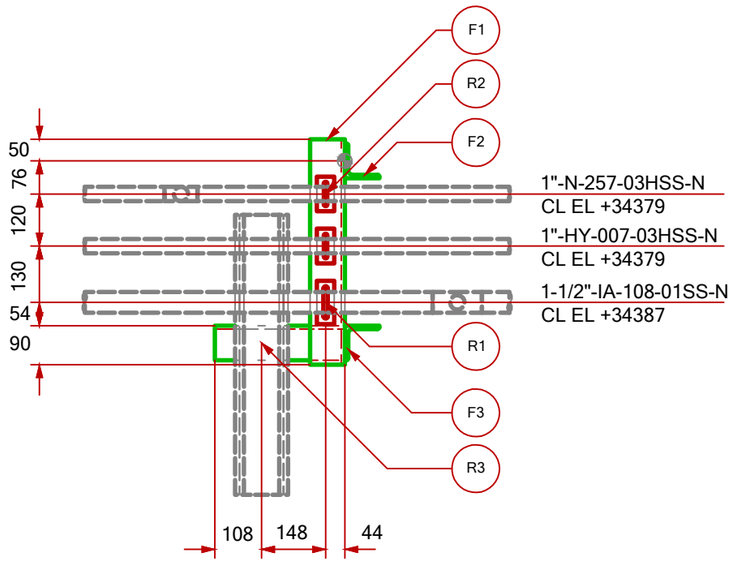
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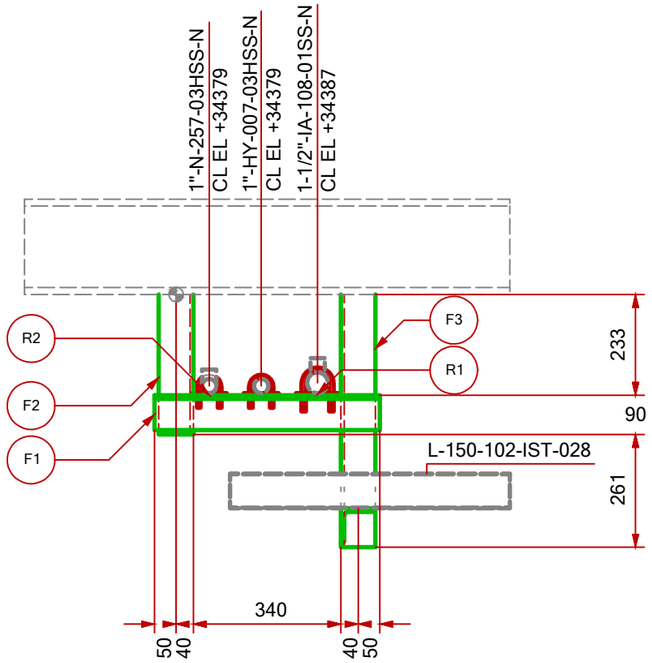
VIEW LOOKING NORTH



VIEW LOOKING WEST



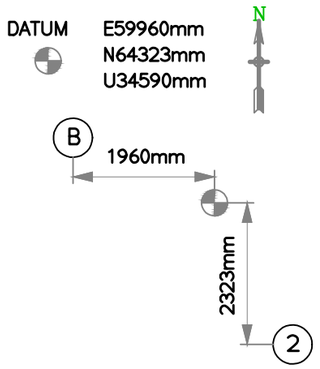
PLAN VIEW

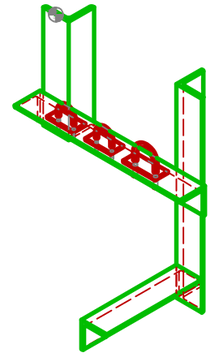


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
R3	STD	RACK SUPPORT	-	-	1	-	0.00	-
F1	BEAM	L80x80x8	Carbon Steel	520	1	9.63	5.01	0.164
F2	BEAM	L80x80x8	Carbon Steel	322	1	9.63	3.11	0.103
F3	BEAM	L80x80x8	Carbon Steel	583	1	9.63	5.62	0.184
F4	BEAM	L80x80x8	Carbon Steel	300	1	9.63	2.89	0.096
						TOTAL	17.7	0.55





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

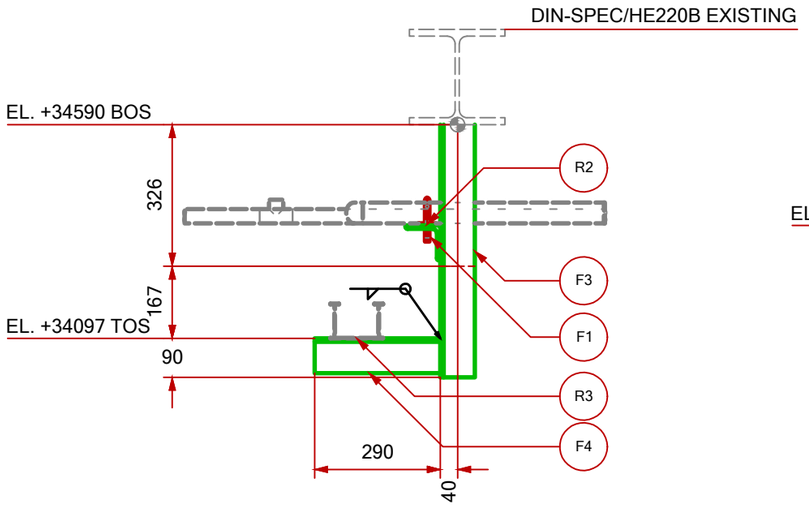
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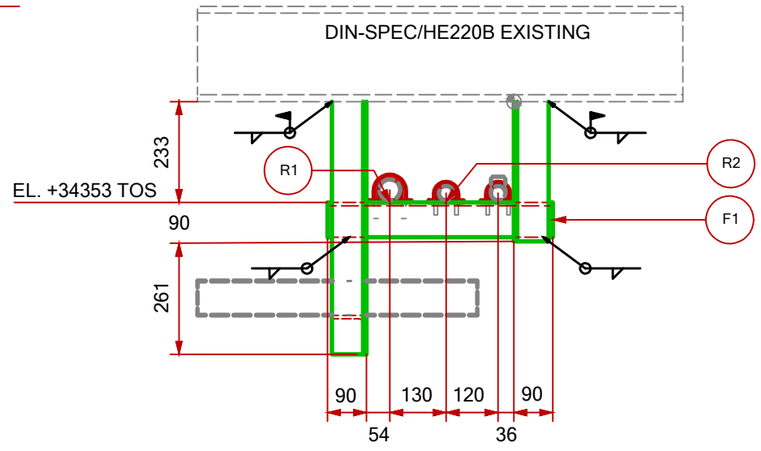
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03076

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

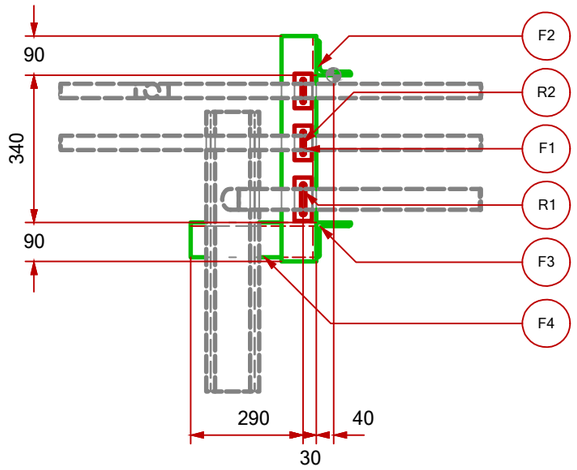
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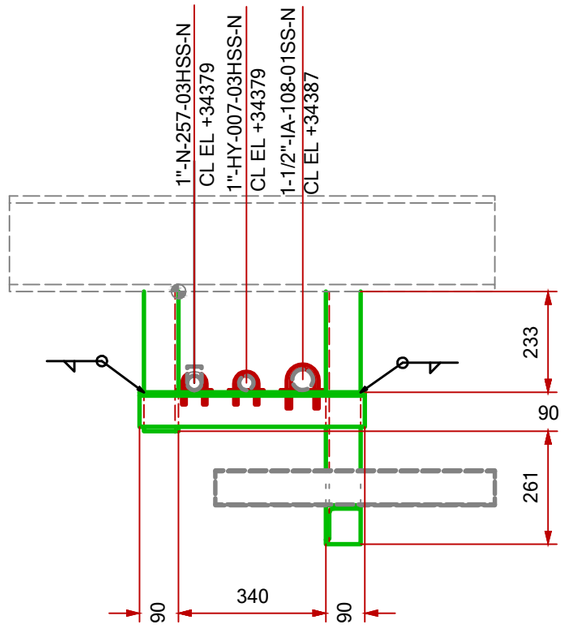
VIEW LOOKING NORTH



VIEW LOOKING WEST



PLAN VIEW

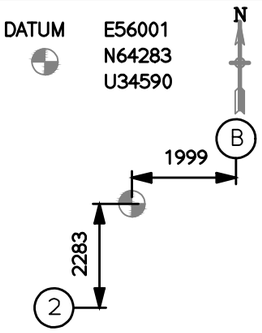


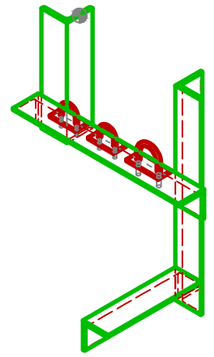
VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
R3	STD	RACK SUPPORT	-	-	1	-	0.00	-
F1	BEAM	L80x80x8	Carbon Steel	520	1	9.63	5.01	0.164
F2	BEAM	L80x80x8	Carbon Steel	326	1	9.63	3.14	0.104
F3	BEAM	L80x80x8	Carbon Steel	583	1	9.63	5.62	0.184
F4	BEAM	L80x80x8	Carbon Steel	290	1	9.63	2.79	0.093
						TOTAL	17.6	0.54

DATUM
E56001
N64283
U34590





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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CROSSWIND

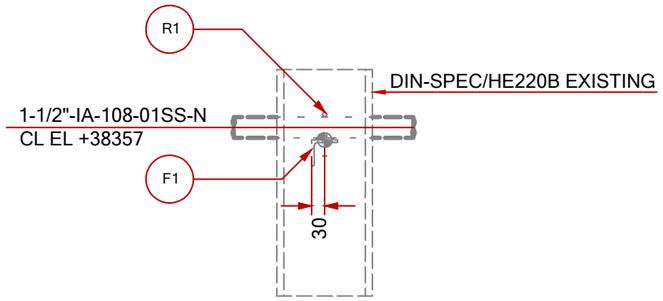
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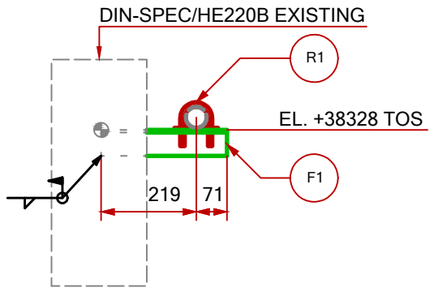
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03077

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

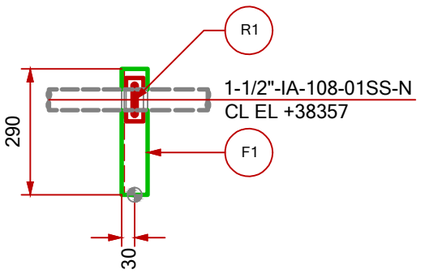
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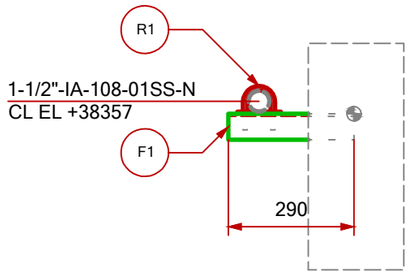
VIEW LOOKING NORTH



VIEW LOOKING WEST



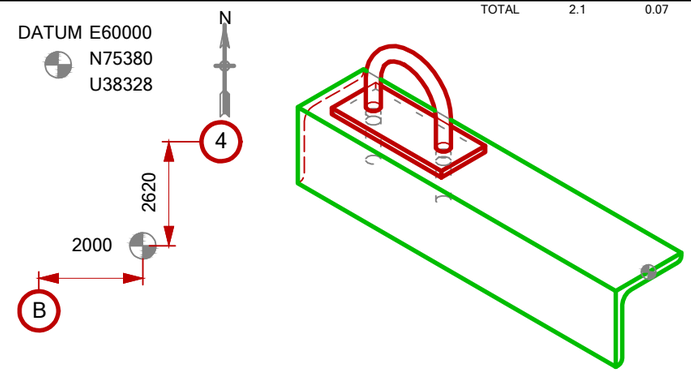
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	290	1	5.42	1.57	0.069
						TOTAL	2.1	0.07



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

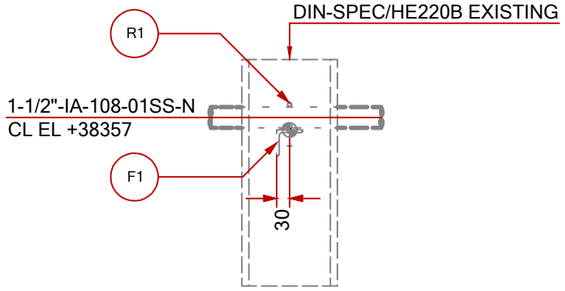
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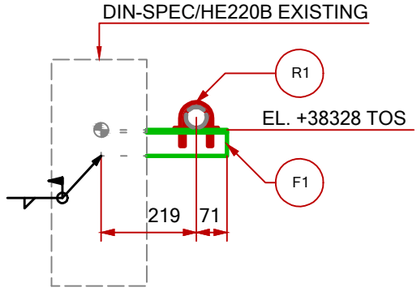
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03091

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

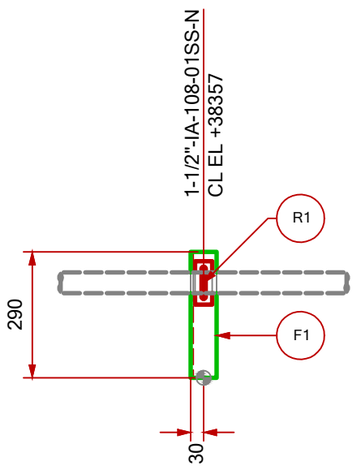
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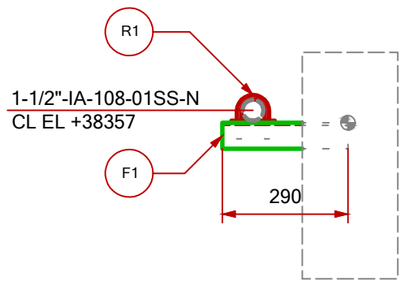
VIEW LOOKING NORTH



VIEW LOOKING WEST



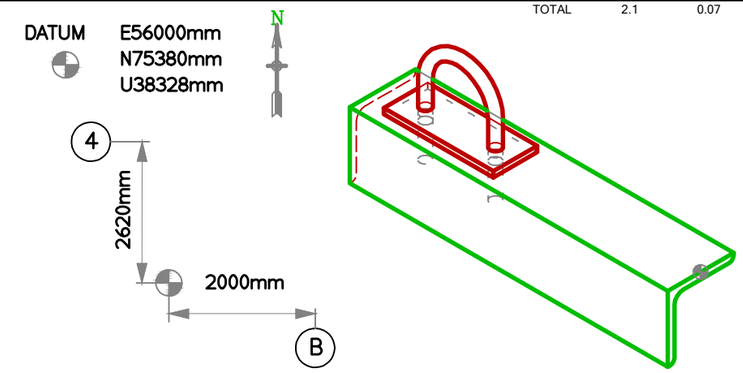
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	290	1	5.42	1.57	0.069
						TOTAL	2.1	0.07



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

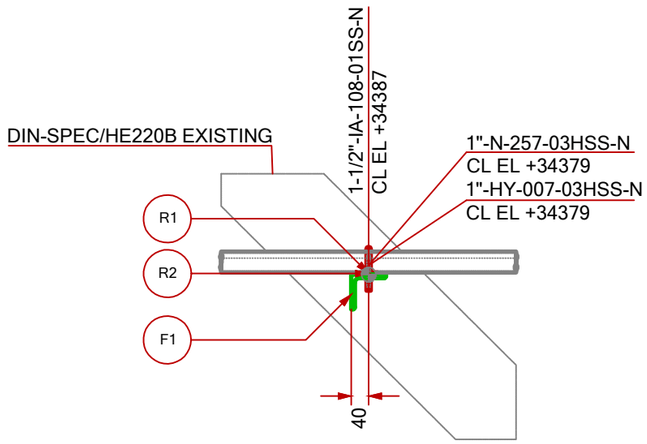
ROSETTI MARINO

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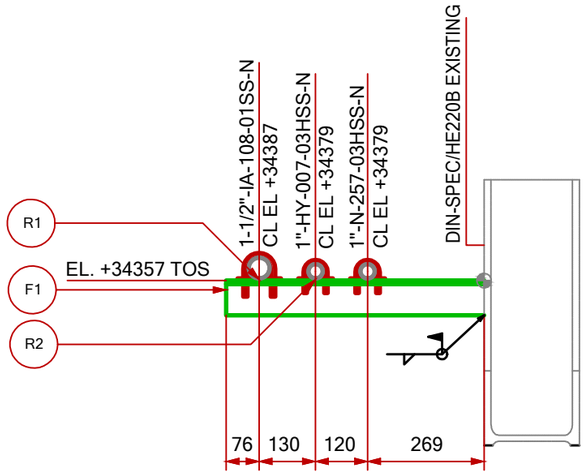
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03092

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

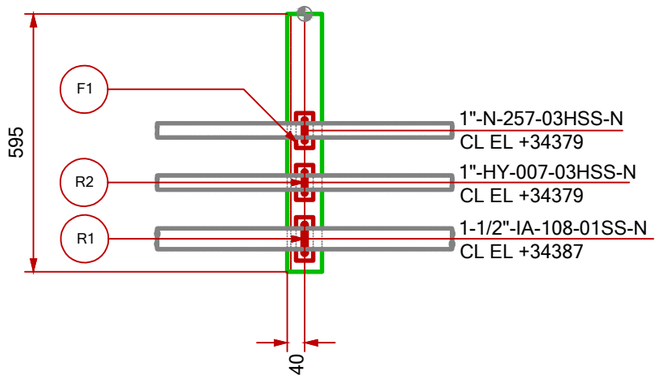
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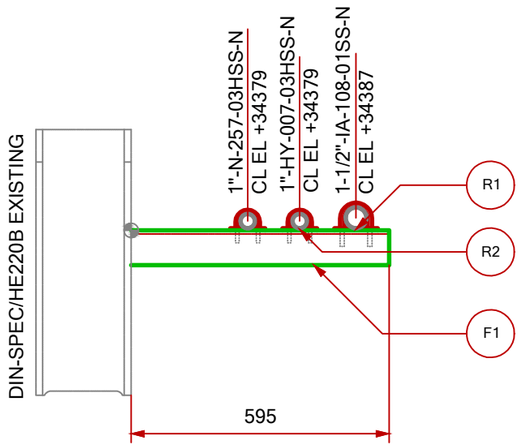
VIEW LOOKING NORTH



VIEW LOOKING WEST



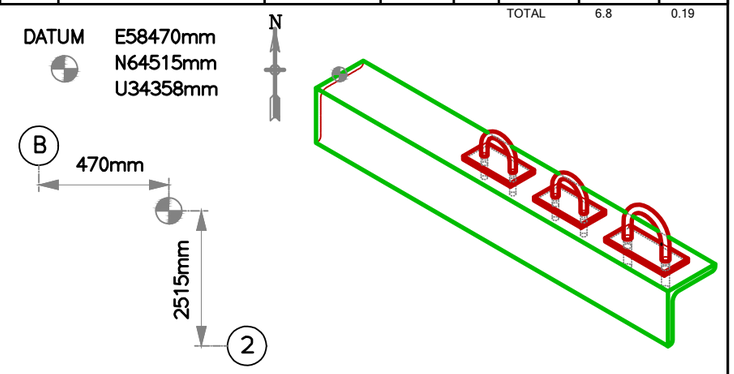
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	S-211-1"	-	-	2	-	0.29	-
F1	BEAM	L80x80x8	Carbon Steel	595	1	9.63	5.73	0.188
						TOTAL	6.8	0.19



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

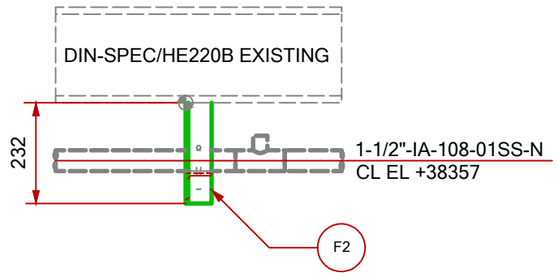
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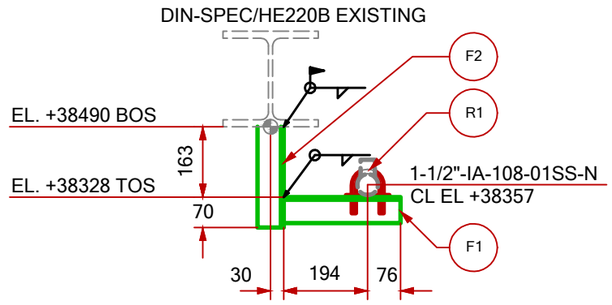
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03093

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

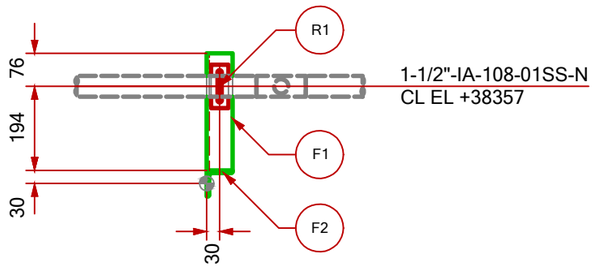
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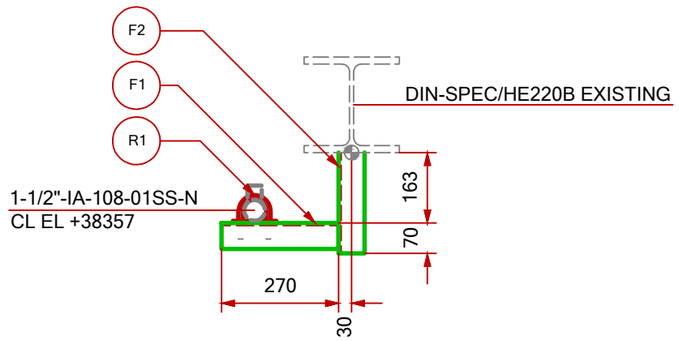
VIEW LOOKING NORTH



VIEW LOOKING WEST



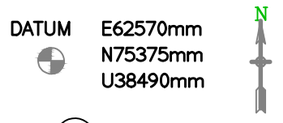
PLAN VIEW

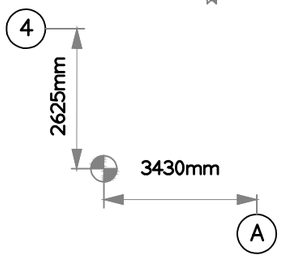


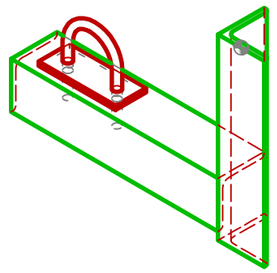
VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	270	1	5.42	1.46	0.064
F2	BEAM	L60x60x6	Carbon Steel	232	1	5.42	1.26	0.056
						TOTAL	3.2	0.12







REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

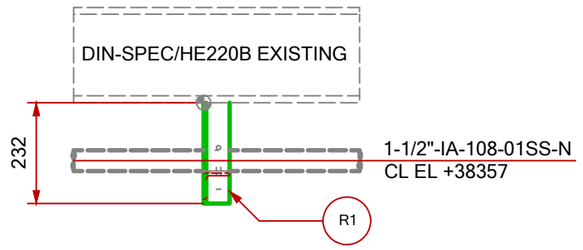
ROSETTI MARINO

TITLE :

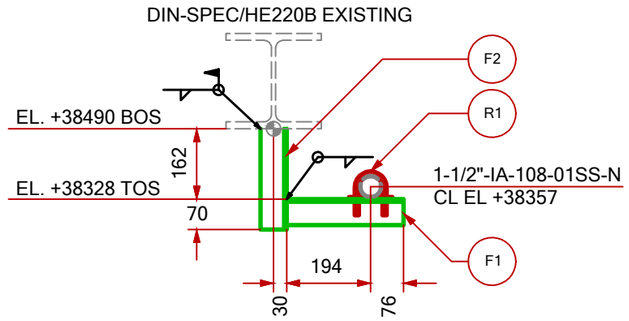
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03094

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

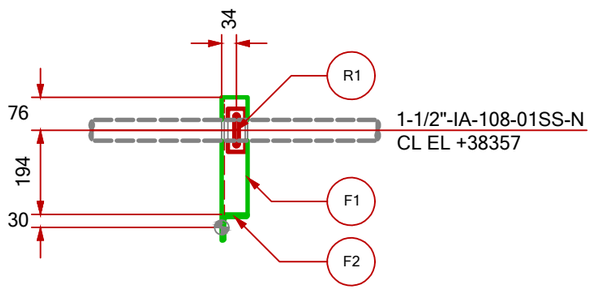
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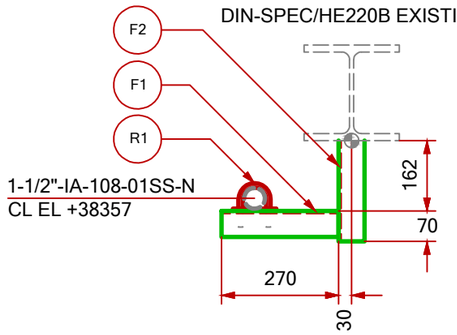
VIEW LOOKING NORTH



VIEW LOOKING WEST



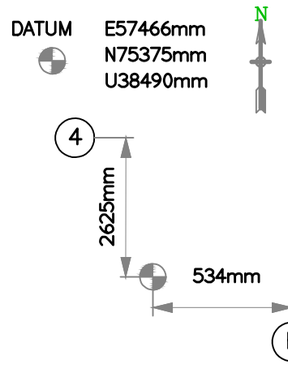
PLAN VIEW

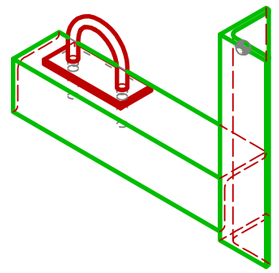


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	270	1	5.42	1.46	0.064
F2	BEAM	L60x60x6	Carbon Steel	232	1	5.42	1.26	0.056
						TOTAL	3.2	0.12





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

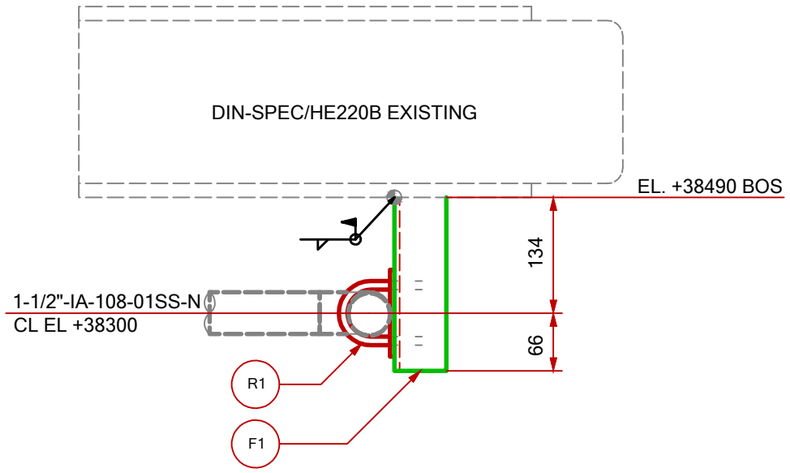
ROSETTI MARINO

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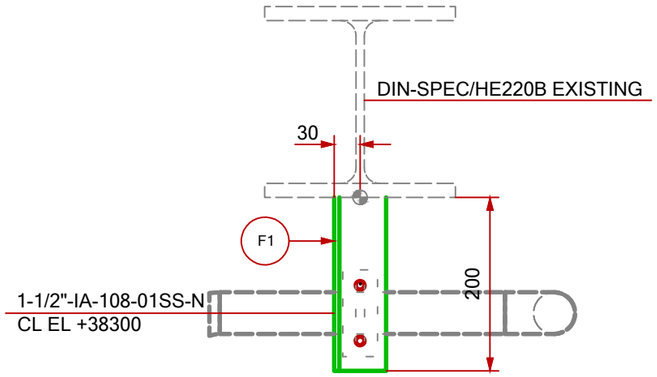
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03095

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

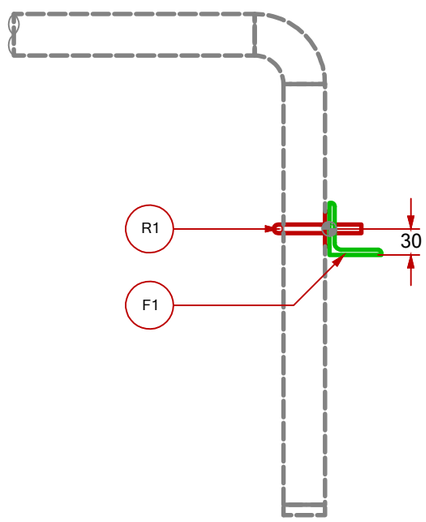
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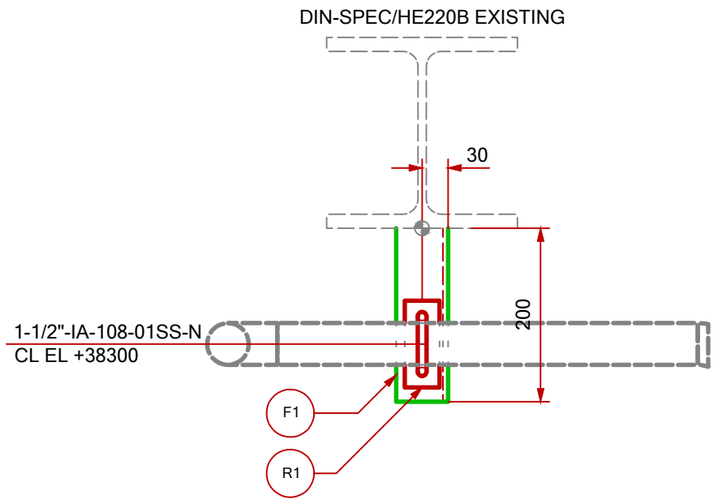
VIEW LOOKING NORTH



VIEW LOOKING WEST



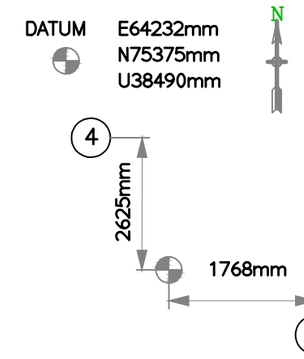
PLAN VIEW

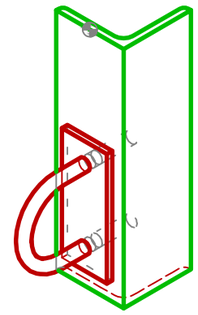


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	200	1	5.42	1.08	0.048
						TOTAL	1.6	0.05





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

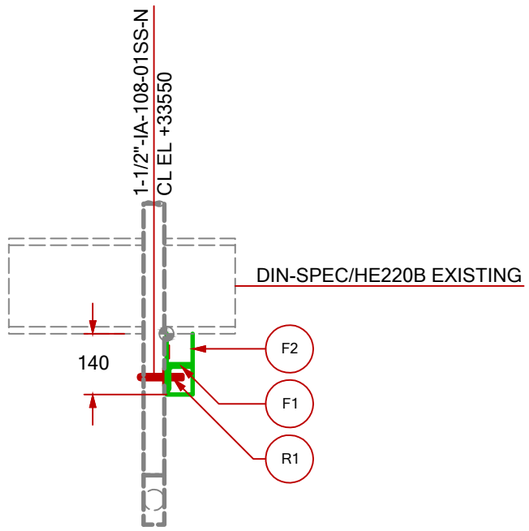
ROSETTI MARINO

TITLE :

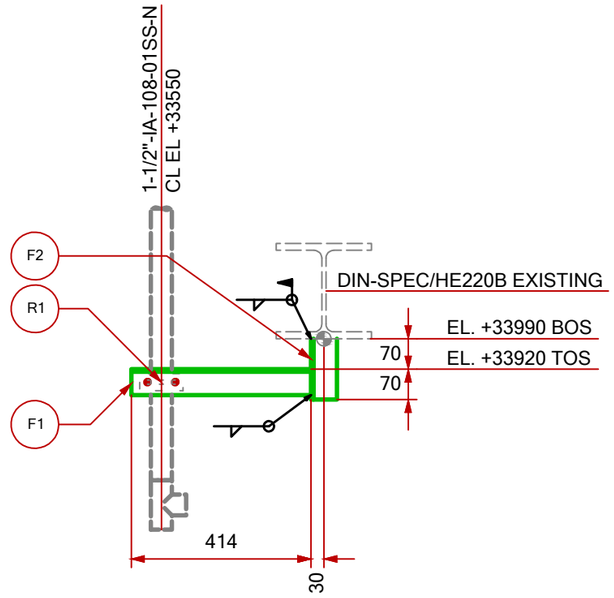
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03096

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

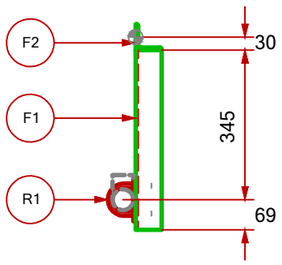
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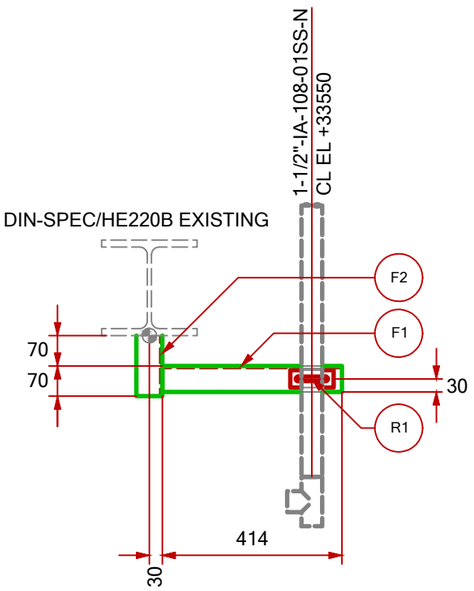
VIEW LOOKING NORTH



VIEW LOOKING WEST



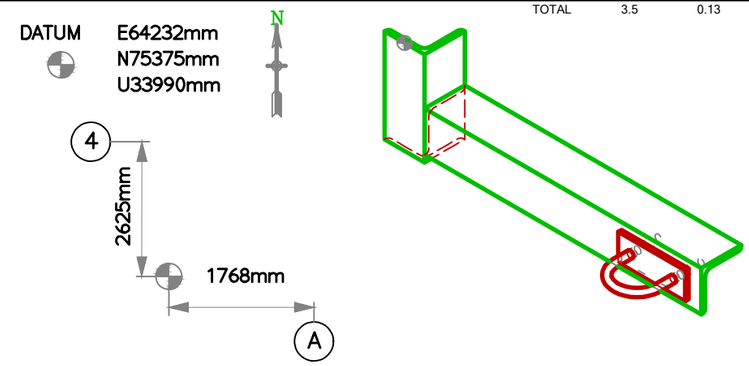
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	414	1	5.42	2.25	0.098
F2	BEAM	L60x60x6	Carbon Steel	140	1	5.42	0.76	0.034
						TOTAL	3.5	0.13



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

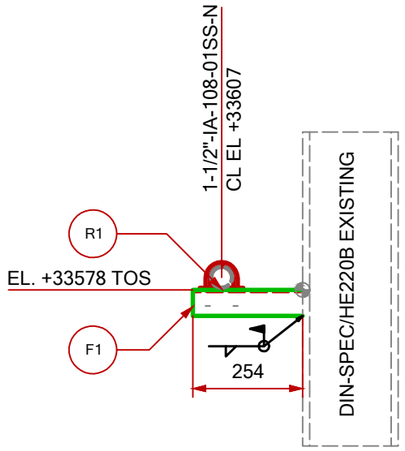
ROSETTI MARINO

TITLE :

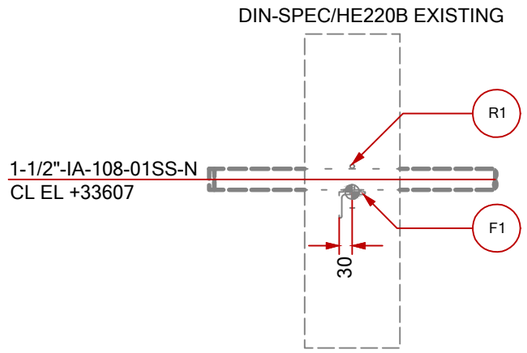
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03097

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1	REV. 00

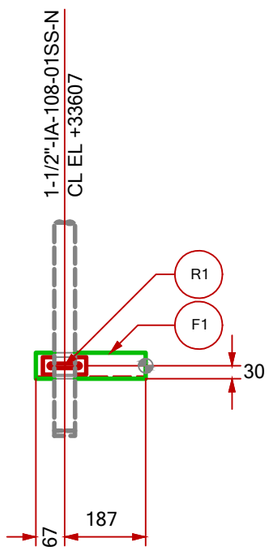
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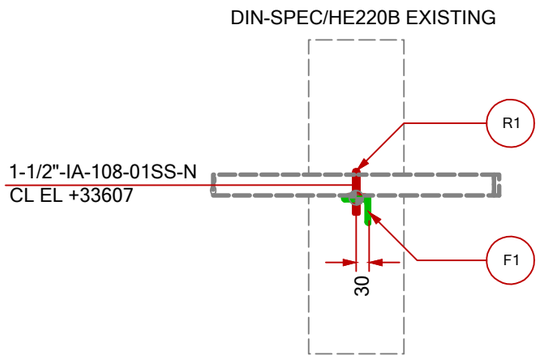
VIEW LOOKING NORTH



VIEW LOOKING WEST



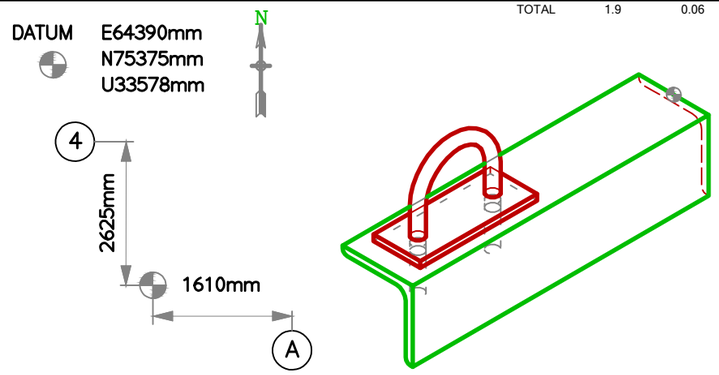
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	254	1	5.42	1.38	0.060
						TOTAL	1.9	0.06



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

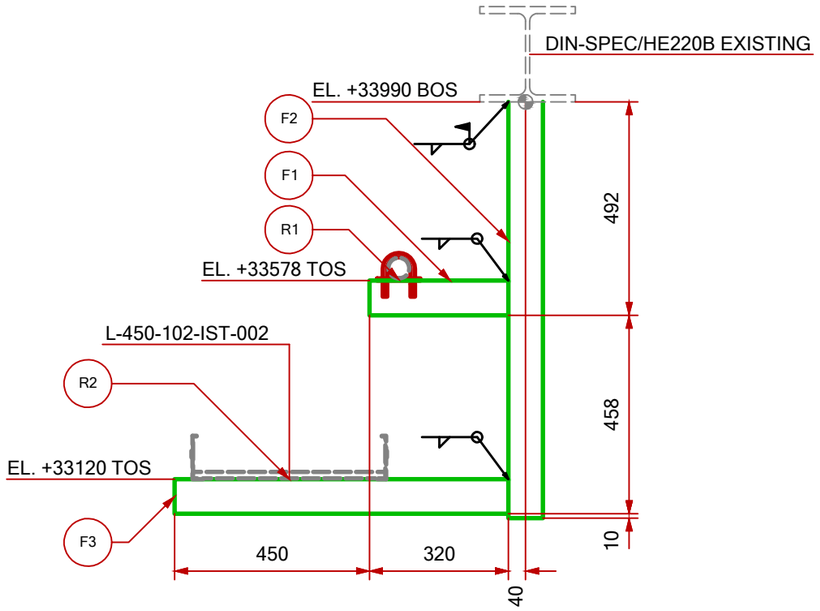
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

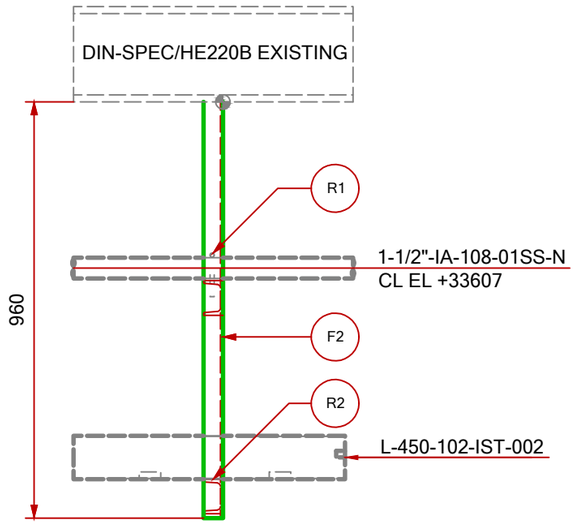
PS-03098

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

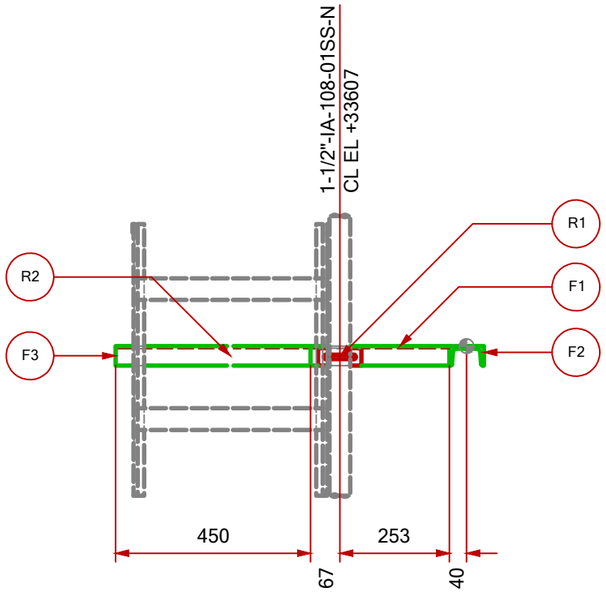
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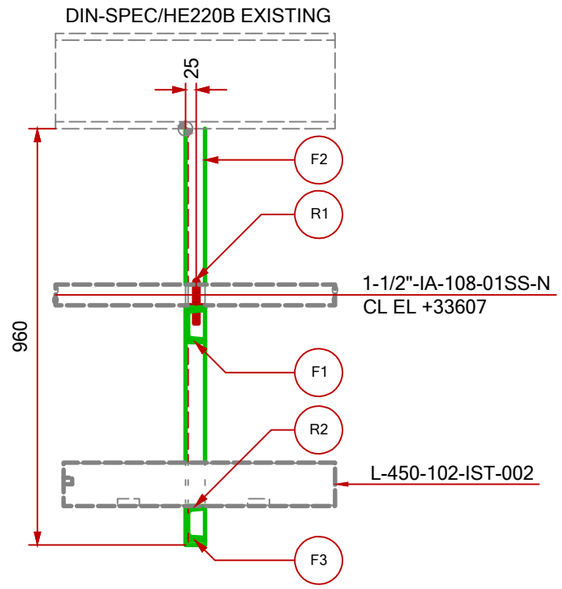
VIEW LOOKING NORTH



VIEW LOOKING WEST



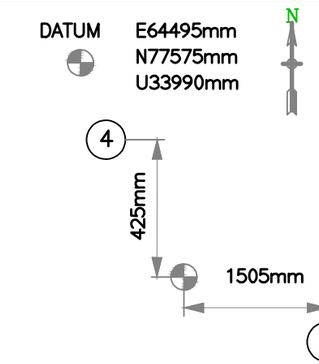
PLAN VIEW

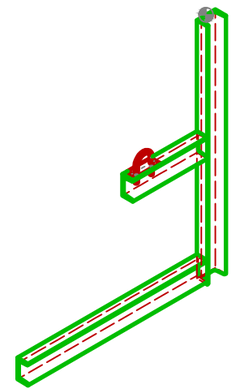


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
R2	STD	RACK SUPPORT	-	-	1	-	0.00	-
F1	BEAM	UPN80	Carbon Steel	320	1	8.66	2.77	0.102
F2	BEAM	UPN80	Carbon Steel	960	1	8.66	8.32	0.303
F3	BEAM	UPN80	Carbon Steel	770	1	8.66	6.67	0.243
						TOTAL	18.2	0.65





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

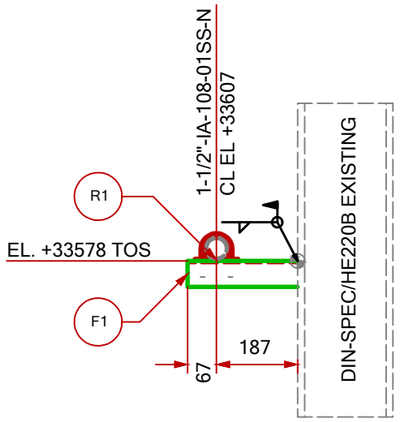
ROSETTI MARINO

TITLE :

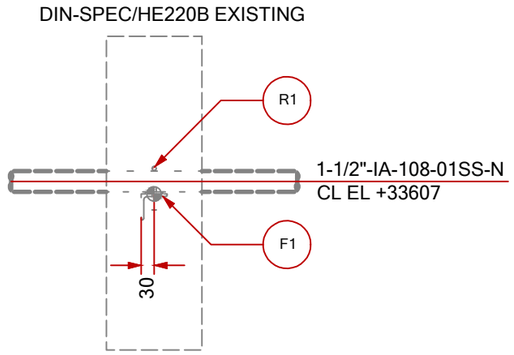
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03099

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

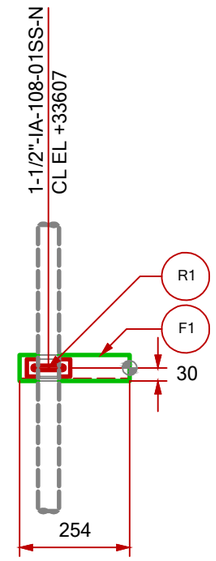
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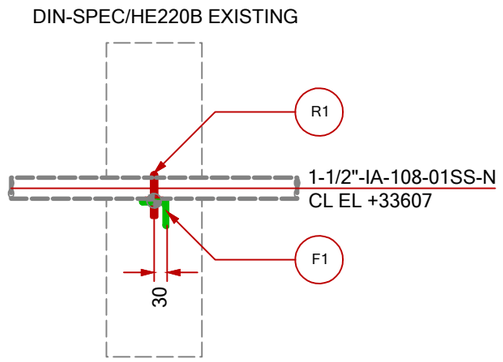
VIEW LOOKING NORTH



VIEW LOOKING WEST



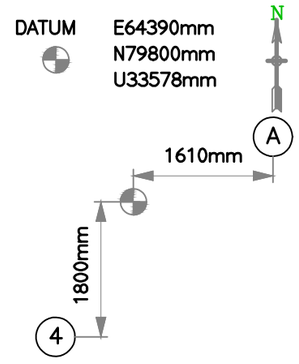
PLAN VIEW

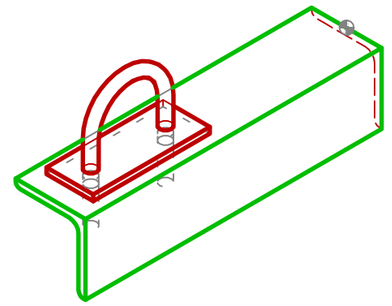


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	254	1	5.42	1.38	0.060
						TOTAL	1.9	0.06





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

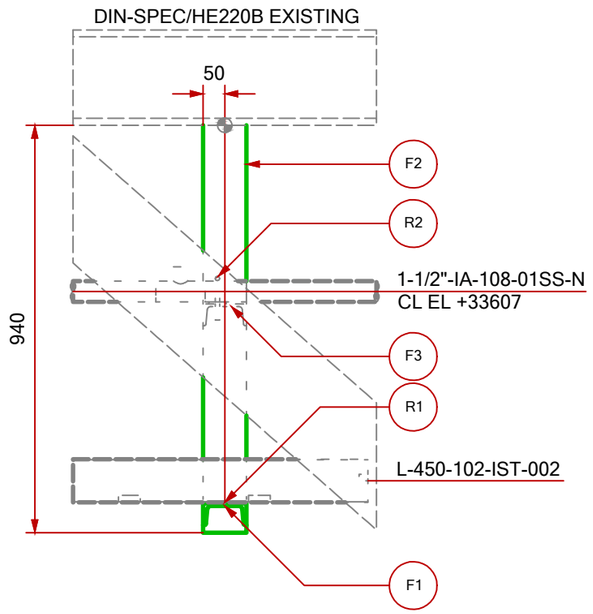
ROSETTI MARINO

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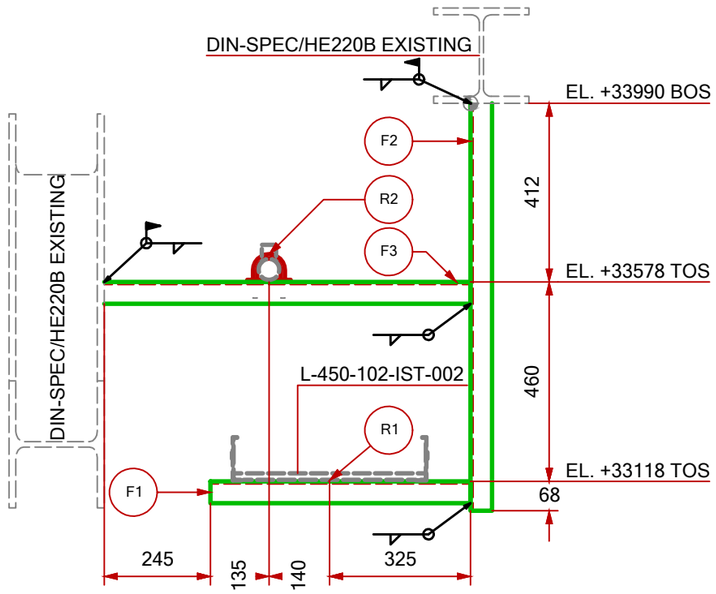
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03100

