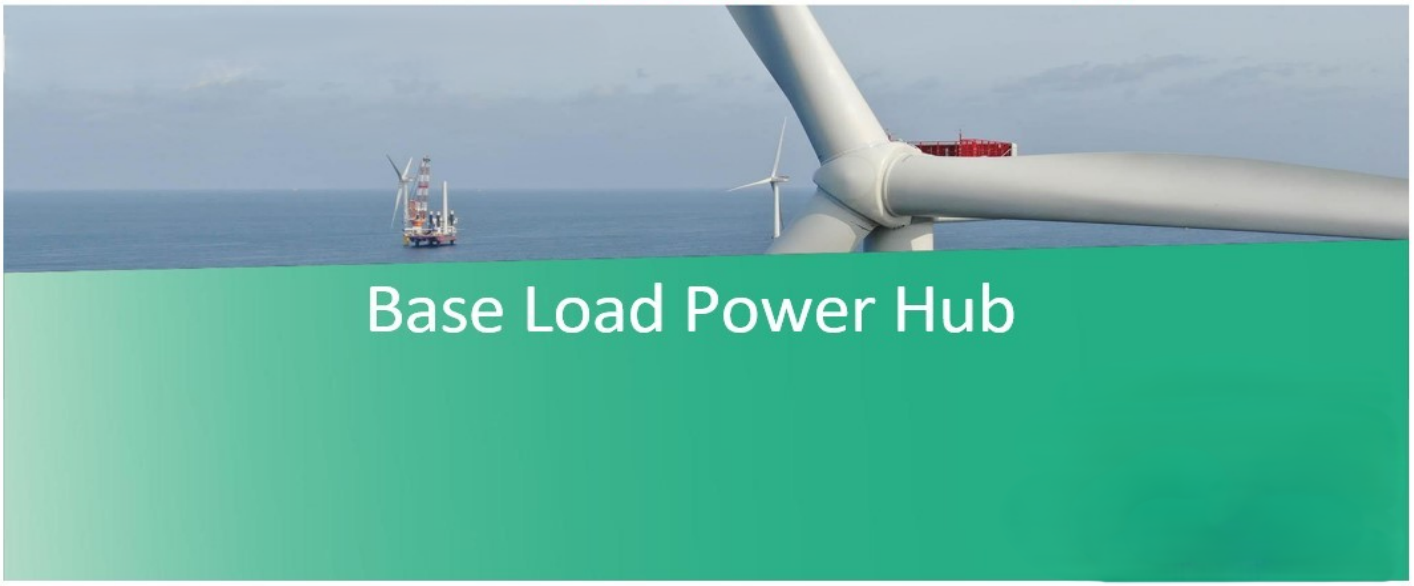
CROSSWIND

ROSETTI MARINO

PROVERLIS

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



COMMISSIONING DOSSIER (ONSHORE)

SYSTEM	55 Waste Water
SUBSYSTEM	55-01 Waste Water Brine Discharge System

CROSSWIND

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

COMMISSIONING DOSSIER INDEX

ROSETTI MARINO

Sub System N°:	55-01	**Tick as appropriate**	ONSHORE	OK
Description:	Waste Water Brine Discharge System		OFFSHORE	

1. *SUB-SYSTEM DEFINITION*	OK
1.1 Sub-System Description / Boundary Limit Drawings	
2. *READY FOR OPERATION CERTIFICATE*	OK
2.1 Achievement Of Ready for Operation Certificate (RFO)	
2.2 Exception Punch Lists (per discipline)	
2.3 “As-Commissioned” P&ID’s / SLD’s / D&ID’s / C&E’s	
3. *CONSOLIDATED PUNCH LISTS*	OK
3.1 Cleared and Residual Items (sorted by discipline)	
4. *FUNCTIONAL TESTS SHEETS*	OK
4.1 Electrical functional test sheets index	
4.2 Electrical “As-Commissioned” interconnection diagrams	
4.3 Instrumentation Functional Test Sheets Index	
4.4 Instrumentation “As-Commissioned” interconnection diagrams	
4.5 Telecommunication Functional Test Sheets Index	
4.6 Telecommunication “As-Commissioned” I.C.D. / TSLD’s	
5. *SITE / OPERATIONAL:*	NA
5.1 Operational Test Procedure	
5.2 Operational Test Certificates	
6. *PIPING AND VESSEL PREPARATION*	NA
6.1 Final Mechanical / Vessel Inspection Checks Index	
6.2 Leak Test / Drying / Inerting Test Sheets Index	
6.3 Chemical Loading & First Fill records Index	
6.4 Chemical Cleaning Reports and Records Index	
6.5 Lubrication Schedule	
7. *VENDORS*	NA
7.1 Vendor Package Summary Index	
7.2 SAT Procedure with associated punch list and reference (Front Page)	
7.3 Vendor Spares & Special Tools lists references	
7.4 Vendor Data / Operations / Maintenance Manuals References	
8. *LIST OF MODIFICATIONS*	NA
8.1 List of changes initiated during the WORKSITE Commissioning phase pertaining to the relevant Sub-System will be incorporated in this section with relevant references (with location and position of blinds/spades, isolation LO & LC valves, list of electrical isolation status, and remaining inhibits and overrides)	
9. *SUPPORTING DOCUMENTS*	NA
9.1 Other supporting documents (as applicable)	

	Contractor Commissioning Site Leader	Company Commissioning Site Leader
Name	Anthony Iveson	Gerry McCann
Date	2025-05-15	2025-05-15
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-15T08:47:04.759Z	PROVERLIS Digitaly signed by Gerry McCann 2025-05-15T14:18:33.332Z

Section 1 SUB-SYSTEM DEFINITION

DRAWING NO. DRAWING_NO.