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

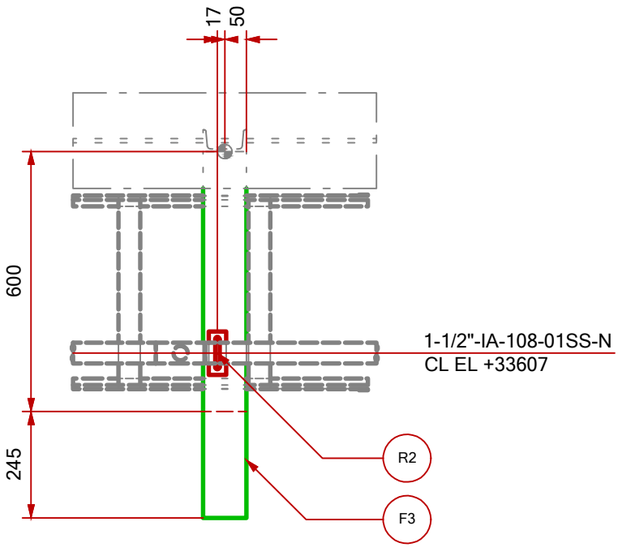
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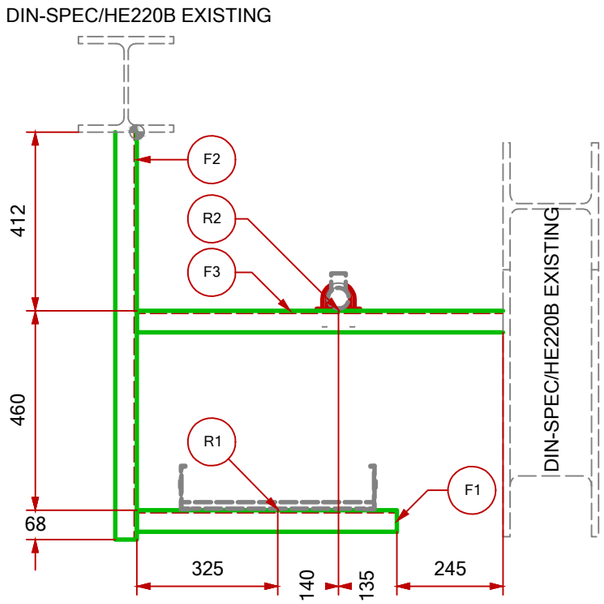
VIEW LOOKING NORTH



VIEW LOOKING WEST



PLAN VIEW

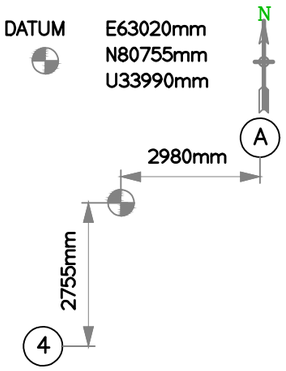


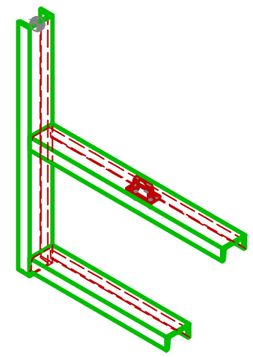
VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	1	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	600	1	10.57	6.34	0.226
F2	BEAM	UPN100	Carbon Steel	940	1	10.57	9.94	0.352
F3	BEAM	UPN100	Carbon Steel	845	1	10.57	8.93	0.317
						TOTAL	25.7	0.89

DATUM
E63020mm
N80755mm
U33990mm





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

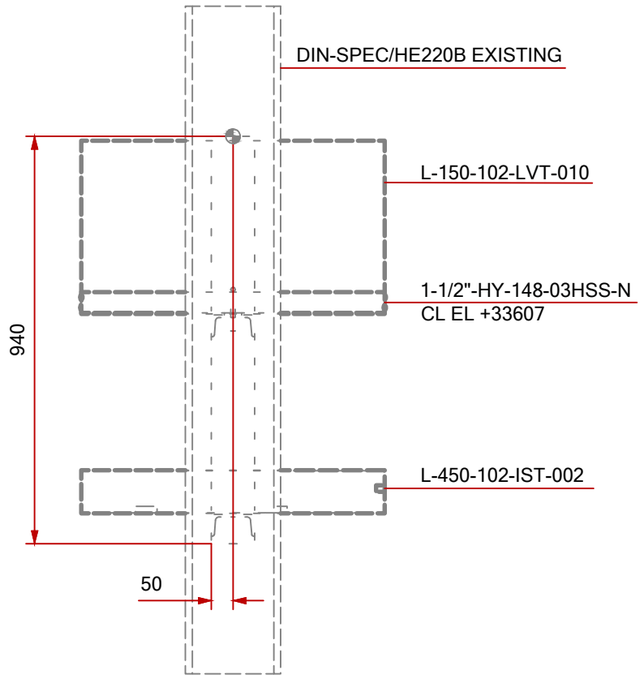
ROSETTI MARINO

TITLE :

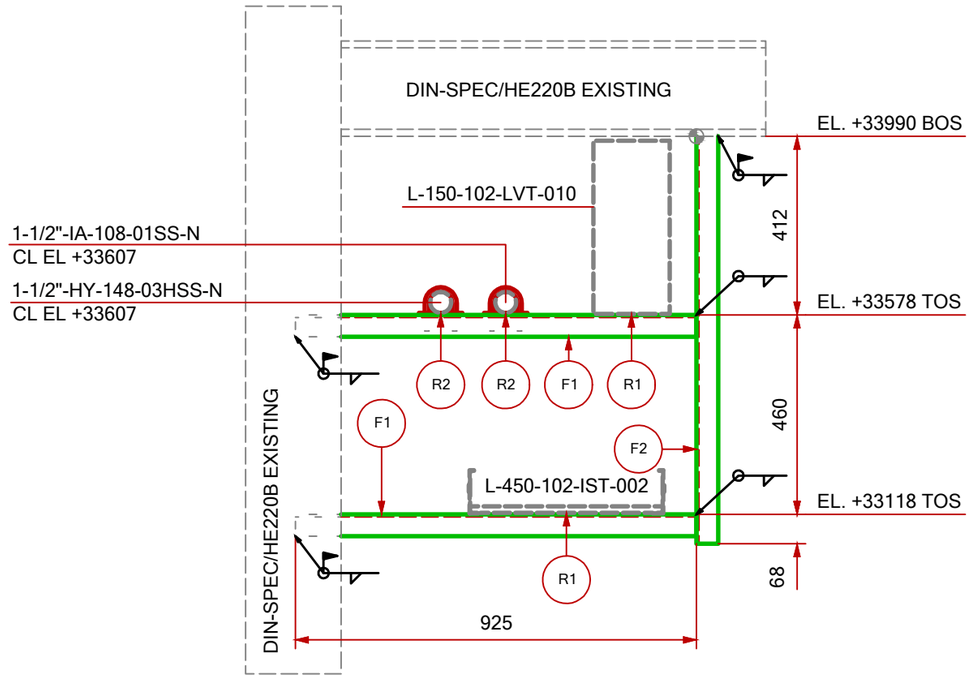
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03101

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

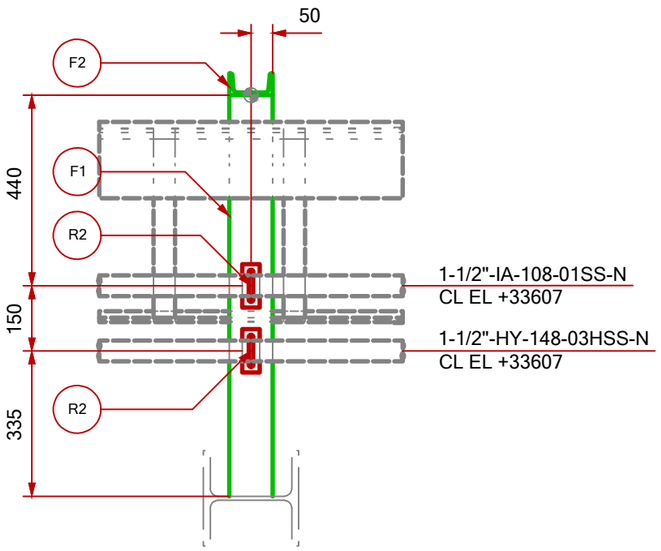
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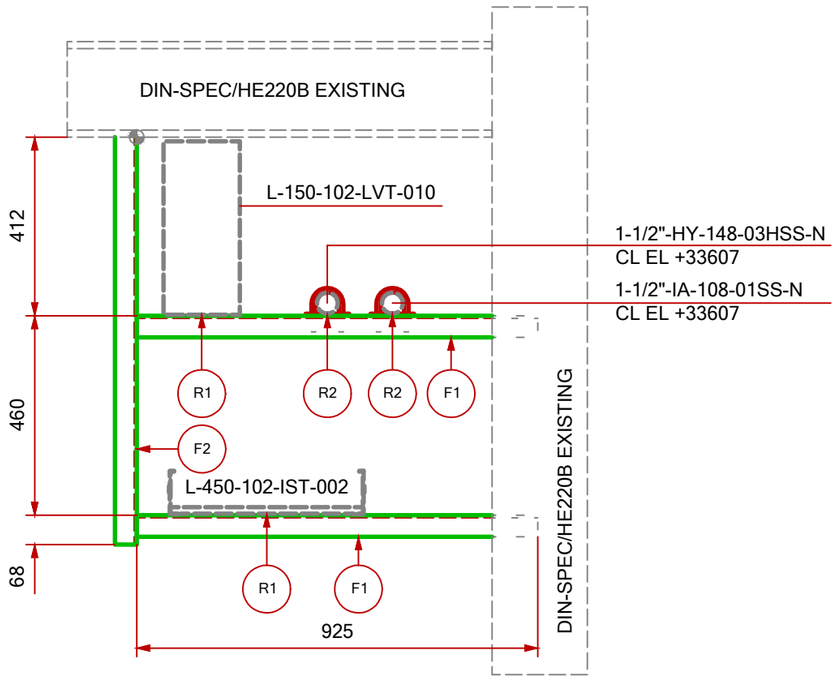
VIEW LOOKING NORTH



VIEW LOOKING WEST



PLAN VIEW



VIEW LOOKING EAST

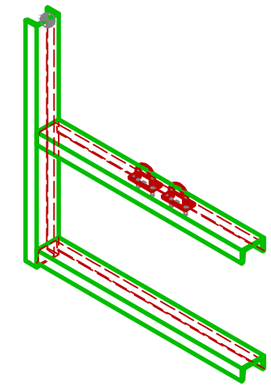
SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	2	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	925	2	10.57	19.56	0.694
F2	BEAM	UPN100	Carbon Steel	940	1	10.57	9.94	0.352
						TOTAL	30.5	1.05

DATUM
E60000mm
N80730mm
U33990mm

N

B
2000mm
2730mm
4



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

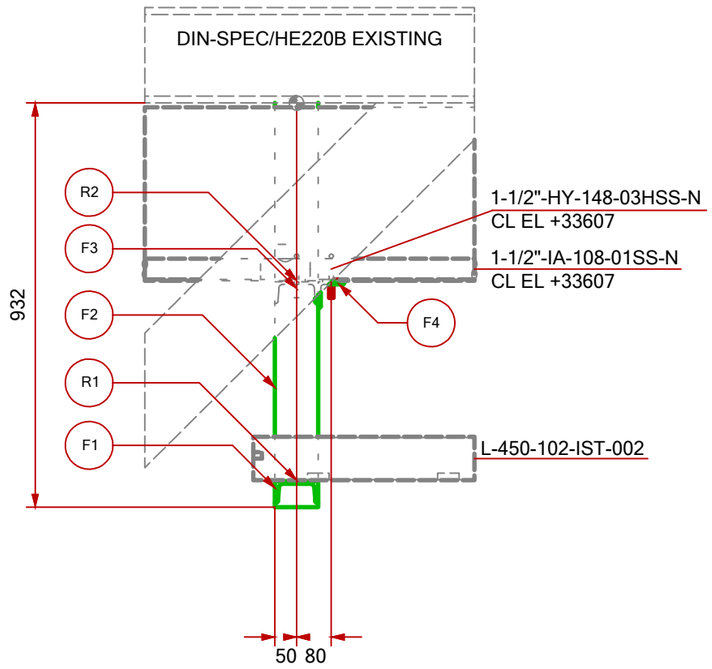
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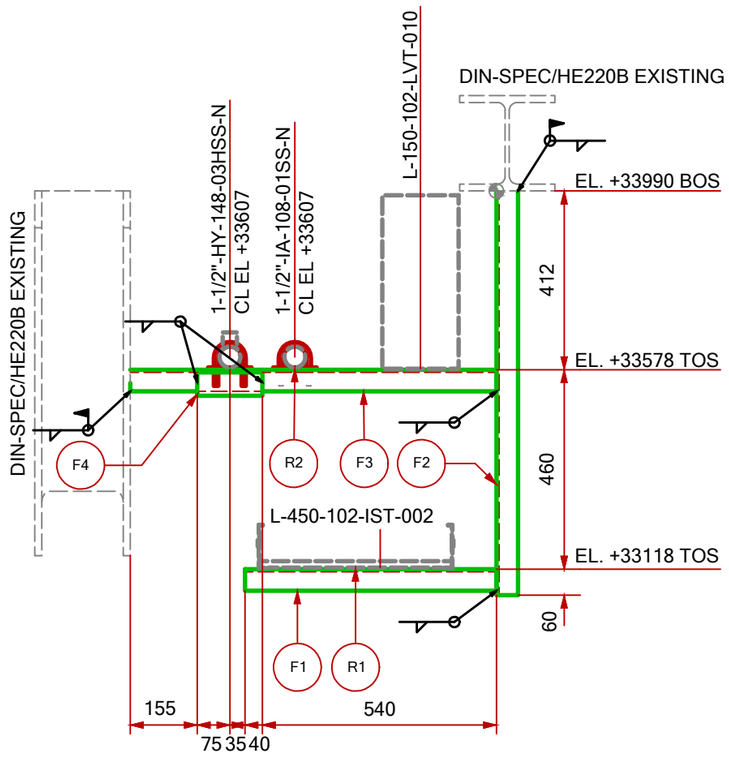
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03102

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

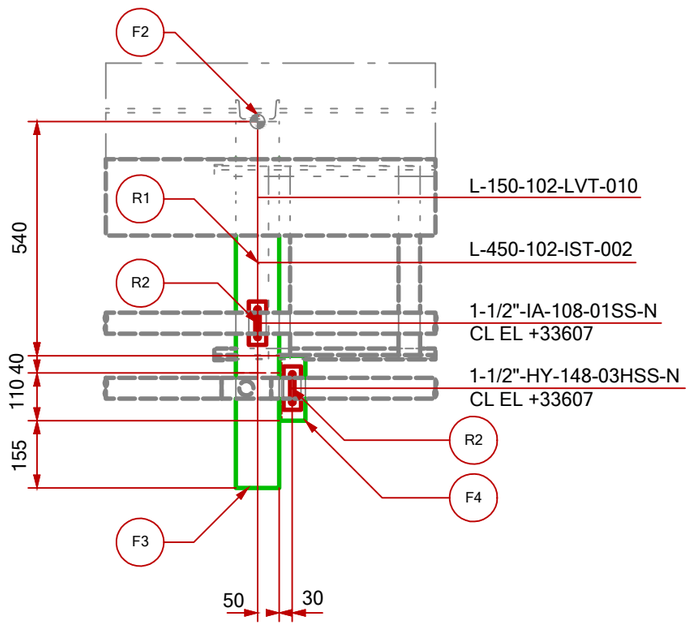
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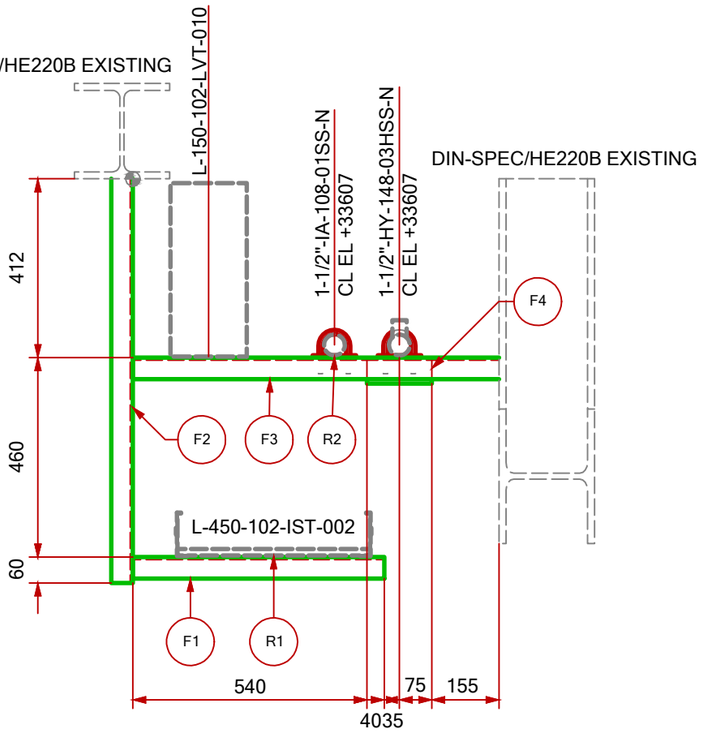
VIEW LOOKING NORTH



VIEW LOOKING WEST



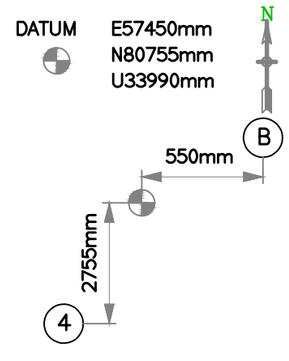
PLAN VIEW

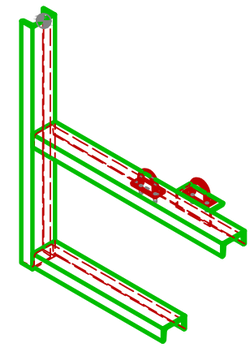


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	2	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	580	1	10.57	6.13	0.218
F2	BEAM	UPN100	Carbon Steel	932	1	10.57	9.85	0.349
F3	BEAM	UPN100	Carbon Steel	845	1	10.57	8.93	0.317
F4	BEAM	L60x6	Carbon Steel	150	1	5.42	0.81	0.036
						TOTAL	26.7	0.92





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

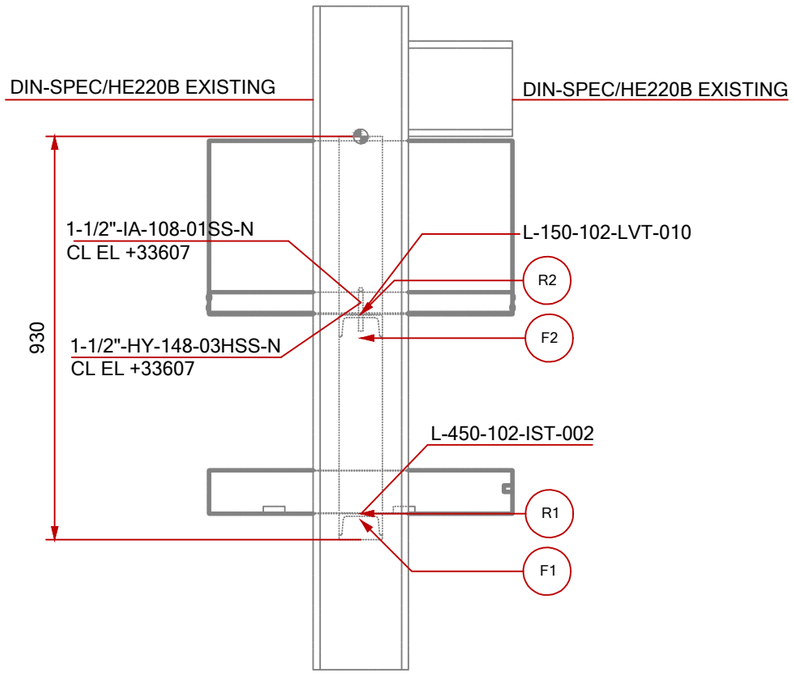
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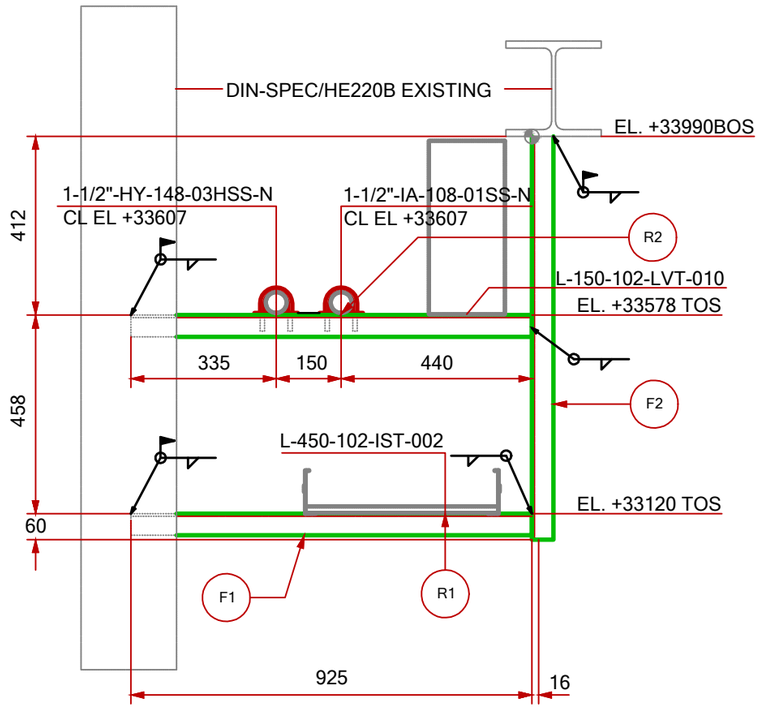
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03103

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1 : 10
DRAWN	CHECKED	APPROVED		DATE	19/08/24
DRAWING NO.				SHEET	REV.
123A90-DDL-PP-DD-72000				1 of 1	00

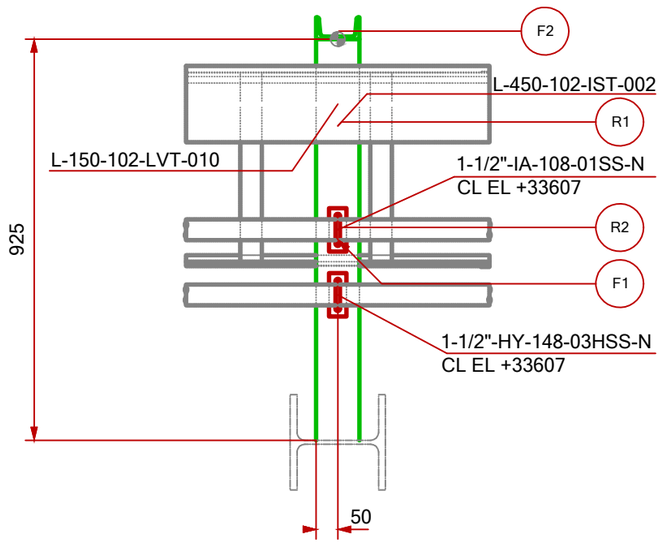
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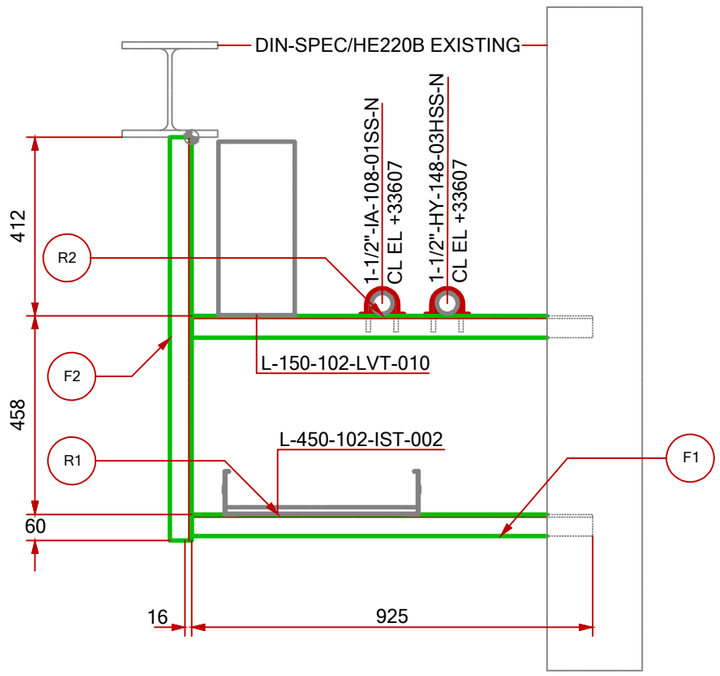
VIEW LOOKING NORTH



VIEW LOOKING WEST



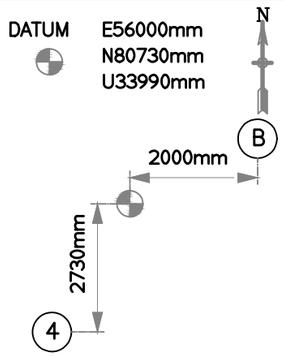
PLAN VIEW

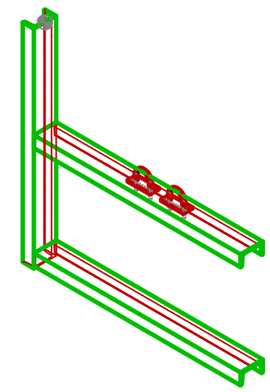


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	2	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	925	2	10.57	19.56	0.694
F2	BEAM	UPN100	Carbon Steel	930	1	10.57	9.83	0.348
						TOTAL	30.4	1.04





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

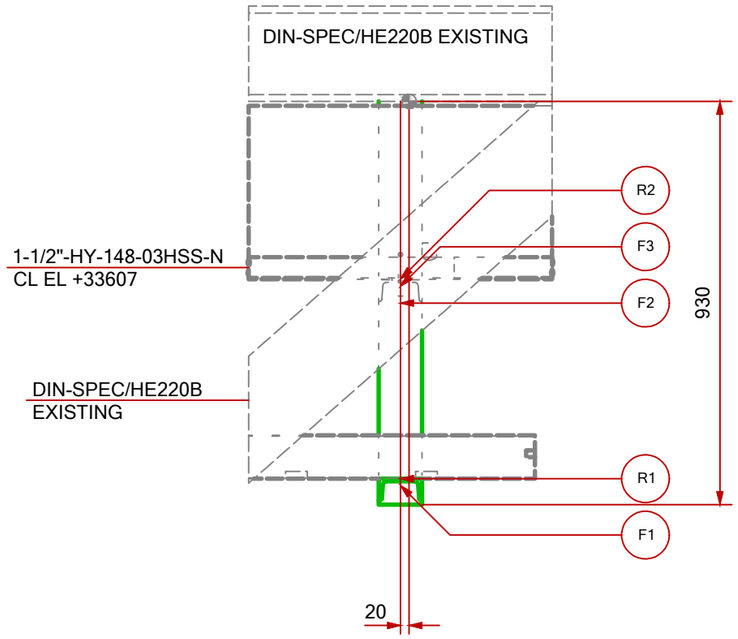
ROSETTI MARINO

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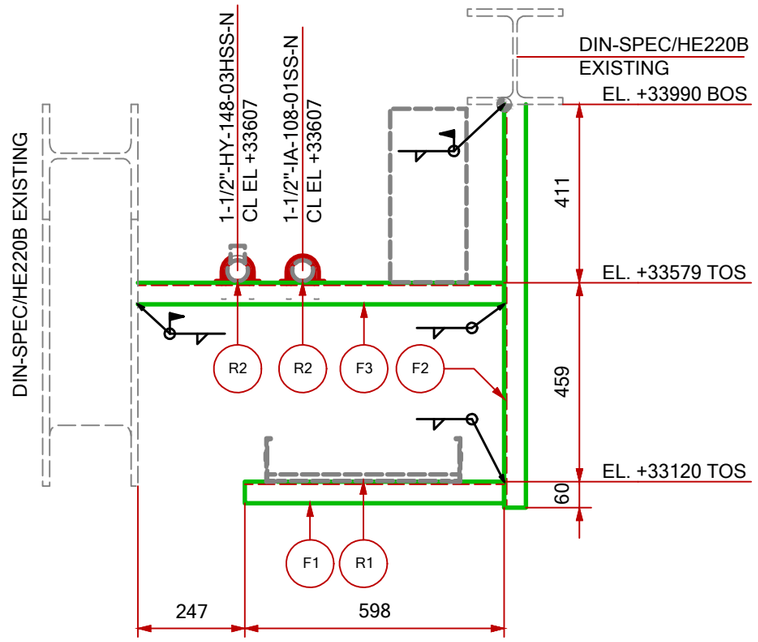
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03104

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

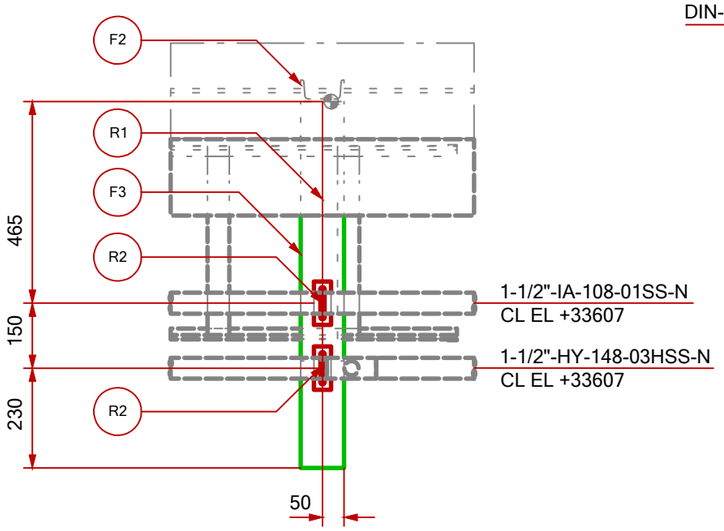
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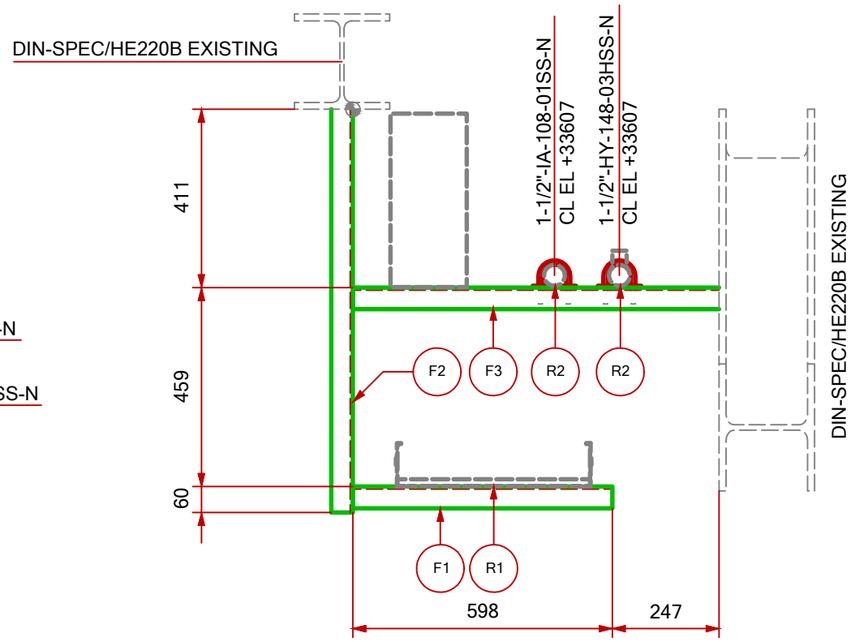
VIEW LOOKING NORTH



VIEW LOOKING WEST



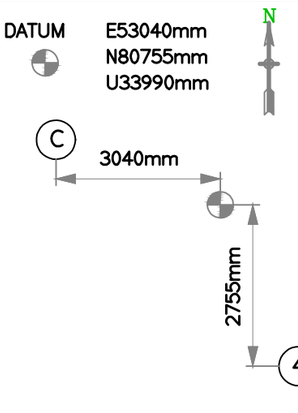
PLAN VIEW

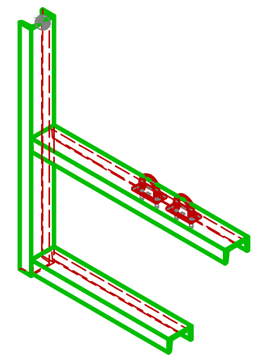


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	2	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	598	1	10.57	6.33	0.225
F2	BEAM	UPN100	Carbon Steel	930	1	10.57	9.83	0.348
F3	BEAM	UPN100	Carbon Steel	845	1	10.57	8.93	0.317
						TOTAL	26.1	0.89





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

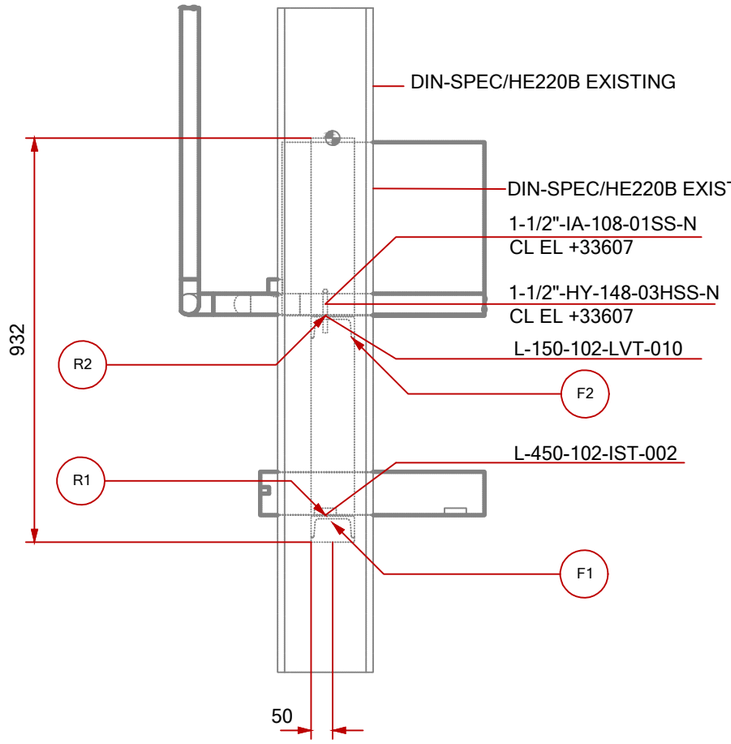
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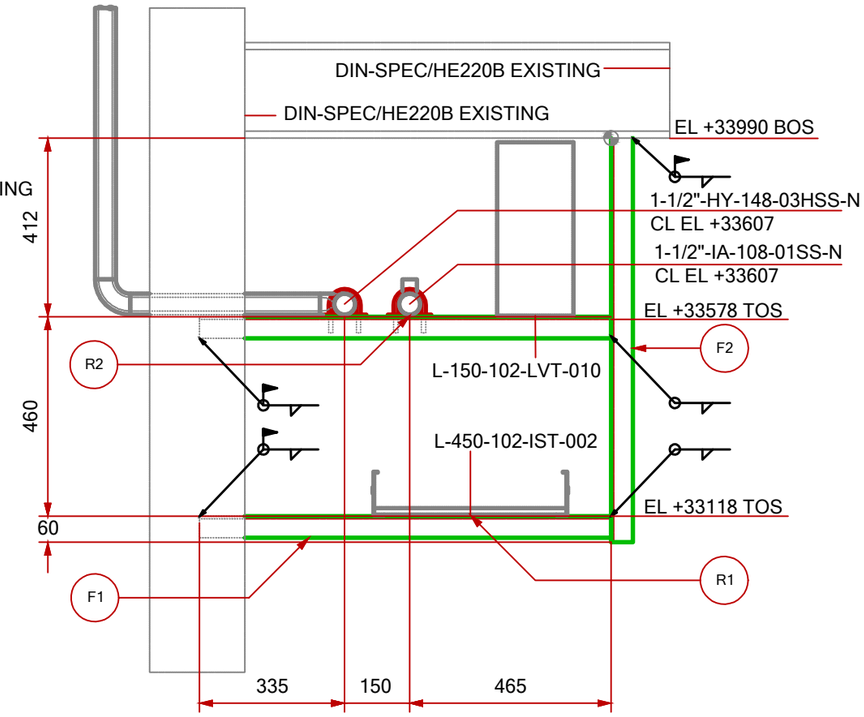
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03105

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

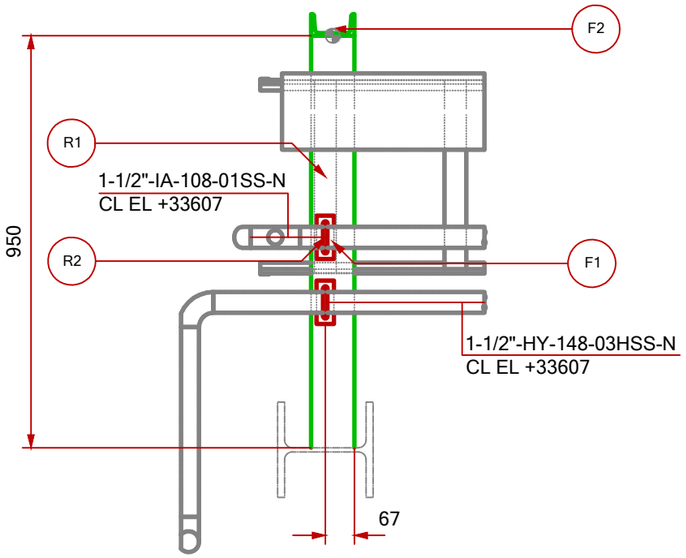
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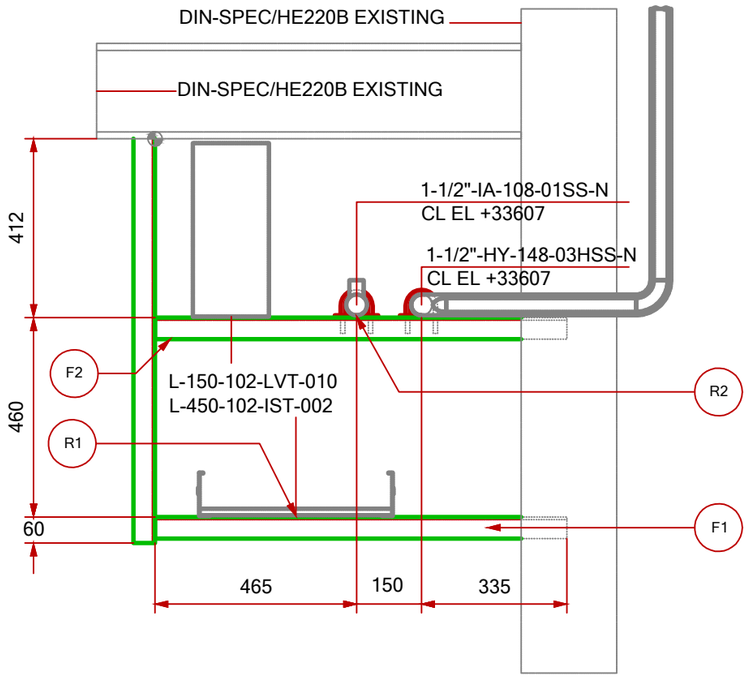
VIEW LOOKING NORTH



VIEW LOOKING WEST



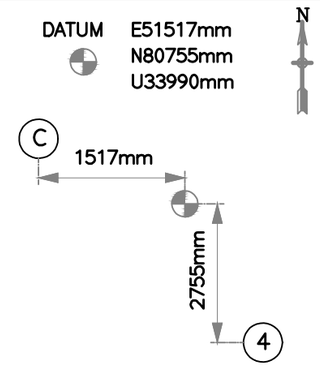
PLAN VIEW

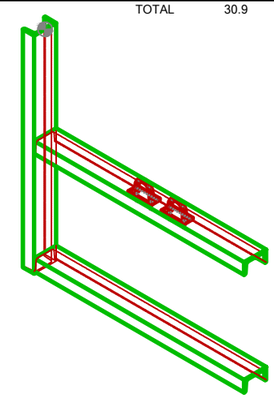


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	RACK SUPPORT	-	-	2	-	0.00	-
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN100	Carbon Steel	950	2	10.57	20.10	0.712
F2	BEAM	UPN100	Carbon Steel	932	1	10.57	9.85	0.349
						TOTAL	30.9	1.06





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

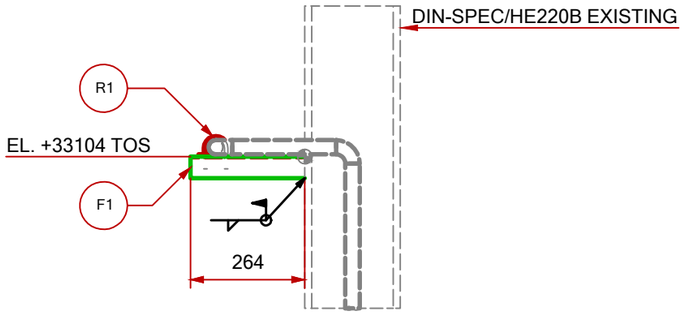
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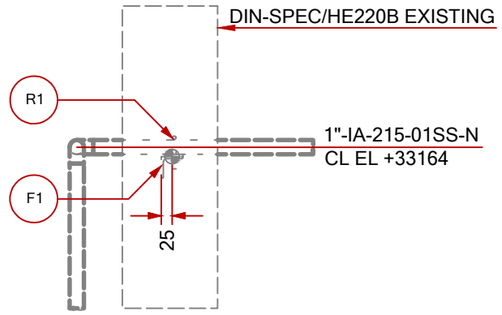
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03106

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

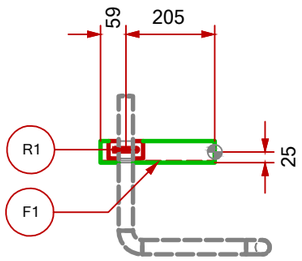
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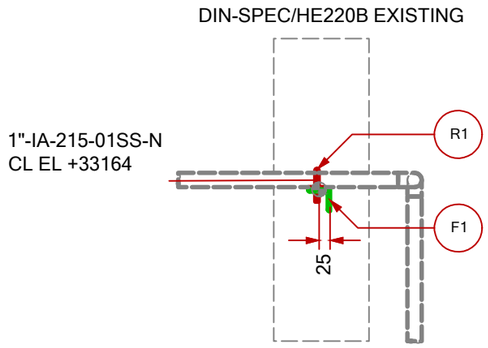
VIEW LOOKING NORTH



VIEW LOOKING WEST



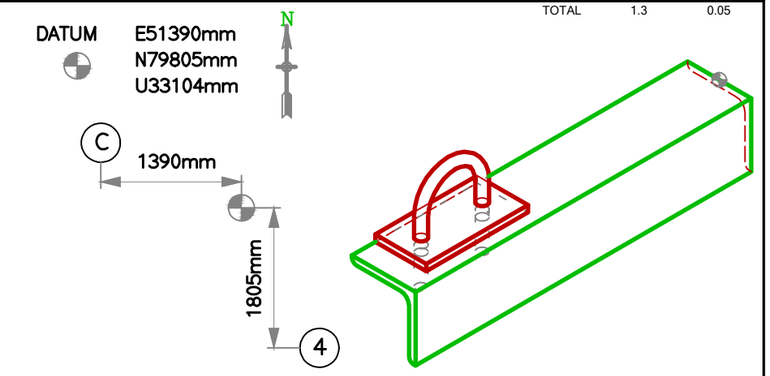
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	L50x50x5	Carbon Steel	264	1	3.78	1.00	0.052
						TOTAL	1.3	0.05



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

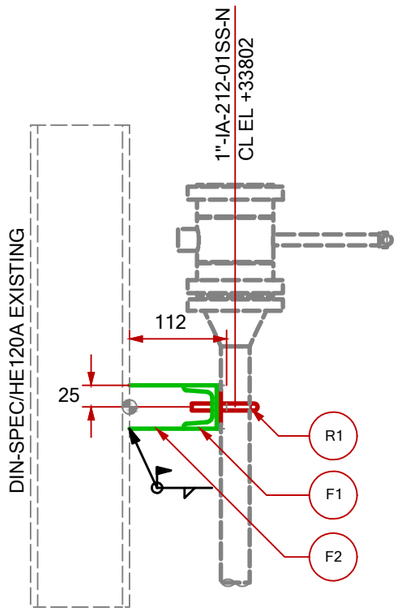
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TITLE :

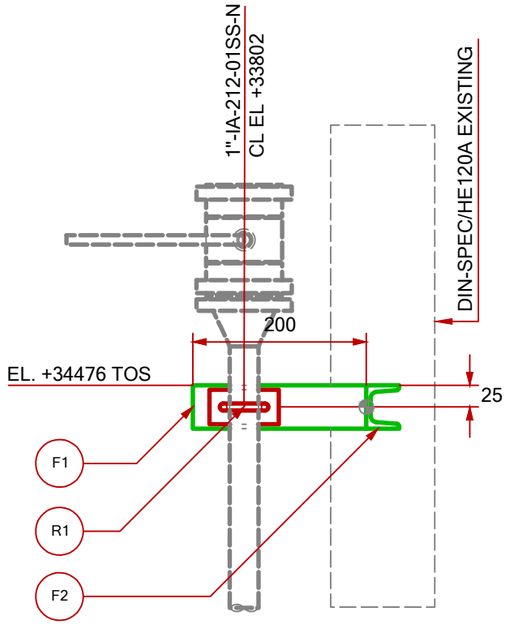
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03107

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

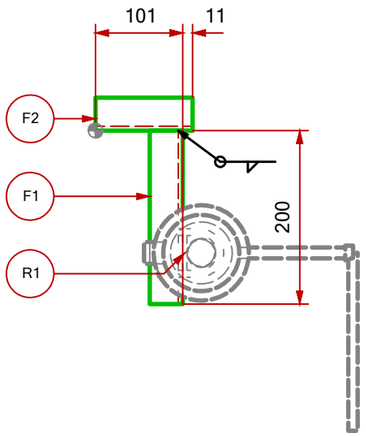
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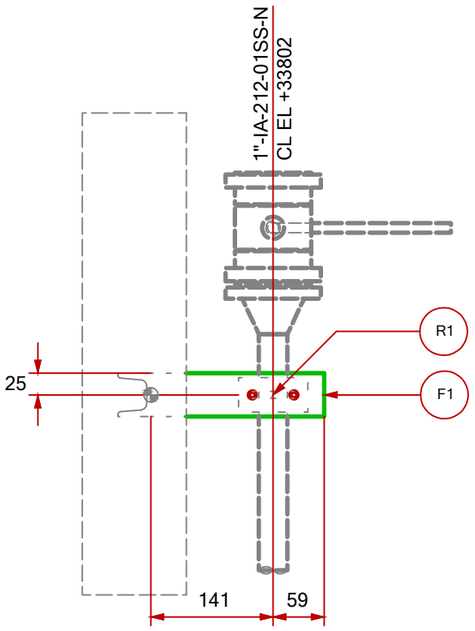
VIEW LOOKING NORTH



VIEW LOOKING WEST



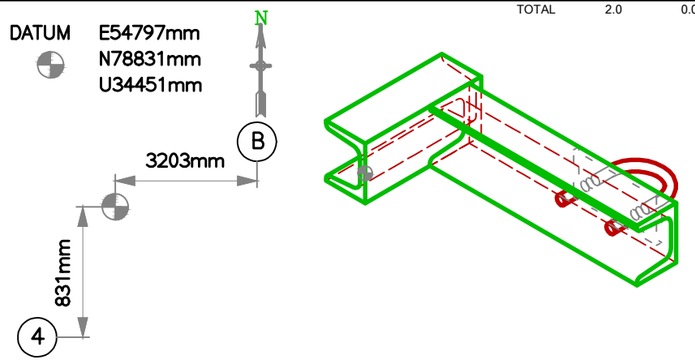
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	200	1	5.61	1.12	0.047
F2	BEAM	UPN50	Carbon Steel	112	1	5.61	0.63	0.027
						TOTAL	2.0	0.07



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

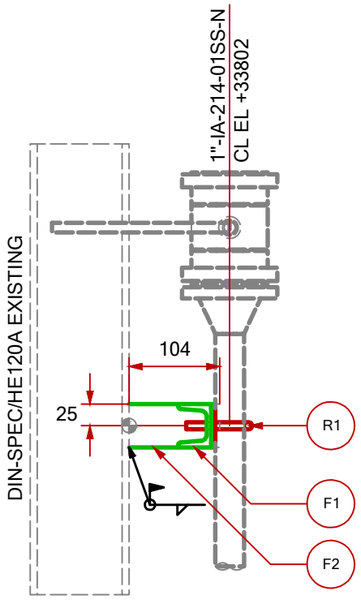
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

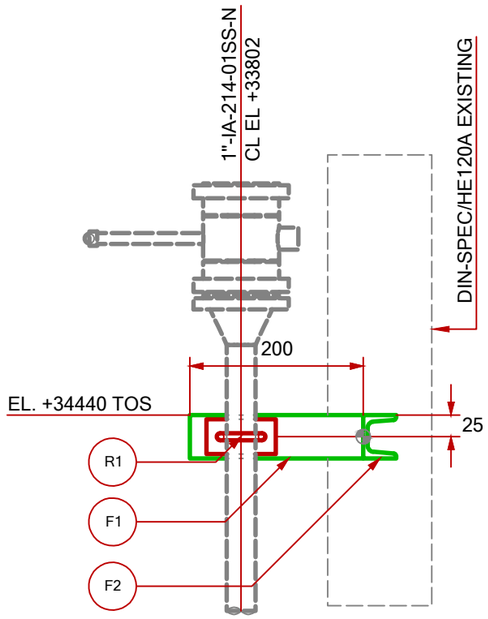
PS-03142

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

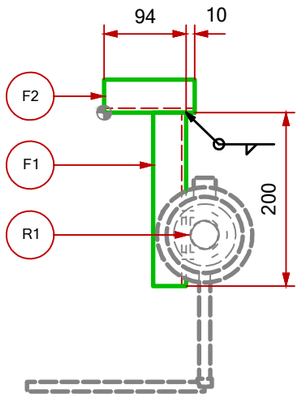
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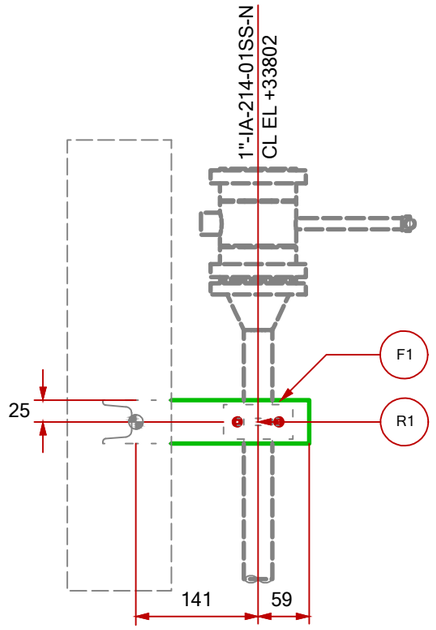
VIEW LOOKING NORTH