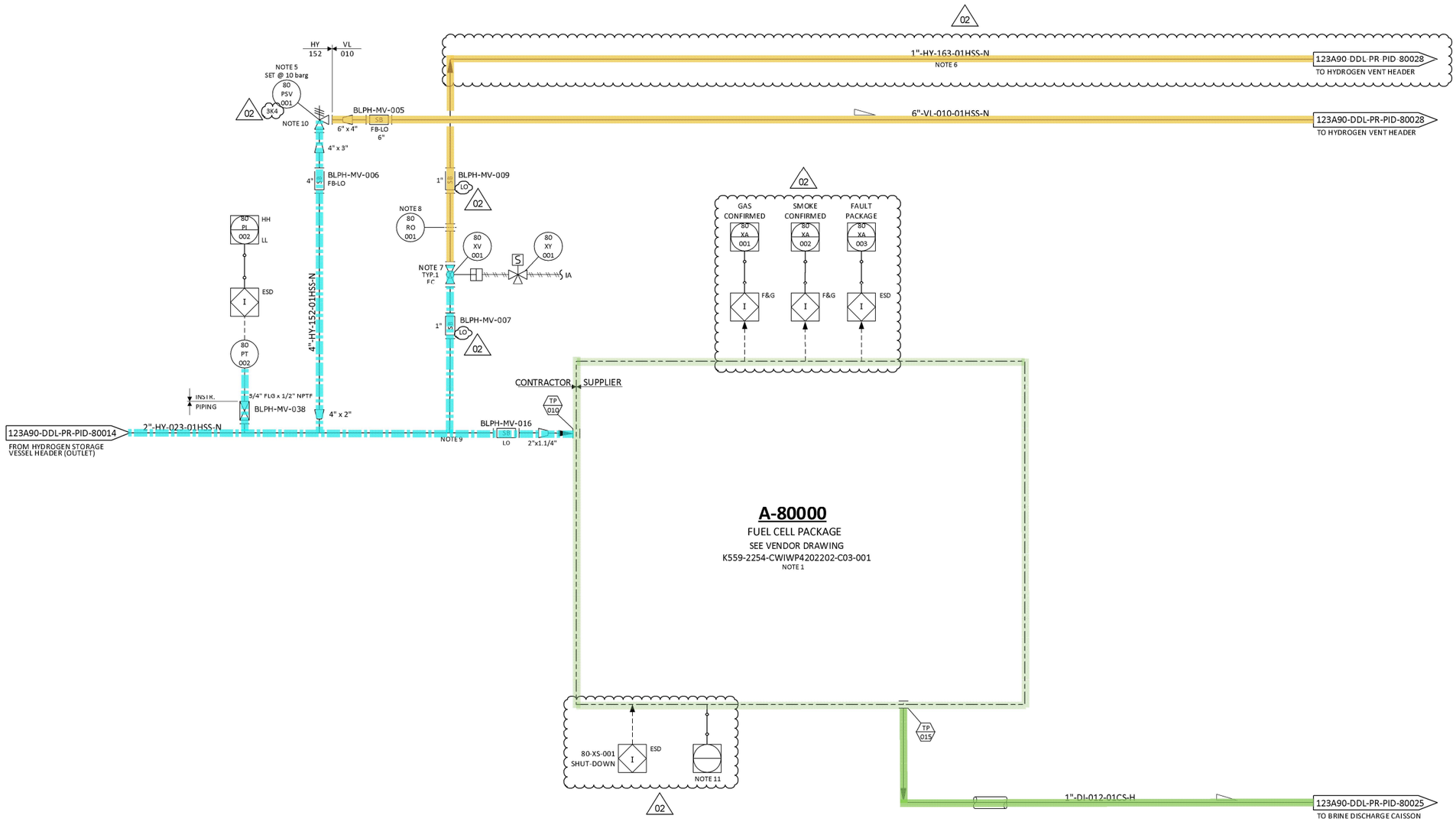
REV. REV

Hydrogen Vent Header & Drum System SS 43-00

Hydrogen Storage Vessels Header (Outlet) SS 25-08

Waste Water Brine Discharge System SS 55-01

Hydrogen Fuel Cell Package SS 80-00



NOTES

1. THE VENDOR PACKAGE WILL CONTAIN AIR INTAKE AND EXHAUST, SUITABLY SAFEGUARDED AND SEPARATED.
2. DELETED.
3. DELETED.
4. DELETED
5. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
6. LINE REQUIRED FOR PURGING OF PIPING WORK.
7. TIGHT SHUT-OFF VALVE.
8. FOR ORIFICE DIAMETER REFERENCE SHALL BE MADE TO "RELIEF, VENT AND BLOWDOWN REPORT" DOC. N. "123A90-DDL-PR-RE-80030".
9. LINE 1"-HY-163-01HSS-N WILL BE LOCATED AS CLOSE TO THE PACKAGE AS POSSIBLE TO ENSURE COMPLETE PURGING OF THE LINE.
10. 80PSV001 SIZED FOR CV FAILURE OF UPSTREAM CONTROL VAVE 25PV055A/B.
11. SERIAL COMMUNICATION WITH CONTROL SYSTEM. 02

HOLDS

1. DELETED.
2. 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
FUEL CELL 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-80012	SHEET 001	REV. 02

File Name : FILE_NAME

DRAWING_NO.

REV.

Sea Water Intake System	SS 50-00
Electrochlorinated Water	SS 50-11
Waste Water Disposal System	SS 55-00
Waste Water Brine Disharge System	SS 55-01
Water Desalination & Distribution System	SS 50-10

A-50000
WATER TREATMENT PACKAGE
CAPACITY : 2.5 m³/hr
02

02

GAS CONFIRMED 50 XA 001 — F&G
SMOKE CONFIRMED 50 XA 002 — F&G
FAULT PACKAGE 50 XA 003 — ESD
50-XS-001 SHUT-DOWN — ESD
NOTE 6

CONTRACTOR | SUPPLIER

FOR CONTINUATION SEE DOC N. 123A90-DDL-PR-PID-80023

123A90-DDL-PR-PID-80025
TO 50-TDI-002
50 TI 001
BLOCKED OUTLET SET @ 6 barg
50 PSV 011 1D2
2"-SWR-291-01SD-N
02
BLPH-MV-471
SB
1"-SWS-290-01SD-E
50 TT 001
50 TE 001
1.1/2"
4"x1.1/2"
ECC. RED.
TP 017
E
123A90-DDL-PR-PID-80021
FROM SEA WATER LIFT PUMP
1-1/2"-SWS-035-01SD-E
BLPH-MV-241 3/4"