VIEW LOOKING WEST



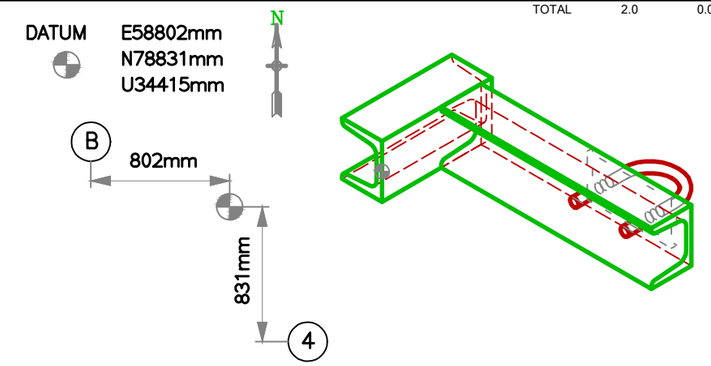
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	200	1	5.61	1.12	0.047
F2	BEAM	UPN50	Carbon Steel	104	1	5.61	0.59	0.025
						TOTAL	2.0	0.07



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

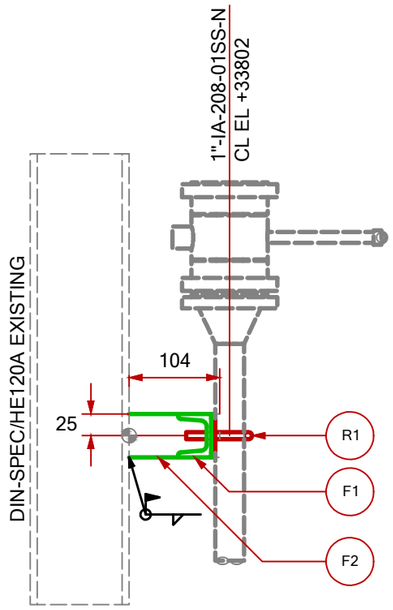
ROSETTI MARINO

TITLE :

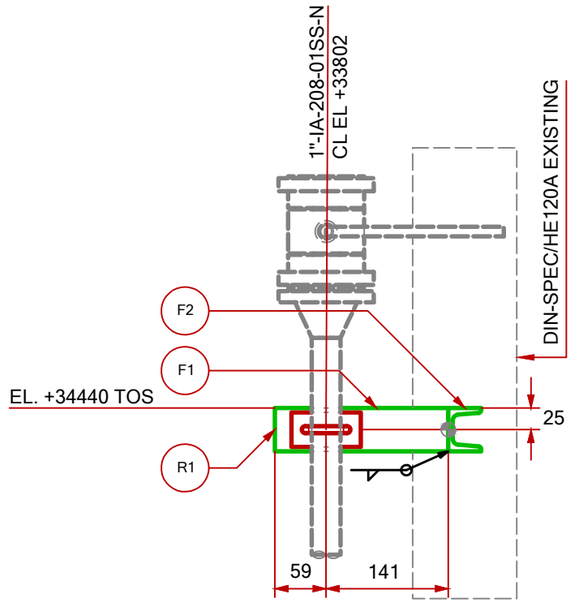
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03143

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 5
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

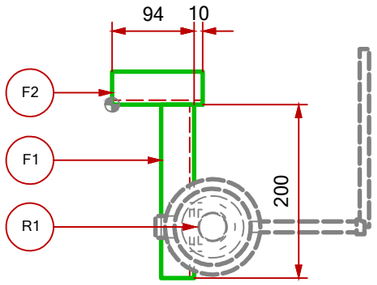
File Name :



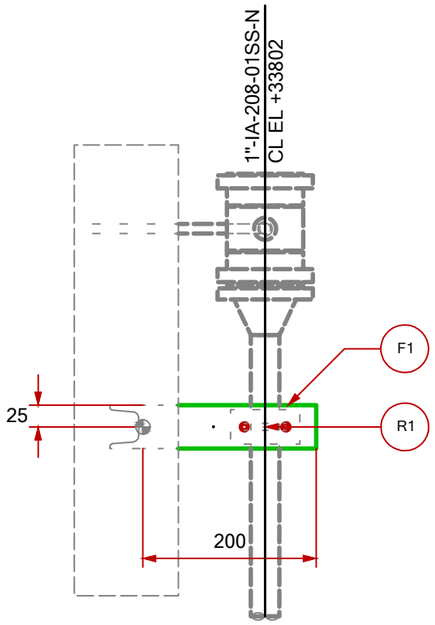
VIEW LOOKING NORTH



VIEW LOOKING WEST



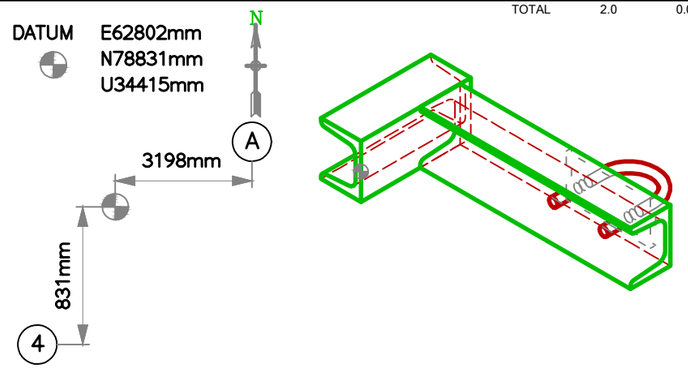
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	200	1	5.61	1.12	0.047
F2	BEAM	UPN50	Carbon Steel	104	1	5.61	0.59	0.025
						TOTAL	2.0	0.07



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

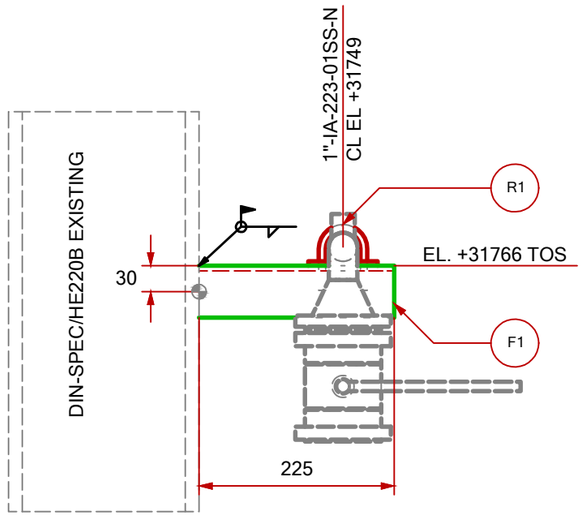
ROSETTI MARINO

TITLE :

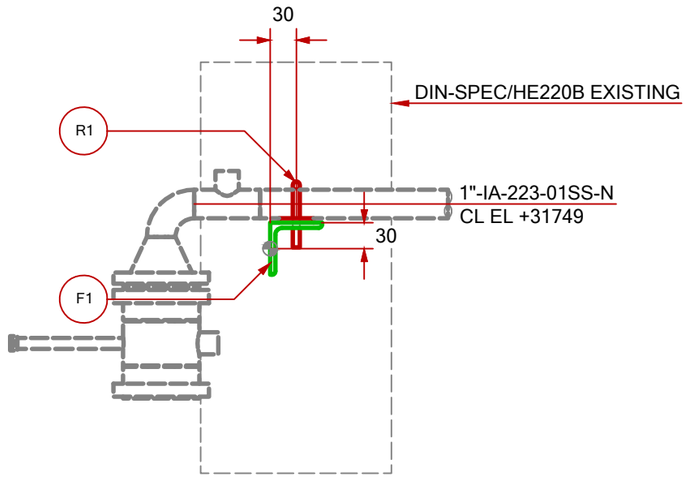
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03144

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 5
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

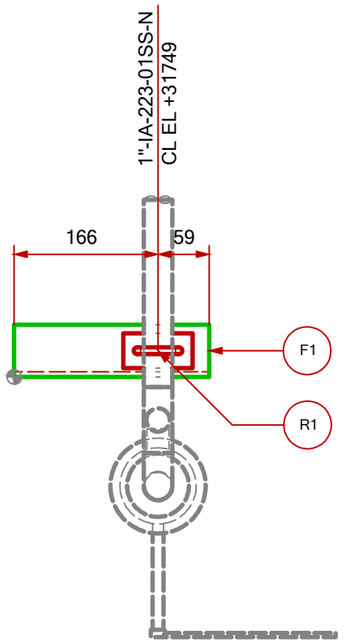
File Name :



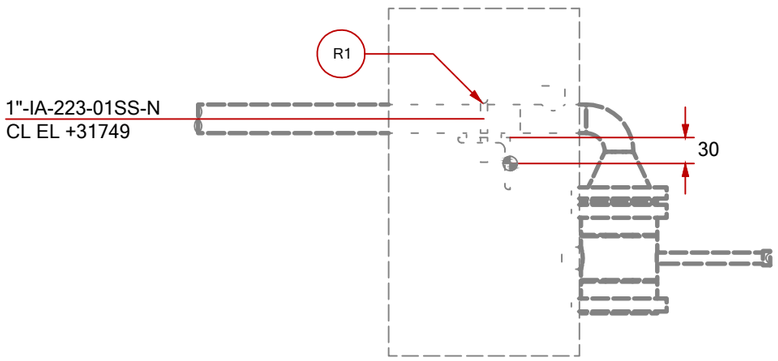
VIEW LOOKING NORTH



VIEW LOOKING WEST



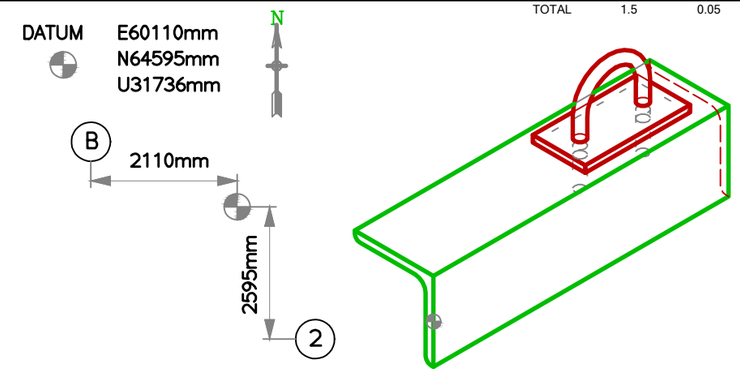
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	L60x60x6	Carbon Steel	225	1	5.42	1.22	0.054
						TOTAL	1.5	0.05



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

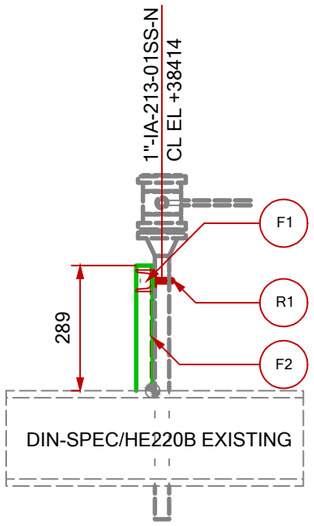
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

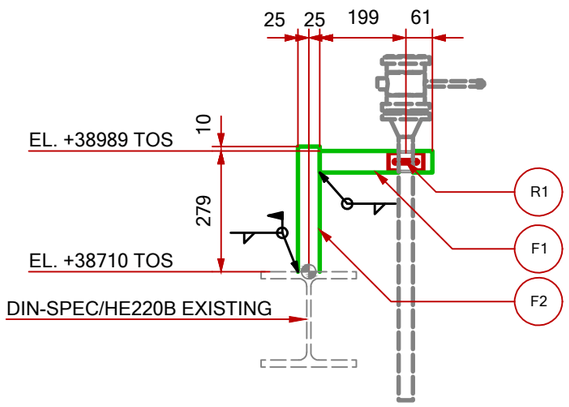
PS-03145

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 5
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

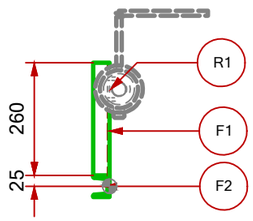
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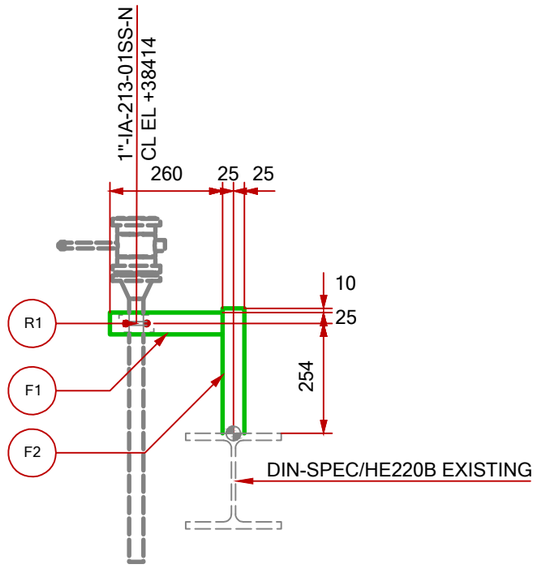
VIEW LOOKING NORTH



VIEW LOOKING WEST



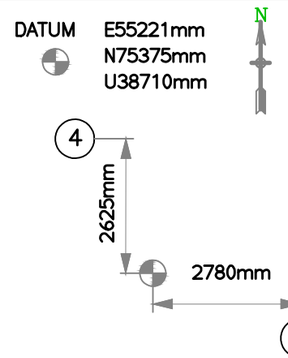
PLAN VIEW

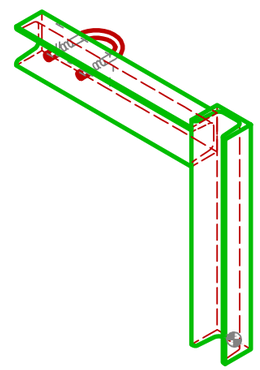


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	260	1	5.61	1.46	0.061
F2	BEAM	UPN50	Carbon Steel	289	1	5.61	1.62	0.068
						TOTAL	3.4	0.13





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

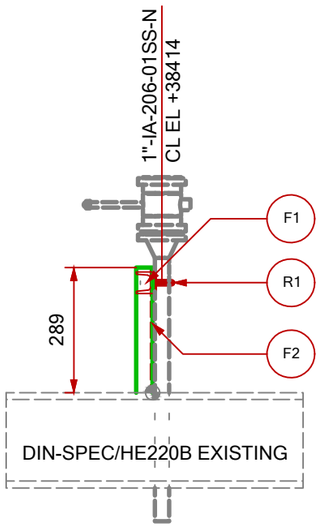
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TITLE :

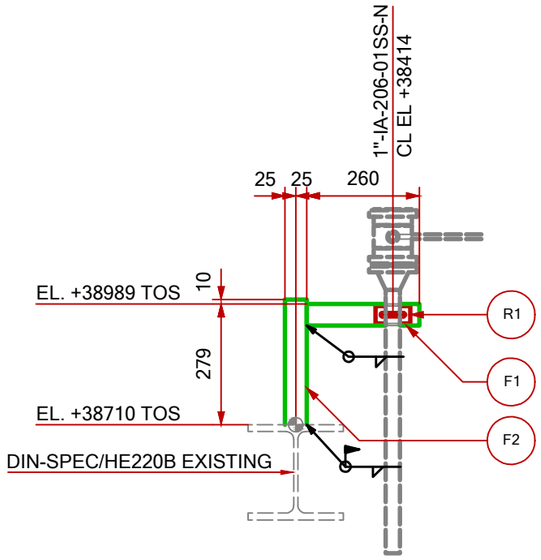
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03146

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

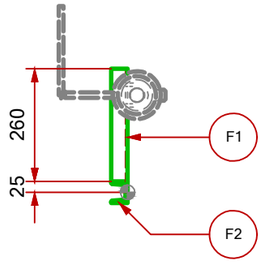
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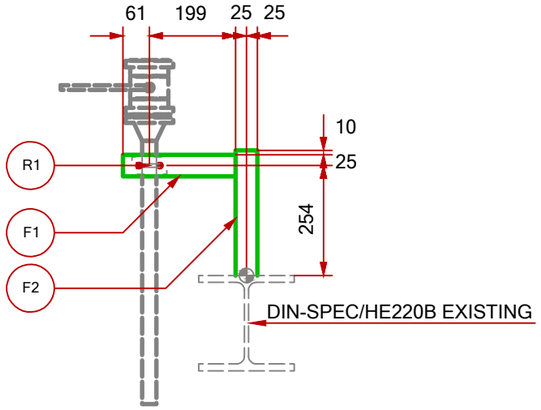
VIEW LOOKING NORTH



VIEW LOOKING WEST



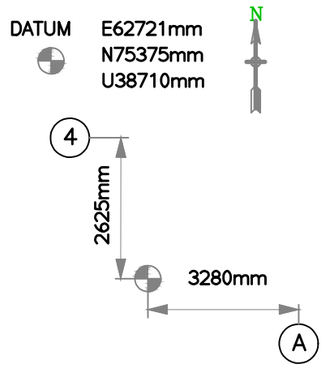
PLAN VIEW

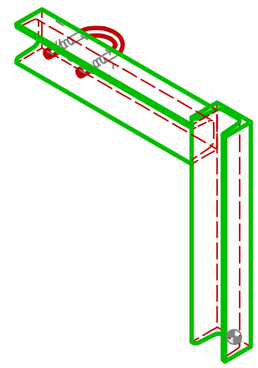


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	260	1	5.61	1.46	0.061
F2	BEAM	UPN50	Carbon Steel	289	1	5.61	1.62	0.068
						TOTAL	3.4	0.13





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

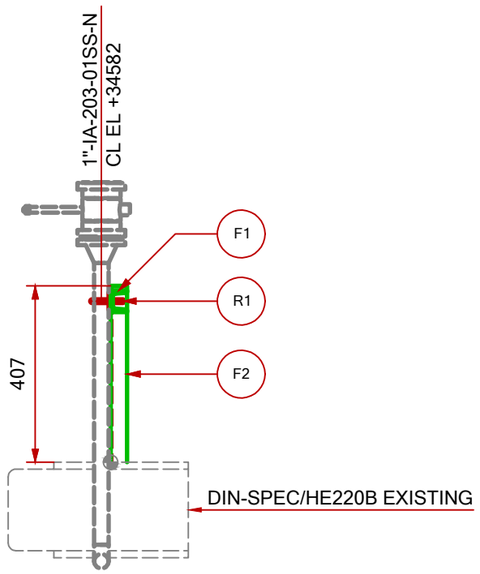
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

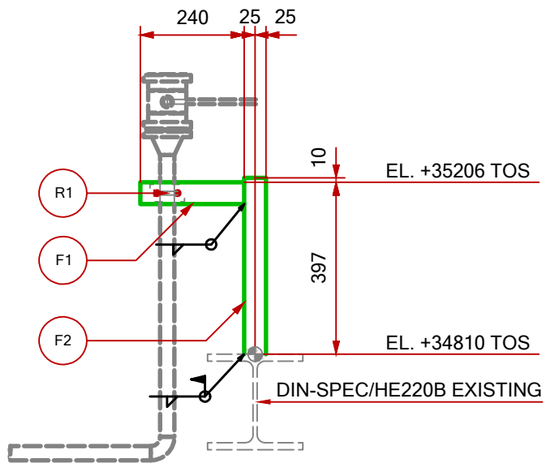
PS-03147

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

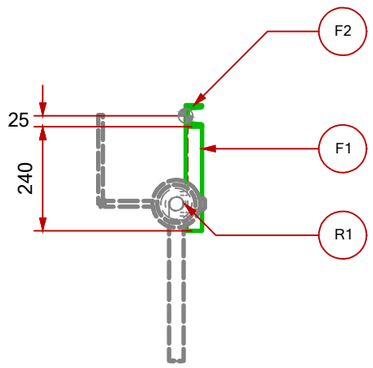
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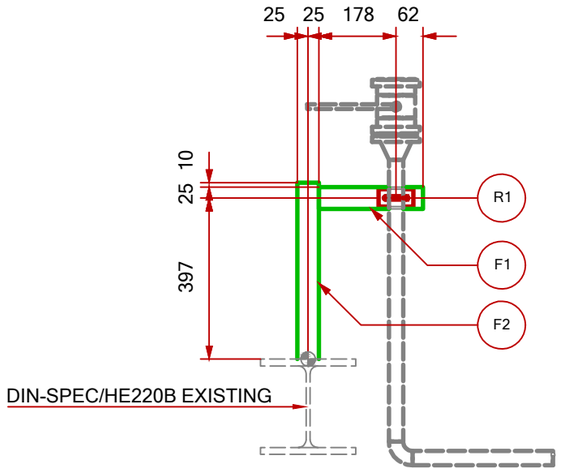
VIEW LOOKING NORTH



VIEW LOOKING WEST



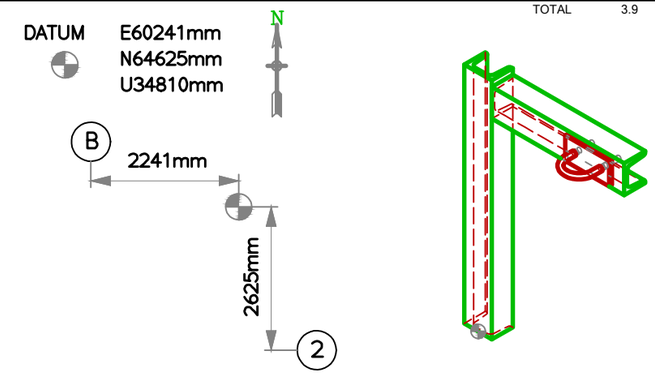
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	240	1	5.61	1.35	0.056
F2	BEAM	UPN50	Carbon Steel	407	1	5.61	2.28	0.095
						TOTAL	3.9	0.15



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

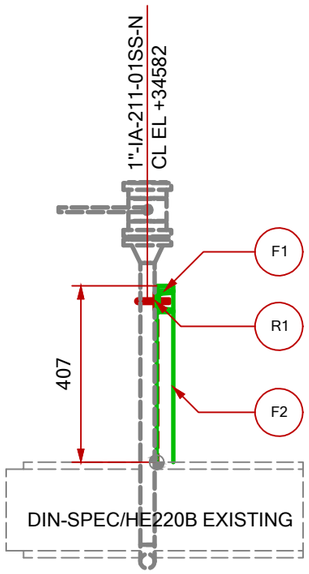
ROSETTI MARINO

TITLE :

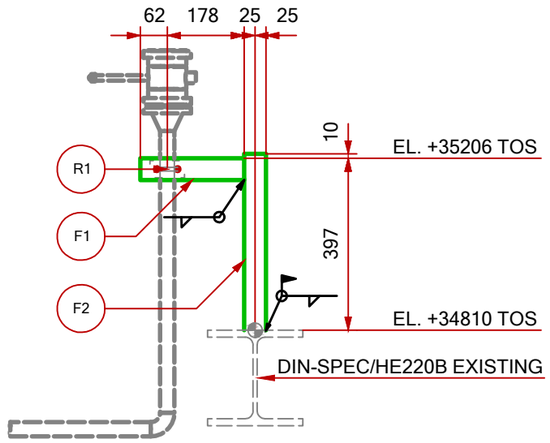
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03148

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

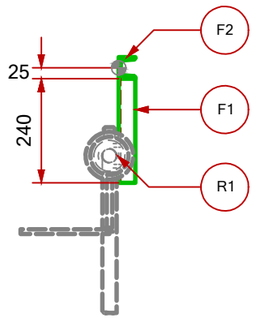
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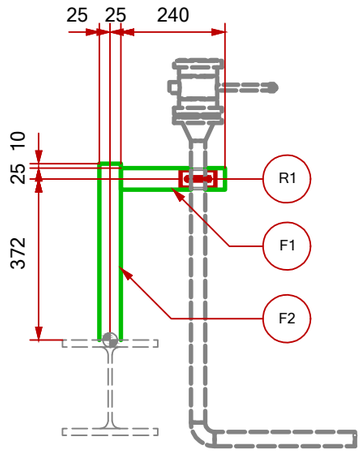
VIEW LOOKING NORTH



VIEW LOOKING WEST



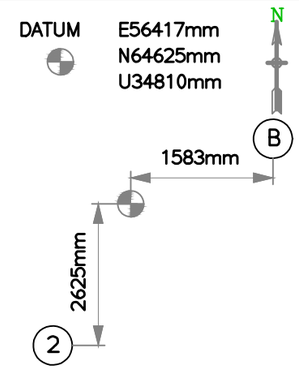
PLAN VIEW

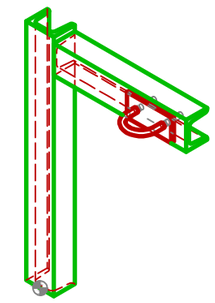


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	240	1	5.61	1.35	0.056
F2	BEAM	UPN50	Carbon Steel	407	1	5.61	2.28	0.095
						TOTAL	3.9	0.15





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

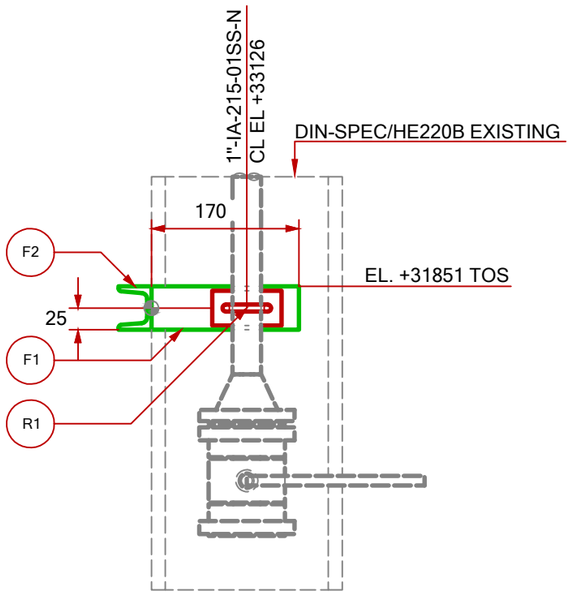
TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings

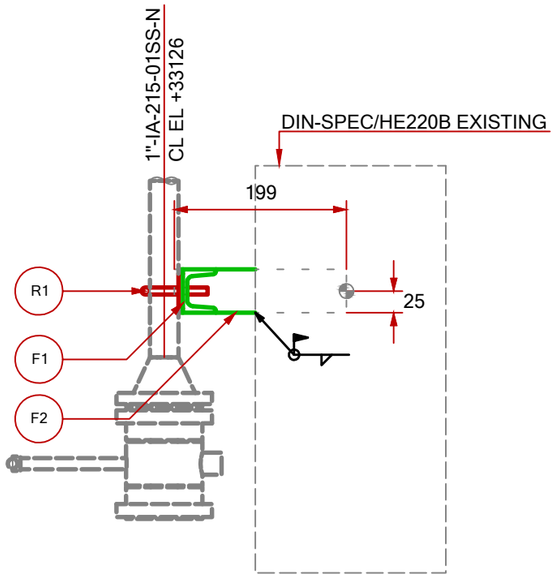
PS-03149

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 10
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

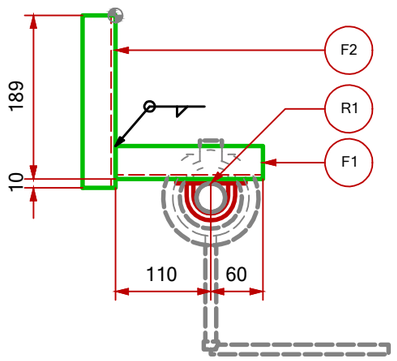
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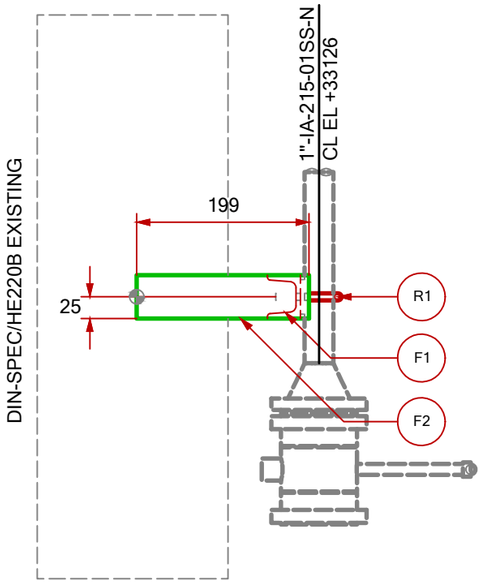
VIEW LOOKING NORTH



VIEW LOOKING WEST



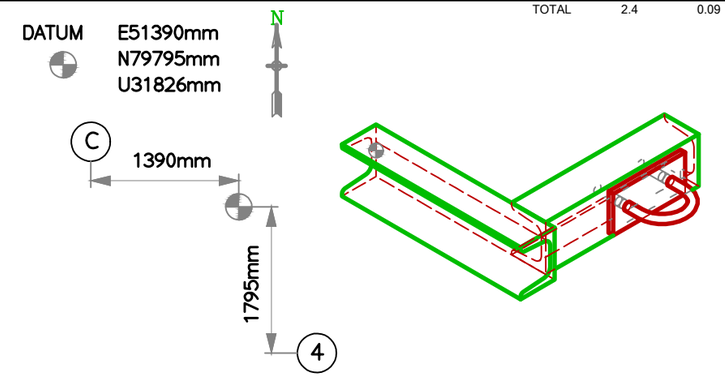
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1"	-	-	1	-	0.29	-
F1	BEAM	UPN50	Carbon Steel	170	1	5.61	0.95	0.040
F2	BEAM	UPN50	Carbon Steel	199	1	5.61	1.11	0.047
						TOTAL	2.4	0.09



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

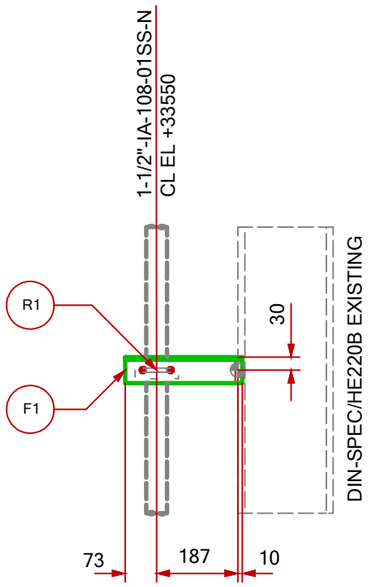
ROSETTI MARINO

TITLE :

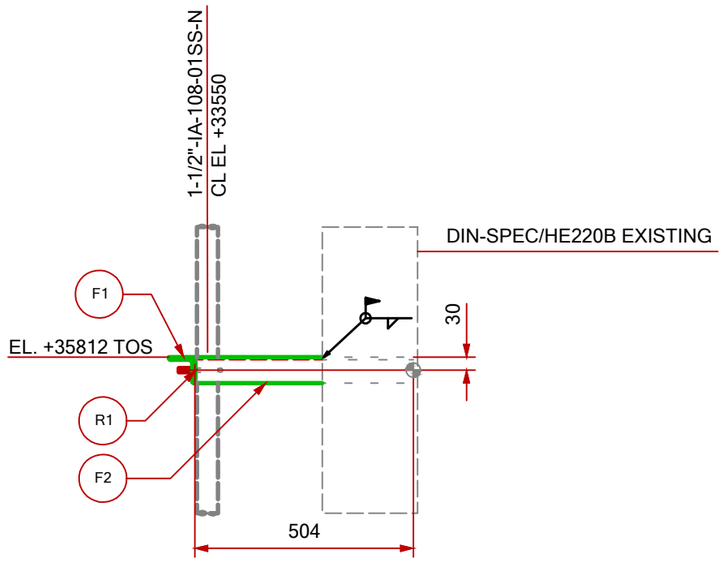
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03150

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 5
DRAWN	CHECKED	APPROVED		DATE 19/08/24
	DRAWING NO. 123A90-DDL-PP-DD-72000		SHEET 1 of 1	REV. 00

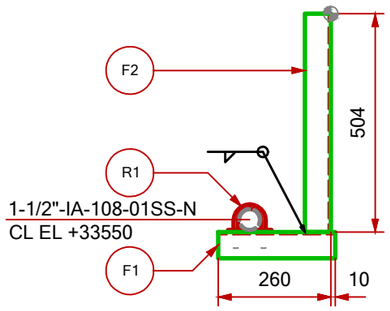
File Name :



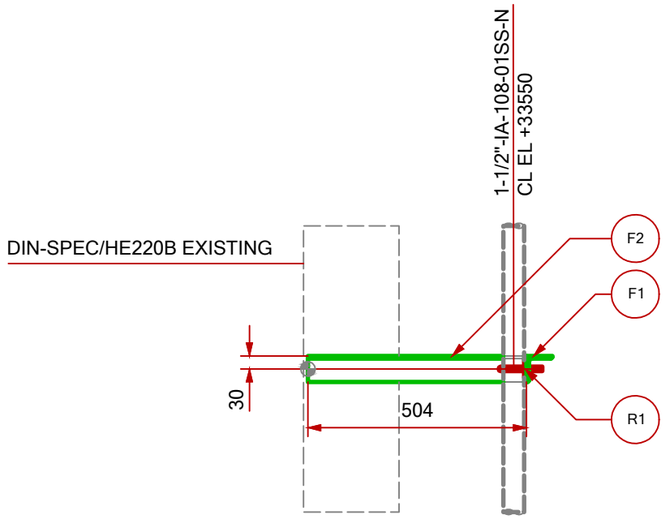
VIEW LOOKING NORTH



VIEW LOOKING WEST



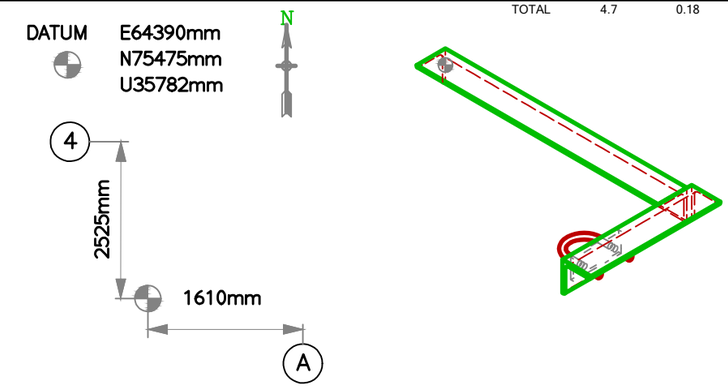
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	270	1	5.42	1.46	0.064
F2	BEAM	L60x60x6	Carbon Steel	504	1	5.42	2.73	0.119
						TOTAL	4.7	0.18



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

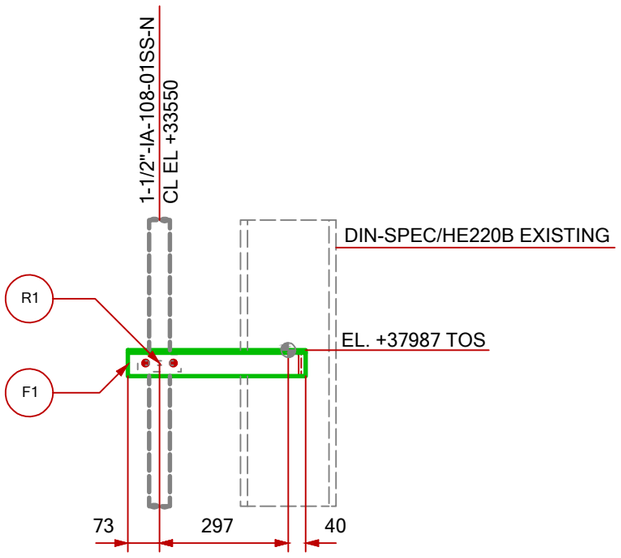
ROSETTI MARINO

TITLE :

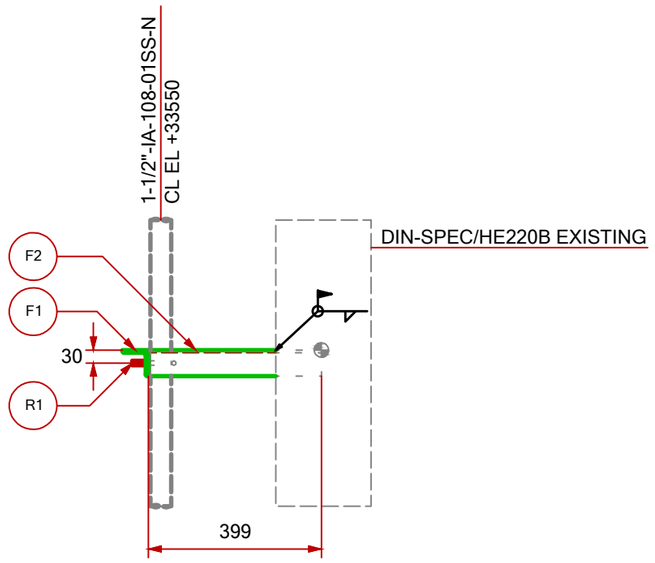
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03153

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

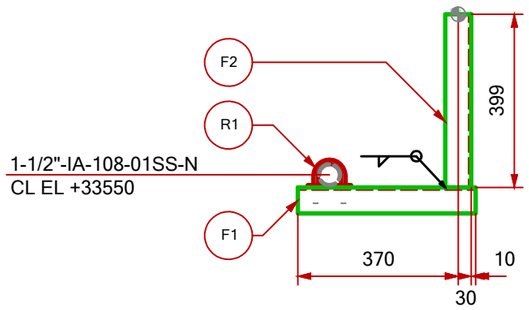
File Name :



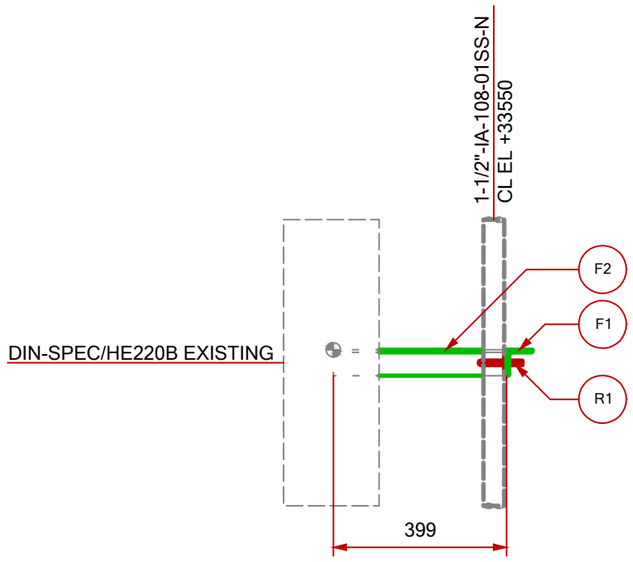
VIEW LOOKING NORTH



VIEW LOOKING WEST



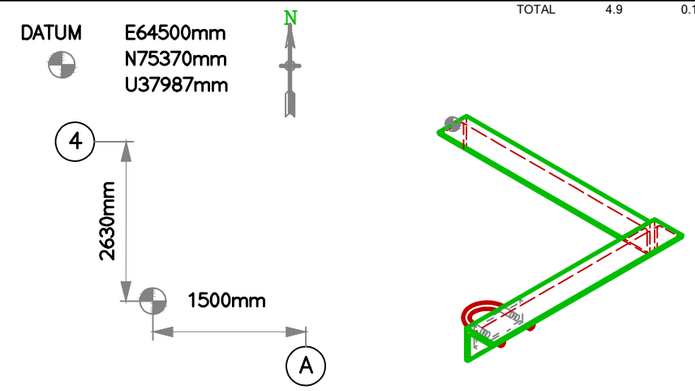
PLAN VIEW



VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	L60x60x6	Carbon Steel	410	1	5.42	2.22	0.097
F2	BEAM	L60x60x6	Carbon Steel	399	1	5.42	2.17	0.094
						TOTAL	4.9	0.19



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-03154

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

File Name :

ROSETTI MARINO

STANDARD SPECIFICATION
PIPE SUPPORT DETAIL STANDARD

Document Number: STD–PP–DD–0001

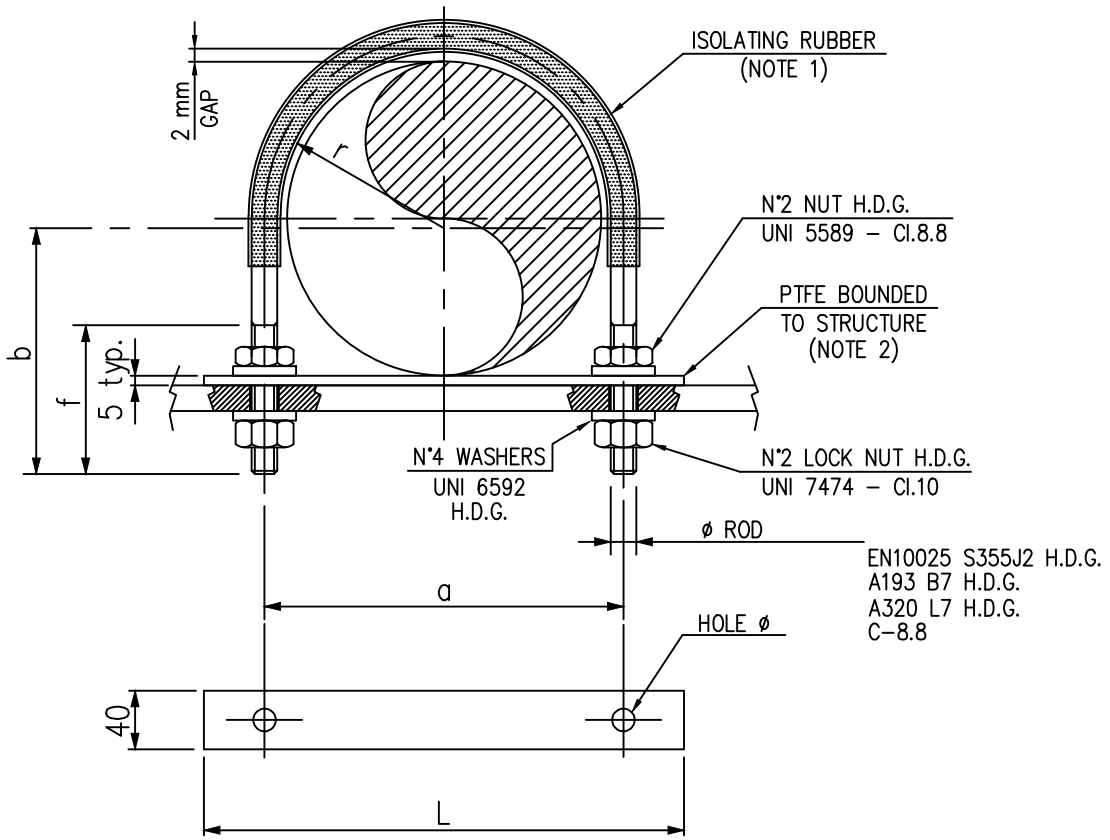
Revision: 0

Date: –

CAVALLOTTI GALVANIZZATI DI GUIDA PER TUBAZIONI IN C.S S.S. E ALLOY
GALVANIZED U–BOLTS GUIDE FOR C.S. S.S. AND ALLOY PIPES (NON GRIP)

S–211

Example of designation : STD – PIPE ND"
(S–211 – 10")



SIZE ND	ROD DIA	r	a	b	f	L	HOLE ø	DEV	DEV. RUBBER	WEIGHT Kg
½"	M8	14	36	55	52	65	10	167	62	0.16
3/4"	M8	17	42	55	52	70	10	176	75	0.16
1"	M8	20	48	60	55	80	10	196	90	0.18
1½"	M10	27	64	70	65	100	12	240	120	0.32
2"	M10	33	76	80	70	110	12	280	150	0.35
3"	M12	48	108	100	80	150	14	370	210	0.60
4"	M12	60	132	110	80	180	14	430	260	0.67
6"	M16	87	190	150	100	250	18	600	380	1.39
8"	M16	113	242	170	100	300	18	720	500	1.60
10"	M16	140	296	200	100	350	18	865	650	1.86
12"	M20	165	350	240	120	420	22	1030	750	3.31
14"	M20	181	382	260	120	450	22	1120	840	3.55
16"	M24	207	438	290	130	520	26	1270	1000	5.76
18"	M24	232	488	320	130	570	26	1410	1100	6.28
20"	M30	257	544	360	160	640	32	1570	1200	11.02
24"	M30	308	646	410	160	750	32	1830	1450	12.52

NOTES:

1) HEAT SHRINK TUBE TYPE FLAME RETARDANT, WITH RATIO 2:1
2) MULTIPLE SHEETS OF PTFE CAN BE ADDED IN ORDER TO ENSURE THE CORRECT ELEVATION AND SLOPE OF THE LINES.

Revision Number	Date	Description	DRAW	CHKD.	APPR.
00	–	ISSUED FOR REVIEW	SLO	GMA	MCO

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7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	36	**To**	36
Sheet		**From**	1	**To**	8
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**	B	**To**	T
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld.	Type Conn / NOTE	Accept. Date	Spool
6/36/1/_		**00**	**14-09-2024**	**10**	**AZ35**			**FWN**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
7/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
8/36/1/_		**00**	**13-09-2024**	**11**	**AZ35**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**19-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000073		4	Acceptable				19-09-2024				
9/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
10/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
11/36/1/_		**00**	**13-09-2024**	**11**	**AZ35**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
12/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
13/36/1/_		**00**	**13-09-2024**	**11**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
14/36/1/_		**00**	**17-09-2024**	**13**	**AZ35**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
14/36/1/_		**00**	**17-09-2024**	**13**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**B**
16/36/1/_		**00**	**14-09-2024**	**10**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
17/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
18/36/1/_		**00**	**14-09-2024**	**10**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000054	3	Acceptable					18-09-2024			
19/36/1/_		**00**	**14-09-2024**	**10**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
20/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
21/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
23/36/2/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
24/36/2/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
25/36/2/_		**00**	**16-09-2024**	**12**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000055	3	Acceptable				18-09-2024				
26/36/2/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
27/36/2/_		**00**	**12-09-2024**	**9**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**19-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				19-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
29/36/2/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
30/36/2/_		**00**	**16-09-2024**	**12**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000053	3	Acceptable				18-09-2024				
31/36/2/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
32/36/2/_		**00**	**17-09-2024**	**13-6**	**AZ36**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**19-11-2024**	**E**
					AX416	**After Cutting**												
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH) Order Number CW-I-WP4-2023-05

Client CRWIND CROSSWIND

Discipline PP Piping ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet / Work Instructions	Welders / Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
32/36/2/_		**00**	**17-09-2024**	**13-6**	**AZ36**	**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**19-11-2024**	**E**
				After Cutting	**AX416**												
Cut 15-11-2024		VIS	C 1 DTA	After Cutting	123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA 100 %	OK		Acceptable	D1A	GTAW		19-11-2024				
		RT	C 1 DTA	After Cutting		10 %			Acceptable								
35/36/3/_		**00**	**16-09-2024**	**12**	**AZ35**	**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**G**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								
37/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**	**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**H**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								
39/36/3/_		**00**	**16-09-2024**	**13**	**AZ35**	**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**H**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA 10 %	000069	3	Acceptable				18-09-2024				
40/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**	**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**H**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								
43/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**	**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**I**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								
45/36/3/_		**00**	**16-09-2024**	**13**	**AZ35**	**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**I**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA 10 %	000070	3	Acceptable				18-09-2024				
46/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**	**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**I**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								
48/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**	**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**I**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI 100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		10 %			Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
48/36/3/_		**00**	**17-09-2024**	**13**	**AZ35**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**I**
49/36/4/_		**00**	**12-09-2024**	**9**	**AZ35**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**20-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					20-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
50/36/4/_		**00**	**17-09-2024**	**13**	**AZ36**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
51/36/4/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
52/36/4/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
54/36/4/_		**00**	**14-09-2024**	**10**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**J**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
56/36/4/_		**00**	**17-09-2024**	**13**	**AZ35**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**J**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
57/36/4/_		**00**	**17-09-2024**	**13**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**J**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
58/36/4/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**J**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %				Acceptable								
60/36/4/_		**00**	**16-09-2024**	**12**	**AZ35**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**J**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH) Order Number CW-I-WP4-2023-05

Client CRWIND CROSSWIND

Discipline PP Piping ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
60/36/4/_		**00**	**16-09-2024**	**12**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**J**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
62/36/5/_		**00**	**17-09-2024**	**13**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
63/36/5/_		**00**	**12-09-2024**	**9**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**20-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				20-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
65/36/5/_		**00**	**13-09-2024**	**11**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**L**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
66/36/5/_		**00**	**16-09-2024**	**12**	**AZ35**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**L**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
67/36/5/_		**00**	**14-09-2024**	**10**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**L**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
68/36/5/_		**00**	**17-09-2024**	**13**	**AZ36**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**L**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
88/36/5/_		**00**	**12-09-2024**	**9**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**26-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				20-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000091		3	Acceptable				26-09-2024				
89/36/5/_		**00**	**17-09-2024**	**13**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
89/36/5/_		**00**	**17-09-2024**	**13**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
107/36/5/_		**00**	**13-09-2024**	**11**	**AZ35**		**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
108/36/5/_		**00**	**17-09-2024**	**13**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
109/36/5/_		**00**	**13-09-2024**	**11**	**AZ35**		**TEE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**19-09-2024**	**K**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000072	4	Acceptable				19-09-2024				
71/36/6/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**N**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
72/36/6/_		**00**	**17-09-2024**	**13**	**AZ36**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**N**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
73/36/6/_		**00**	**16-09-2024**	**13**	**AZ36**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**N**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000067	3	Acceptable				18-09-2024				
75/36/6/_		**00**	**17-09-2024**	**13**	**AZ36**		**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**N**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
76/36/6/_		**00**	**12-09-2024**	**9**	**AZ35**		**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**26-09-2024**	**M**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				20-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000092	3	Acceptable				26-09-2024				
77/36/6/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**M**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
77/36/6/_		**00**	**13-09-2024**	**11**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**M**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
78/36/6/_		**00**	**12-09-2024**	**9**	**AZ35**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**20-09-2024**	**M**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				20-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
79/36/6/_		**00**	**12-09-2024**	**9**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**26-09-2024**	**M**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				20-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000093		3	Acceptable				26-09-2024				
81/36/6/_		**00**	**17-09-2024**	**13**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**O**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
83/36/6/_		**00**	**17-09-2024**	**13**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**O**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
84/36/6/_		**00**	**17-09-2024**	**13**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**O**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
86/36/6/_		**00**	**17-09-2024**	**13**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**O**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
87/36/6/_		**00**	**17-09-2024**	**13**	**AZ35**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**O**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension / Films n.	Thickness	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld.	Type Conn / NOTE	Accept. Date	Spool
91/36/7/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
92/36/7/_		**00**	**16-09-2024**	**12**	**AZ35**		**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
93/36/7/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
94/36/7/_		**00**	**14-09-2024**	**10**	**AZ35**		**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
95/36/7/_		**00**	**16-09-2024**	**12**	**AZ35**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
96/36/7/_		**00**	**16-09-2024**	**12**	**AZ35**		**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
97/36/7/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**P**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
99/36/7/_		**00**	**14-09-2024**	**10**	**AZ35**		**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				17-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								
100/36/7/_		**00**	**17-09-2024**	**13**	**AZ36**		**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion			10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH) Order Number CW-I-WP4-2023-05

Client CRWIND CROSSWIND

Discipline PP Piping ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
100/36/7/_		**00**	**17-09-2024**	**13**	**AZ36**			**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
101/36/7/_		**00**	**17-09-2024**	**13**	**AZ36**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
103/36/7/_		**00**	**17-09-2024**	**13**	**AZ36**			**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
104/36/7/_		**00**	**16-09-2024**	**13**	**AZ36**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000066	3	Acceptable				18-09-2024				
106/36/7/_		**00**	**17-09-2024**	**13**	**AZ36**			**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**Q**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
111/36/8/_		**00**	**14-09-2024**	**10-3**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**21-10-2024**	**R**
					AX416	**After Cutting**													
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
Cut 17-10-2024		VIS	C1 DTA	After Cutting		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable D1A		GTAW		21-10-2024				
		RT	C1 DTA	After Cutting				10 %			Acceptable								
113/36/8/_		**00**	**14-09-2024**	**10**	**AZ35**			**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**R**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
114/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**R**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				17-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
115/36/8/_		**00**	**17-09-2024**	**13**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**R**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
115/36/8/_		**00**	**17-09-2024**	**13**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**R**
116/36/8/_		**00**	**16-09-2024**	**12**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**R**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
118/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**S**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
119/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**S**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000052	3	Acceptable					18-09-2024			
120/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**S**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
121/36/8/_		**00**	**17-09-2024**	**13**	**AZ36**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**S**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					18-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
122/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**S**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
124/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
125/36/8/_		**00**	**13-09-2024**	**11**	**AZ35**		**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					17-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								
126/36/8/_		**00**	**17-09-2024**	**13-7**	**AZ36**		**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**21-11-2024**	**T**
					AX416	**After Cutting**												

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH) Order Number CW-I-WP4-2023-05

Client CRWIND CROSSWIND

Discipline PP Piping ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	Defect length	WPS / CND date	Techn. Weld.	Type Conn / NOTE	Accept. Date	Spool
126/36/8/_		**00**	**17-09-2024**	**13-7**	**AZ36**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**21-11-2024**	**T**
					AX416	**After Cutting**															
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
	Cut 19-11-2024	VIS	C 1 DTA	After Cutting		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable	D1A					GTAW		21-11-2024	
		RT	C 1 DTA	After Cutting				10 %				Acceptable									
127/36/8/_		**00**	**17-09-2024**	**13**	**AZ36**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**18-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
129/36/8/_		**00**	**17-09-2024**	**13**	**AZ36**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**18-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
130/36/8/_		**00**	**17-09-2024**	**13**	**AZ36**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**18-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
132/36/8/_		**00**	**17-09-2024**	**13**	**AZ35**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**18-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
133/36/8/_		**00**	**14-09-2024**	**10**	**AZ35**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**17-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								17-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									
134/36/8/_		**00**	**17-09-2024**	**13**	**AZ36**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**		**C1A**	**GTAW**	**BW**	**18-09-2024**	**T**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable								18-09-2024	
		RT	FIN	Weld Completion				10 %				Acceptable									

Totals per DWG	**36**	**Prefabrication**	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
		Accepted	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
134/36/8/_		00	17-09-2024	13	AZ36		TEE	1,50 in	3,68 mm	V	0,151 m	P	S.S.	C1A	GTAW	BW	18-09-2024	T

Totals by Discipline	**Prefabrication**	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Accepted	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project	**Prefabrication**	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Accepted	**14,15 m**	**97 Nr. Welds**	**141,25 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:
Progetto/Project	**Hollandse Kust Noord Wind Park Project**		
Commessa/Job	**123A90 - Piping**		
Disciplina/Discipline	**PIPING**		
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:	
RosettiDoc.Num.	**123A90MTR001**		

Approvato da/Approved by	
Nome/Name:	
Data/Date:	19/12/2024

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
36	00	1	B	01SS	3	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W7-W8-W9	
36	00	1	B	01SS	3	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W10-W11-W12	
36	00	1	B	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W13-W14	
36	00	1	B	01SS	7	1	Flange WN ›1.1/2" Thk.3.68mm 150LB RF ASTM A182 Gr.F316/316L	CH-17777	1724000839	00970	EXP/22-23/00790-12	W6	
36	00	1	B	01SS	8	1	Flange WN ›3/4" Thk.2.87mm 150LB RF ASTM A182 Gr.F316/316L	CH-18532	1724000839	00950	EXP/22-23/01571-30	W8	
36	00	1	B	01SS	8	1	Flange WN ›3/4" Thk.2.87mm 150LB RF ASTM A182 Gr.F316/316L	CH-18532	1724000839	00950	EXP/22-23/01571-30	W11	
36	00	1	B	01SS	1B	0,275	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1C	0,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1D	0,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1E	1,852	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W16	
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W17-W18	
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W19-W20	
36	00	1	C	01SS	1F	0,454	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1G	0,191	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1H	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1I	3,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	D	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W27	
36	00	2	D	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W23	
36	00	2	D	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W24-W25	
36	00	2	D	01SS	1J	0,306	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	D	01SS	1K	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	D	01SS	1L	5,618	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	E	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W29-W30	
36	00	2	E	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W31-W32	
36	00	2	E	01SS	1M	0,121	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	E	01SS	1N	1,863	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	2	E	01SS	1O	4,819	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	3	G	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W35	
36	00	3	G	01SS	1P	5,176	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	3	H	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W37-W39	
36	00	3	H	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W40	
36	00	3	H	01SS	1Q	1,171	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	3	H	01SS	1R	3,886	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	3	I	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W43-W45	
36	00	3	I	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W46-W48	
36	00	3	I	01SS	3	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W48	
36	00	3	I	01SS	1S	3,885	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	3	I	01SS	1T	3,42	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	4	F	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W49	
36	00	4	F	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W50-W51	
36	00	4	F	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W52	
36	00	4	F	01SS	1U	4,636	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	4	F	01SS	1V	0,485	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	4	J	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W54-W56	
36	00	4	J	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W58-W60	
36	00	4	J	01SS	4	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W60	
36	00	4	J	01SS	1W	1,347	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	4	J	01SS	1X	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	4	J	01SS	1Y	1,386	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	K	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W63-W88	
36	00	5	K	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W108-W109	
36	00	5	K	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W89-W107	
36	00	5	K	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W109	
36	00	5	K	01SS	1AB	3,884	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	K	01SS	1AM	0,931	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	K	01SS	1AS	0,414	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	K	01SS	1Z	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	L	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W65-W66	
36	00	5	L	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W67-W68	
36	00	5	L	01SS	1AC	0,121	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	5	L	01SS	1AD	1,613	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
Commessa/Job	**123A90 - Piping**			
Disciplina/Discipline	**PIPING**			
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 19/12/2024
RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
36	00	5	L	01SS	1AE	1,789	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	M	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W76	
36	00	6	M	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W77-W78	
36	00	6	M	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W79	
36	00	6	M	01SS	1AH	3,696	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	M	01SS	1AI	0,892	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	N	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W73-W75	
36	00	6	N	01SS	4	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W75	
36	00	6	N	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W71-W72	
36	00	6	N	01SS	1AF	0,1	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	N	01SS	1AG	3,563	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	O	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W81-W83	
36	00	6	O	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W84-W86	
36	00	6	O	01SS	4	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W87	
36	00	6	O	01SS	1AJ	3,619	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	O	01SS	1AK	3,71	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	6	O	01SS	1AL	0,557	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	7	P	01SS	2	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W93-W94-W95	
36	00	7	P	01SS	5	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W94	
36	00	7	P	01SS	6	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W91-W92	
36	00	7	P	01SS	6	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W95-W96	
36	00	7	P	01SS	6	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W97	
36	00	7	P	01SS	1AN	0,121	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	7	P	01SS	1AO	0,178	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	7	P	01SS	1AP	2,718	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	7	Q	01SS	2	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W99-W100	
36	00	7	Q	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W101-W103	
36	00	7	Q	01SS	3	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W104-W106	
36	00	7	Q	01SS	4	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W106	
36	00	7	Q	01SS	5	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W99	
36	00	7	Q	01SS	1AQ	0,694	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	7	Q	01SS	1AR	3,344	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	R	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W111-W113	
36	00	8	R	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W114-W115	
36	00	8	R	01SS	1AT	1,653	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	R	01SS	1AU	0,586	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	R	01SS	1AV	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	R	01SS	1AW	1,429	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	S	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W118	
36	00	8	S	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W119-W120	
36	00	8	S	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W121-W122	
36	00	8	S	01SS	1AX	0,286	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	S	01SS	1AY	0,598	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	S	01SS	1AZ	2,291	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	T	01SS	2	1	Tee Reducing BW ›1.1/2"x1" Thk.3.68mmx3.38mm ASTM A403 Gr.WP316/316L	EF6171	1724000839	00570	JNDIA2023-GW1211-11	W127-W129	
36	00	8	T	01SS	3	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W130-W132	
36	00	8	T	01SS	4	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W132-W133-W134	
36	00	8	T	01SS	5	1	Cap BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	1014684	1724000839	00200	1014684	W134	
36	00	8	T	01SS	6	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W133	
36	00	8	T	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W124	
36	00	8	T	01SS	7	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W125-W126	
36	00	8	T	01SS	1BA	0,837	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	T	01SS	1BB	0,55	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	8	T	01SS	1BC	1,572	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	95	**To**	95
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/95/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
2/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
3/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
4/95/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
5/95/1/_		**00**	**21-11-2024**	**46**	**AX416**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**25-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable				25-11-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
6/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
7/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000029		4	Acceptable				11-09-2024				
8/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
9/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld.	Type Conn / NOTE	Accept. Date	Spool
9/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
10/95/1/_		**00**	**16-11-2024**	**35**	**AX416**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**19-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable							19-11-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
11/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
12/95/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**FWN**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000030	4	Acceptable							11-09-2024	
13/95/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
14/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
15/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**C.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
16/95/1/_		**00**	**17-12-2024**	**94**	**AX410**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**17-12-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable							17-12-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
17/95/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000031	4	Acceptable							11-09-2024	
18/95/1/_		**00**	**17-12-2024**	**93**	**AX410**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**17-12-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable							17-12-2024	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
18/95/1/_		**00**	**17-12-2024**	**93**	**AX410**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**17-12-2024**	
		RT	FIN	Weld Completion				10 %				Acceptable								
19/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
20/95/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**F**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**95**	**Prefabrication**	**1,60 m**	**16 Nr. Welds**	**16,00 inch**
		Erection	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Accepted	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**1,60 m**	**16 Nr. Welds**	**16,00 inch**
		Erection	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Accepted	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**1,60 m**	**16 Nr. Welds**	**16,00 inch**
		Erection	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Accepted	**2,00 m**	**20 Nr. Welds**	**20,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND ROSETTI MARINO	Cliente/Contractor	CROSSWIND				Preparato da/Prepared by		Controllato da/Checked by		Approvato da/Approved by			
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY				Nome/Name: Antonio Galesi		Nome/Name:		Nome/Name:			
	Progetto/Project	Hollandse Kust Noord Wind Park Project											
	Commessa/Job	123A90 - Piping											
	Disciplina/Discipline	PIPING											
	TitoloDocumento/DocumentTitle	Material Traceability Report				StatoDocumento/Document Status:				Data/Date: 19/12/2024			
	RosettiDoc.Num.	123A90MTR001											

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
95	00	1	A	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
95	00	1	A	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3-W4	
95	00	1	A	01SS	1A	0,183	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	A	01SS	1B	2,173	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	A	01SS	1C	3,071	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	B	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W6	
95	00	1	B	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W7-W8	
95	00	1	B	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W9	
95	00	1	B	01SS	1D	0,928	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	B	01SS	1E	1,172	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	C	01SS	4	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W11	
95	00	1	C	01SS	1F	1,149	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	D	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W13-W14	
95	00	1	D	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W15	
95	00	1	D	01SS	4	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W12	
95	00	1	D	01SS	1G	1,985	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	E	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W17	
95	00	1	E	01SS	1I	5,435	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	F	01SS	3	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W19-W20	
95	00	1	F	01SS	4	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W20	
95	00	1	F	01SS	1H	0,17	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
95	00	1	F	01SS	1J	1,697	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	101	**To**	101
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
1/101/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/101/1/_		**00**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/101/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
4/101/1/_		**00**	**20-11-2024**	**42**	**AX416**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**25-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable					22-11-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	001020		4	Acceptable					25-11-2024			
5/101/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000032		4	Acceptable					11-09-2024			

Totals per DWG	**101**	**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND	Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
ROSETTI MARINO	SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
	Commessa/Job	**123A90 - Piping**			
	Disciplina/Discipline	**PIPING**			
	TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
101	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
101	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3	
101	00	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
101	00	1	A	01SS	1B	0,35	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
101	00	1	B	01SS	3	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W5	
101	00	1	B	01SS	1C	0,65	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	102	**To**	102
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**	A	**To**	A
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping
Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
1/102/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
2/102/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**TEE**	**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
3/102/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
4/102/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
5/102/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable				11-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000051	3	Acceptable				18-09-2024				
6/102/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								

Totals per DWG	**102**	**Prefabrication**	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Accepted	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Accepted	**0,83 m**	**6 Nr. Welds**	**8,25 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
6/102/1/_		00	06-09-2024	5	AZ53	PIPE	1,50 in	3,68 mm	V	0,151 m	P	S.S.	C1A	GTAW	BW	11-09-2024	A

Totals by Project			
Prefabrication	0,83 m	6 Nr. Welds	8,25 inch
Erection	0,00 m	0 Nr. Welds	0,00 inch
Offshore	0,00 m	0 Nr. Welds	0,00 inch
Performed	0,83 m	6 Nr. Welds	8,25 inch
Accepted	0,83 m	6 Nr. Welds	8,25 inch
Repaired	0,00 m	0 Nr. Welds	0,00 inch

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
	Commessa/Job	**123A90 - Piping**			
	Disciplina/Discipline	**PIPING**			
	TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
102	00	1	A	01SS	2	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	12B258	1724000839	00610	10303342	W1-W2-W3	
102	00	1	A	01SS	4	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W2	
102	00	1	A	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W1	
102	00	1	A	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W4-W5	
102	00	1	A	01SS	7	1	Flange WN ›1.1/2" Thk.3.68mm 150LB RF ASTM A182 Gr.F316/316L	CH-17777	1724000839	00970	EXP/22-23/00790-12	W6	
102	00	1	A	01SS	1A	0,506	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
102	00	1	A	01SS	1B	1,544	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	103	**To**	103
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/103/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
2/103/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
3/103/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
4/103/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**TEE**	**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
5/103/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**TEE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
6/103/1/_		**00**	**18-11-2024**	**37**	**AX416**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**19-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable					19-11-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
7/103/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000033	4	Acceptable					11-09-2024			
8/103/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
9/103/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
9/103/1/_		00	04-09-2024	2	AZ39	PIPE	1,00 in	3,38 mm	V	0,104 m	P	S.S.	C1A	GTAW	BW	06-09-2024	B

Totals per DWG	**103**	**Prefabrication**	**0,78 m**	**8 Nr. Welds**	**7,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Accepted	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,78 m**	**8 Nr. Welds**	**7,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Accepted	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,78 m**	**8 Nr. Welds**	**7,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Accepted	**0,88 m**	**9 Nr. Welds**	**8,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
	Commessa/Job	**123A90 - Piping**			
	Disciplina/Discipline	**PIPING**			
	TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 20/12/2024
	RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
103	00	1	A	01SS	2	1	Tee Reducing BW ›1"x3/4" Thk.3.38mmx2.87mm ASTM A403 Gr.WP316/316L	1067621	1724000839	00560	1067621	W3-W4-W5	
103	00	1	A	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W4	
103	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
103	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W4	
103	00	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
103	00	1	A	01SS	1B	0,815	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
103	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W7-W8	
103	00	1	B	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W9	
103	00	1	B	01SS	1C	0,134	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
103	00	1	B	01SS	1D	1,246	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	104	**To**	104
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
1/104/1/_		**00**	**04-09-2024**	**2**	**AZ39**		**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000034	4	Acceptable					11-09-2024			

Totals per DWG	**104**	**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
104	00	1	A	01SS	2	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W1	
104	00	1	A	01SS	1A	0,607	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	106	**To**	106
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
1/106/1/_		**00A**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/106/1/_		**00A**	**05-09-2024**	**3**	**AZ53**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/106/1/_		**00A**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
4/106/1/_		**00A**	**27-11-2024**	**55**	**AX416**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**28-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable					28-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/106/1/_		**00A**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**106**	**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor: CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor: ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project: Hollandse Kust Noord Wind Park Project			
	Commessa/Job: 123A90 - Piping			
	Disciplina/Discipline: PIPING			
	TitoloDocumento/DocumentTitle: Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.: 123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
106	00A	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
106	00A	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3	
106	00A	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
106	00A	1	A	01SS	1B	1,524	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
106	00A	1	B	01SS	3	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W5	
106	00A	1	B	01SS	1C	0,681	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	107	**To**	107
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**19-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000074		4	Acceptable					19-09-2024			
4/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**TEE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
6/107/1/_		**00**	**11-09-2024**	**7**	**AZ35**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**13-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					13-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
7/107/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**107**	**Prefabrication**	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
		Accepted	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
7/107/1/_		00	05-09-2024	4	AZ39	PIPE	1,00 in	3,38 mm	V	0,104 m	P	S.S.	C1A	GTAW	BW	11-09-2024	A

Totals by Discipline	**Prefabrication**	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Accepted	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project	**Prefabrication**	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Accepted	**0,68 m**	**7 Nr. Welds**	**6,75 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
107	00	1	A	01SS	2	1	Tee Reducing BW ›1"x3/4" Thk.3.38mmx2.87mm ASTM A403 Gr.WP316/316L	1067621	1724000839	00560	1067621	W2-W3-W4	
107	00	1	A	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W3	
107	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
107	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W5-W6	
107	00	1	A	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W7	
107	00	1	A	01SS	1A	0,105	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
107	00	1	A	01SS	1B	0,168	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
107	00	1	A	01SS	1C	1,205	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	108	**To**	108
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/108/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
2/108/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**TEE**	**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
3/108/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**TEE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
4/108/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
5/108/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								
6/108/1/_		**00**	**04-09-2024**	**2**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %			Acceptable								

Totals per DWG	**108**	**Prefabrication**	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Accepted	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Accepted	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
6/108/1/_		00	04-09-2024	2	AZ39	PIPE	1,00 in	3,38 mm	V	0,104 m	P	S.S.	C1A	GTAW	BW	06-09-2024	A

Totals by Project			
Prefabrication	0,58 m	6 Nr. Welds	5,75 inch
Erection	0,00 m	0 Nr. Welds	0,00 inch
Offshore	0,00 m	0 Nr. Welds	0,00 inch
Performed	0,58 m	6 Nr. Welds	5,75 inch
Accepted	0,58 m	6 Nr. Welds	5,75 inch
Repaired	0,00 m	0 Nr. Welds	0,00 inch

CROSSWIND ROSETTI MARINO	Cliente/Contractor	CROSSWIND				Preparato da/Prepared by		Controllato da/Checked by		Approvato da/Approved by			
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY				Nome/Name: Antonio Galesi		Nome/Name:		Nome/Name:			
	Progetto/Project	Hollandse Kust Noord Wind Park Project											
	Commessa/Job	123A90 - Piping											
	Disciplina/Discipline	PIPING											
	TitoloDocumento/DocumentTitle	Material Traceability Report				StatoDocumento/Document Status:				Data/Date: 19/12/2024			
	RosettiDoc.Num.	123A90MTR001											

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
108	00	1	A	01SS	2	1	Tee Reducing BW ›1"x3/4" Thk.3.38mmx2.87mm ASTM A403 Gr.WP316/316L	1067621	1724000839	00560	1067621	W1-W2-W3	
108	00	1	A	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W2	
108	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1	
108	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W4-W5	
108	00	1	A	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W6	
108	00	1	A	01SS	1A	0,057	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
108	00	1	A	01SS	1B	0,942	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	109	**To**	109
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/109/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
2/109/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
3/109/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000057	4	Acceptable					18-09-2024			
4/109/1/_		**00**	**20-11-2024**	**39**	**AX416**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**25-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable					21-11-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	001021	4	Acceptable					25-11-2024			
5/109/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								

Totals per DWG	**109**	**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
109	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
109	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3	
109	00	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
109	00	1	A	01SS	1B	0,35	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
109	00	1	B	01SS	3	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W5	
109	00	1	B	01SS	1C	0,65	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	110	**To**	110
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
1/110/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/110/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/110/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
4/110/1/_		**00**	**27-11-2024**	**55**	**AX416**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**28-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable					28-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/110/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**110**	**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
110	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
110	00	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3	
110	00	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
110	00	1	A	01SS	1B	1,524	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
110	00	1	B	01SS	3	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W5	
110	00	1	B	01SS	1C	0,681	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	111	**To**	111
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
1/111/1/_		**00**	**04-09-2024**	**2**	**AZ39**		**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable					06-09-2024			
		RT	FIN	Weld Completion			10 %			Acceptable								

Totals per DWG	**111**	**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Accepted	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
111	00	1	A	01SS	2	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W1	
111	00	1	A	01SS	1A	0,607	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	112	**To**	112
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
1/112/1/_		**00A**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/112/1/_		**00A**	**05-09-2024**	**3**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/112/1/_		**00A**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
4/112/1/_		**00A**	**26-11-2024**	**51**	**AX416**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**27-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable					27-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/112/1/_		**00A**	**04-09-2024**	**2**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**112**	**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**0,40 m**	**4 Nr. Welds**	**4,00 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Accepted	**0,50 m**	**5 Nr. Welds**	**5,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
112	00A	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
112	00A	1	A	01SS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W3	
112	00A	1	A	01SS	1A	0,1	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
112	00A	1	A	01SS	1B	1,524	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
112	00A	1	B	01SS	3	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W5	
112	00A	1	B	01SS	1C	0,681	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	113	**To**	113
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material	WPS / Defect length	Techn. Weld. / CND date	Type Conn / NOTE	Accept. Date	Spool
1/113/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/113/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/113/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
4/113/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**TEE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
6/113/1/_		**00**	**26-11-2024**	**51**	**AX416**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**27-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK			Acceptable					27-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
7/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
8/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
9/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**		**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Con	Accept. Date	Spool
9/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
10/113/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000061	4	Acceptable					18-09-2024			
11/113/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								
12/113/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %			Acceptable								

Totals per DWG	**113**	**Prefabrication**	**1,08 m**	**11 Nr. Welds**	**10,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Accepted	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**1,08 m**	**11 Nr. Welds**	**10,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Accepted	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project		**Prefabrication**	**1,08 m**	**11 Nr. Welds**	**10,75 inch**
		Erection	**0,10 m**	**1 Nr. Welds**	**1,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Accepted	**1,18 m**	**12 Nr. Welds**	**11,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 19/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
113	00	1	A	01SS	2	1	Tee Reducing BW ›1"x3/4" Thk.3.38mmx2.87mm ASTM A403 Gr.WP316/316L	1067621	1724000839	00560	1067621	W2-W3-W4	
113	00	1	A	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W3	
113	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1	
113	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W4-W5	
113	00	1	A	01SS	1A	0,048	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
113	00	1	A	01SS	1B	0,5	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
113	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W7	
113	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W8-W9	
113	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W10-W11	
113	00	1	B	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W12	
113	00	1	B	01SS	1C	0,629	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
113	00	1	B	01SS	1D	0,239	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
113	00	1	B	01SS	1E	1,338	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	119	**To**	119
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders / Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn.	Accept. Date	Spool
1/119/1/_		**00**	**05-09-2024**	**3**	**AZ53**		**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
2/119/1/_		**00**	**04-09-2024**	**2**	**AZ39**		**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
3/119/1/_		**00**	**05-09-2024**	**3**	**AZ39**		**PIPE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	AA	10 %	000035	4	Acceptable				11-09-2024				
4/119/1/_		**00**	**04-09-2024**	**2**	**AZ39**		**TEE**	**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
5/119/1/_		**00**	**05-09-2024**	**3**	**AZ39**		**TEE**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								
6/119/1/_		**00**	**04-09-2024**	**2**	**AZ39**		**ELB**	**1,00 in**	**3,38 mm**	**V**	**0,104 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable				06-09-2024				
		RT	FIN	Weld Completion			10 %			Acceptable								

Totals per DWG	**119**	**Prefabrication**	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Accepted	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Accepted	**0,58 m**	**6 Nr. Welds**	**5,75 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
6/119/1/_		00	04-09-2024	2	AZ39	ELB	1,00 in	3,38 mm	V	0,104 m	P	S.S.	C1A	GTAW	BW	06-09-2024	A

Totals by Project			
Prefabrication	0,58 m	6 Nr. Welds	5,75 inch
Erection	0,00 m	0 Nr. Welds	0,00 inch
Offshore	0,00 m	0 Nr. Welds	0,00 inch
Performed	0,58 m	6 Nr. Welds	5,75 inch
Accepted	0,58 m	6 Nr. Welds	5,75 inch
Repaired	0,00 m	0 Nr. Welds	0,00 inch

CROSSWIND / ROSETTI MARINO	Cliente/Contractor	CROSSWIND	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
	SubContrattista/SubContractor	ROSETTIMARINO/GROUPOFCOMPANY	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
	Progetto/Project	Hollandse Kust Noord Wind Park Project			
	Commessa/Job	123A90 - Piping			
	Disciplina/Discipline	PIPING			
	TitoloDocumento/DocumentTitle	Material Traceability Report	StatoDocumento/Document Status:		Data/Date: 20/12/2024
	RosettiDoc.Num.	123A90MTR001			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
119	00	1	A	01SS	2	1	Tee Reducing BW ›1"x3/4" Thk.3.38mmx2.87mm ASTM A403 Gr.WP316/316L	1067621	1724000839	00560	1067621	W3-W4-W5	
119	00	1	A	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W4	
119	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W1-W2	
119	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1" Thk.3.38mm ASTM A403 Gr.WP316/316L	M230689	1724000839	00270	MCP2401-00015-52	W5-W6	
119	00	1	A	01SS	5	1	Flange WN ›1" Thk.3.38mm 150LB RF ASTM A182 Gr.F316/316L	CH-19714	1724000839	00960	1779F/23-24-45	W6	
119	00	1	A	01SS	1A	1,116	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		
119	00	1	A	01SS	1B	0,595	Pipe 33.4mm(1") thk.3.38mm ASTM A312 Gr.TP316/316L	235689	1724000839	00050	WSSL/SP-316L/0923/1223		

8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:

8.1 CLX02A - Pipework Before test

8.2 CLX02B - Pipework After Test

8.3 CXX01 - Thermal insulation - NOT APPLICABLE

8.4 CXX02 – Painting Line

8.5 TMX03 – Cleaning

8.6 TMX05 – Pressure test

8.7 TMX25 – Gross Air Leak Test - NOT APPLICABLE

8.8 TMX27 – Bolt Tensioning / Torquing

8.9 TPLX05 - Drying

ITEM	Tag	63-30-TP-027	: Test Pack 63-30-TP-027			Dwg	123A90-DDL-PR-PID-80011-27-41
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10003442		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity STS	Discipline	Piping	Form	TPLX05 Drying

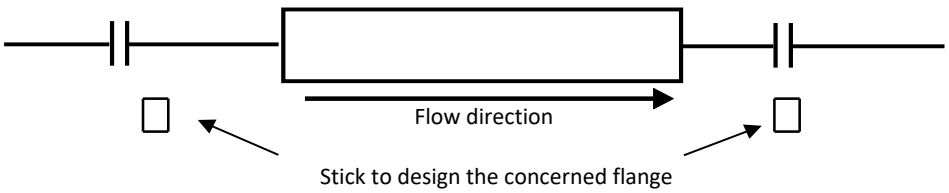
1	Drying out method :	Drying with dry air.
2	Operation description :	Dried the system using a flow of dry air, ensuring all drains/vents (when present) were open to facilitate the removal of moisture. Continued the drying until no moisture remained in the system, particularly in areas that were difficult to reach. Due the large dimension of the TP-027 all flanged openings have been used at least once as inlet and at reverse as outlet points to remove as much water as possible. The drying has started from the top and moved to the bottom of the Test pack making sure to remove any remaining test medium in low points, pockets, or other areas prone to fluid accumulation. After drying, inlet and outlet points were closed with covers.
3	Temporary means :	Blind flanges and plugs, if necessary, to isolate inlet and outlet points during process. Covers to close all openings after the drying.
4	Dew point (obtain after soaking and nitrogen purging):	NA
5	Valve body cavity, branches, etc.. Have been drained form residual water	●
	Attachments	
6	Procedures	
7	Sketches and drawings	
8	Pressure records	
9	Records of failures	
10	SAFETY PRECAUTIONS:	Restricting access to the area.
11	REMARKS:	None.

Page 1/1	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (Rosetti Marino)	
Name	Emanuele Delfino	Kangi Albonetti	
Date	2024-12-20	2024-12-31	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-12-20T05:19:04.027Z	PROVERLIS Digitaly signed by Kangi Albonetti 2024-12-31T10:40:16.524Z	

ITEM	Tag	095-1-J1	: Joint 095-1-J1			Dwg	123A90-FDL-PP-DI-00095-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004132		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	23	63	19	38	62.5
2	23	63	19	38	62.5
3	23	63	19	38	62.5
4	23	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

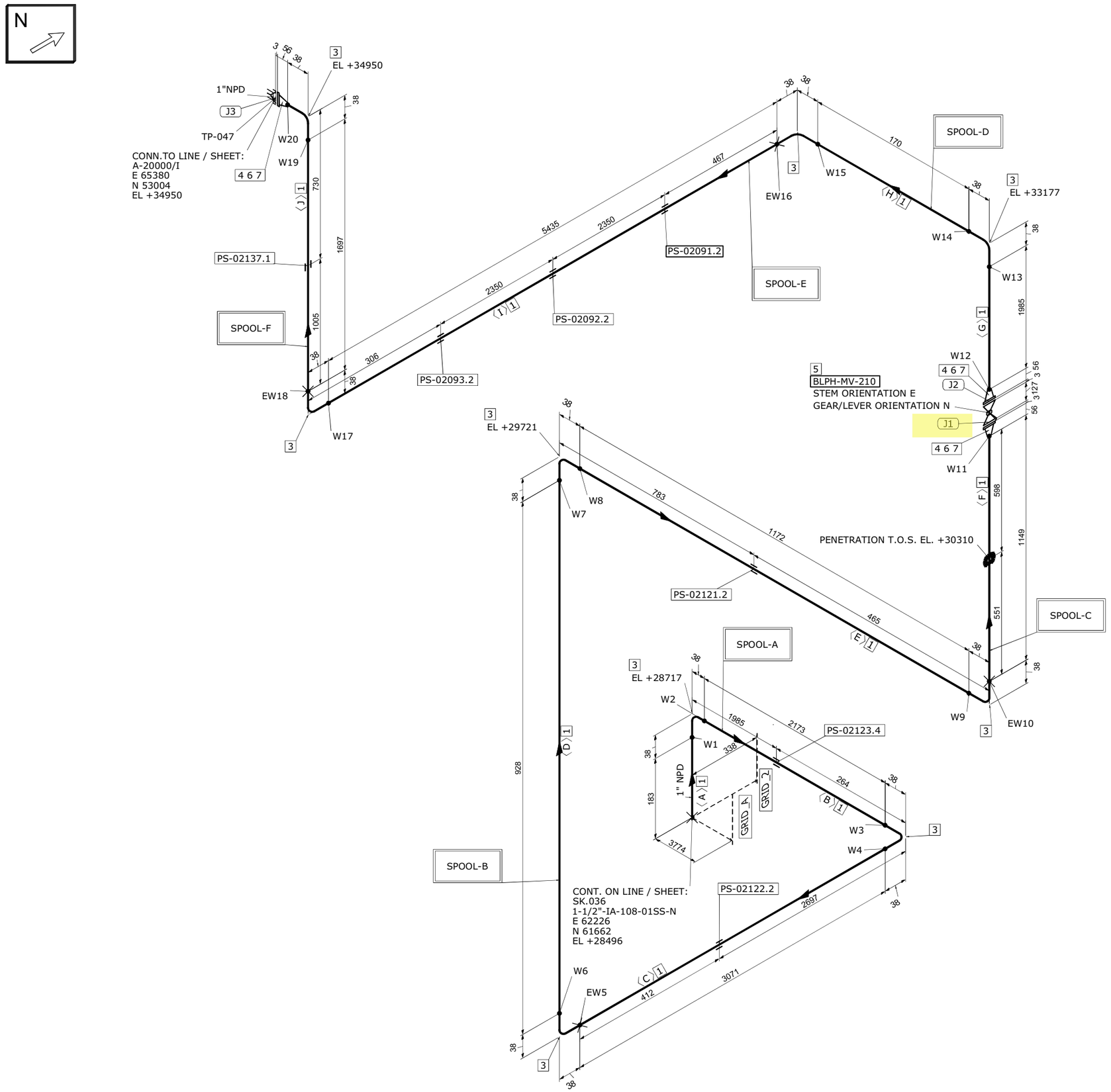
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:45:27.345Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:17:07.120Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	17.9M	45.6
3	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	9	1.3
4	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG	3	4.3

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	3	0.2
7	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	12	1.4

FABRICATION WEIGHT [kg]	51.2
ERECTION WEIGHT [kg]	7.6
OVERALL WEIGHT [kg]	58.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	1	BW
EW5	1	BW
W6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
EW10	1	BW
W11	1	BW
W12	1	BW
W13	1	BW
W14	1	BW
W15	1	BW
EW16	1	BW
W17	1	BW
EW18	1	BW
W19	1	BW
W20	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	183	BEVEL	BEVEL
B	1	2173	BEVEL	BEVEL
C	1	3071	BEVEL	BEVEL
D	1	928	BEVEL	BEVEL
E	1	1172	BEVEL	BEVEL
F	1	1149	BEVEL	BEVEL
G	1	1985	BEVEL	BEVEL
H	1	170	BEVEL	BEVEL
I	1	5435	BEVEL	BEVEL
J	1	1697	BEVEL	BEVEL

SUPPORT LIST

PS-02123.4
PS-02122.2
PS-02121.2
PS-02091.2
PS-02092.2
PS-02093.2
PS-02137.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	14.1
B	4	5.8
C	1	4.3
D	4	7.3
E	1	13.7
F	2	5.9
MONT	4	7.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-191-01SS-N

SK.095

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00095 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

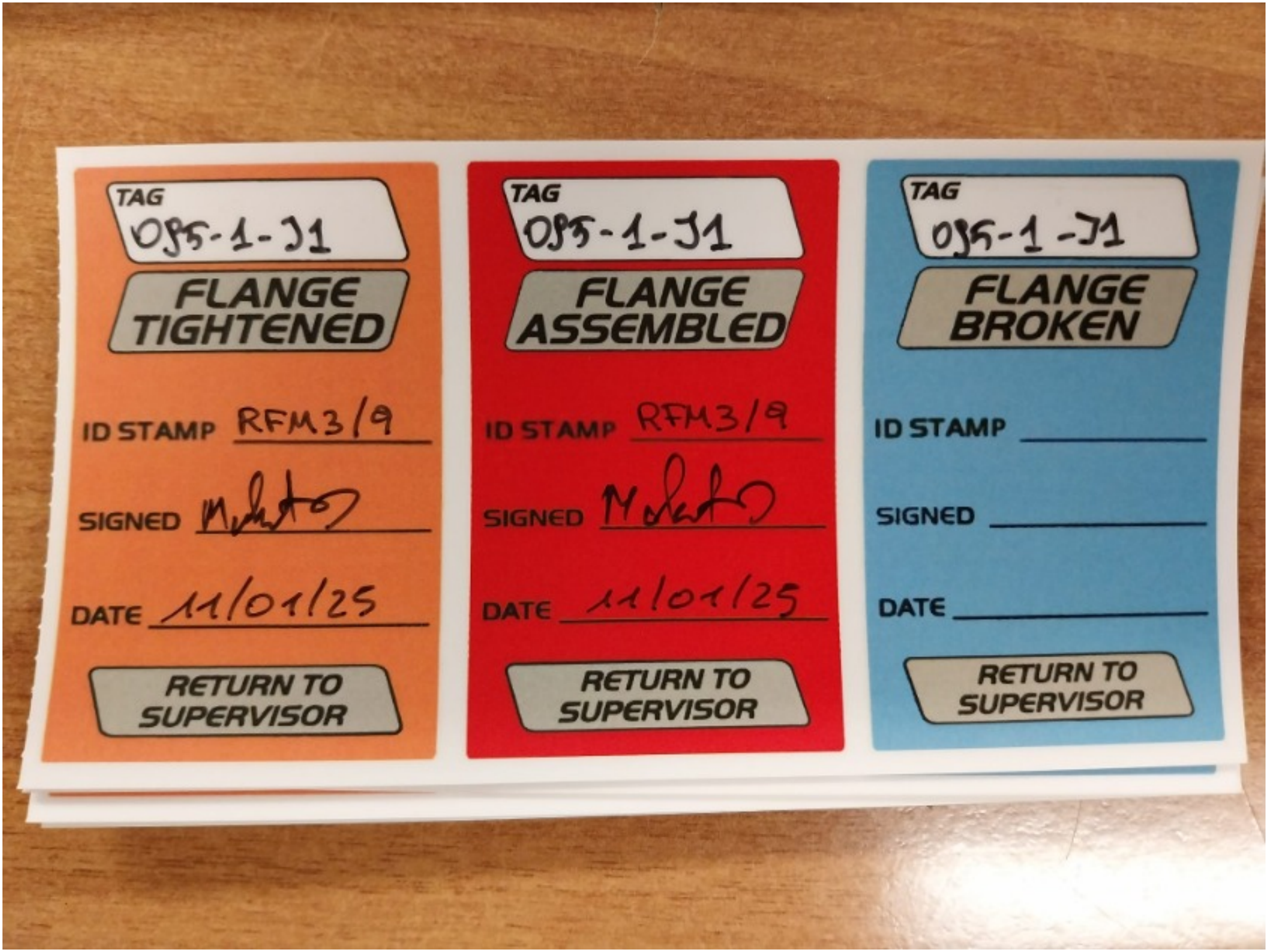
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	GAS					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB.	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

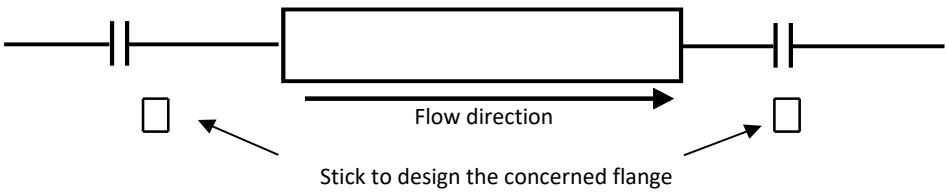

TAG
OS5-1-J1
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
OS5-1-J1
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
OS5-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ROSETTI MARINO | CROSSWIND

ITEM	Tag	095-1-J2	: Joint 095-1-J2			Dwg	123A90-FDL-PP-DI-00095-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004133	Location	Onshore Activities		User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	23	63	19	38	62.5
2	23	63	19	38	62.5
3	23	63	19	38	62.5
4	23	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

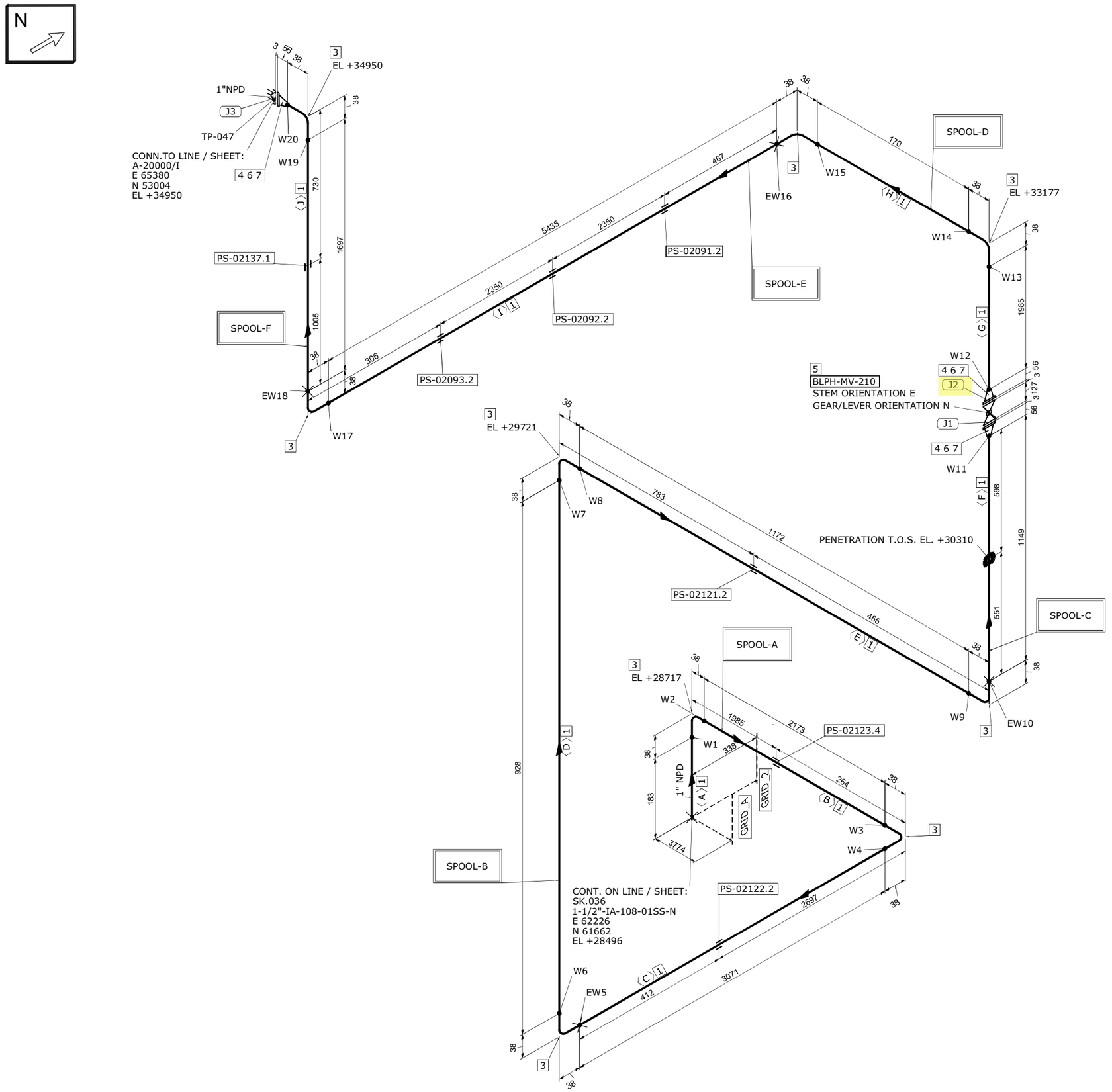
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:45:38.873Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:17:01.447Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	17.9M	45.6
3	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	9	1.3
4	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG	3	4.3

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	3	0.2
7	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	12	1.4

FABRICATION WEIGHT [kg]	51.2
ERECTION WEIGHT [kg]	7.6
OVERALL WEIGHT [kg]	58.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	1	BW
EW5	1	BW
W6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
EW10	1	BW
W11	1	BW
W12	1	BW
W13	1	BW
W14	1	BW
W15	1	BW
EW16	1	BW
W17	1	BW
EW18	1	BW
W19	1	BW
W20	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	183	BEVEL	BEVEL
B	1	2173	BEVEL	BEVEL
C	1	3071	BEVEL	BEVEL
D	1	928	BEVEL	BEVEL
E	1	1172	BEVEL	BEVEL
F	1	1149	BEVEL	BEVEL
G	1	1985	BEVEL	BEVEL
H	1	170	BEVEL	BEVEL
I	1	5435	BEVEL	BEVEL
J	1	1697	BEVEL	BEVEL

SUPPORT LIST

PS-02123.4
PS-02122.2
PS-02121.2
PS-02091.2
PS-02092.2
PS-02093.2
PS-02137.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	14.1
B	4	5.8
C	1	4.3
D	4	7.3
E	1	13.7
F	2	5.9
MONT	4	7.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-191-01SS-N

SK.095

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00095 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

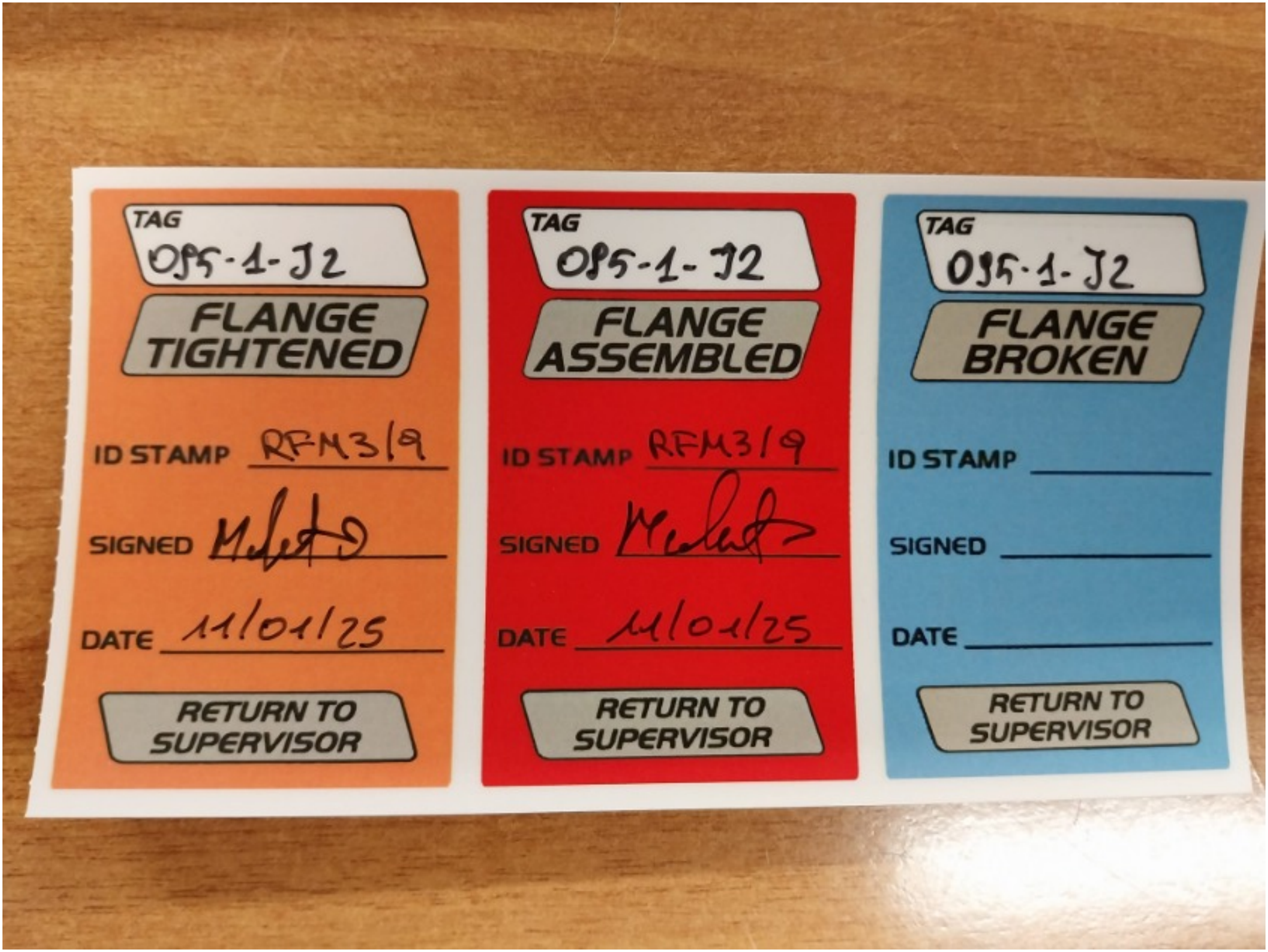
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	GAS					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

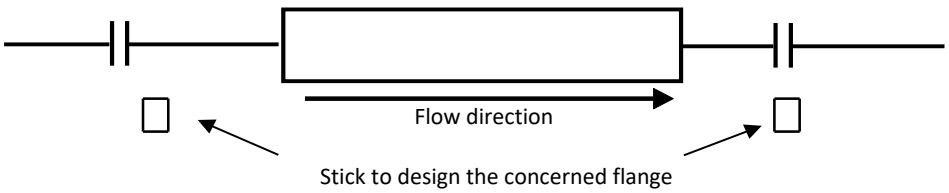
MASTER


TAG
095-1-J2
FLANGE TIGHTENED
ID STAMP RFM319
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
095-1-J2
FLANGE ASSEMBLED
ID STAMP RFM319
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
095-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	095-1-J3	: Joint 095-1-J3			Dwg	123A90-FDL-PP-DI-00095-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004134		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



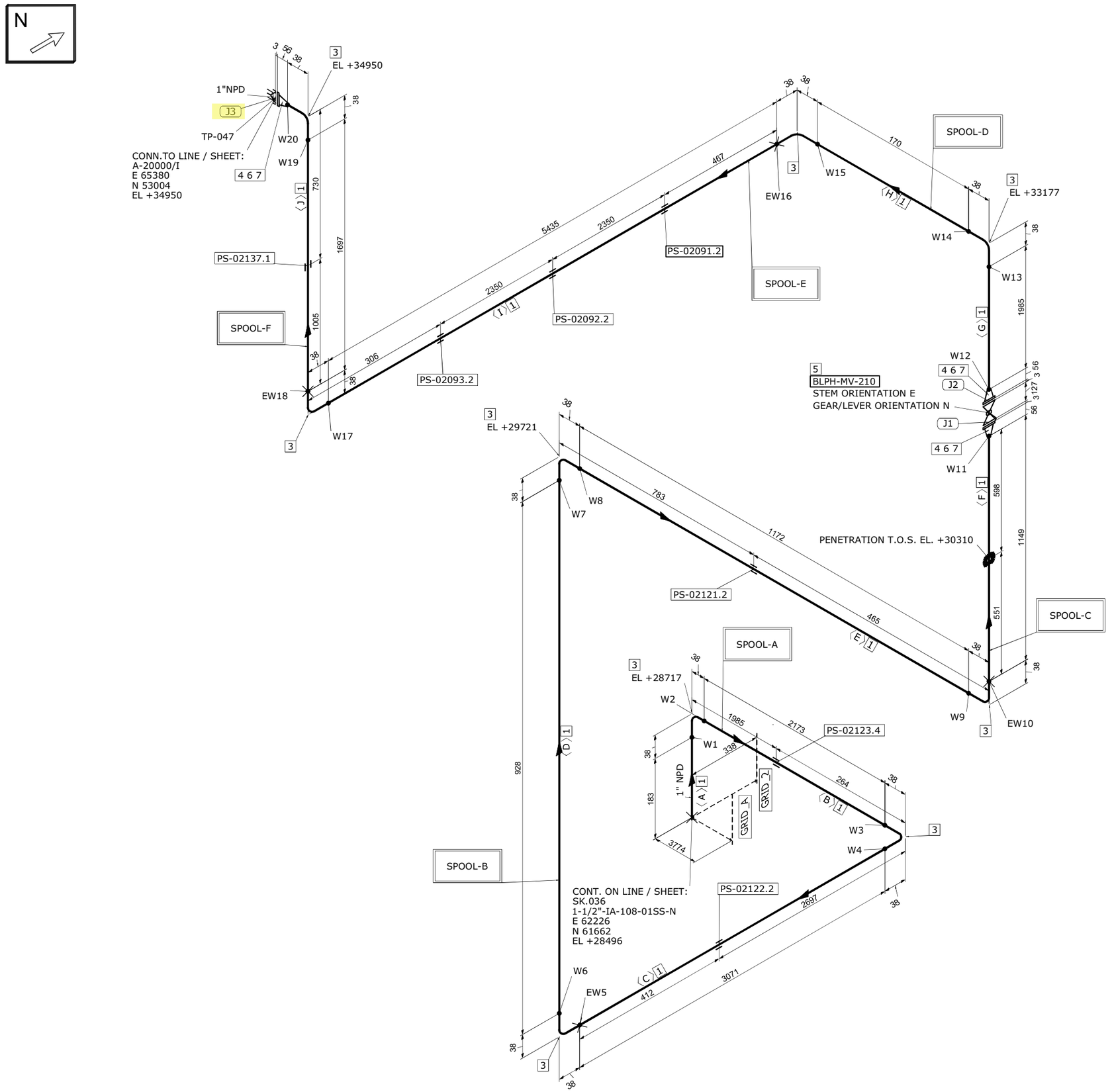
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	23	63	19	38	62.5
2	23	63	19	38	62.5
3	23	63	19	38	62.5
4	23	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:45:49.392Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:16:55.260Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	17.9M	45.6
3	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	9	1.3
4	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG	3	4.3

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	3	0.2
7	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	12	1.4

FABRICATION WEIGHT [kg]	51.2
ERECTION WEIGHT [kg]	7.6
OVERALL WEIGHT [kg]	58.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	1	BW
EW5	1	BW
W6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
EW10	1	BW
W11	1	BW
W12	1	BW
W13	1	BW
W14	1	BW
W15	1	BW
EW16	1	BW
W17	1	BW
EW18	1	BW
W19	1	BW
W20	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	183	BEVEL	BEVEL
B	1	2173	BEVEL	BEVEL
C	1	3071	BEVEL	BEVEL
D	1	928	BEVEL	BEVEL
E	1	1172	BEVEL	BEVEL
F	1	1149	BEVEL	BEVEL
G	1	1985	BEVEL	BEVEL
H	1	170	BEVEL	BEVEL
I	1	5435	BEVEL	BEVEL
J	1	1697	BEVEL	BEVEL

SUPPORT LIST

PS-02123.4
PS-02122.2
PS-02121.2
PS-02091.2
PS-02092.2
PS-02093.2
PS-02137.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	14.1
B	4	5.8
C	1	4.3
D	4	7.3
E	1	13.7
F	2	5.9
MONT	4	7.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-191-01SS-N

SK.095

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00095 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	GAS					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB.	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

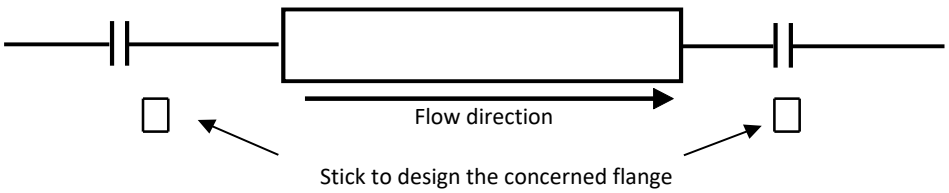
MASTER


TAG
OJ5-1-J3
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
OJ5-1-J3
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
OJ5-1-J3
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	101-1-J1	: Joint 101-1-J1			Dwg	123A90-FDL-PP-DI-00101-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004138		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

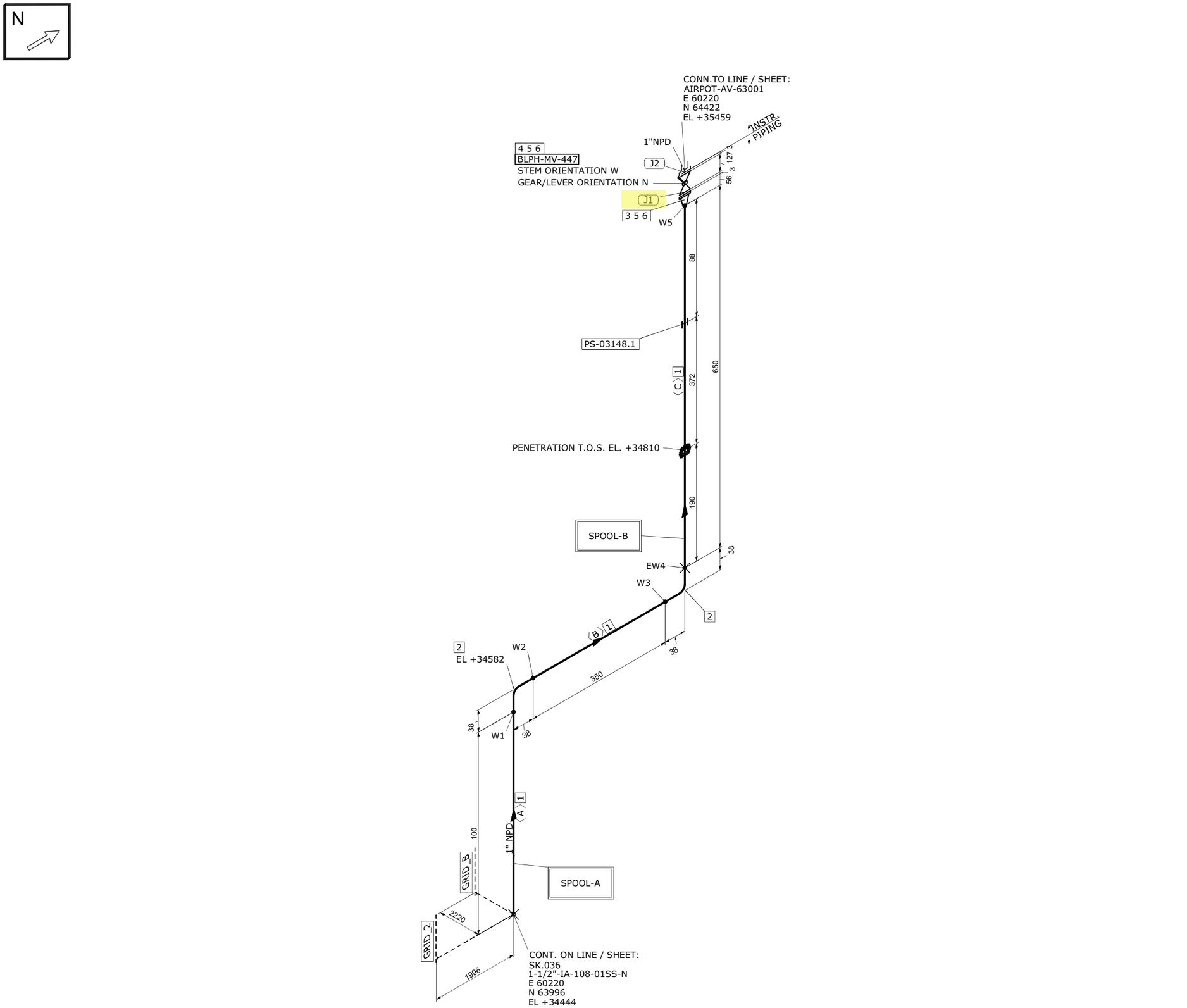
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:46:00.201Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T17:58:59.949Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03148.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-203-01SS-N

SK.101

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00101 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

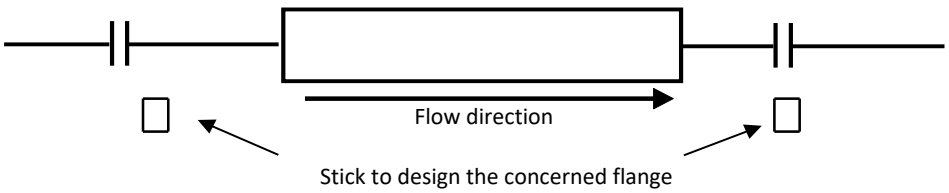

TAG
101-1-J1
FLANGE TIGHTENED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
101-1-J1
FLANGE ASSEMBLED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
101-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ROSETTI MARINO — CROSSWIND

ITEM	Tag	101-1-J2	: Joint 101-1-J2			Dwg	123A90-FDL-PP-DI-00101-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004139		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	22	63	19	38	62.5
2	22	63	19	38	62.5
3	22	63	19	38	62.5
4	22	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

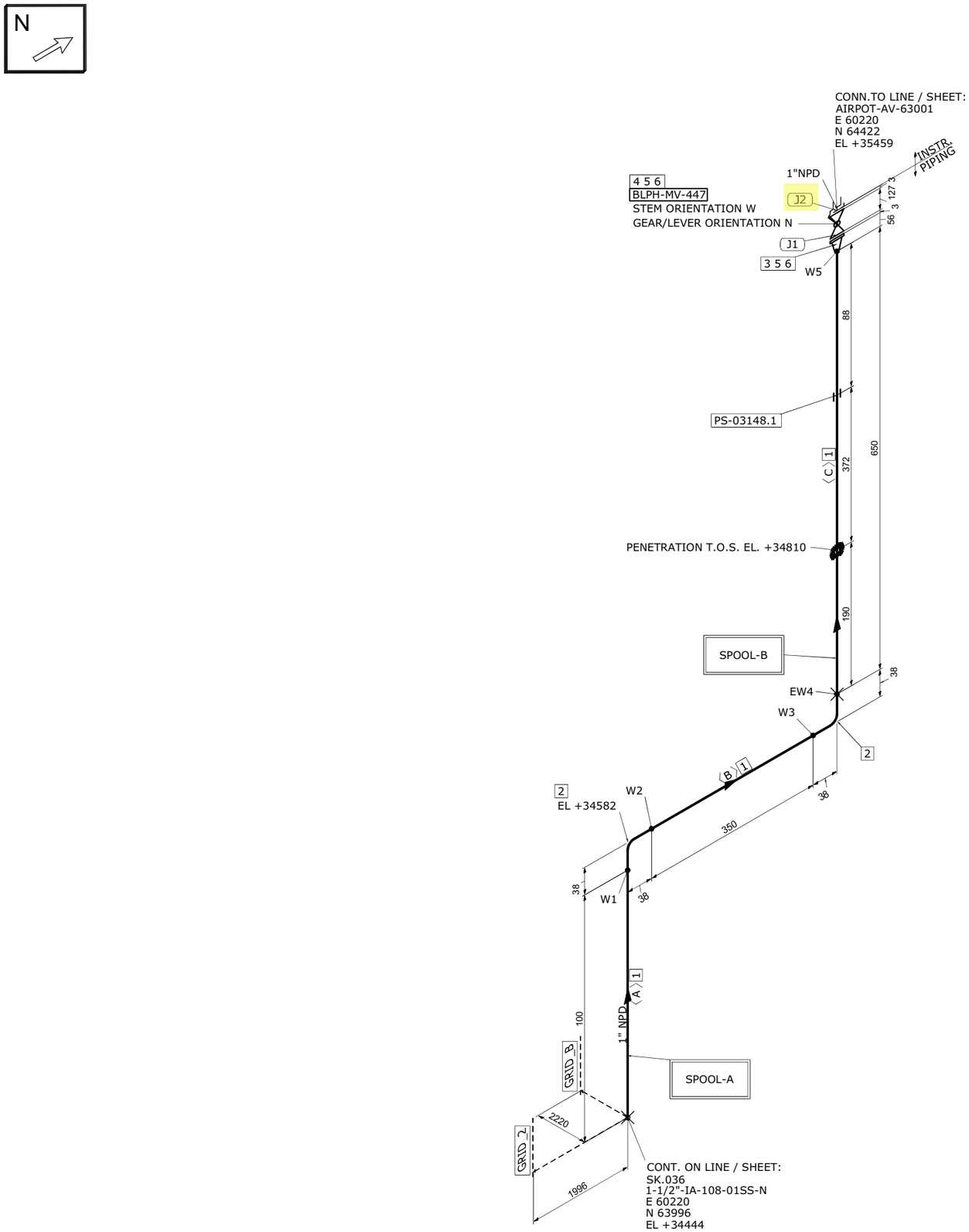
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:46:16.536Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:49:37.902Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03148.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-203-01SS-N

SK.101

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00101 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

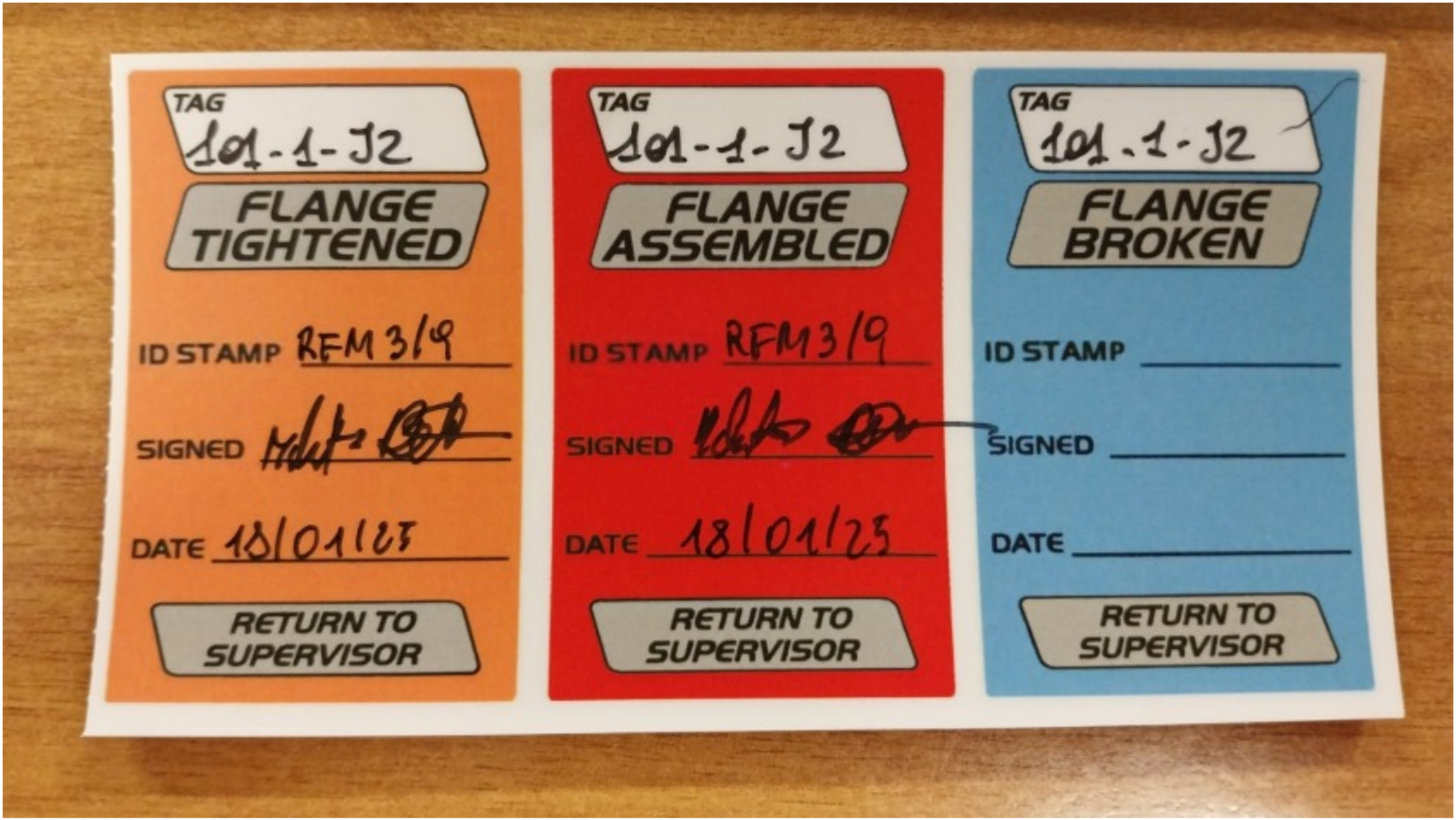
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

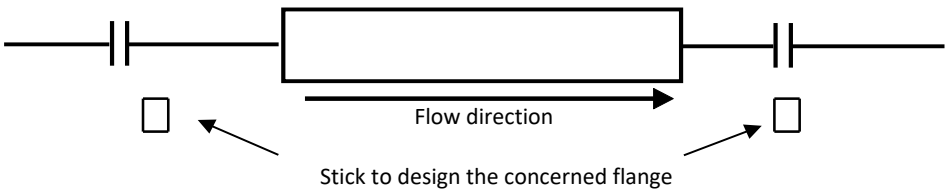
MASTER


TAG
101-1-J2
FLANGE TIGHTENED
ID STAMP RFM 3/9
SIGNED
DATE 18/01/23
RETURN TO SUPERVISOR
TAG
101-1-J2
FLANGE ASSEMBLED
ID STAMP RFM 3/9
SIGNED
DATE 18/01/23
RETURN TO SUPERVISOR
TAG
101-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	103-1-J1	: Joint 103-1-J1			Dwg	123A90-FDL-PP-DI-00103-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004143		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



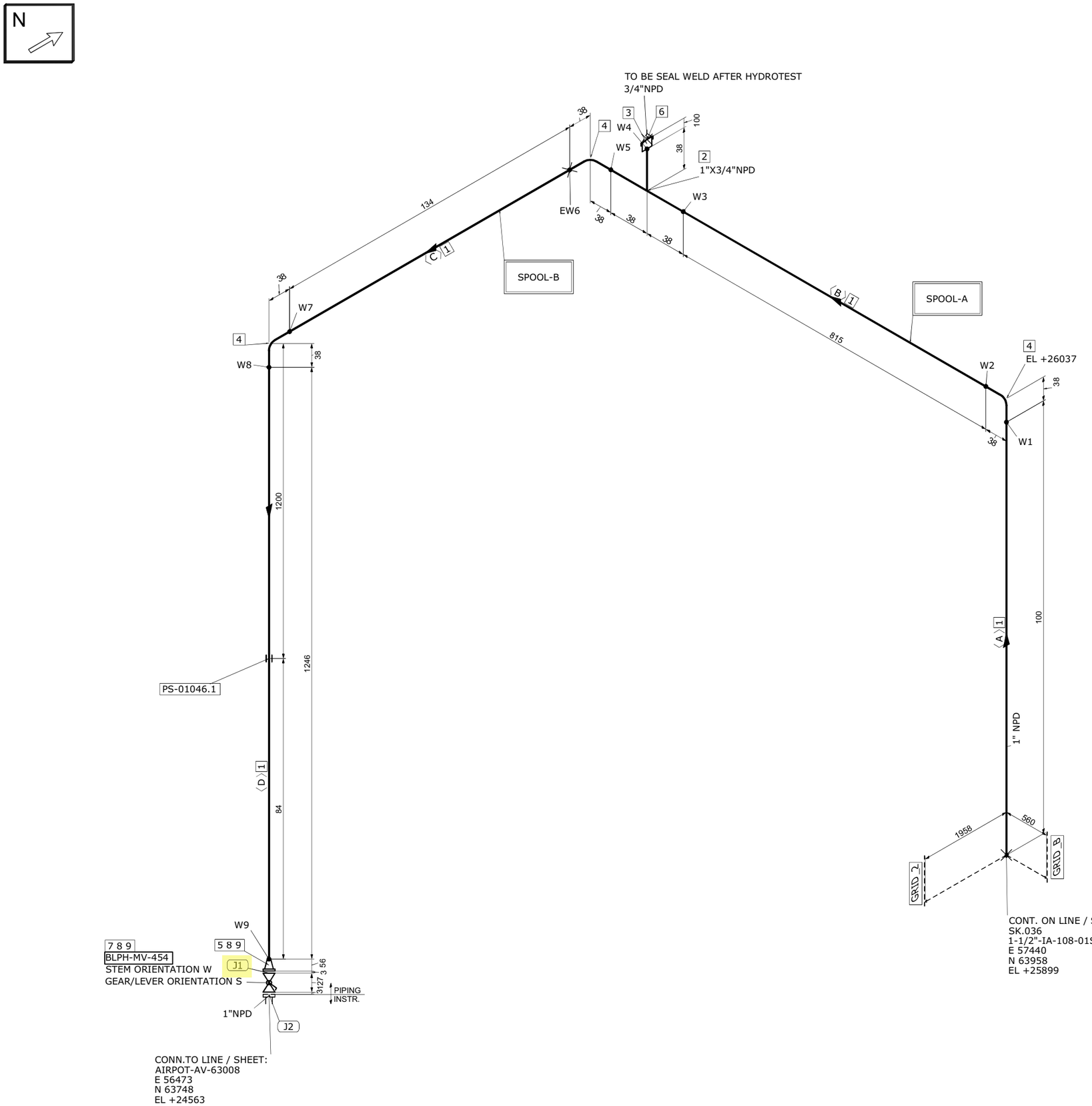
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☒ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:47:09.792Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T18:00:54.229Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	3	0.4
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	8.1
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	15.4

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	815	BEVEL	BEVEL
C	1	134	BEVEL	BEVEL
D	1	1246	BEVEL	BEVEL

SUPPORT LIST

PS-01046.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	3.1
B	3	5.1
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-205-01SS-N

SK.103

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00103	SHEET / OF	1/1
				DATE	20-08-2024
				REV.	00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

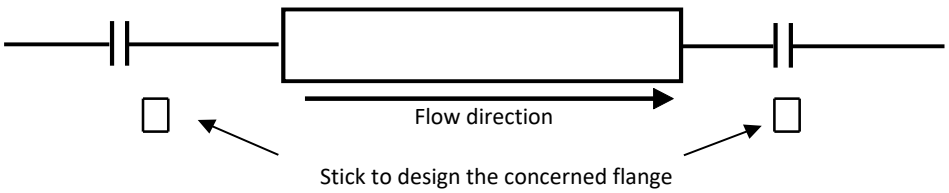

TAG
103-1-J4
FLANGE TIGHTENED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
103-1-J1
FLANGE ASSEMBLED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
103-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	103-1-J2	: Joint 103-1-J2			Dwg	123A90-FDL-PP-DI-00103-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004144	Location	Onshore Activities		User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



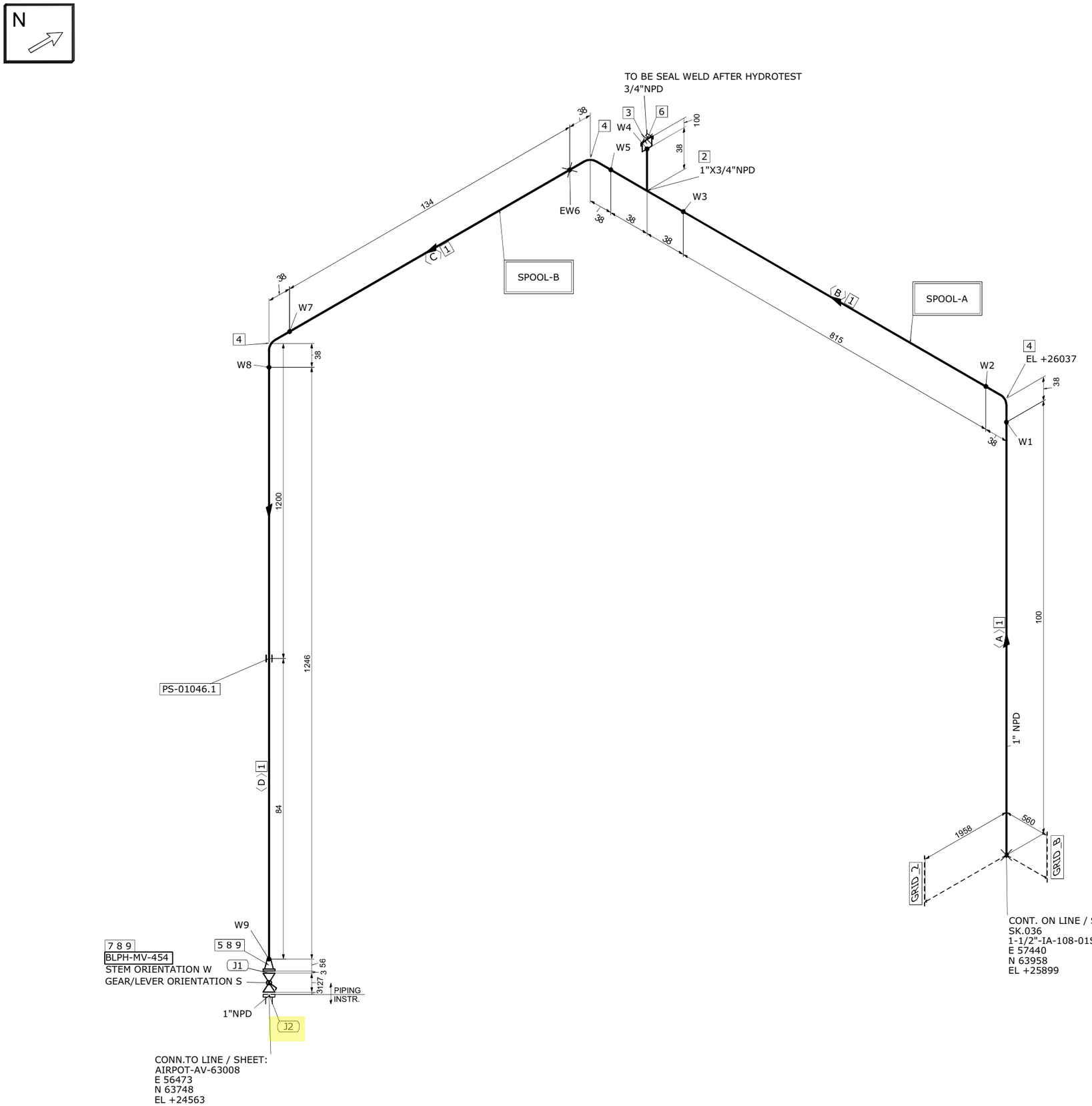
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:47:23.328Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:50:14.824Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	3	0.4
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	8.1
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	15.4

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	815	BEVEL	BEVEL
C	1	134	BEVEL	BEVEL
D	1	1246	BEVEL	BEVEL

SUPPORT LIST

PS-01046.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	3.1
B	3	5.1
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-205-01SS-N

SK.103

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00103 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

TAG 103-1-J2

FLANGE TIGHTENED

ID STAMP RF13-3

SIGNED

DATE 18/01/2025

RETURN TO SUPERVISOR

TAG 103-1-J2

FLANGE ASSEMBLED

ID STAMP RF13-3

SIGNED

DATE 18/01/2025

RETURN TO SUPERVISOR

TAG 103-1-J2

FLANGE BROKEN

ID STAMP

SIGNED

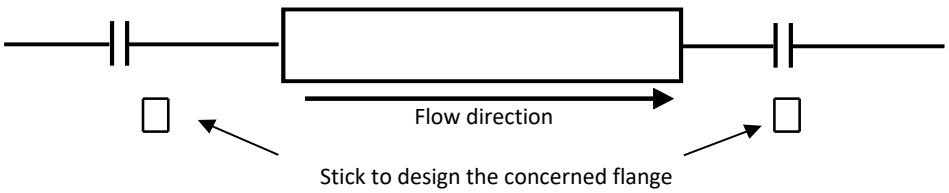
DATE

RETURN TO SUPERVISOR

ITEM	Tag	104-1-J1	: Joint 104-1-J1			Dwg	123A90-FDL-PP-DI-00104-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004145		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

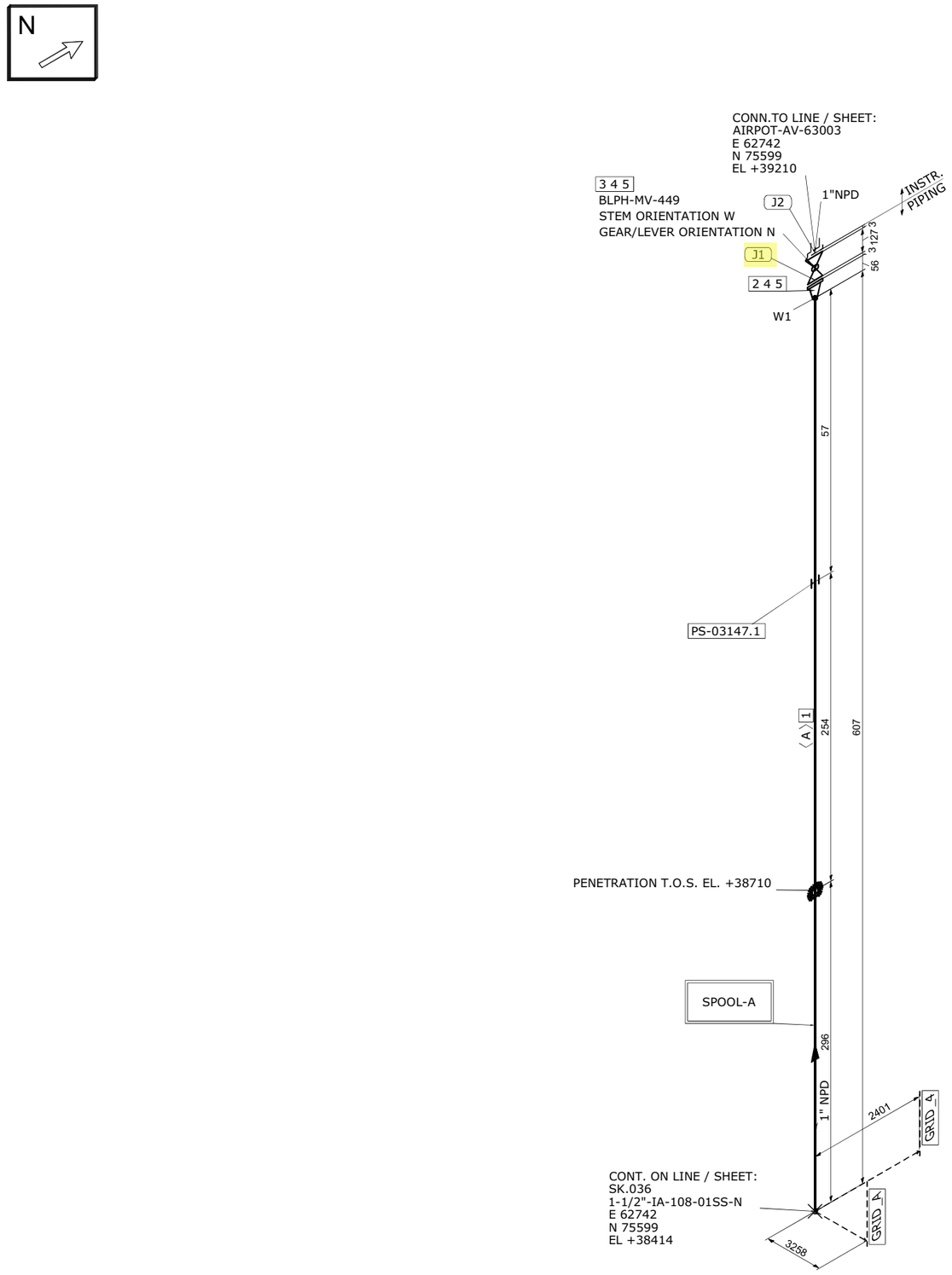
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:47:35.191Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-13T18:30:40.368Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03147.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-206-01SS-N

SK.104

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00104 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

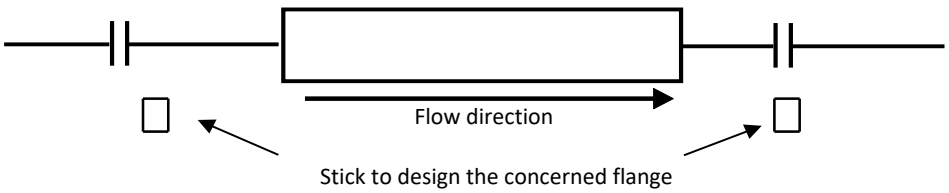
MASTER


TAG
10h-1-J1
FLANGE TIGHTENED
ID STAMP RFH9/RFH13
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
10h-1-J1
FLANGE ASSEMBLED
ID STAMP RFH9/RFH13
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
10h-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	104-1-J2	: Joint 104-1-J2			Dwg	123A90-FDL-PP-DI-00104-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004146		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

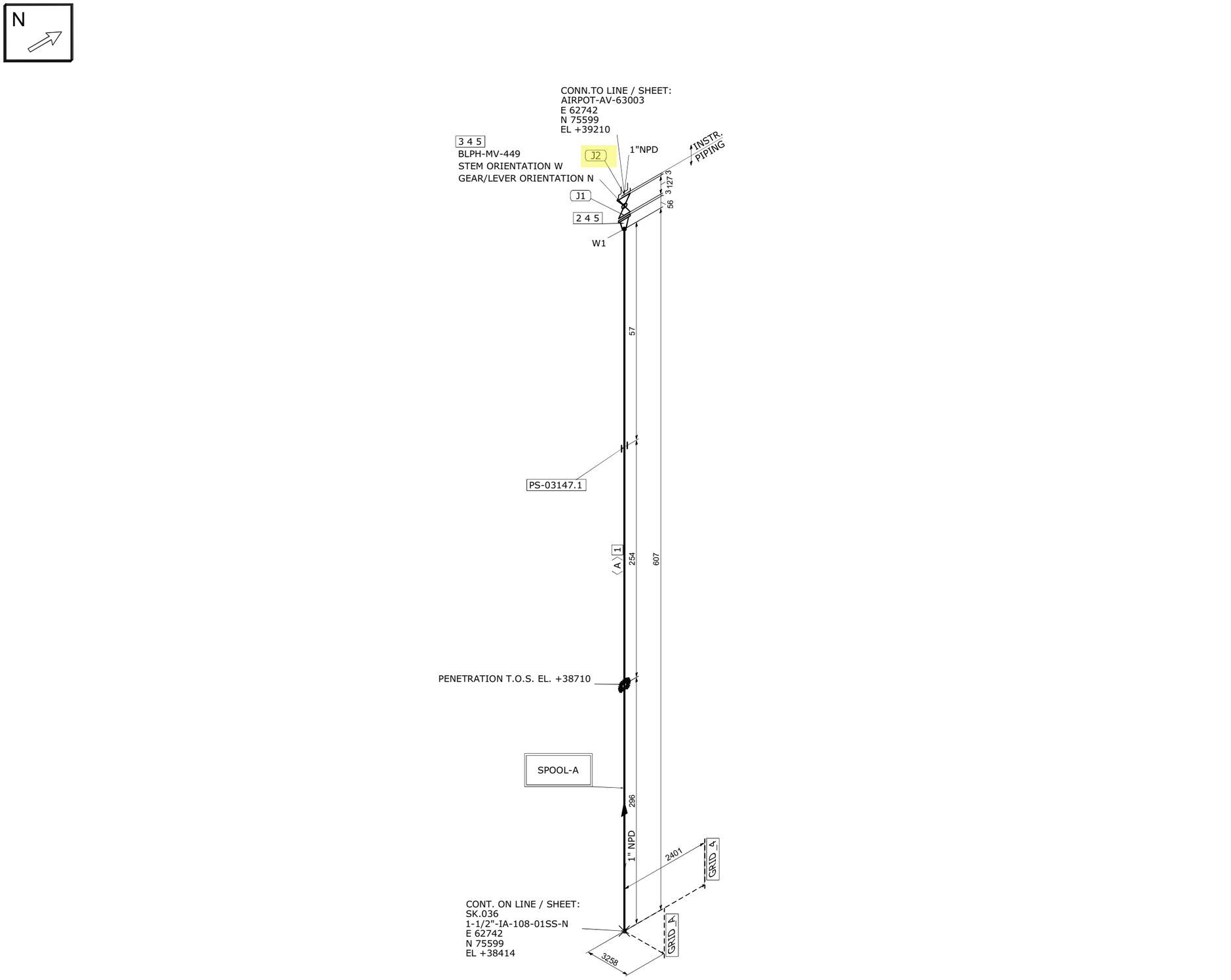
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:47:49.168Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:50:49.126Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03147.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-206-01SS-N

SK.104

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00104 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

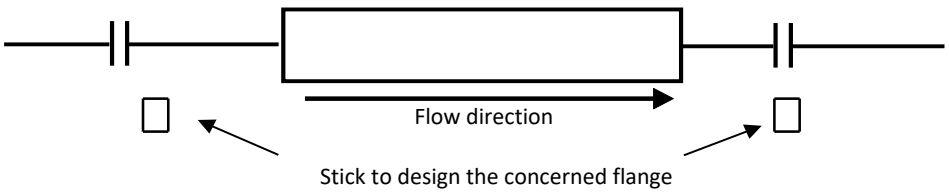
MASTER


TAG
10h-1-J2
FLANGE TIGHTENED
ID STAMP KFH 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
10h-1-J2
FLANGE ASSEMBLED
ID STAMP KFH 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
10h-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	105-1-J1	: Joint 105-1-J1		Dwg	123A90-FDL-PP-DI-00105-01	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10004147	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX27	Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

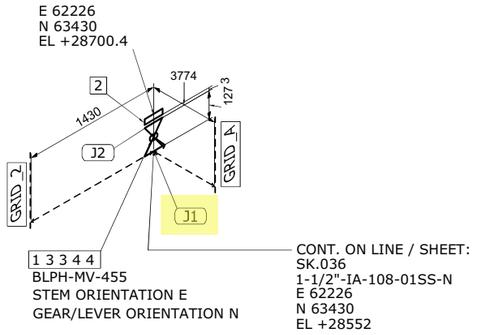
			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:47:59.607Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-13T18:31:40.757Z	

N



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
2	1	FLB0SS00490100	Flange Blind ASME B16.5 150LB RF FRG ASTM A182 Gr.F316/316L	1	1.4
3	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
4	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	0.0
ERECTION WEIGHT [kg]	8.5
OVERALL WEIGHT [kg]	8.5

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2

SUPPORT LIST

SPOOL	WELD [inches]	WEIGHT [kg]
MONT	0	8.5

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-207-01SS-N

SK.105

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE	N/A
DRAWN	STAFF SRL
CHECKED	RT
APPROVED	LM
DATE	20-08-2024
FORMAT	A3
DRAWING NO.	123A90-FDL-PP-DI-00105
SHEET / OF	1/1
REV.	00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

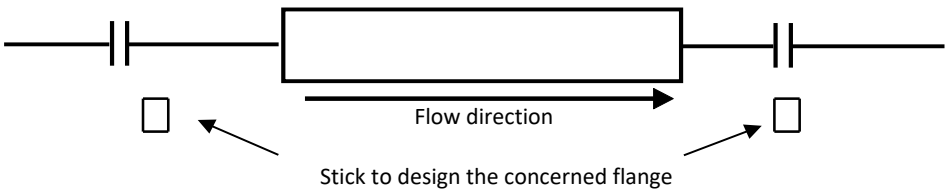
MASTER


TAG
105-1-J1
FLANGE TIGHTENED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
105-1-J1
FLANGE ASSEMBLED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
105-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	105-1-J2	: Joint 105-1-J2			Dwg	123A90-FDL-PP-DI-00105-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004148		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

2 **Flange Face Check:** Both flanges clean and free from damage. Yes

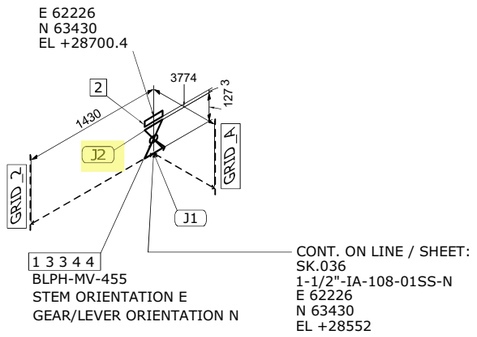
3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:48:11.488Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-13T18:31:52.943Z	

N



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
2	1	FLB0SS00490100	Flange Blind ASME B16.5 150LB RF FRG ASTM A182 Gr.F316/316L	1	1.4
3	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
4	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	0.0
ERECTION WEIGHT [kg]	8.5
OVERALL WEIGHT [kg]	8.5

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2

SUPPORT LIST

SPOOL	WELD [inches]	WEIGHT [kg]
MONT	0	8.5

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-207-01SS-N

SK.105

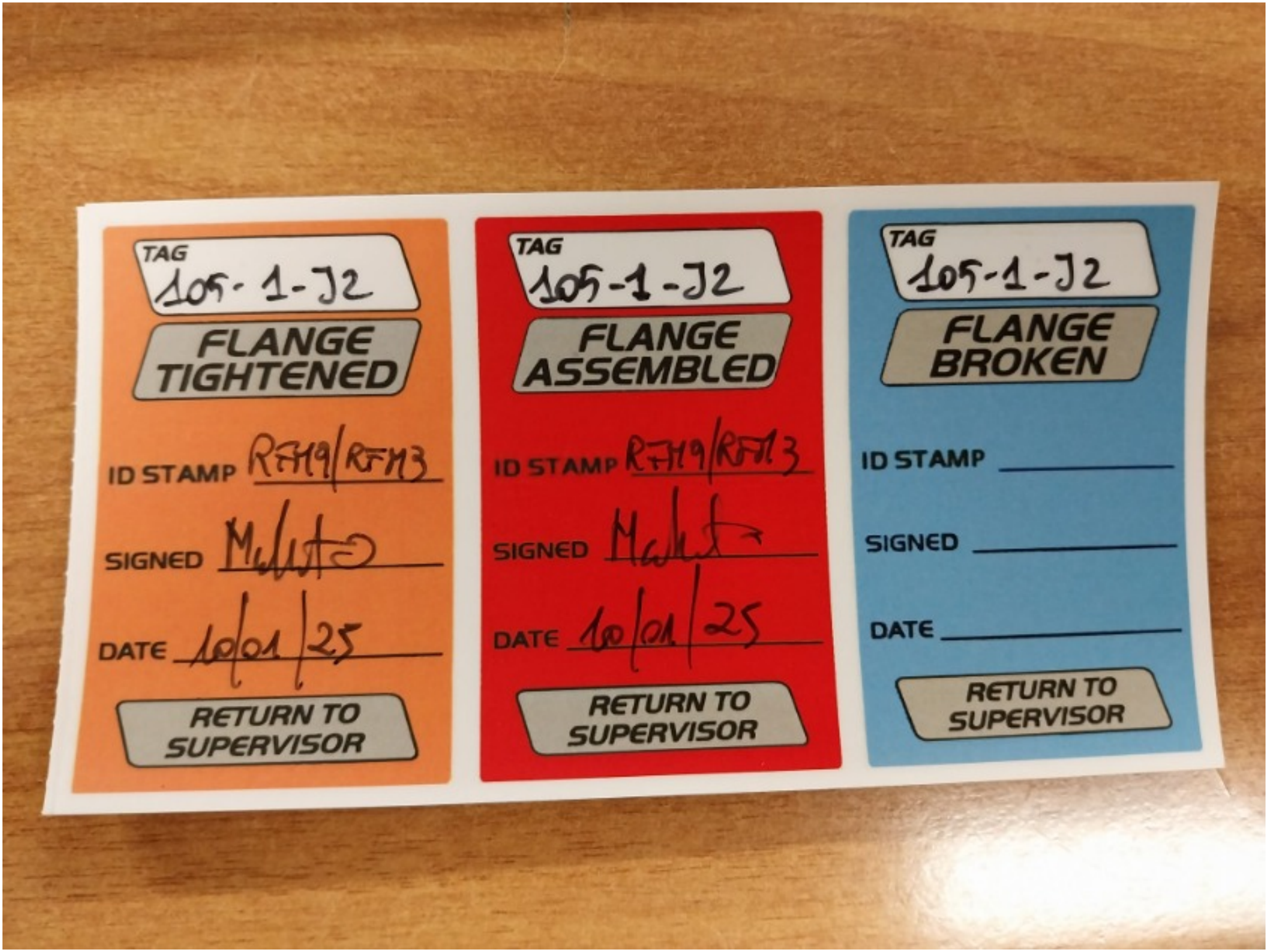
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS	
P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

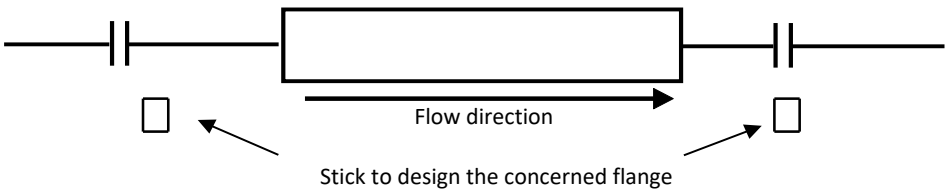
CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00105	SHEET / OF 1/1	REV. 00


TAG
105-1-J2
FLANGE TIGHTENED
ID STAMP RFH9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
105-1-J2
FLANGE ASSEMBLED
ID STAMP RFH9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
105-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	106-1-J1	: Joint 106-1-J1			Dwg	123A90-FDL-PP-DI-00106-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004149		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

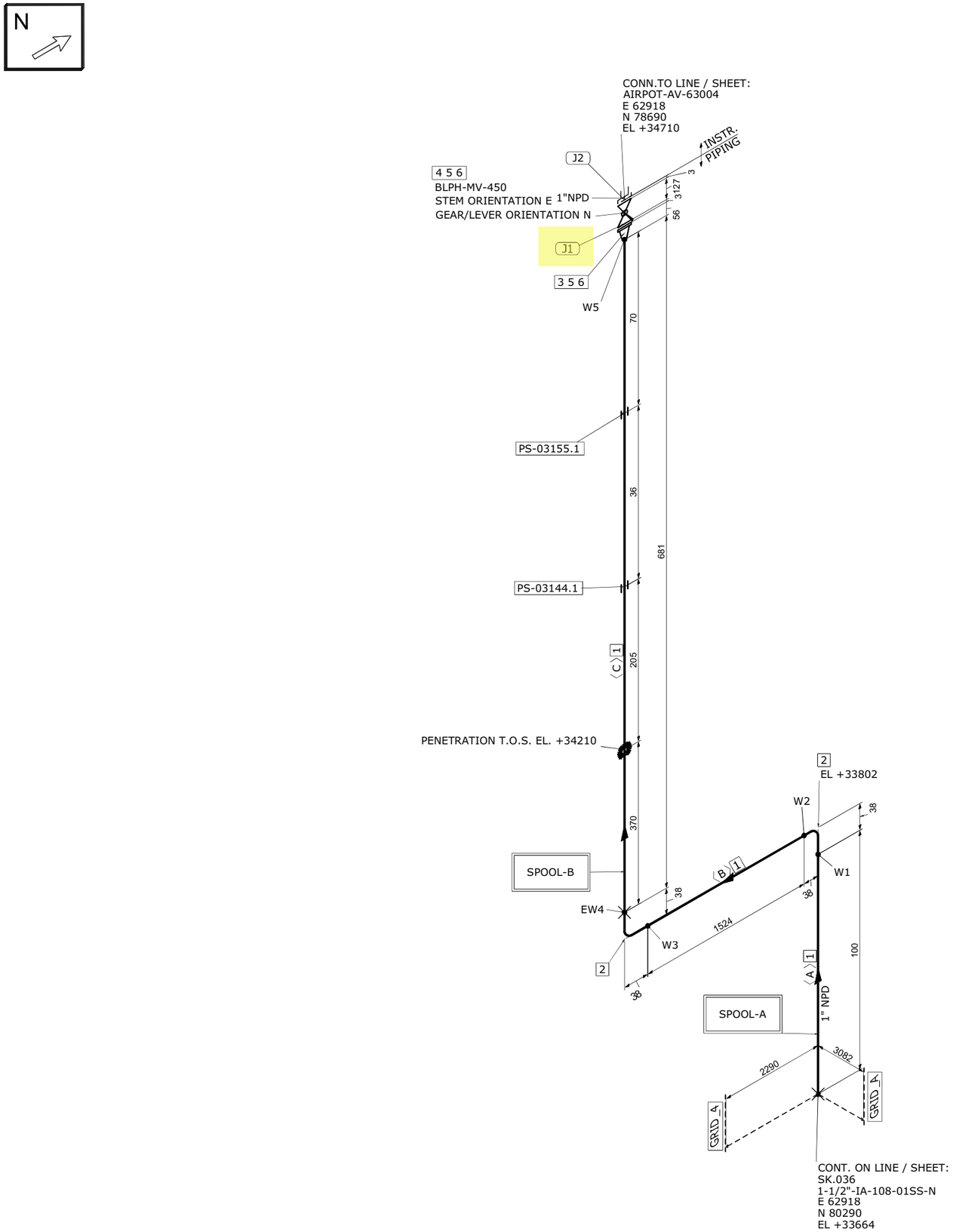
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-13	2025-01-13	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T05:48:26.817Z	Digitaly signed by Massimo Bruschi 2025-01-13T18:32:09.219Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03144.1
PS-03155.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-208-01SS-N

SK.106

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00106 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB.	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

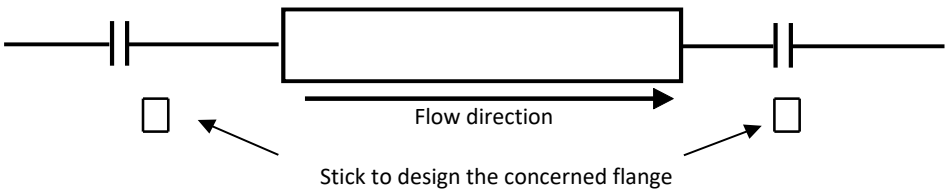

TAG
106-1-J1
FLANGE TIGHTENED
ID STAMP RFM9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
106-1-J1
FLANGE ASSEMBLED
ID STAMP RFM9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
106-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ROSETTI MARINO — CROSSWIND

ITEM	Tag	106-1-J2	: Joint 106-1-J2			Dwg	123A90-FDL-PP-DI-00106-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004150		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



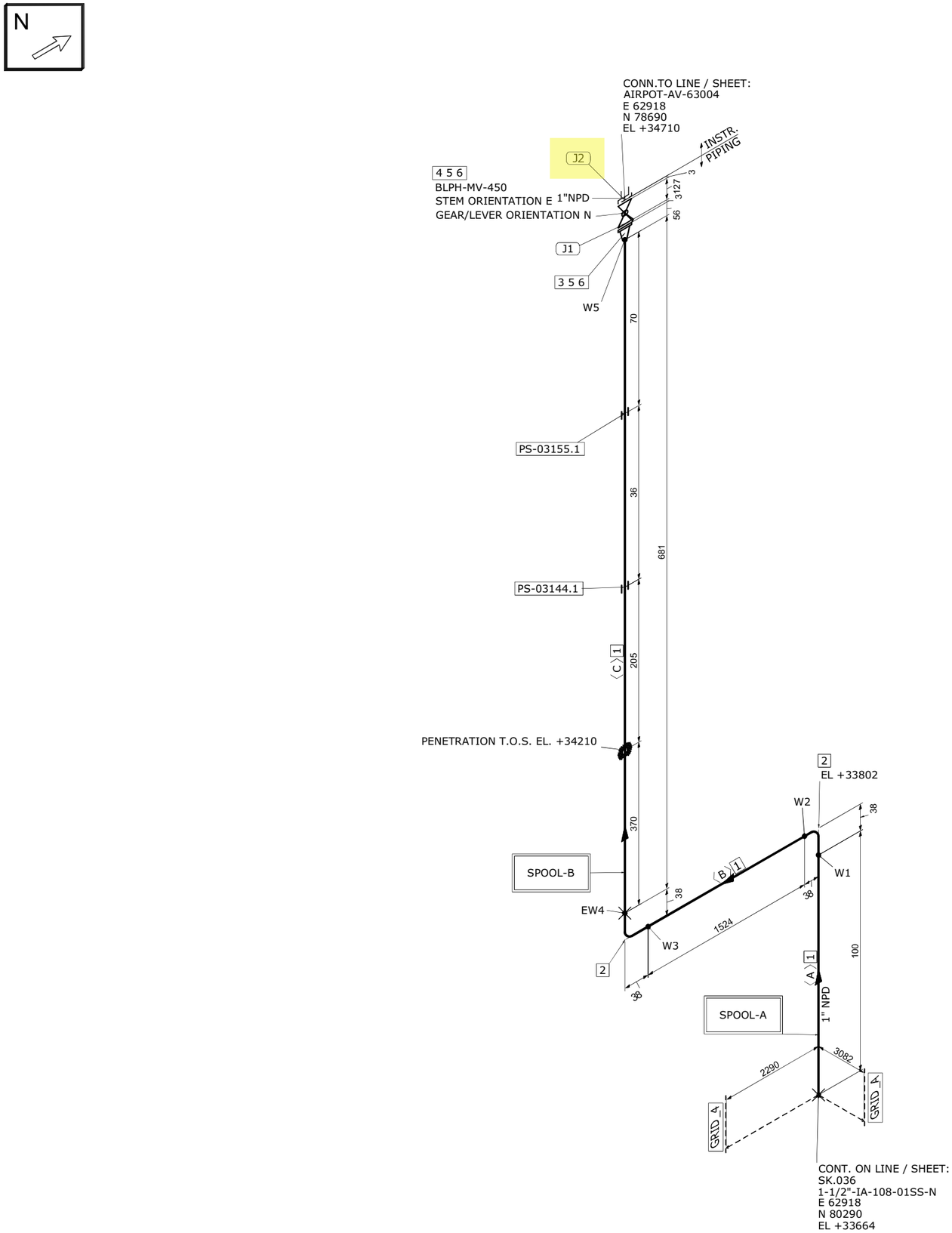
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-20	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T05:48:40.535Z	Digitaly signed by Lorenzo Novaga 2025-01-20T08:49:45.277Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03144.1
PS-03155.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-208-01SS-N

SK.106

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00106 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

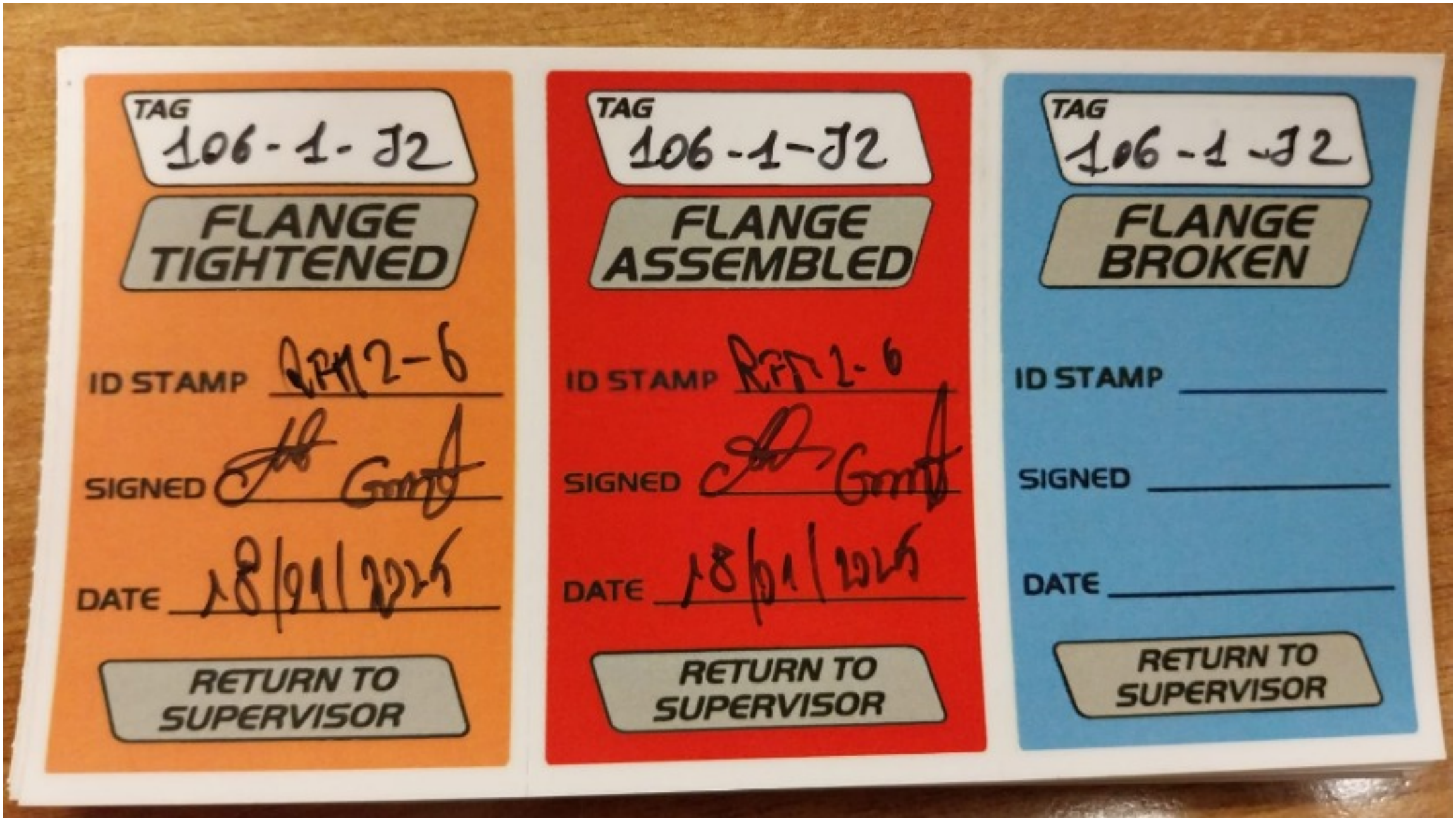
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB.	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

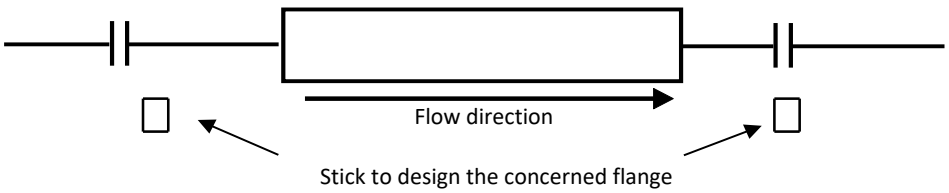
MASTER


TAG
106-1-J2
FLANGE TIGHTENED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
106-1-J2
FLANGE ASSEMBLED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
106-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	107-1-J1	: Joint 107-1-J1			Dwg	123A90-FDL-PP-DI-00107-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004151		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



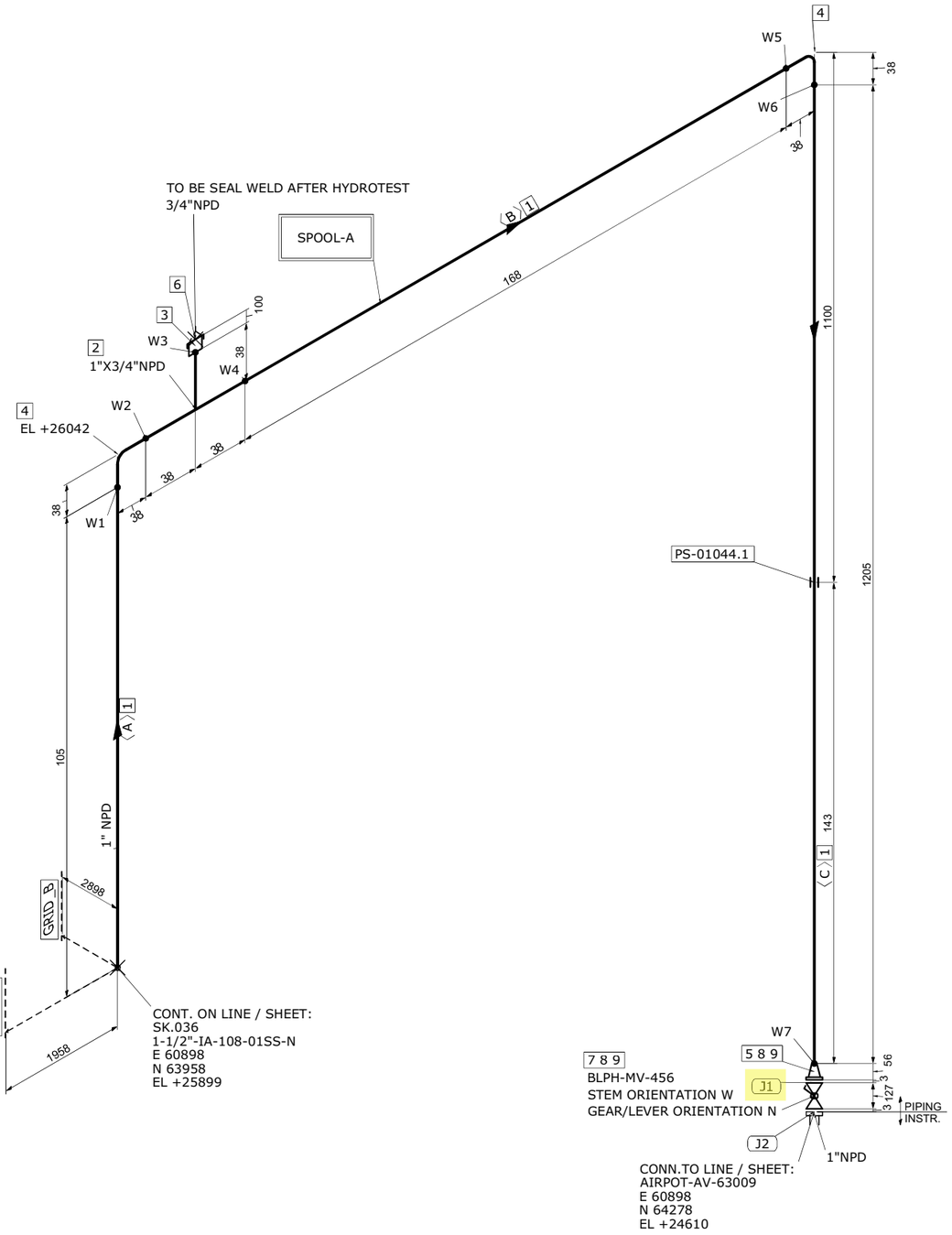
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T05:48:50.927Z	Digitaly signed by Lorenzo Novaga 2025-01-13T18:06:52.190Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.5M	3.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.0
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.3

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
W6	1	BW
W7	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	105	BEVEL	BEVEL
B	1	168	BEVEL	BEVEL
C	1	1205	BEVEL	BEVEL

SUPPORT LIST

PS-01044.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	6.75	5.9
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-209-01SS-N

SK.107

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00107 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

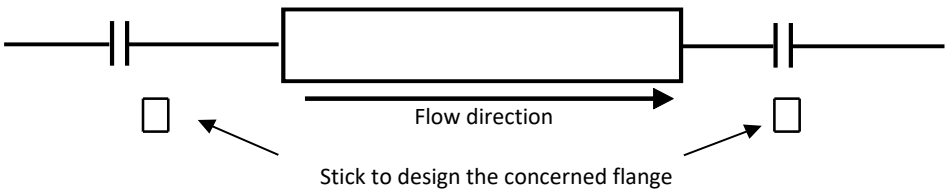
MASTER


TAG
107-1-J1
FLANGE TIGHTENED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
107-1-J1
FLANGE ASSEMBLED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
107-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	107-1-J2	: Joint 107-1-J2			Dwg	123A90-FDL-PP-DI-00107-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004152		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

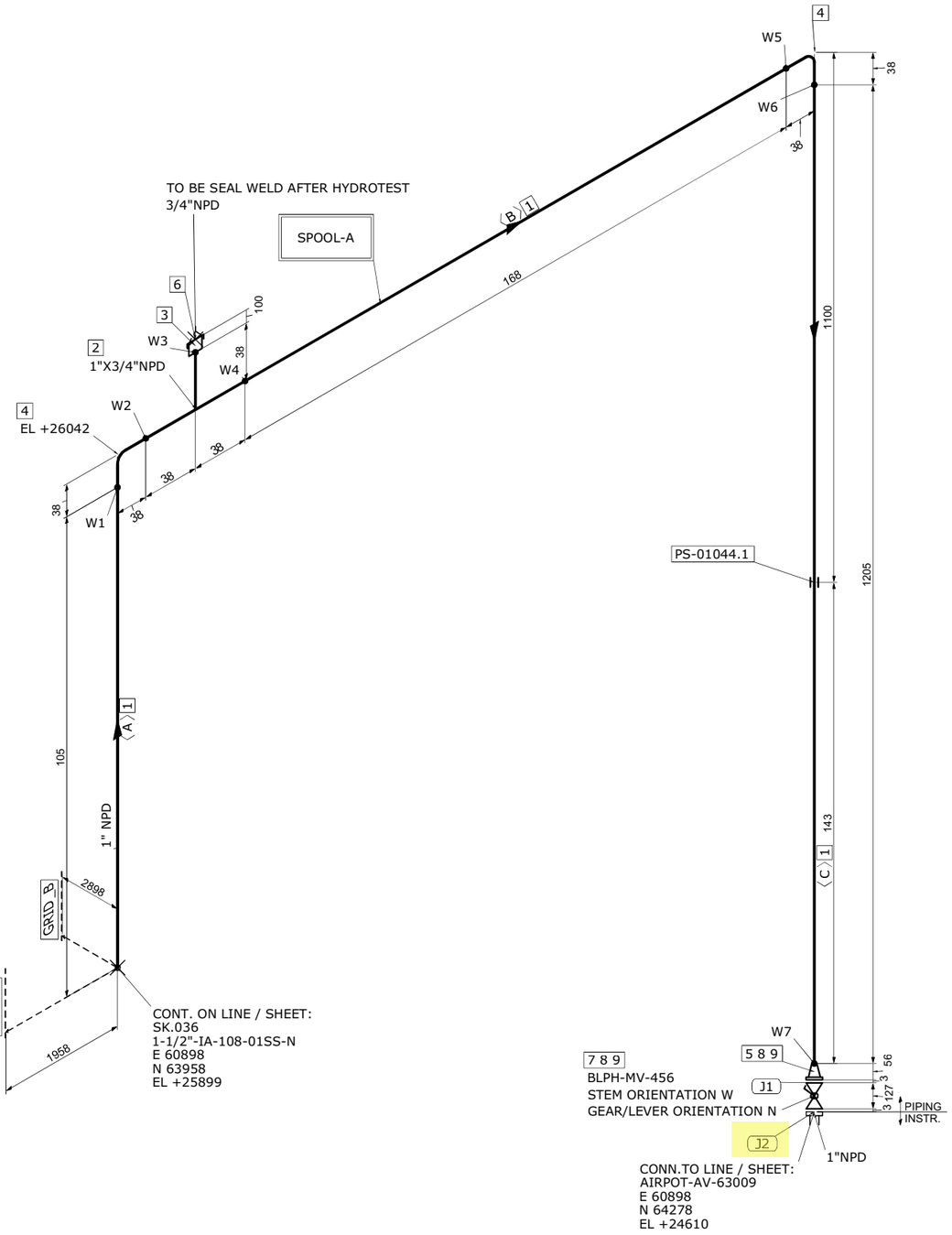
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:49:06.019Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:51:17.803Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.5M	3.8
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.0
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.3

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
W6	1	BW
W7	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	105	BEVEL	BEVEL
B	1	168	BEVEL	BEVEL
C	1	1205	BEVEL	BEVEL

SUPPORT LIST

PS-01044.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	6.75	5.9
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-209-01SS-N

SK.107

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK					SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00107			SHEET / OF	1/1
						REV.	00

LINE DATA

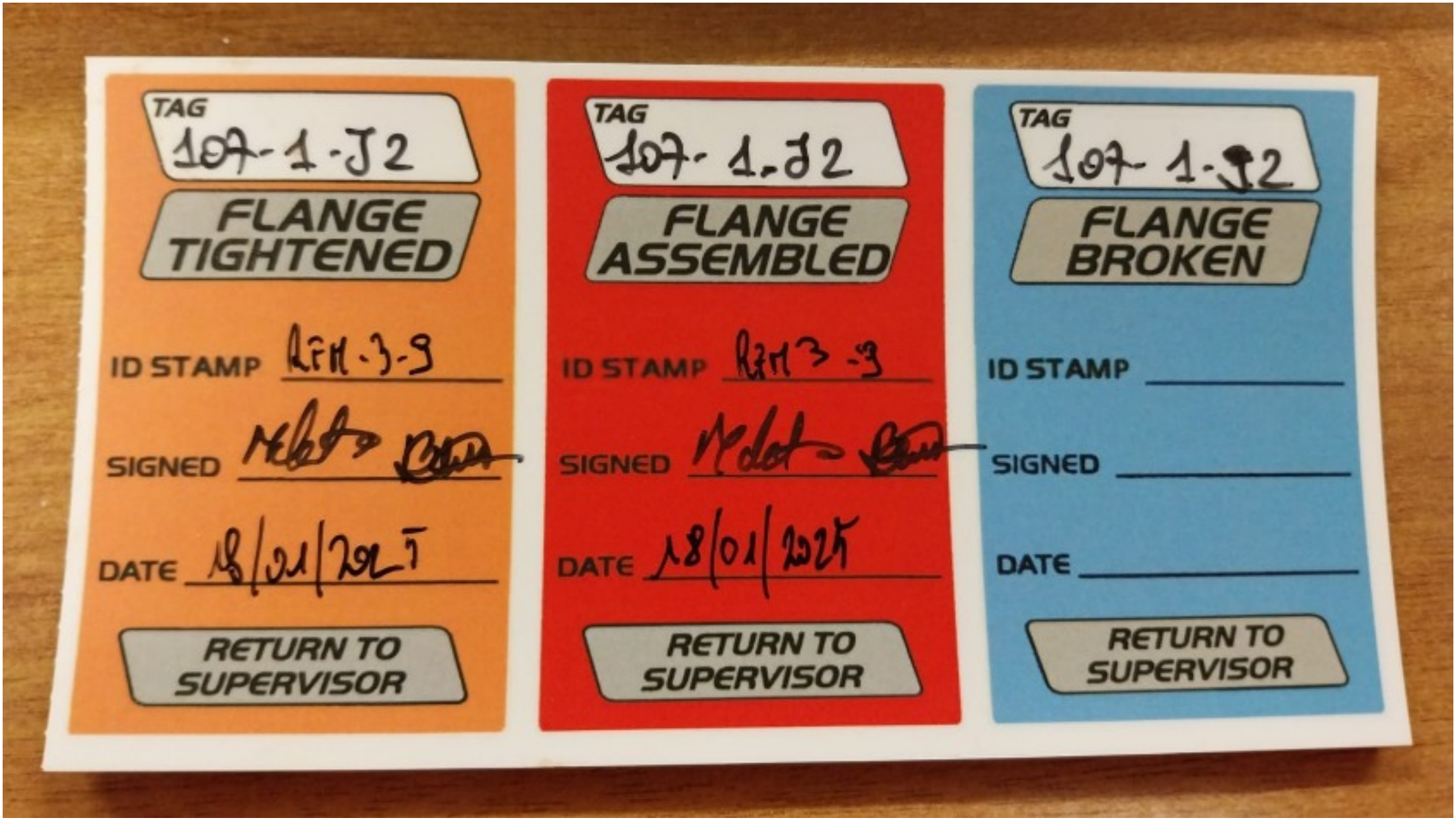
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

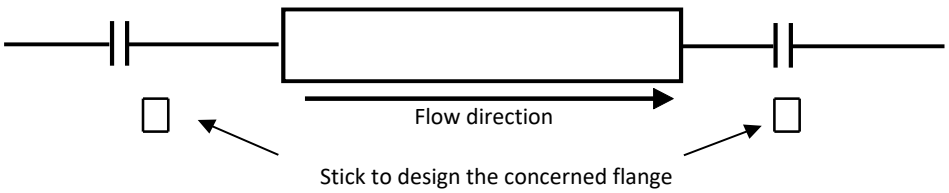
MASTER


TAG
107-1-J2
FLANGE TIGHTENED
ID STAMP RFM-3-9
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
107-1-J2
FLANGE ASSEMBLED
ID STAMP RFM3-3
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
107-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	108-1-J1	: Joint 108-1-J1			Dwg	123A90-FDL-PP-DI-00108-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004153		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



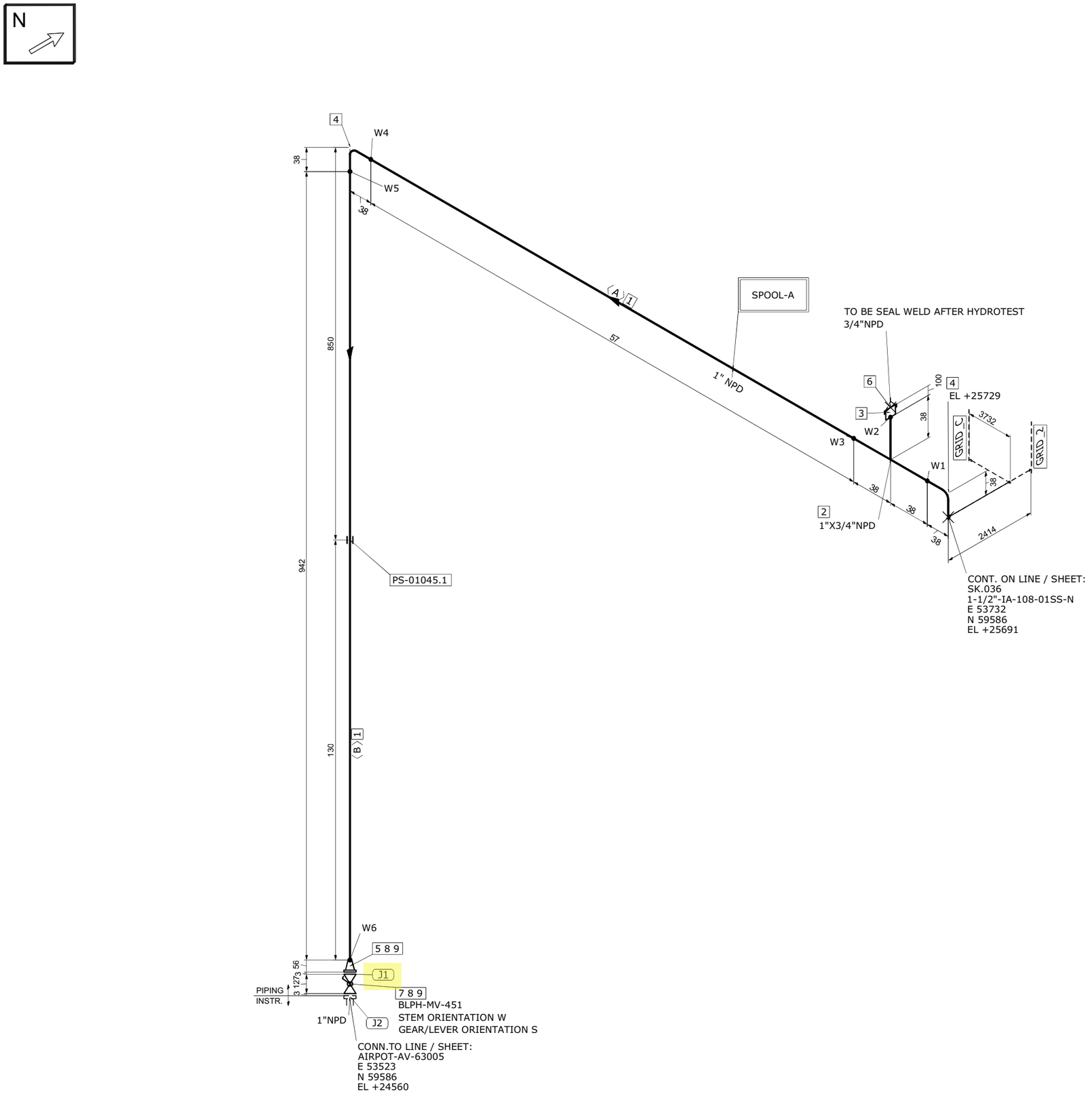
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T05:49:17.742Z	Digitaly signed by Lorenzo Novaga 2025-01-13T18:07:27.842Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.0M	2.5
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.7
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	12.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	3/4	BW
W3	1	BW
W4	1	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	57	BEVEL	BEVEL
B	1	942	BEVEL	BEVEL

SUPPORT LIST

PS-01045.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	4.7
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-210-01SS-N

SK.108

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00108 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

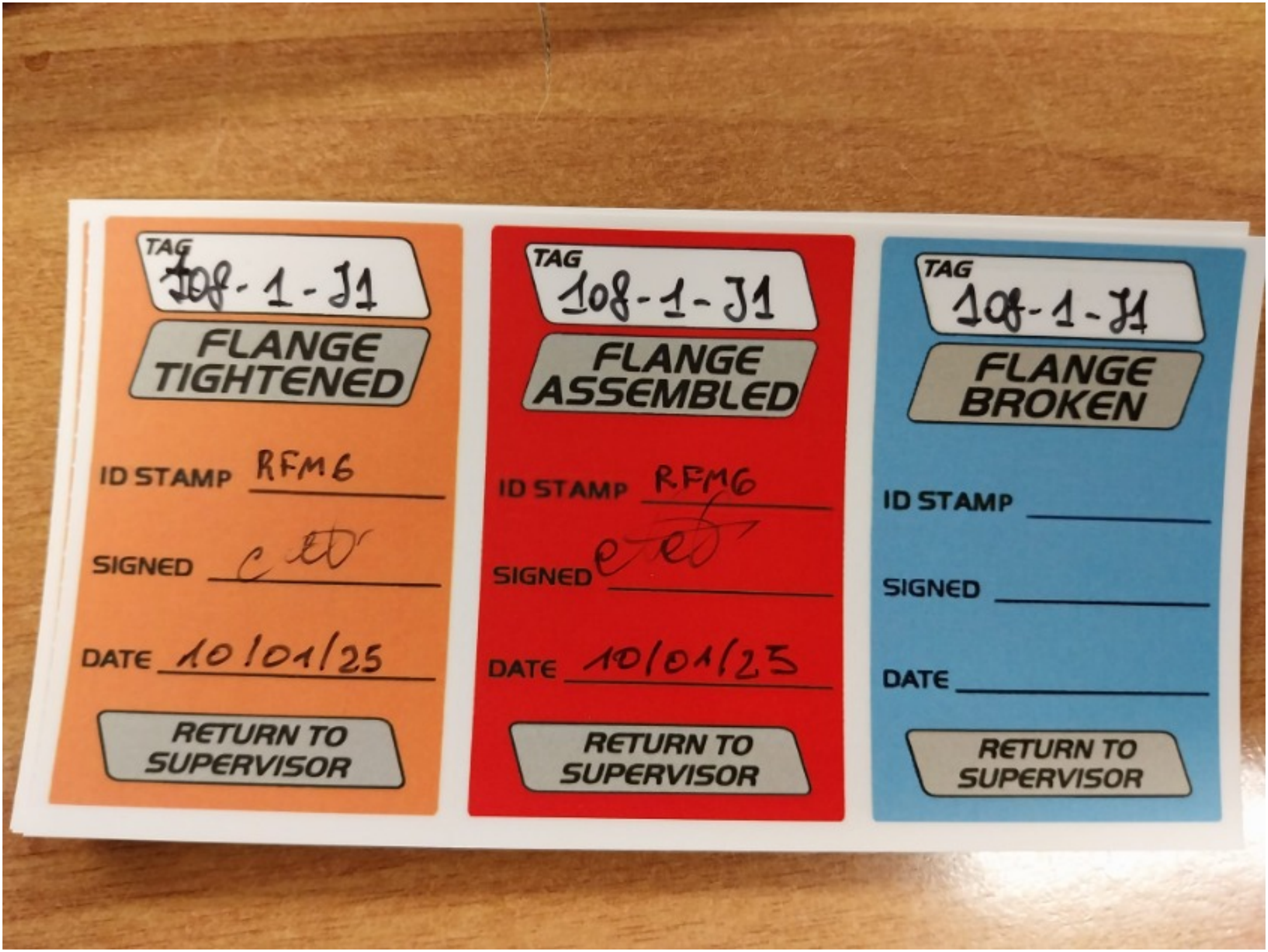
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

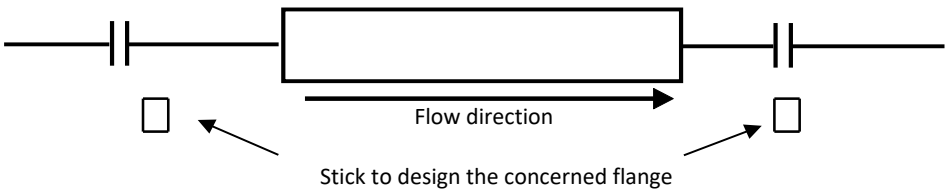
MASTER


TAG
108-1-J1
FLANGE TIGHTENED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
108-1-J1
FLANGE ASSEMBLED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
108-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	108-1-J2	: Joint 108-1-J2		Dwg	123A90-FDL-PP-DI-00108-01	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10004154	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX27	Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



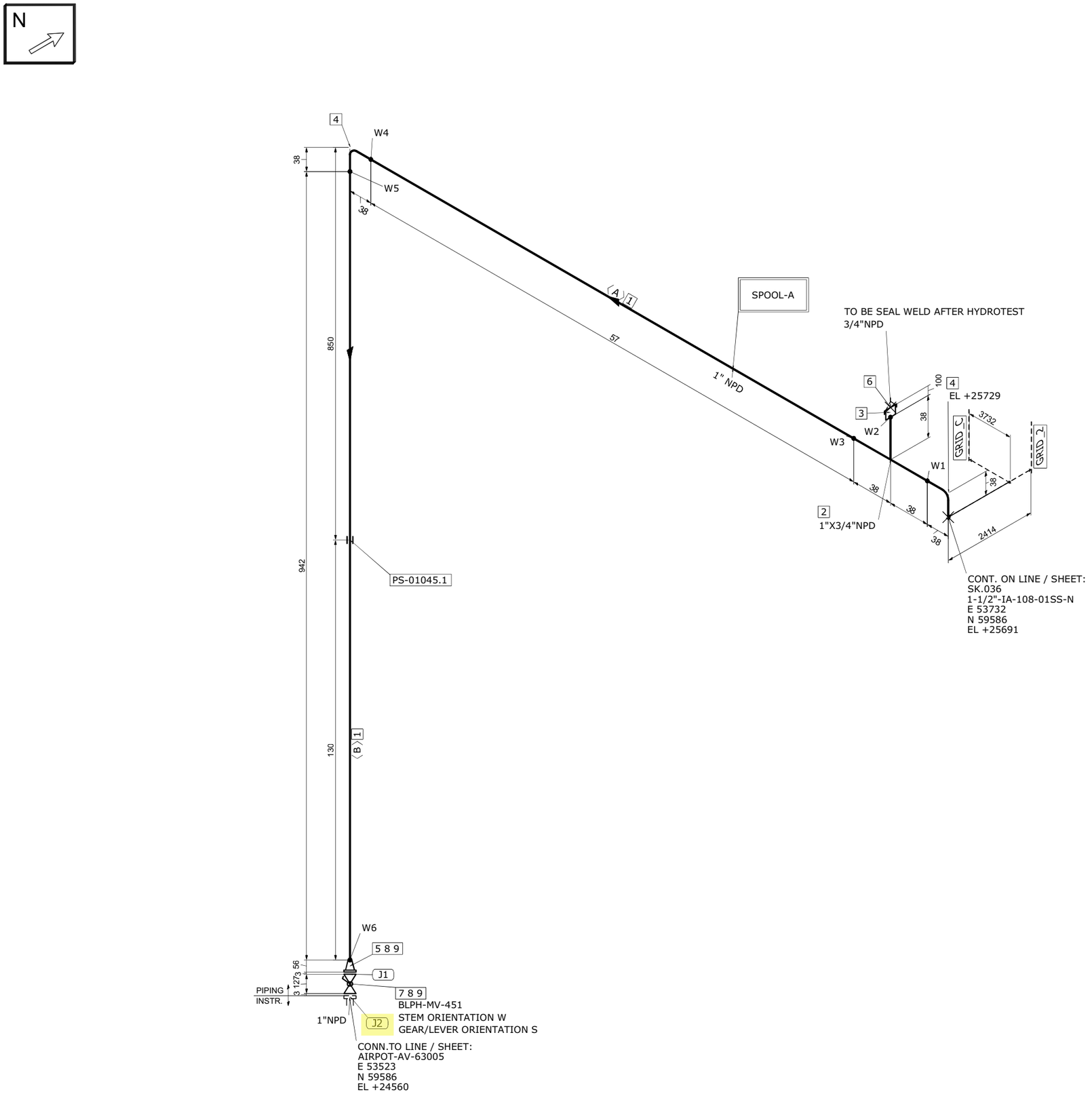
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:49:31.856Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:51:44.082Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.0M	2.5
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.7
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	12.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	3/4	BW
W3	1	BW
W4	1	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	57	BEVEL	BEVEL
B	1	942	BEVEL	BEVEL

SUPPORT LIST

PS-01045.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	4.7
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-210-01SS-N

SK.108

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00108	SHEET / OF 1/1	REV. 00

LINE DATA

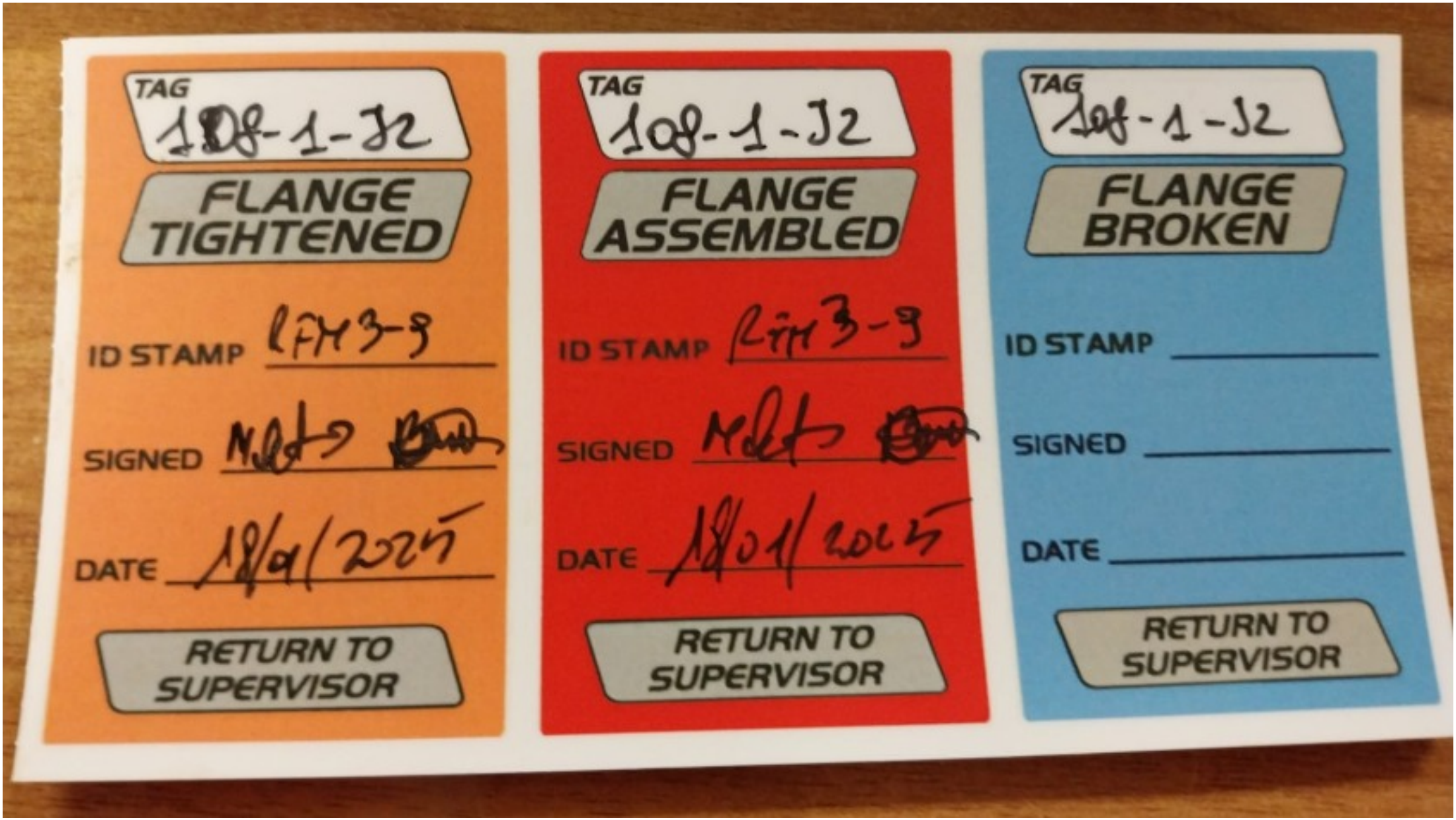
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

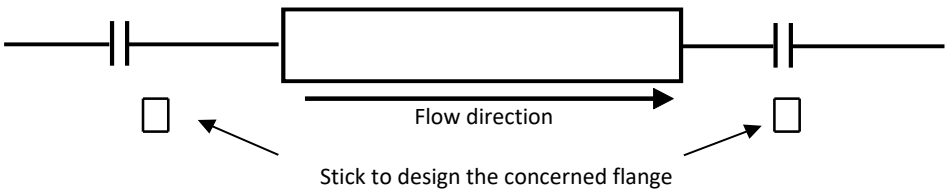
MASTER


TAG
108-1-J2
FLANGE TIGHTENED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
108-1-J2
FLANGE ASSEMBLED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
108-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	109-1-J1	: Joint 109-1-J1			Dwg	123A90-FDL-PP-DI-00109-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004155		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



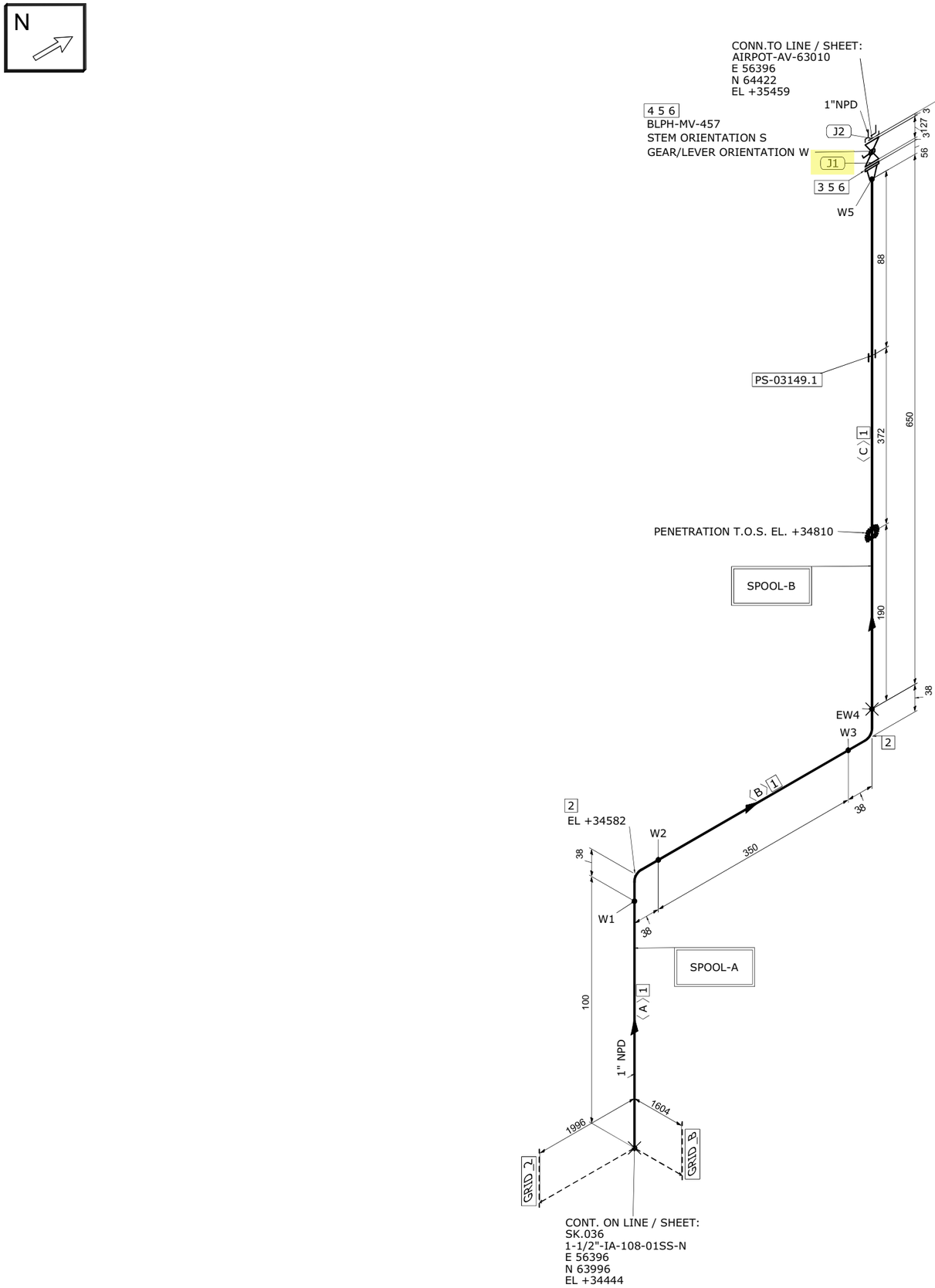
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-14	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:49:43.774Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-14T08:59:44.225Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03149.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-211-01SS-N

SK.109

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00109 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

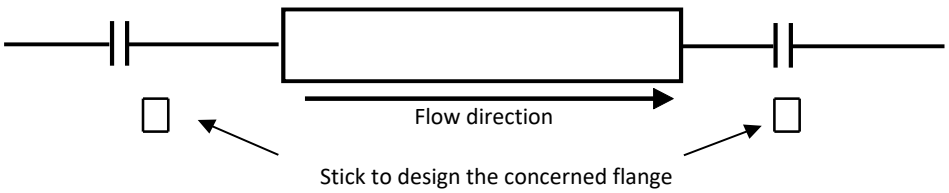
MASTER


TAG
108-1-J1
FLANGE TIGHTENED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
108-1-J1
FLANGE ASSEMBLED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
108-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	109-1-J2	: Joint 109-1-J2			Dwg	123A90-FDL-PP-DI-00109-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004156		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



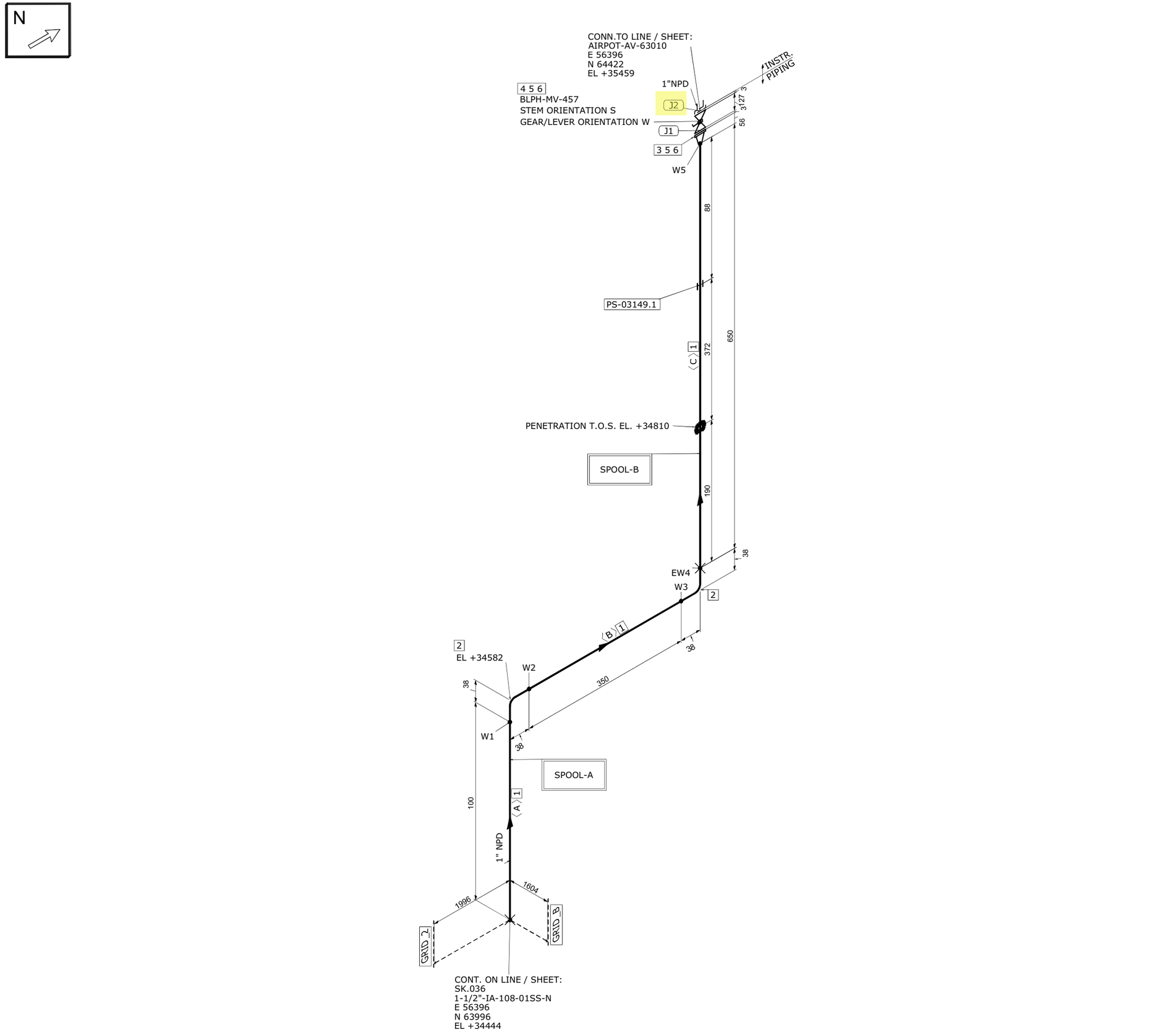
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	22	63	19	38	62.5
2	22	63	19	38	62.5
3	22	63	19	38	62.5
4	22	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-20	2025-01-20	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-20T05:51:23.738Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-20T09:02:23.051Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.1M	2.8
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	4.5
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	11.6

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	350	BEVEL	BEVEL
C	1	650	BEVEL	BEVEL

SUPPORT LIST

PS-03149.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	1.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-211-01SS-N

SK.109

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00109 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

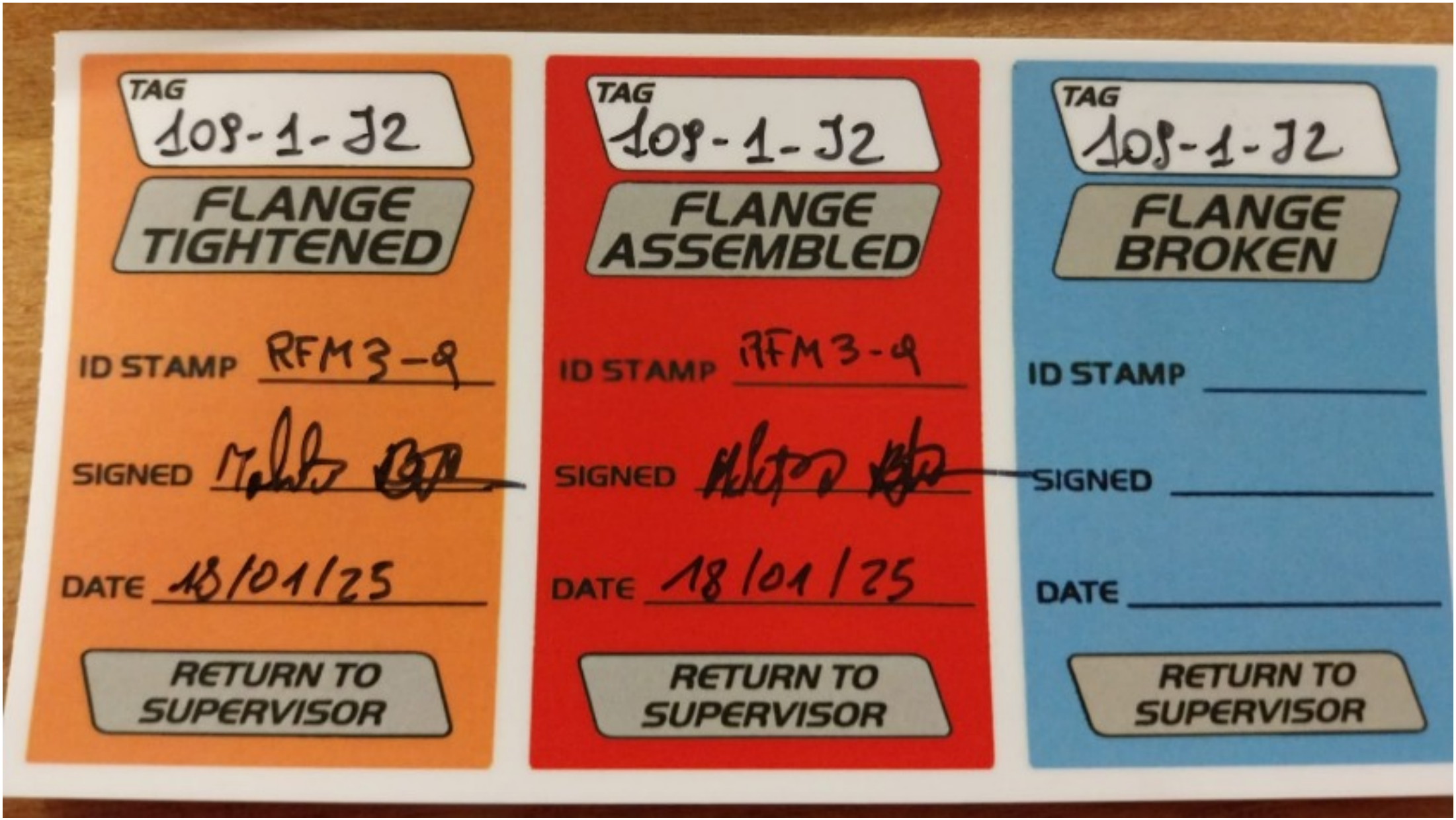
NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

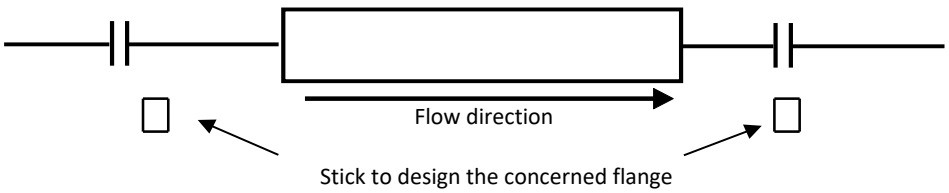
MASTER


TAG
108-1-J2
FLANGE TIGHTENED
ID STAMP RFM3-9
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
108-1-J2
FLANGE ASSEMBLED
ID STAMP RFM3-9
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
108-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	110-1-J1	: Joint 110-1-J1		Dwg	123A90-FDL-PP-DI-00110-01	
	S/Sys	63-30	: Instrument Air Distribution Network		Module	LD	
TASK	code	C10004157	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX27	Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



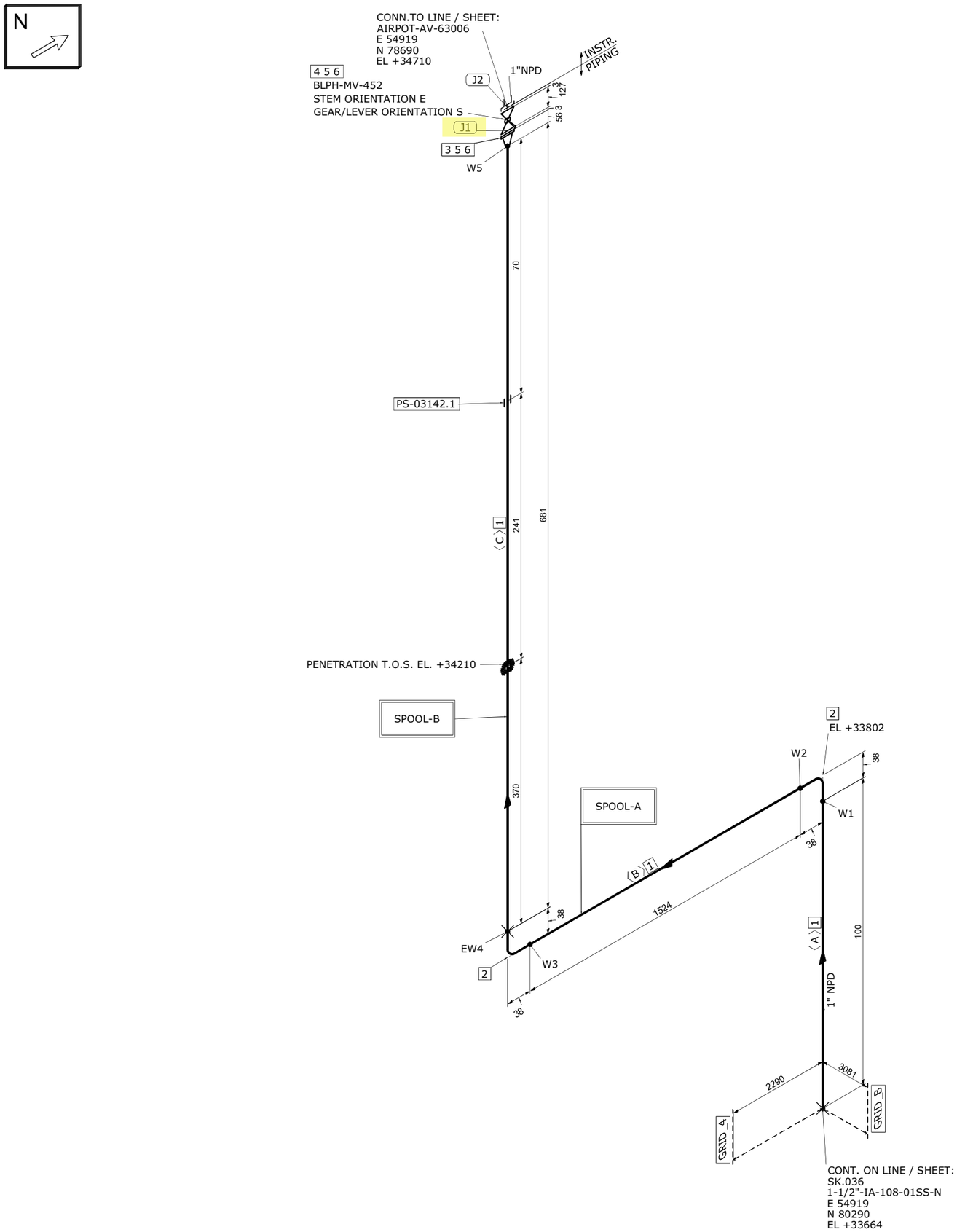
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☒ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:50:05.528Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T18:08:34.553Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03142.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-212-01SS-N

SK.110

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

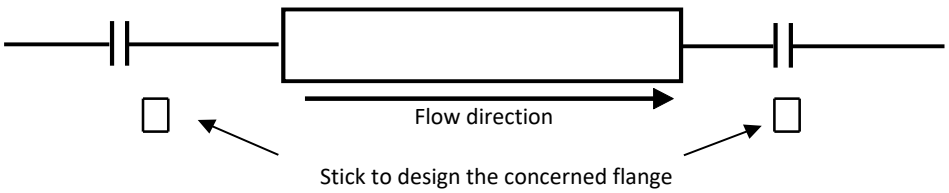
MASTER

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00110	SHEET / OF 1/1	REV. 00

ITEM	Tag	110-1-J2	: Joint 110-1-J2			Dwg	123A90-FDL-PP-DI-00110-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004158		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



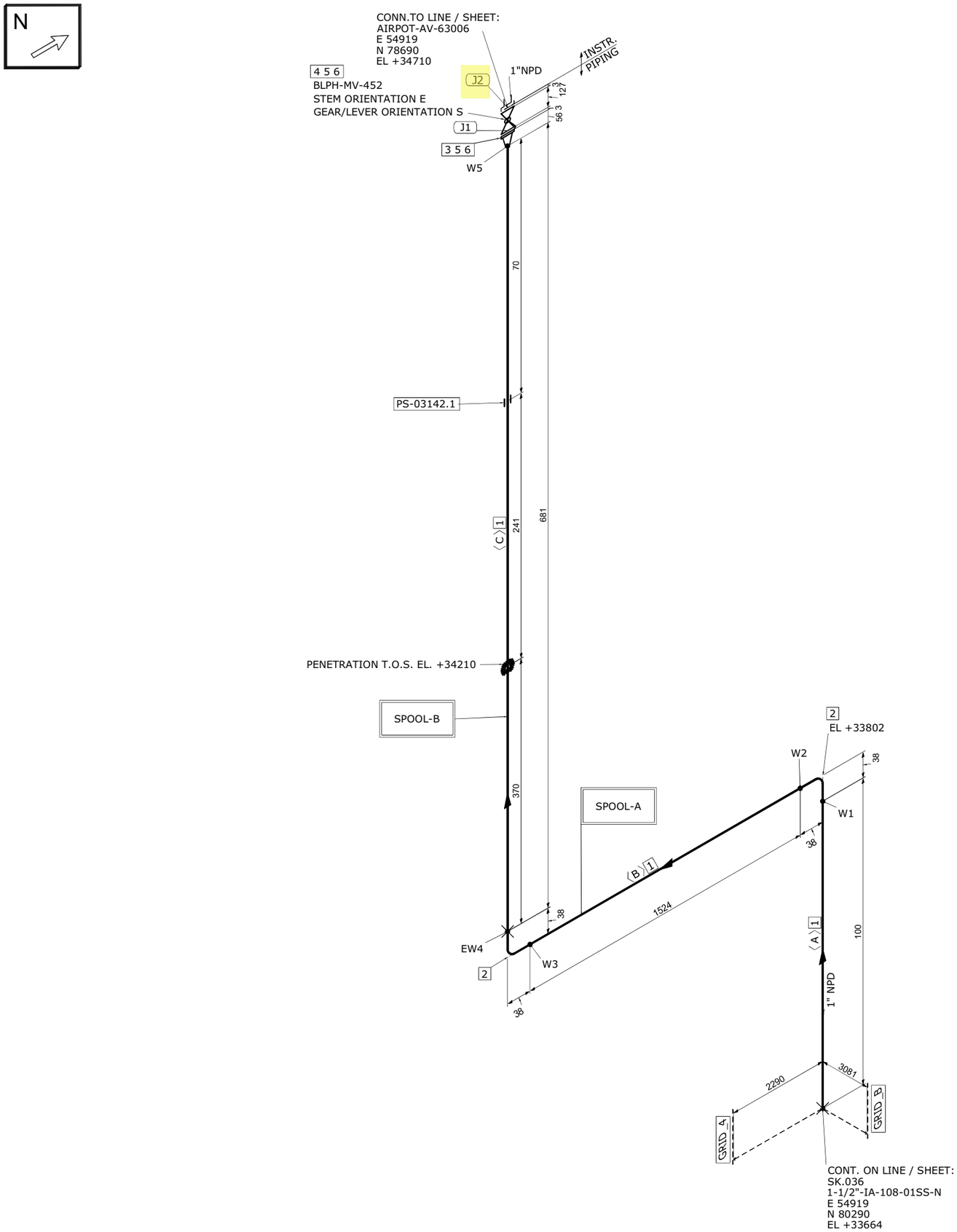
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-20	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:50:19.725Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-20T08:49:13.201Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03142.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-212-01SS-N

SK.110

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

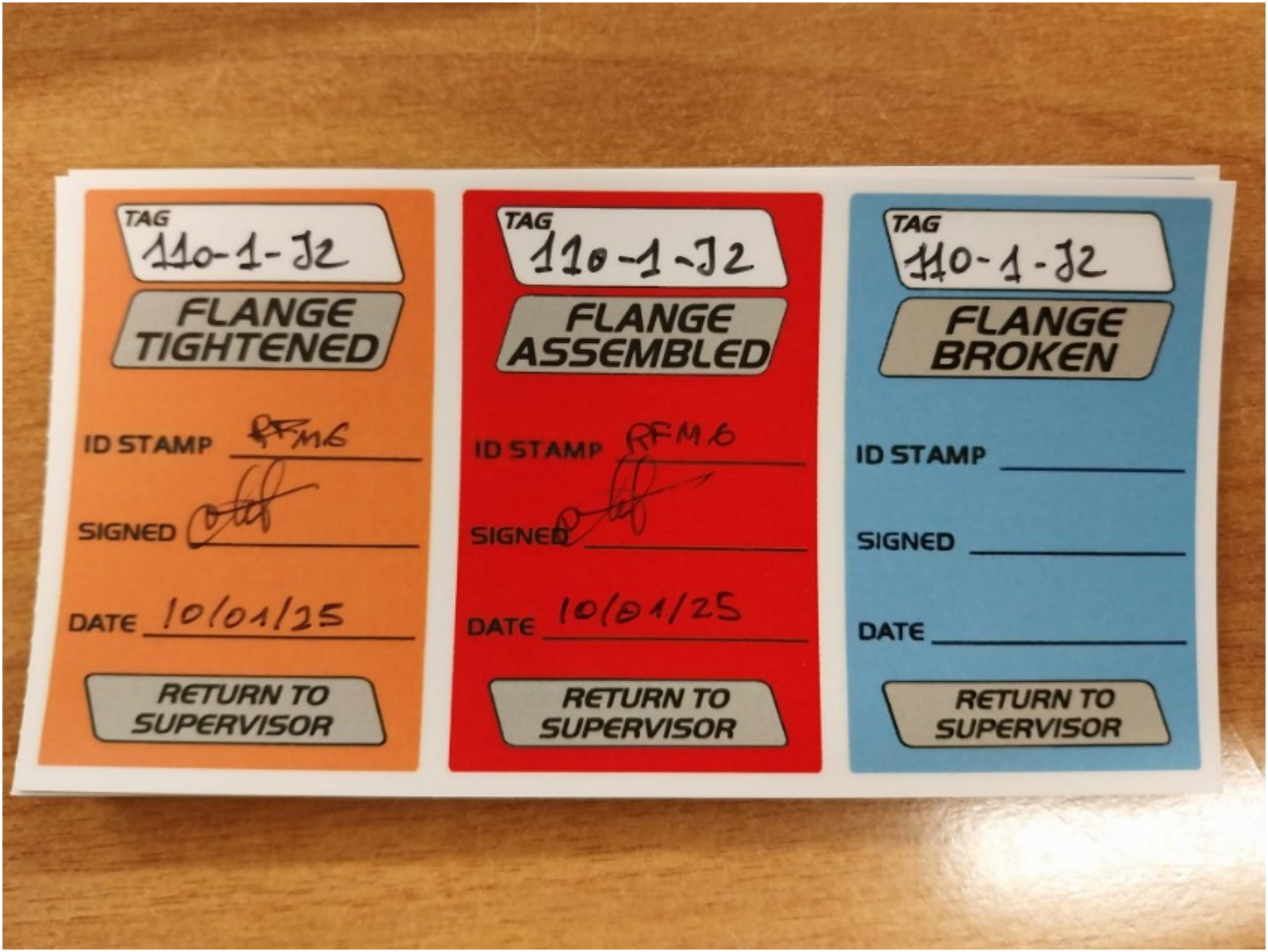
REFERENCE DOCUMENTS

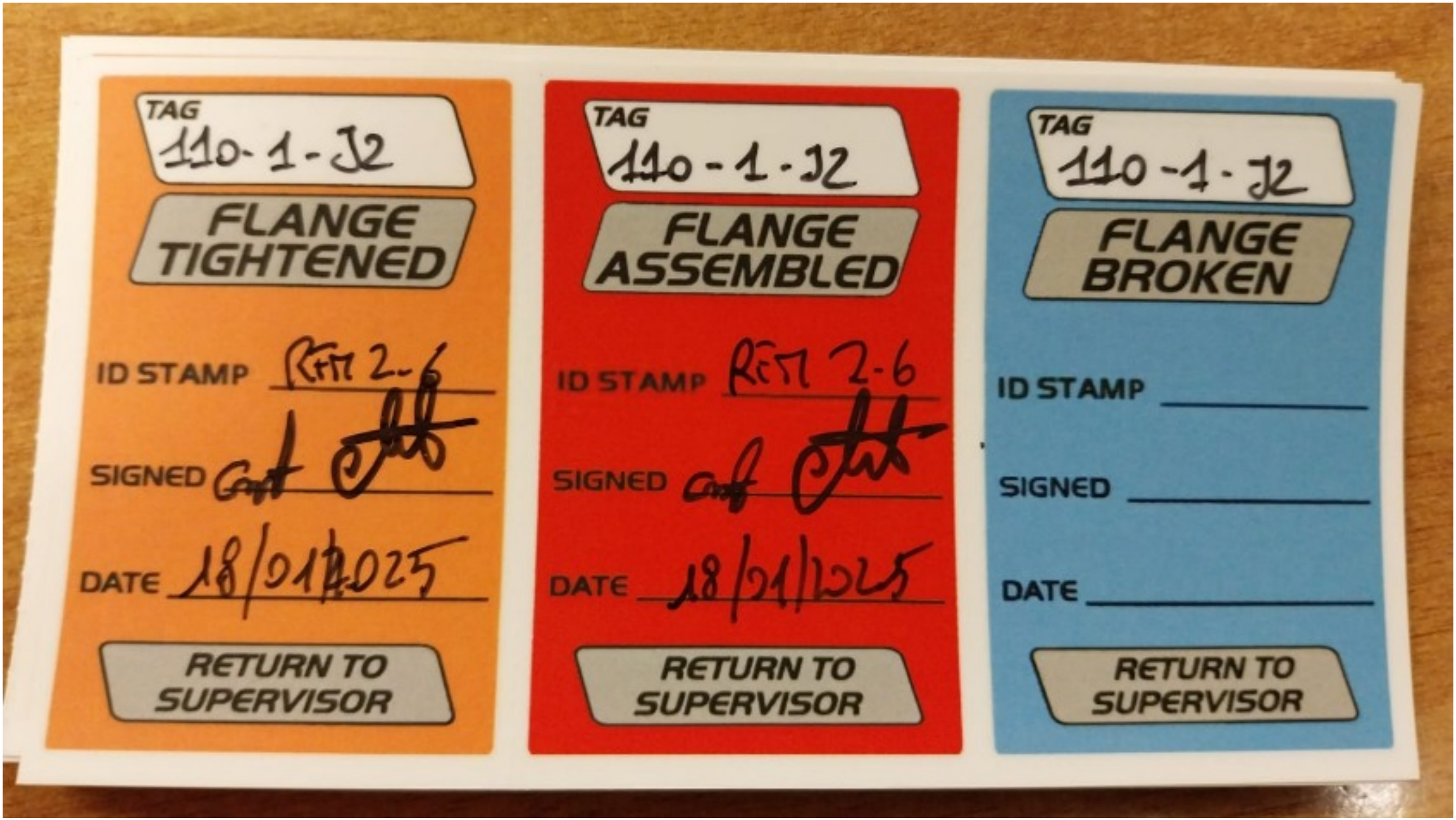
P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00110	SHEET / OF 1/1	REV. 00

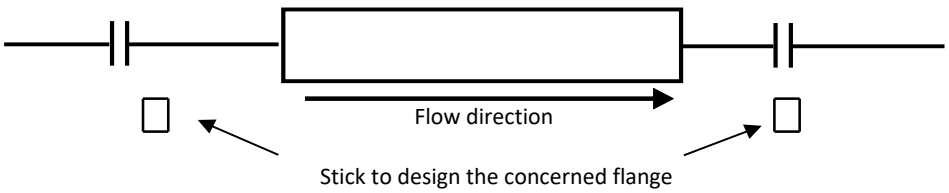

TAG
110-1-J2
FLANGE TIGHTENED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
110-1-J2
FLANGE ASSEMBLED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
110-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR


TAG
110-1-J2
FLANGE TIGHTENED
ID STAMP RETT 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
110-1-J2
FLANGE ASSEMBLED
ID STAMP RETT 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
110-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	111-1-J1	: Joint 111-1-J1			Dwg	123A90-FDL-PP-DI-00111-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004159		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

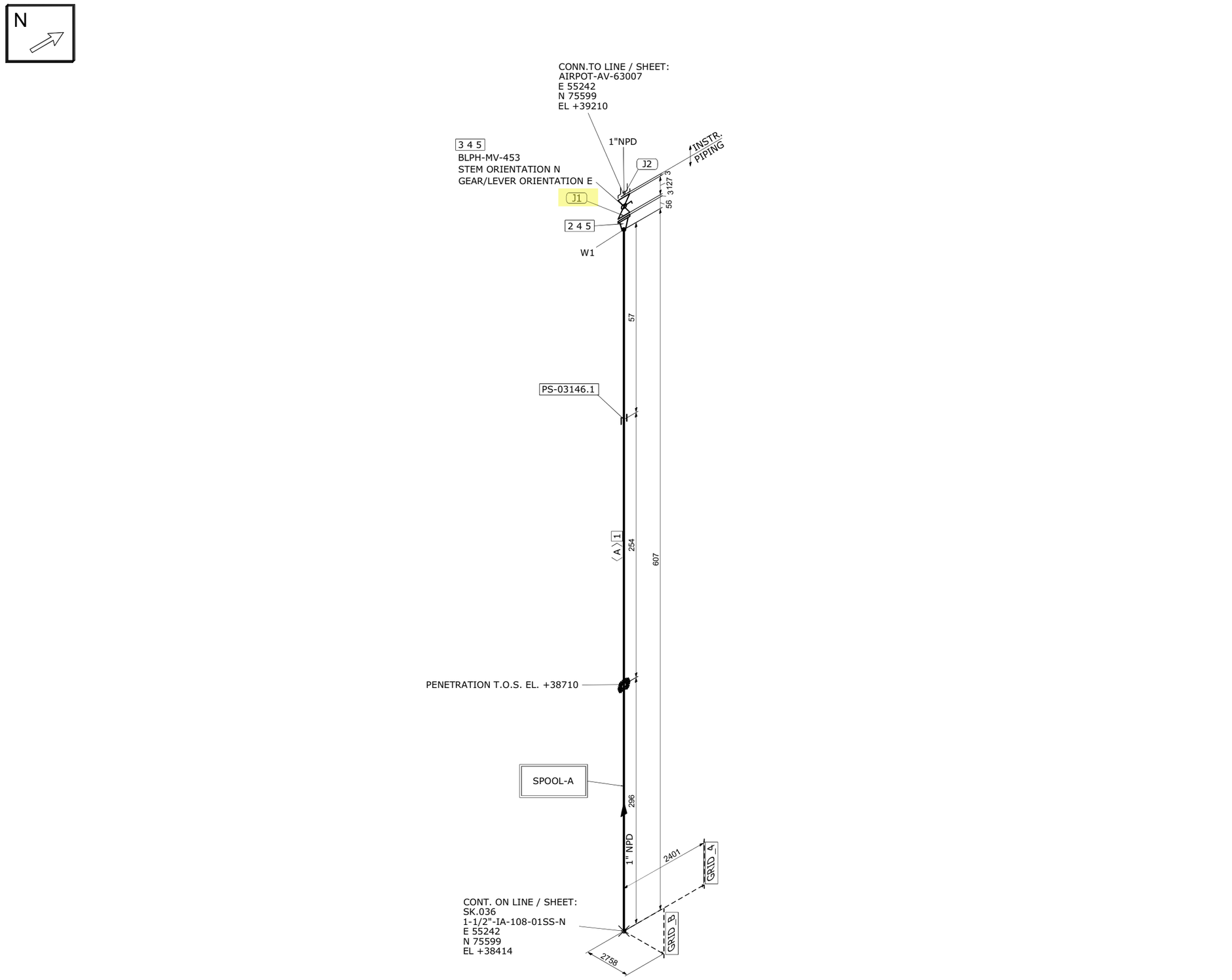
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-15	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-15T06:25:54.886Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-15T07:05:47.526Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03146.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-213-01SS-N

SK.111

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00111 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

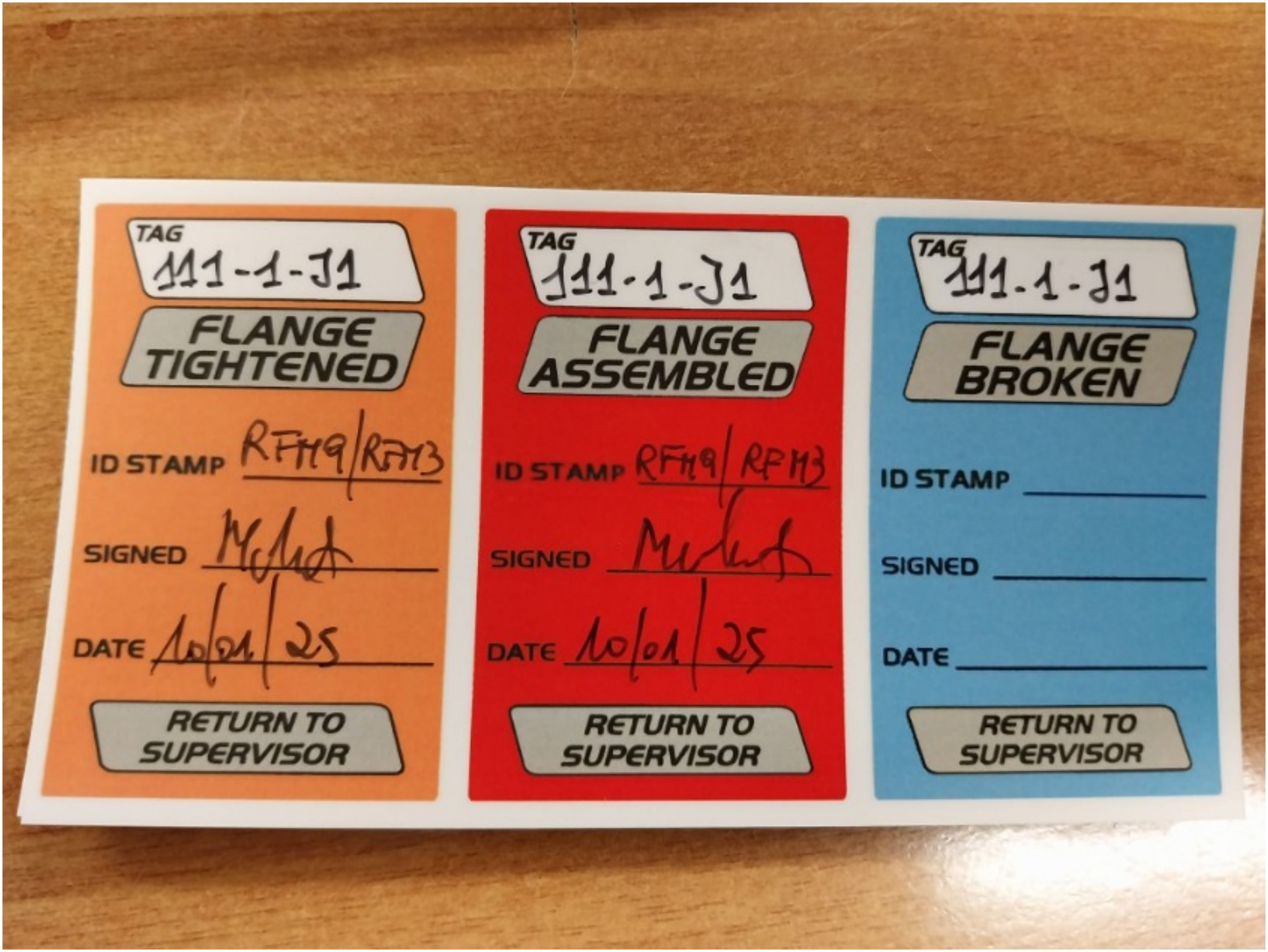
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]				
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water			

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

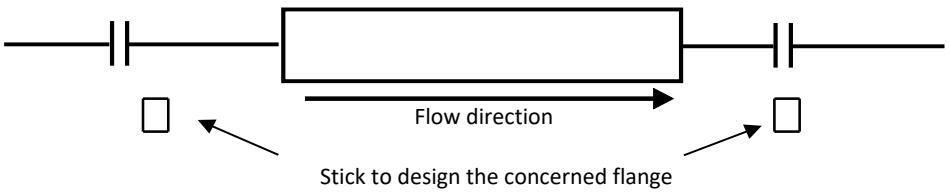
MASTER


TAG
111-1-J1
FLANGE TIGHTENED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
111-1-J1
FLANGE ASSEMBLED
ID STAMP RFH9/RFH3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
111-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	111-1-J2	: Joint 111-1-J2			Dwg	123A90-FDL-PP-DI-00111-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004160		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



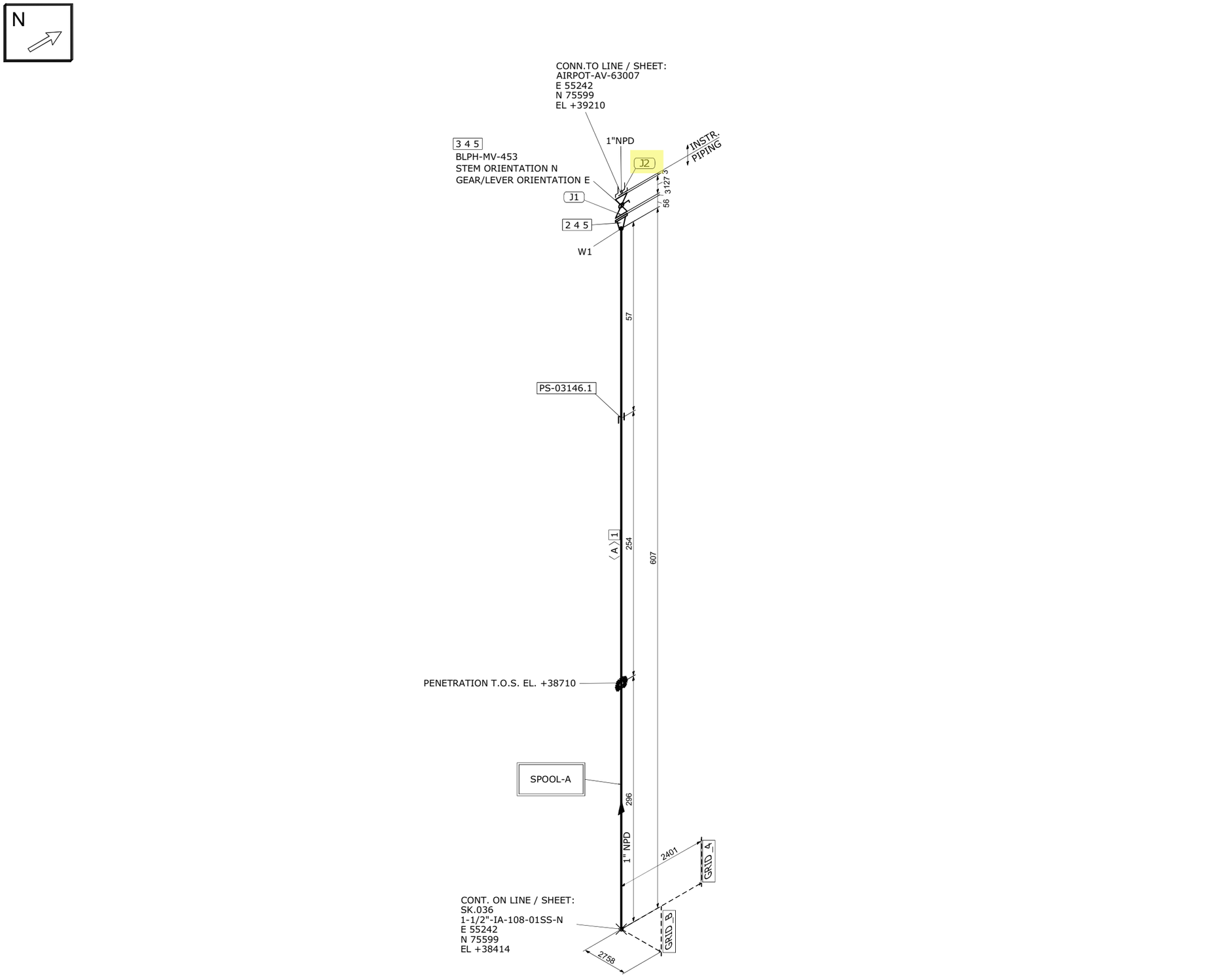
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	22	63	19	38	62.5
2	22	63	19	38	62.5
3	22	63	19	38	62.5
4	22	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T06:50:41.550Z	Digitaly signed by Lorenzo Novaga 2025-01-18T10:52:11.012Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	0.6M	1.5
2	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
3	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
4	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
5	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	2.9
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	10.0

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	607	BEVEL	BEVEL

SUPPORT LIST

PS-03146.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	1	3.0
MONT	0	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-213-01SS-N

SK.111

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00111 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]				
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water			

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

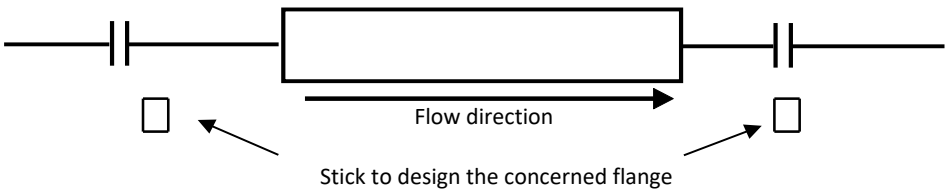
MASTER


TAG
111-1-J2
FLANGE TIGHTENED
ID STAMP RPM 2-6
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
111-1-J2
FLANGE ASSEMBLED
ID STAMP RPM 2-6
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
111-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	112-1-J1	: Joint 112-1-J1			Dwg	123A90-FDL-PP-DI-00112-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004161		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	20	63	19	38	62.5
2	20	63	19	38	62.5
3	20	63	19	38	62.5
4	20	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

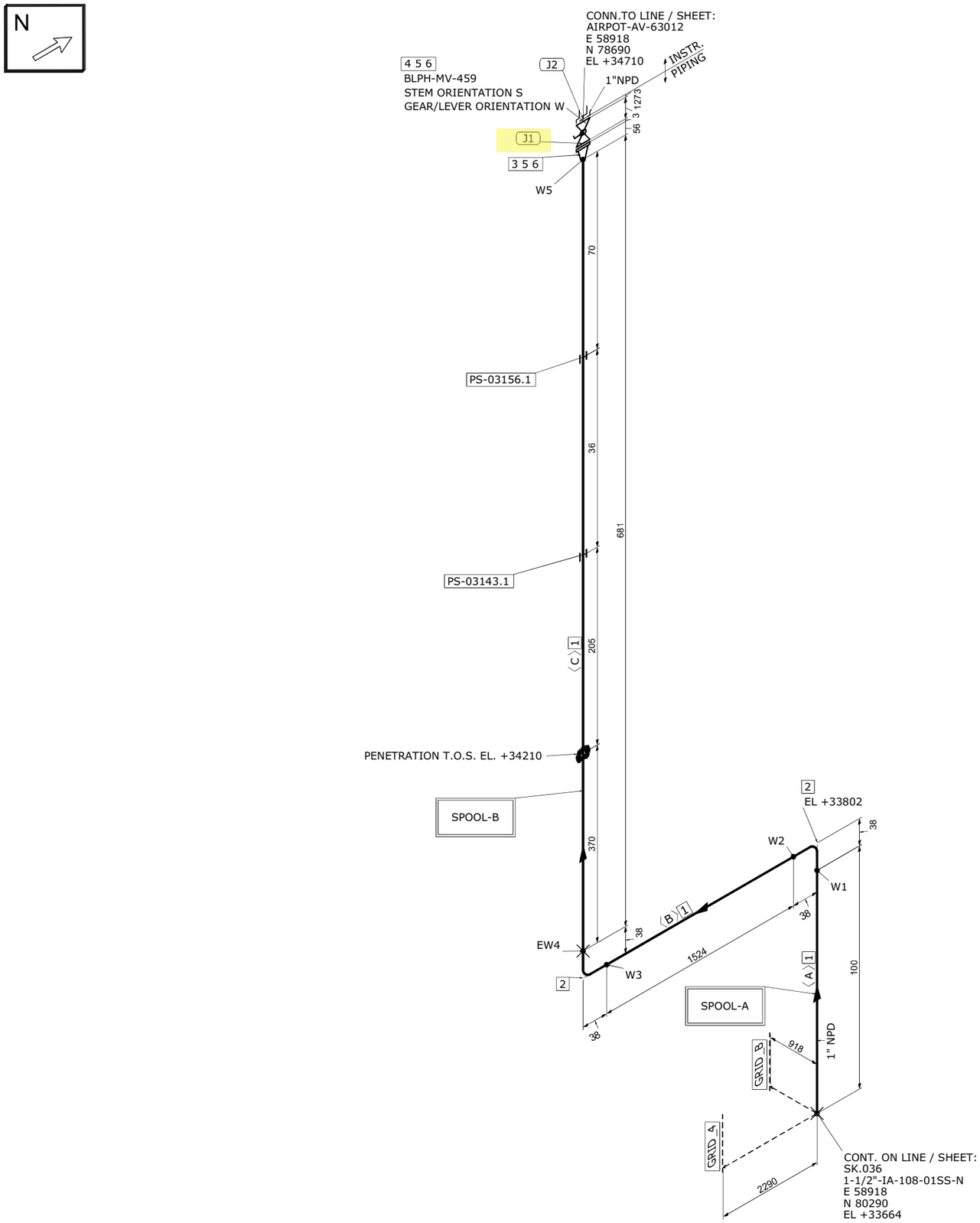
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:50:52.757Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:56:16.633Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03143.1
PS-03156.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-214-01SS-N

SK.112

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK					SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00112			SHEET / OF	1/1
						REV.	00

LINE DATA

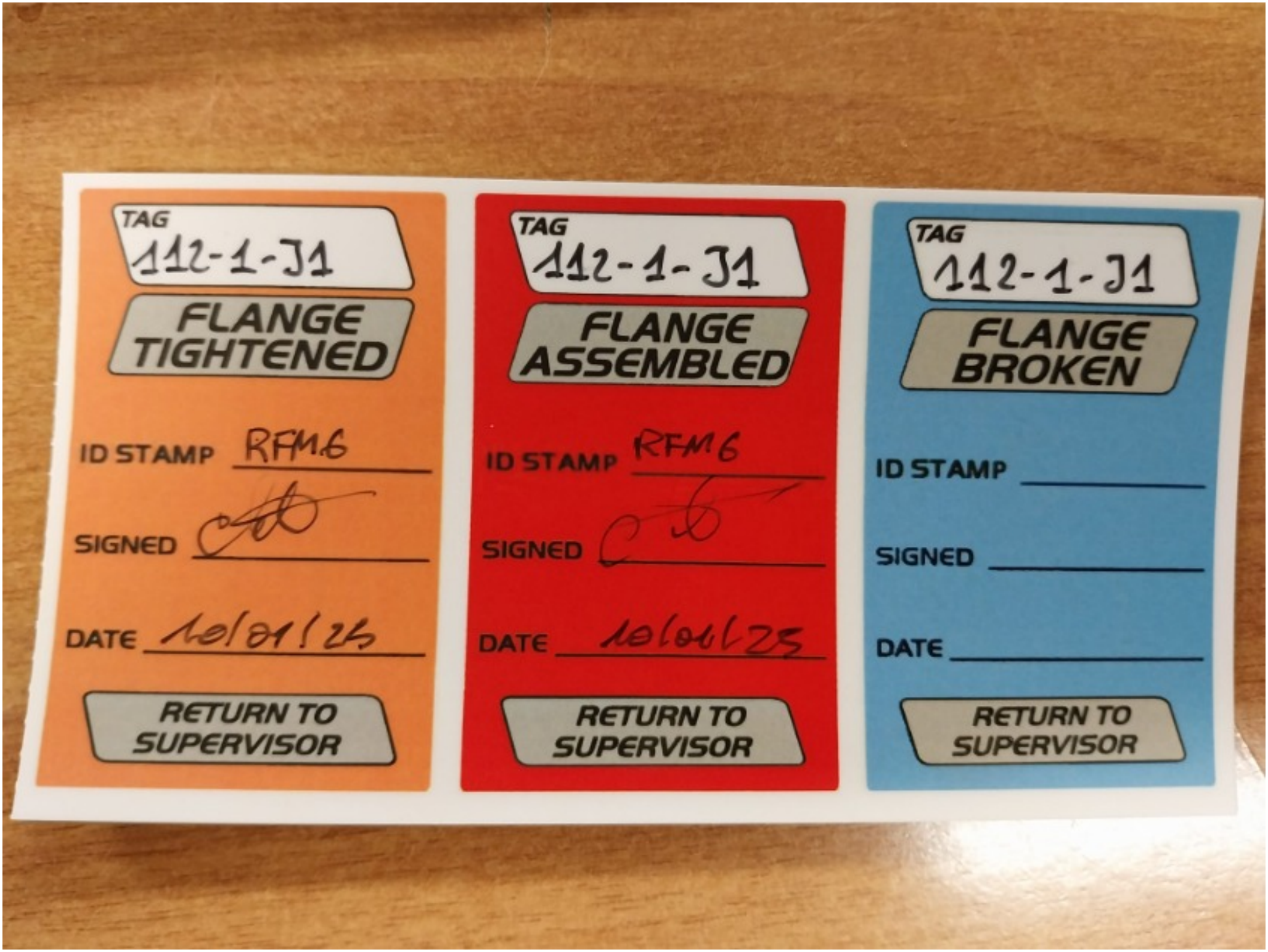
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

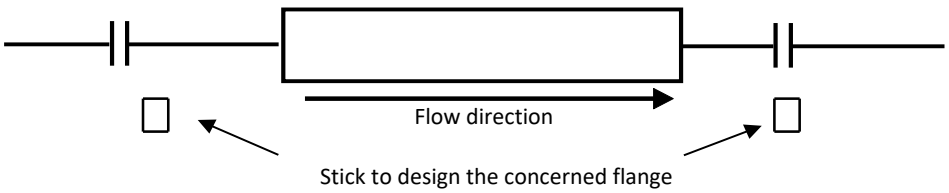
MASTER


TAG
112-1-J1
FLANGE TIGHTENED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
112-1-J1
FLANGE ASSEMBLED
ID STAMP RFM6
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
112-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	112-1-J2	: Joint 112-1-J2			Dwg	123A90-FDL-PP-DI-00112-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004162		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



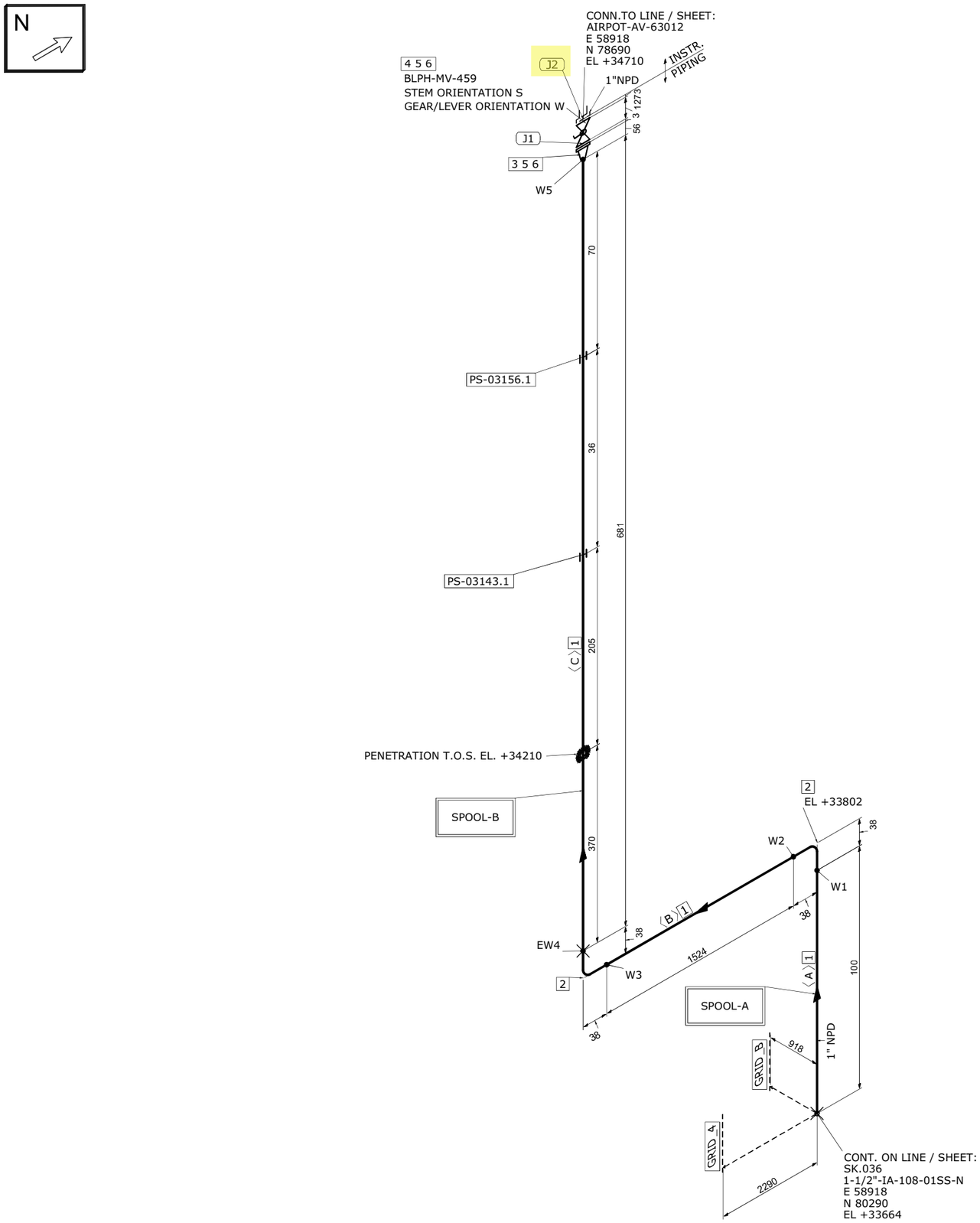
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-20	
Signature	Digitaly signed by Emanuele Delfino 2025-01-13T05:51:06.206Z	Digitaly signed by Lorenzo Novaga 2025-01-20T08:48:41.339Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.3M	5.9
2	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
3	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
5	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
6	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	7.6
ERECTION WEIGHT [kg]	7.1
OVERALL WEIGHT [kg]	14.7

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
EW4	1	BW
W5	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	100	BEVEL	BEVEL
B	1	1524	BEVEL	BEVEL
C	1	681	BEVEL	BEVEL

SUPPORT LIST

PS-03143.1
PS-03156.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	3	4.4
B	1	3.1
MONT	1	7.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-214-01SS-N

SK.112

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK					SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM	DATE	20-08-2024
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00112			SHEET / OF	1/1
						REV.	00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par.3					
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas					
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]		
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

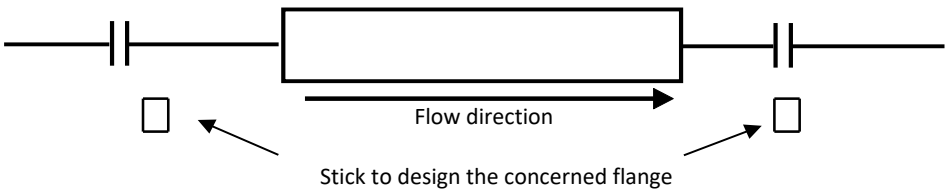
MASTER


TAG
112-1-J2
FLANGE TIGHTENED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
112-1-J2
FLANGE ASSEMBLED
ID STAMP
SIGNED
DATE
18/01/2025
RETURN TO SUPERVISOR
TAG
112-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	113-1-J1	: Joint 113-1-J1			Dwg	123A90-FDL-PP-DI-00113-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004163		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	20	63	19	38	62.5
2	20	63	19	38	62.5
3	20	63	19	38	62.5
4	20	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

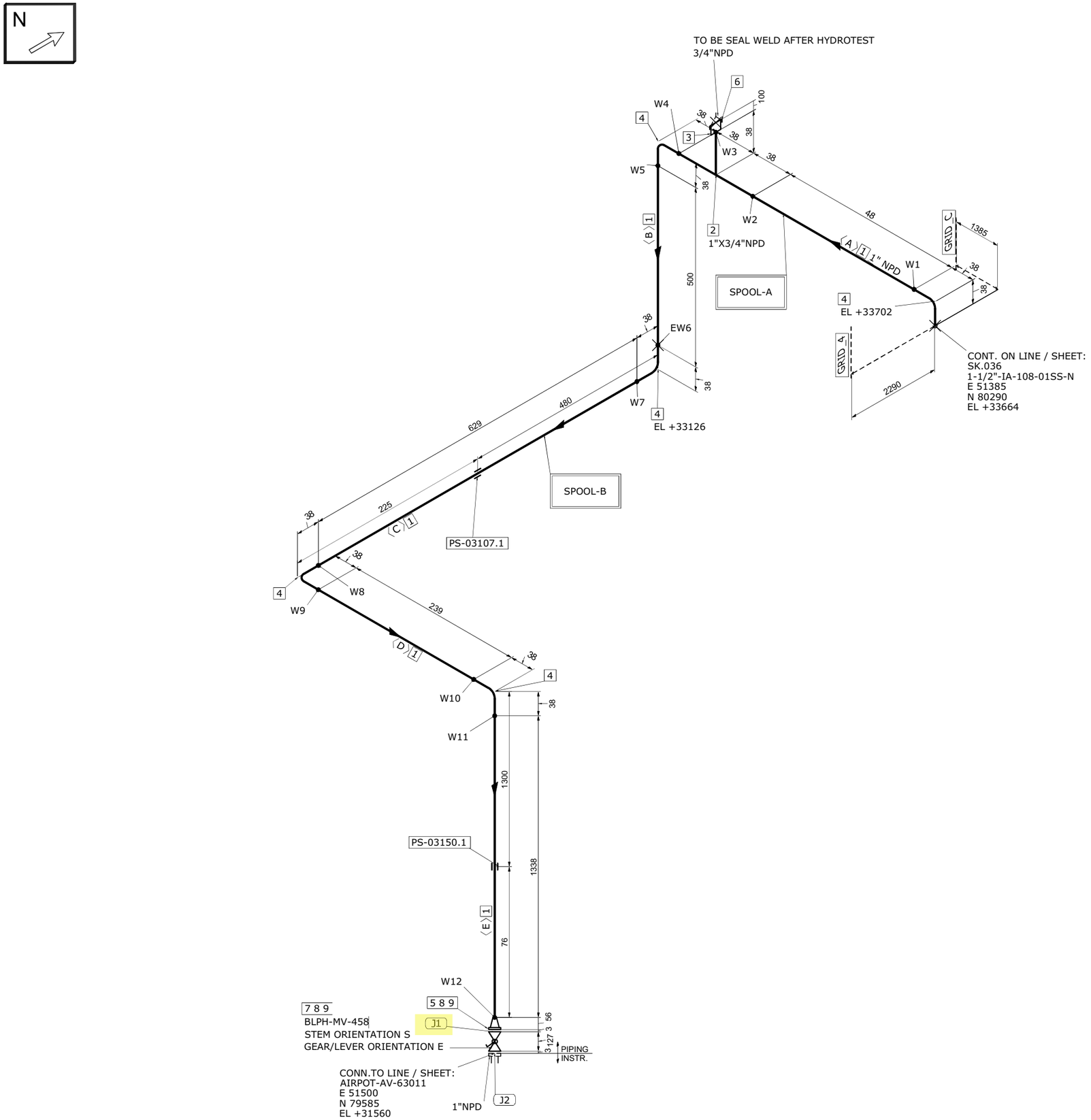
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:51:17.263Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:54:16.088Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.8M	7.0
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	5	0.7
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	9.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	17.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	48	BEVEL	BEVEL
B	1	500	BEVEL	BEVEL
C	1	629	BEVEL	BEVEL
D	1	239	BEVEL	BEVEL
E	1	1338	BEVEL	BEVEL

SUPPORT LIST

PS-03107.1
PS-03150.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	2.2
B	6	7.4
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-215-01SS-N

SK.113

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

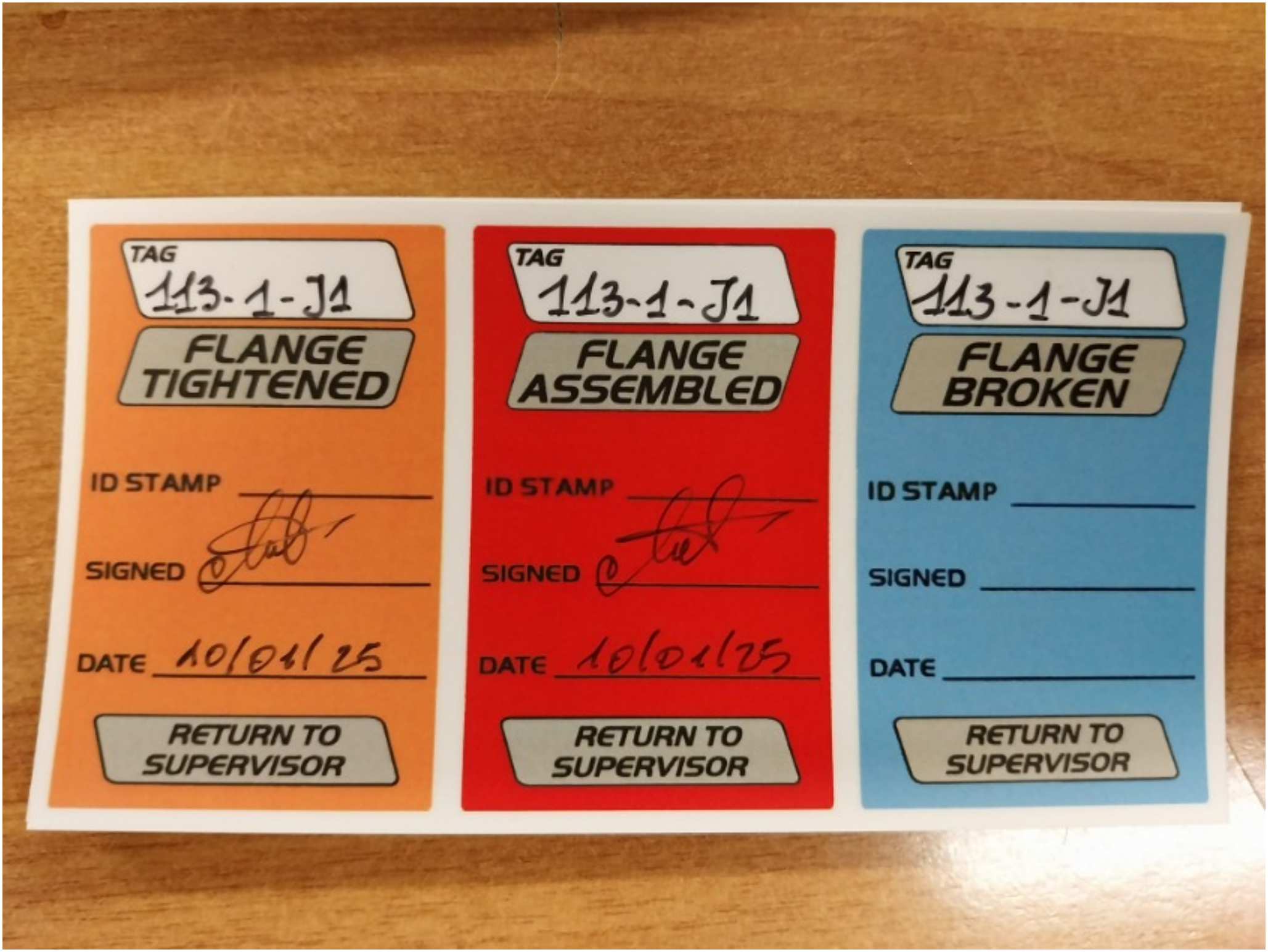
REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

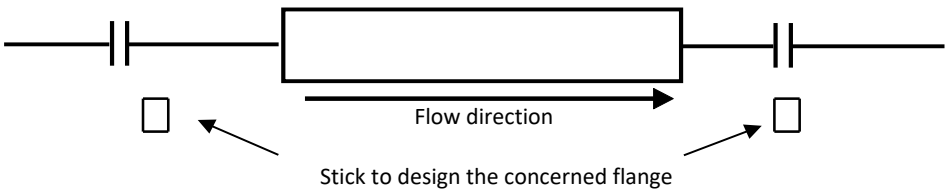
CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	N/A
DRAWN STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00113	SHEET / OF 1/1	REV. 00


TAG
113-1-J1
FLANGE TIGHTENED
ID STAMP
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
113-1-J1
FLANGE ASSEMBLED
ID STAMP
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
113-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	113-1-J2	: Joint 113-1-J2			Dwg	123A90-FDL-PP-DI-00113-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004164		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



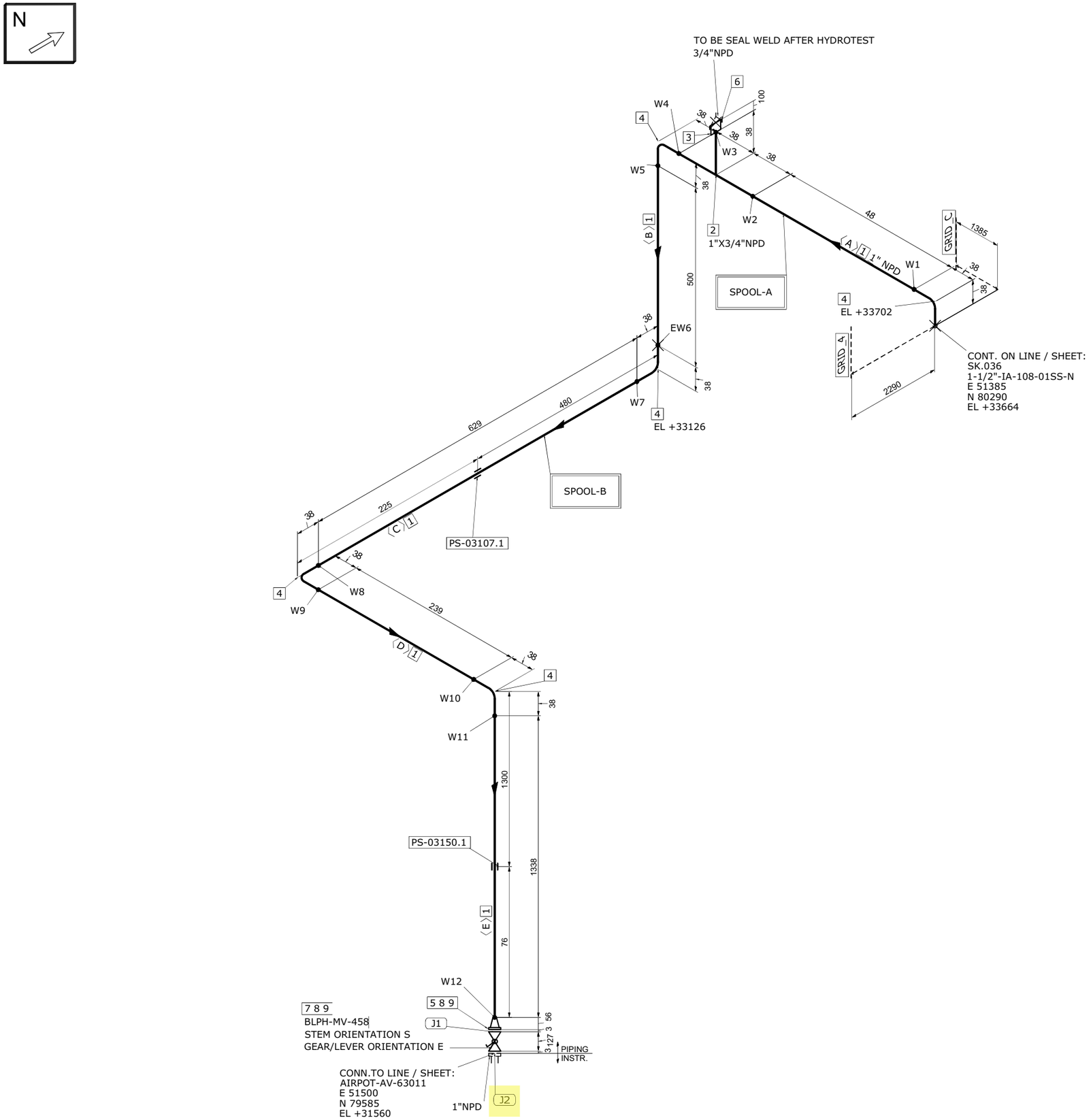
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-20	2025-01-20	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-20T05:51:36.818Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-20T09:02:32.552Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	2.8M	7.0
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	5	0.7
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	9.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	17.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	3/4	BW
W4	1	BW
W5	1	BW
EW6	1	BW
W7	1	BW
W8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	48	BEVEL	BEVEL
B	1	500	BEVEL	BEVEL
C	1	629	BEVEL	BEVEL
D	1	239	BEVEL	BEVEL
E	1	1338	BEVEL	BEVEL

SUPPORT LIST

PS-03107.1
PS-03150.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	4.75	2.2
B	6	7.4
MONT	1	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-215-01SS-N

SK.113

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00113 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

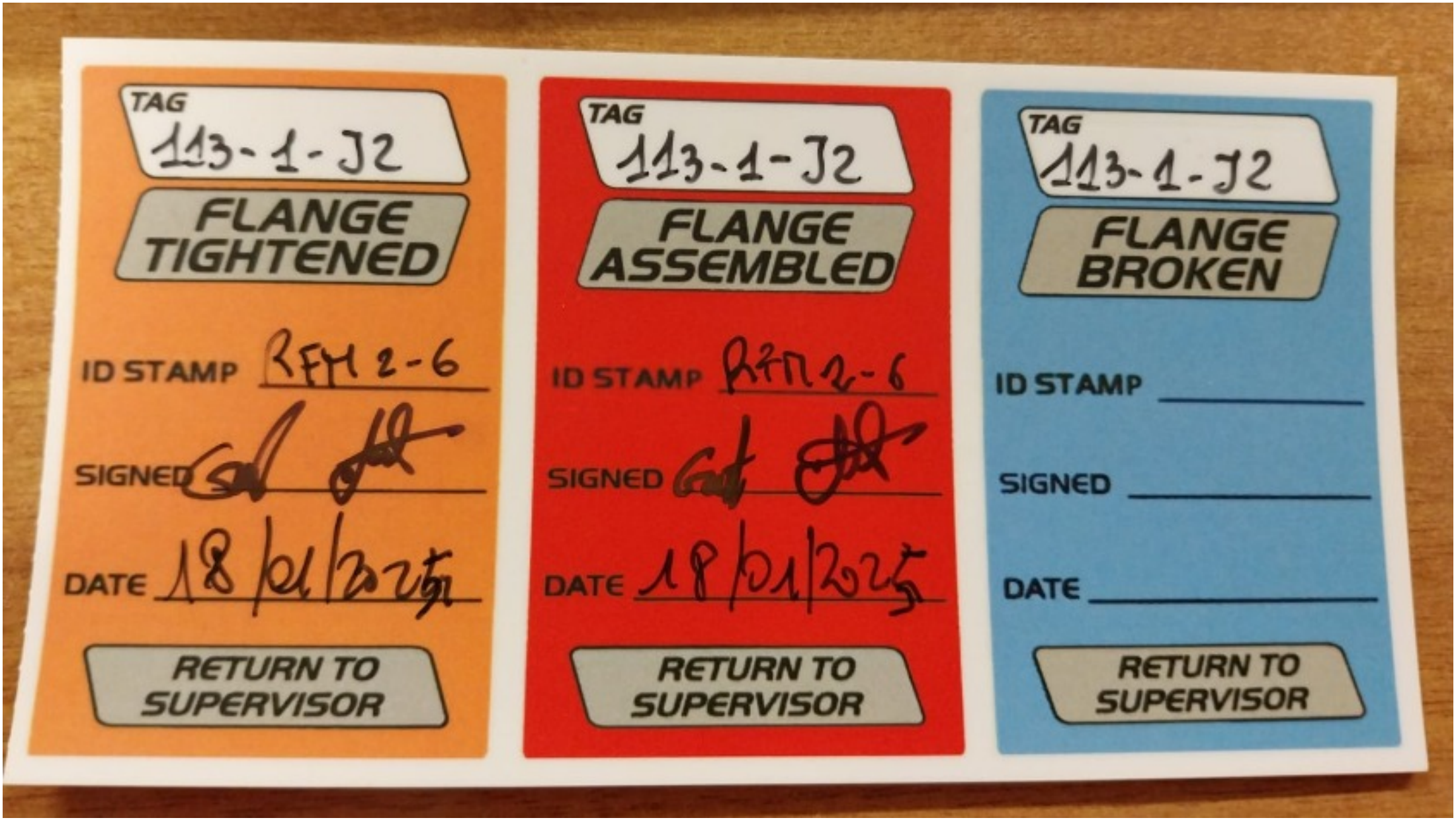
NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

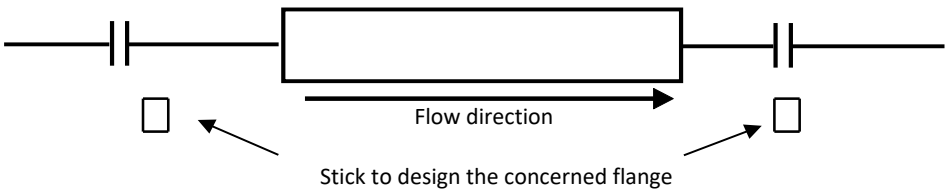
MASTER


TAG
113-1-J2
FLANGE TIGHTENED
ID STAMP RFM 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
113-1-J2
FLANGE ASSEMBLED
ID STAMP RFM 2-6
SIGNED
DATE 18/01/2025
RETURN TO SUPERVISOR
TAG
113-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	119-1-J1	: Joint 119-1-J1			Dwg	123A90-FDL-PP-DI-00119-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004165		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



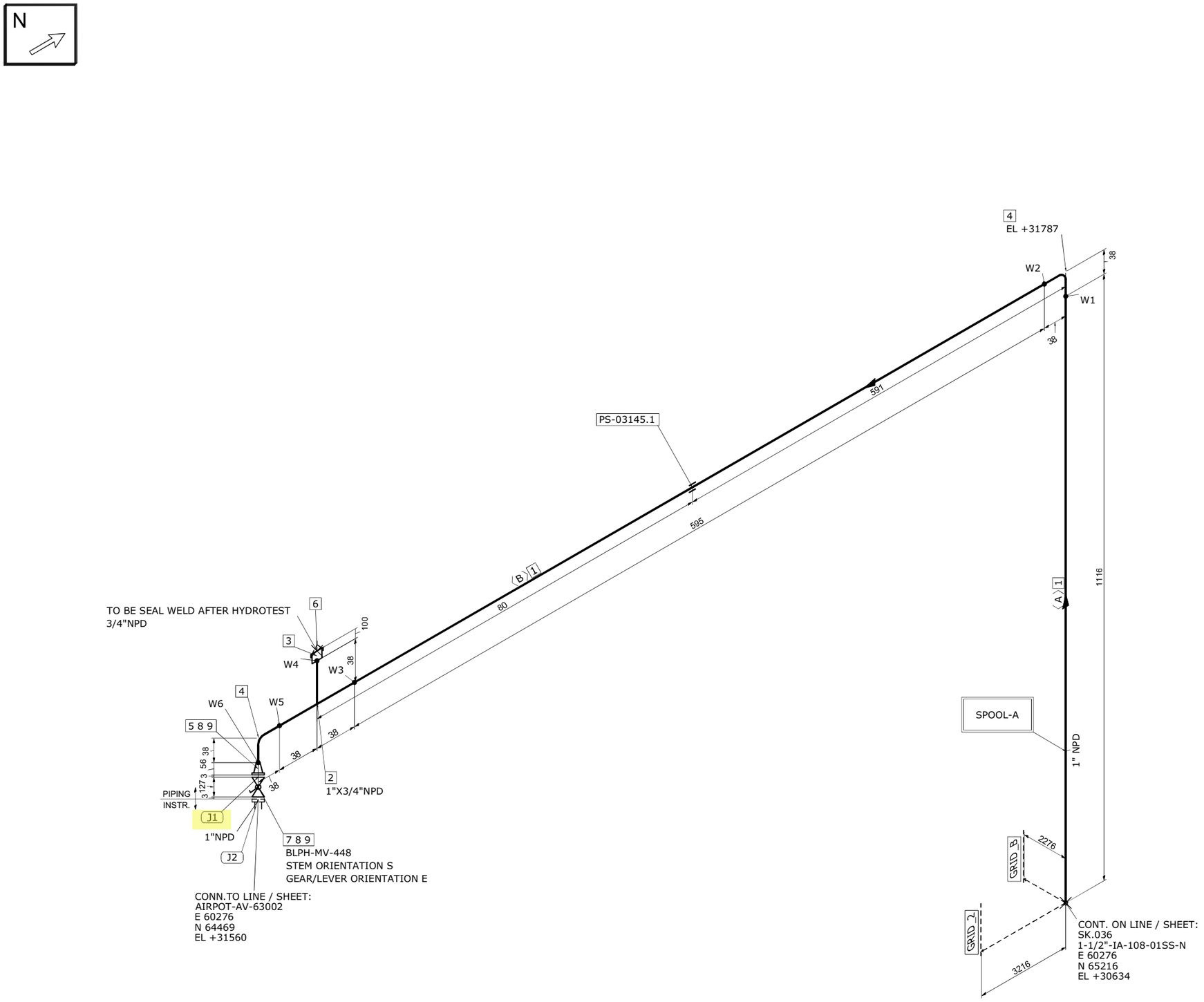
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:51:29.679Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-13T18:32:18.962Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.7M	4.3
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	1116	BEVEL	BEVEL
B	1	595	BEVEL	BEVEL

SUPPORT LIST

PS-03145.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	6.5
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-223-01SS-N

SK.119

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00119 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

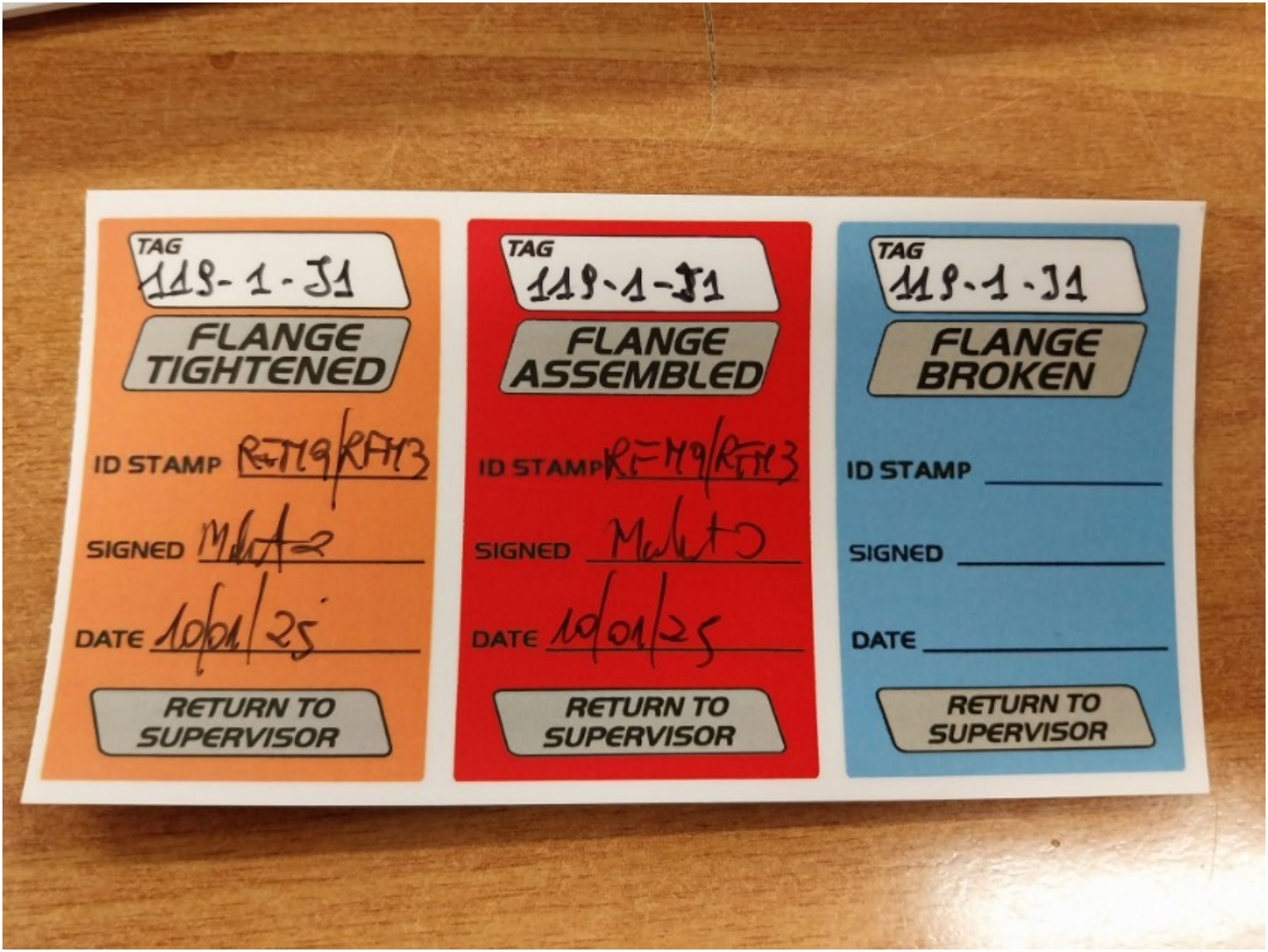
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

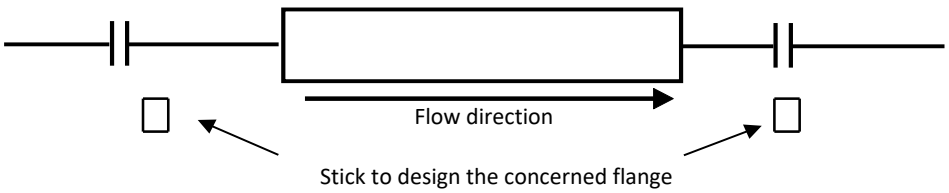
MASTER


TAG
119-1-J1
FLANGE TIGHTENED
ID STAMP RFM9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
119-1-J1
FLANGE ASSEMBLED
ID STAMP RFM9/RFM3
SIGNED
DATE 10/01/25
RETURN TO SUPERVISOR
TAG
119-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	119-1-J2	: Joint 119-1-J2			Dwg	123A90-FDL-PP-DI-00119-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004166		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



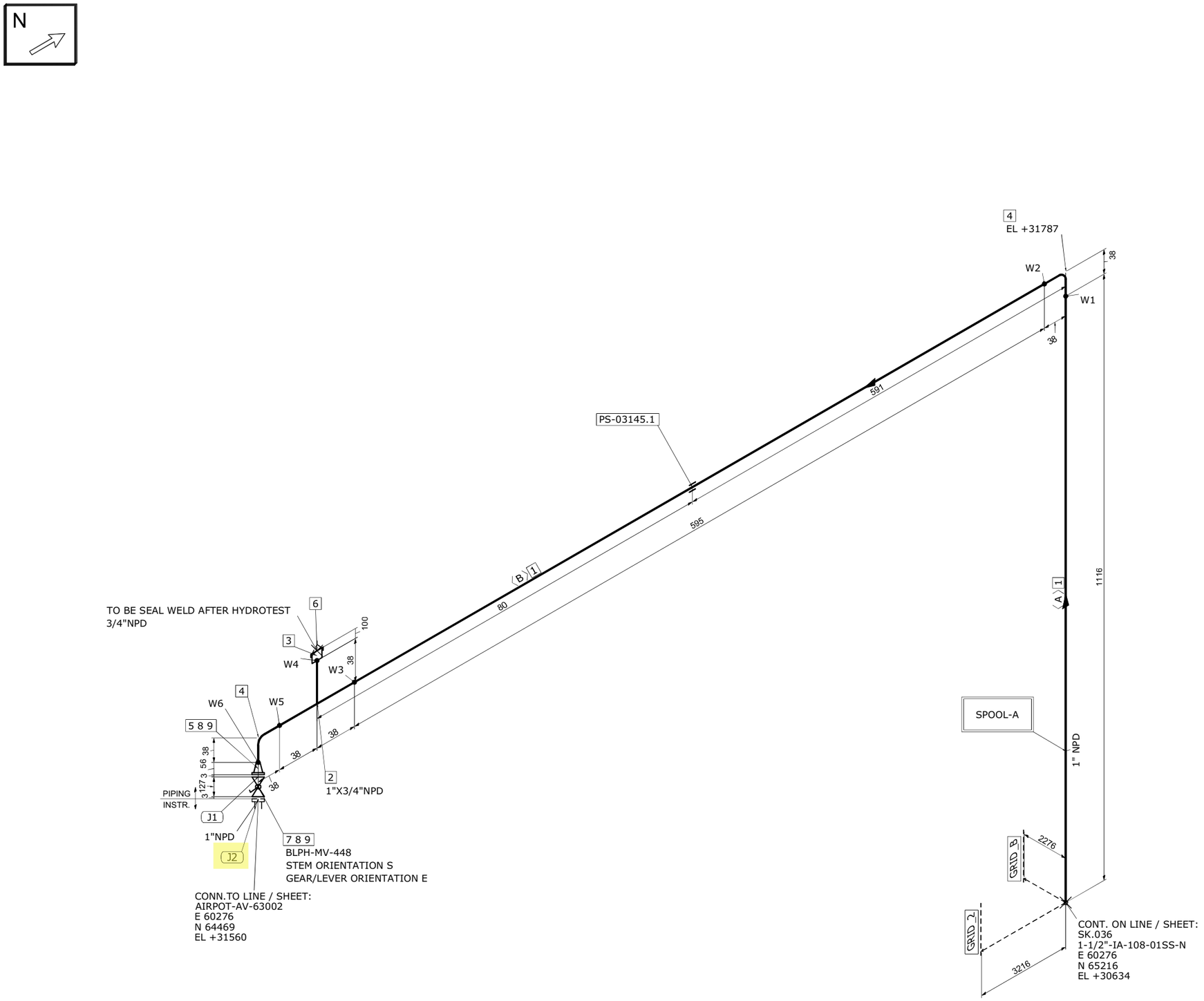
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	22	63	19	38	62.5
2	22	63	19	38	62.5
3	22	63	19	38	62.5
4	22	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-18	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:51:41.253Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-18T10:52:37.036Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPESS00480100	Pipe ASME B36.19M PE 3,38 SML ASTM A312 Gr.TP316/316L	1.7M	4.3
2	1X3/4	TER0SS0171013Q	Tee Reducing ASME B16.9 BW 3,38x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1	E90RSS00670100	90 Deg Elbow Long Radius ASME B16.9 BW 3,38 WRS ASTM A403 Gr.WP316/316L	2	0.3
5	1	FLW0SS00930100	Flange WN ASME B16.5 150LB RF 3,38 FRG ASTM A182 Gr.F316/316L	1	1.4

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
6	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2
7	1	VBC0NN06950100	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	6.0
8	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
9	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	6.5
ERECTION WEIGHT [kg]	7.3
OVERALL WEIGHT [kg]	13.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4	3/4	BW
W5	1	BW
W6	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	1116	BEVEL	BEVEL
B	1	595	BEVEL	BEVEL

SUPPORT LIST

PS-03145.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	5.75	6.5
MONT	0	7.3

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1"-IA-223-01SS-N

SK.119

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

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00119 | SHEET / OF: 1/1 | REV.: 00

LINE DATA

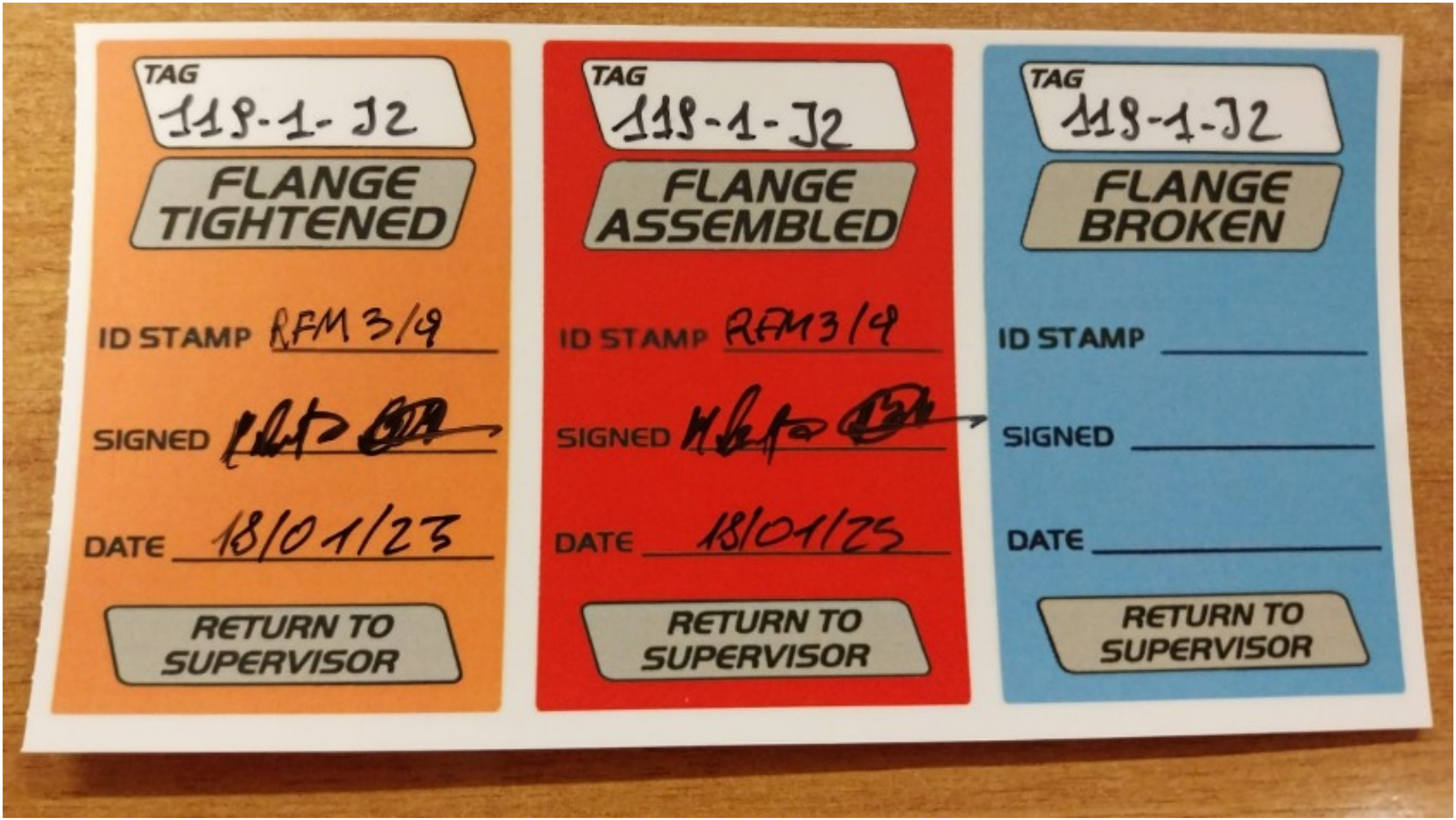
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80041
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

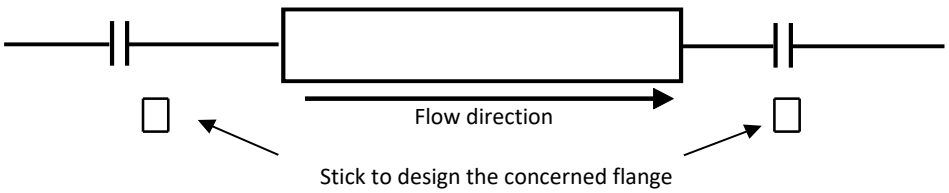
MASTER


TAG
118-1-J2
FLANGE TIGHTENED
ID STAMP RFM 3/9
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
118-1-J2
FLANGE ASSEMBLED
ID STAMP RFM 3/9
SIGNED
DATE 18/01/25
RETURN TO SUPERVISOR
TAG
118-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	036-1-J3	: Joint 036-1-J3			Dwg	123A90-FDL-PP-DI-00036-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004233		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1.1/2"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	20	63	19	38	62.5
2	20	63	19	38	62.5
3	20	63	19	38	62.5
4	20	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

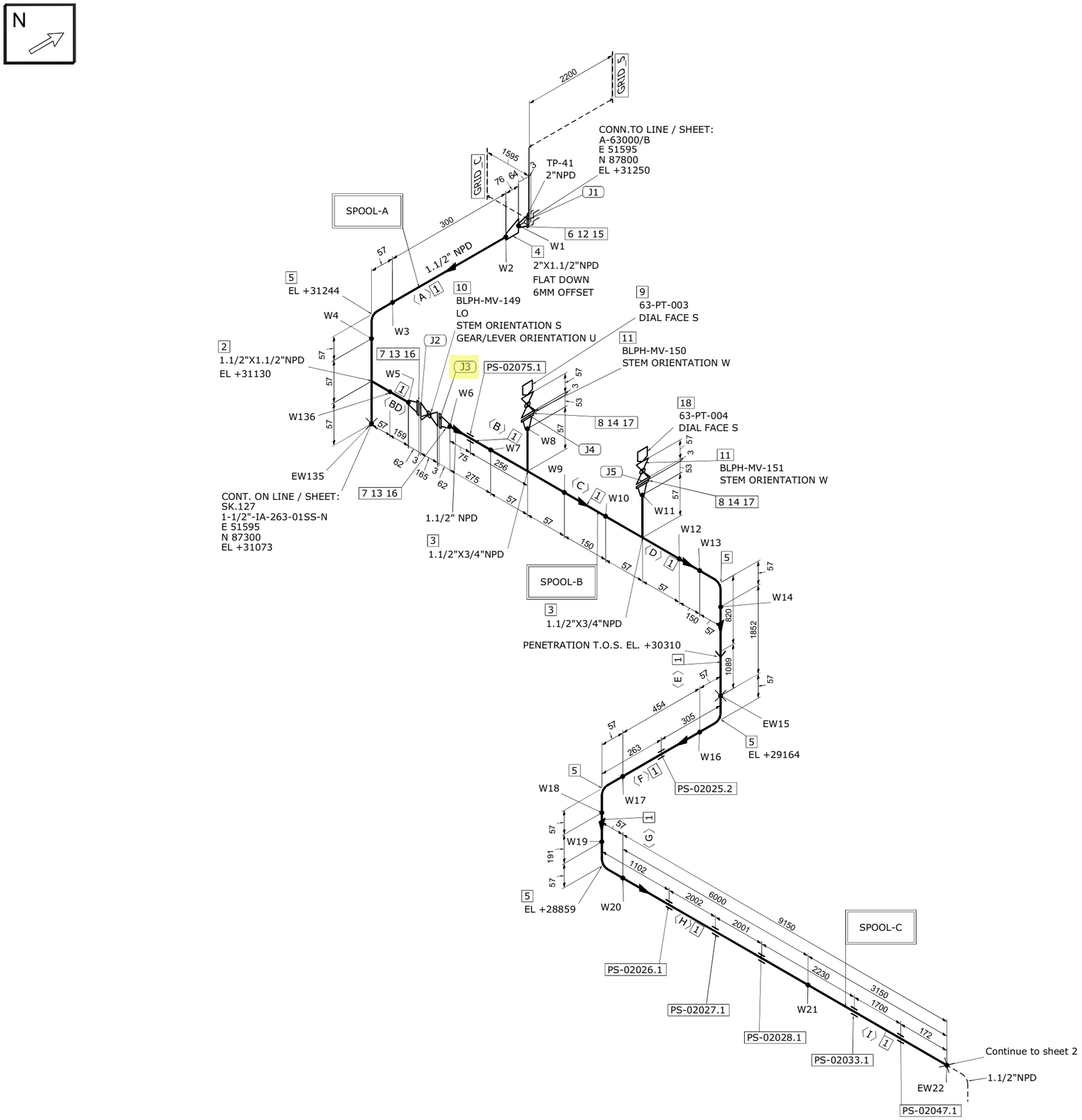
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:53:00.268Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:21:27.199Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

LINE DATA

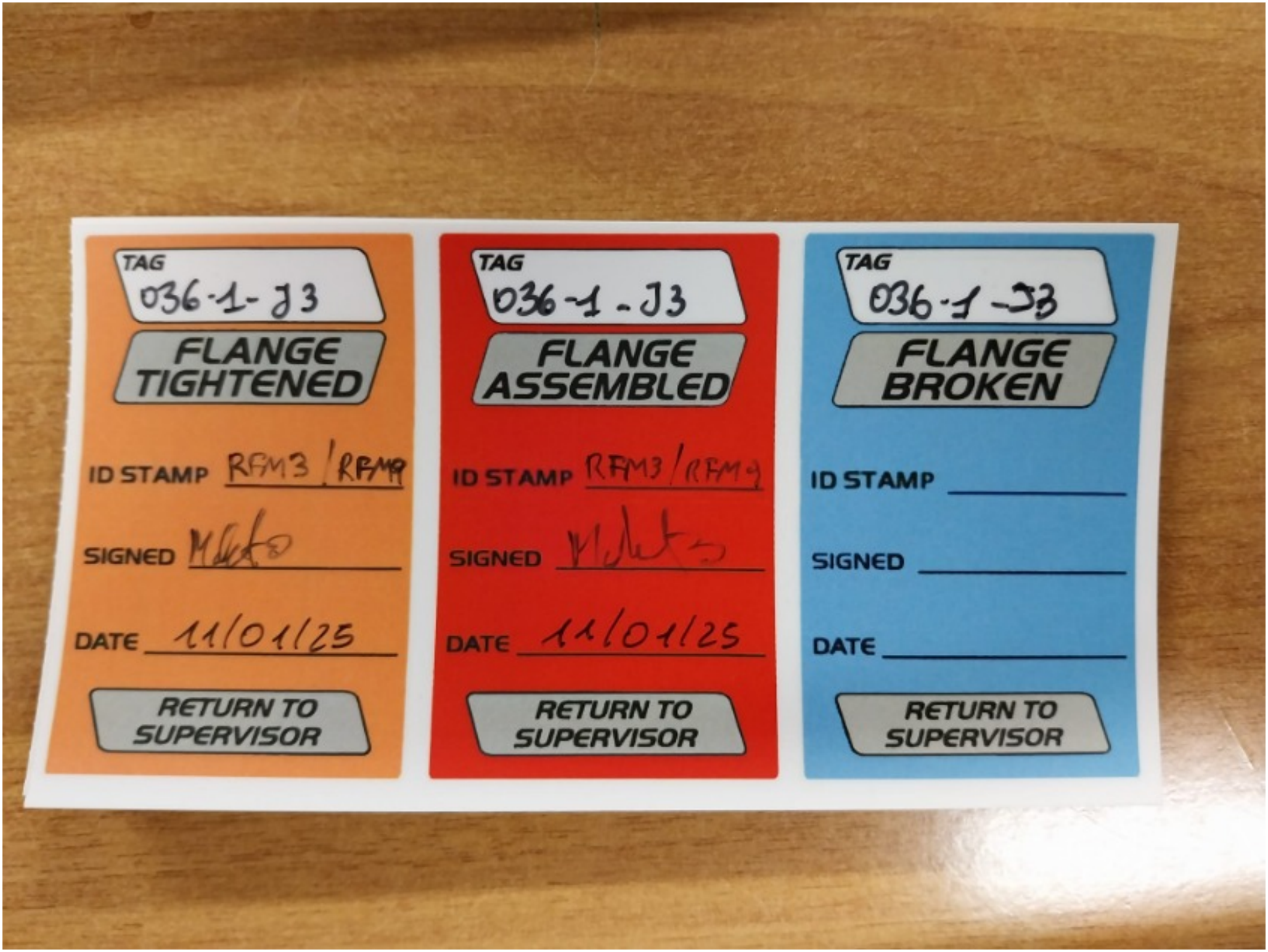
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

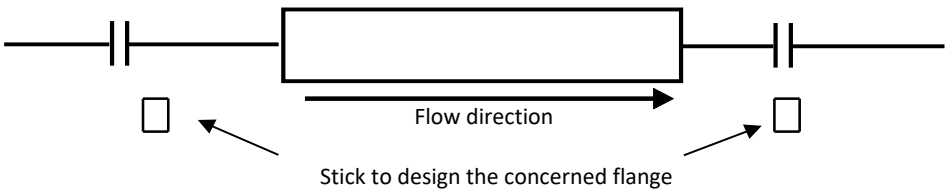
MASTER


TAG
036-1-J3
FLANGE TIGHTENED
ID STAMP RFM3/RFM9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
036-1-J3
FLANGE ASSEMBLED
ID STAMP RFM3/RFM9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
036-1-J3
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	036-1-J4	: Joint 036-1-J4			Dwg	123A90-FDL-PP-DI-00036-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004234		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



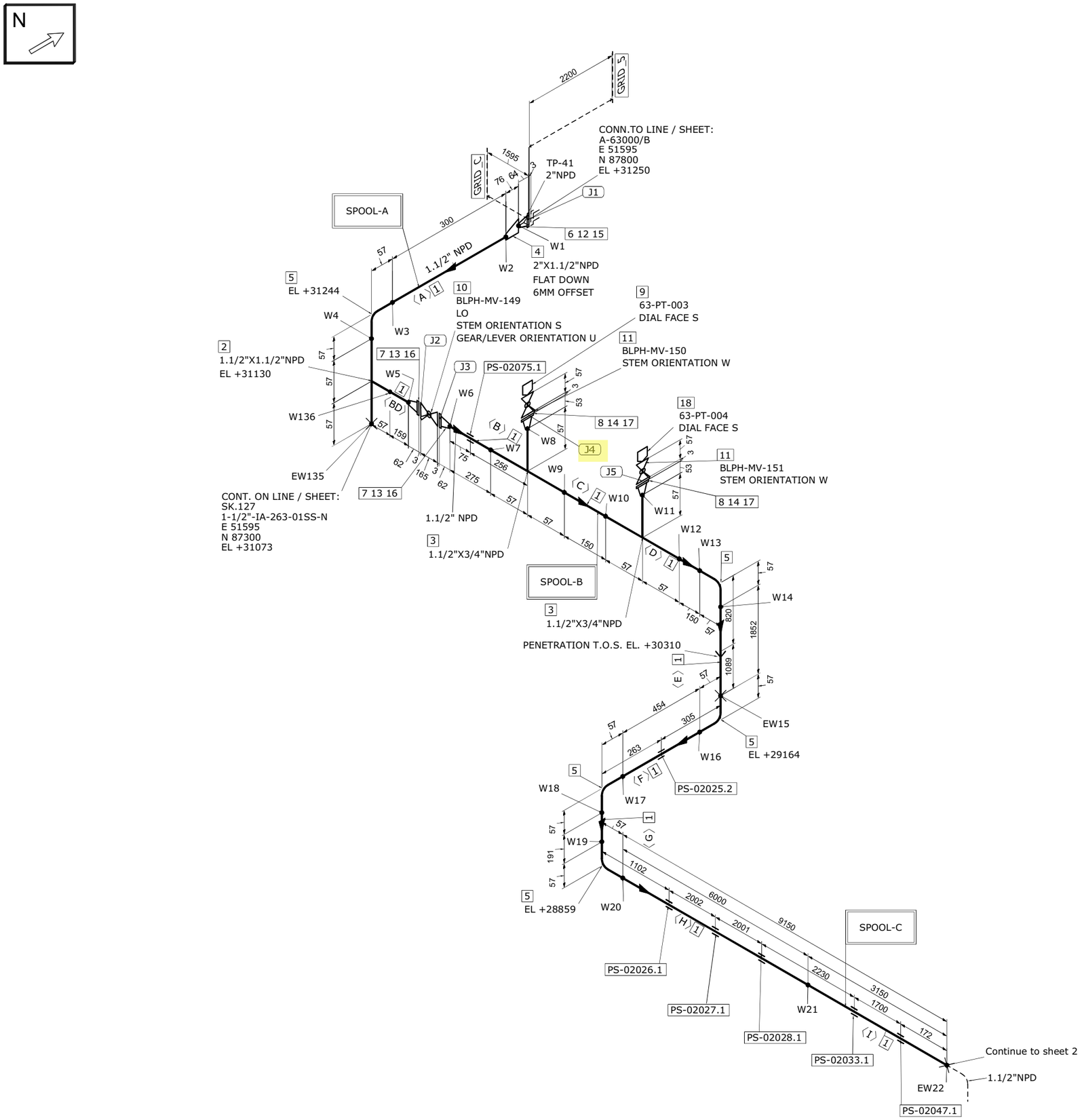
Flange Type	150LB	**Lubricant**	Yes
Flange Size	3/4"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-14	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:53:12.663Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-14T10:12:13.992Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

LINE DATA

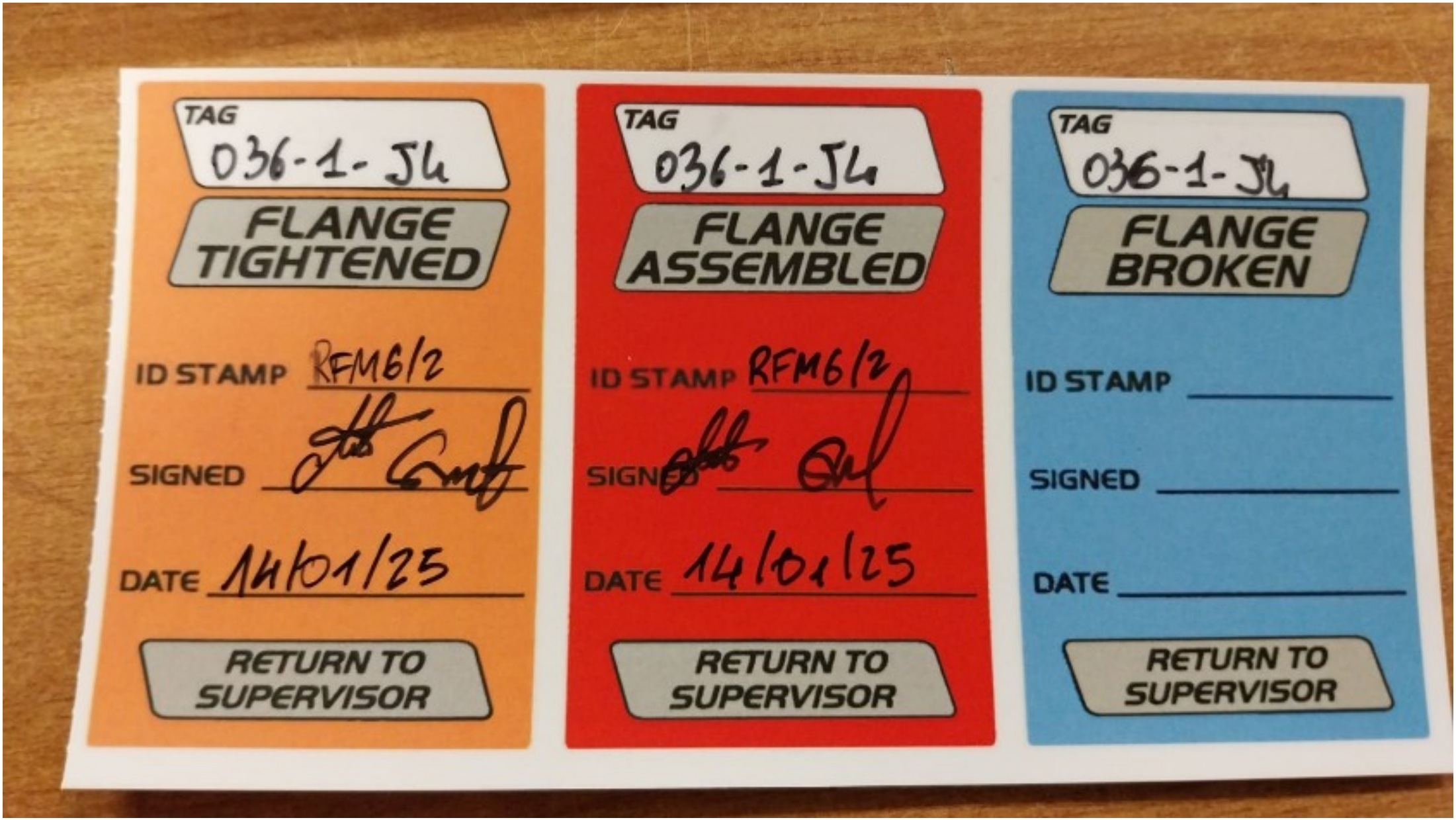
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

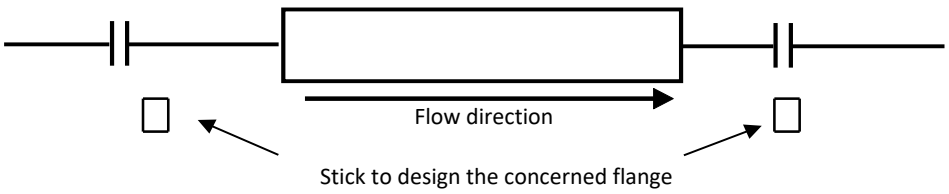
MASTER


TAG
036-1-J4
FLANGE TIGHTENED
ID STAMP RFM6/2
SIGNED
DATE 14/01/25
RETURN TO SUPERVISOR
TAG
036-1-J4
FLANGE ASSEMBLED
ID STAMP RFM6/2
SIGNED
DATE 14/01/25
RETURN TO SUPERVISOR
TAG
036-1-J4
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	036-1-J5	: Joint 036-1-J5			Dwg	123A90-FDL-PP-DI-00036-01
	S/Sys	63-30	: Instrument Air Distribution Network			Module	LD
TASK	code	C10004235		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27 — Bolt tensioning / torquing

Test Pack N.: TP-027

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	3/4"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

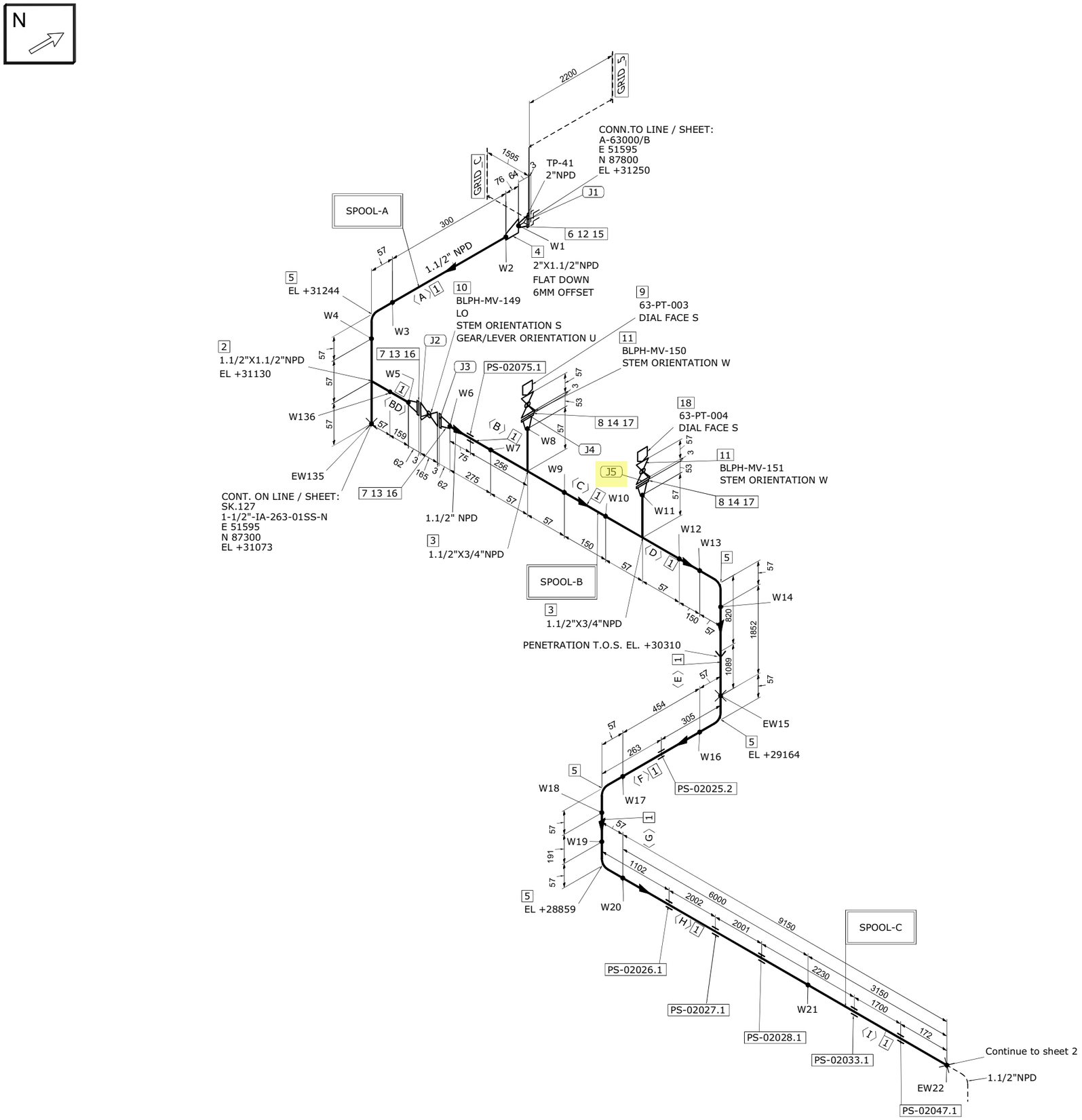
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-14	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:53:24.401Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-14T10:11:38.308Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3
DRAWING NO.: 123A90-FDL-PP-DI-00036
SHEET / OF: 1/8
REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER


TAG
036-1-J5
FLANGE TIGHTENED
ID STAMP RFM6/2
SIGNED
DATE 14/01/25
RETURN TO SUPERVISOR
TAG
036-1-J5
FLANGE ASSEMBLED
ID STAMP RFM6/2
SIGNED
DATE 14/01/25
RETURN TO SUPERVISOR
TAG
036-1-J5
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

Section 11 MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE

NOT APPLICABLE

Section 12 FAT / VENDOR REPORTS

NOT APPLICABLE

Section 13 MECHANICAL COMPLETION CHANGES / MARK-UPS

NOT APPLICABLE