A-50000
WATER TREATMENT PACKAGE
SEE VENDOR DRAWING
DOC. N. 1724000448-PR-PID-00013

02
FOR CONTINUATION SEE DOC N. 123A90-DDL-PR-PID-80023

E
TP 005
123A90-DDL-PR-PID-80021
TO SEA WATER LIFT PUMP AND LIFT PUMP CAISSONS
1"-CI-029-01CP-E

1"-CI-043-01CP-E
TP 006
123A90-DDL-PR-PID-80026
TO WASTE WATER TANK
DECK HOOK-UP 003
02

SUPPLIER | CONTRACTOR

TP 003
1.1/2"x1"
3"x1.1/2"
1"-SWR-045-01CS-H
123A90-DDL-PR-PID-80025
TO BRINE DISCHARGE CAISSON

TP 007
1.1/2"x1"
1"-WW-038-01CS-H
123A90-DDL-PR-PID-80026
TO WASTE WATER TANK

NOTES

1. DELETED. 02
2. DELETED.
3. DELETED.
4. DELETED.
5. DELETED. 02
6. SERIAL COMMUNICATION WITH CONTROL SYSTEM.

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED. 02
5. DELETED.
6. 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
SEA-WATER INTAKE SYSTEM SHEET 2

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-80022	SHEET 001	REV. 02

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV

Waste Water Brine Discharge System SS 55-01

B-50014
BRINE DISCHARGE CAISSON
SIZE : 323 mm (ID) x 21808 mm (H) 02
MATERIAL : CARBON STEEL) 02

123A90-DDL-PR-PID-80022
FROM 50-TI-001

02

123A90-DDL-PR-PID-80027 — 1"-WW-079-01CS-H
FROM INSTRUMENT AIR PACKAGE

123A90-DDL-PR-PID-80012 — 1"-DI-012-01CS-H
FROM FUEL CELL PACKAGE

123A90-DDL-PR-PID-80011 — 1"-DM-005-01CS-H
FROM ELECTROLYSER PACKAGE

123A90-DDL-PR-PID-80022 — 1"-SWR-045-01CS-H
FROM WATER TREATMENT PACKAGE

123A90-DDL-PR-PID-80029 — 1"-WW-071-01CS-H NNF
FROM HYDROGEN VENT KO DRUM

02 1-1/2"-WW-073-01CS-H

50 PI 014 H
50 PT 014
50 TDI 002 H
50 TI 002
50 TT 002
50 TE 002

3/4" FLG x 1/2" NPTF BLPH-MV-411 INSTR. PIPING
E
3/4"
4"x1.1/2" ECC. RED.
1.1/2"
4"x1.1/2" ECC. RED.
BLPH-MV-412 LO
BLPH-NRV-028
1-1/2"-WW-073-01CS-H

DECK HOOK-UP 005 02

1"-WW-071-01CS-H

02 DECK HOOK-UP 004

02

EL. +21.8 m

NOTE 2

B-50014
NOTE 1

ELEVATION
0.00m (L.A.T.)

NOTES

1. CAISSON IS OPEN TOPPED.
2. ALL LINES TO TERMINATE APPROXIMATLEY 0.00 mm BELOW SEAWATER LEVEL (LAT).

02

HOLDS

1. DELETED 02

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
WATER DISPOSAL SHEET 1

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-80025	SHEET 001	REV. 02

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)

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

V-63001
AIR RECEIVER

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

63 PI 004 LL · ESD I · 63 PI 003 L · 63 PT 003 · 63 PT 004

INSTR. PIPING

BLPH-MV-149 LO

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

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

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

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

TP 041 · TP 039 · TP 043 · TP 045 · TP 042

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

2"-AV-224-01CS-N

A-64000
NITROGEN SYSTEM
SEE VENDOR DIAGRAM

64 HS 031 · 64 PIC 031A H L · 64 PIC 031B H L · 64 PI 002 L · NOTE 1, 12 SET @ 10 barg · 64 PSV 001 · NOTE 10 TO ATM · 2"-AV-160-01CS-N

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

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

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

1"-N-262-01CS-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

64 SDY 001 · IA

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

64 SDV 001 · NOTE 13 · NC FC TYP.2

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

01CS · 03HSS

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

64 XA 003 FAULT PACKAGE

V-64001
NITROGEN RECEIVER

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

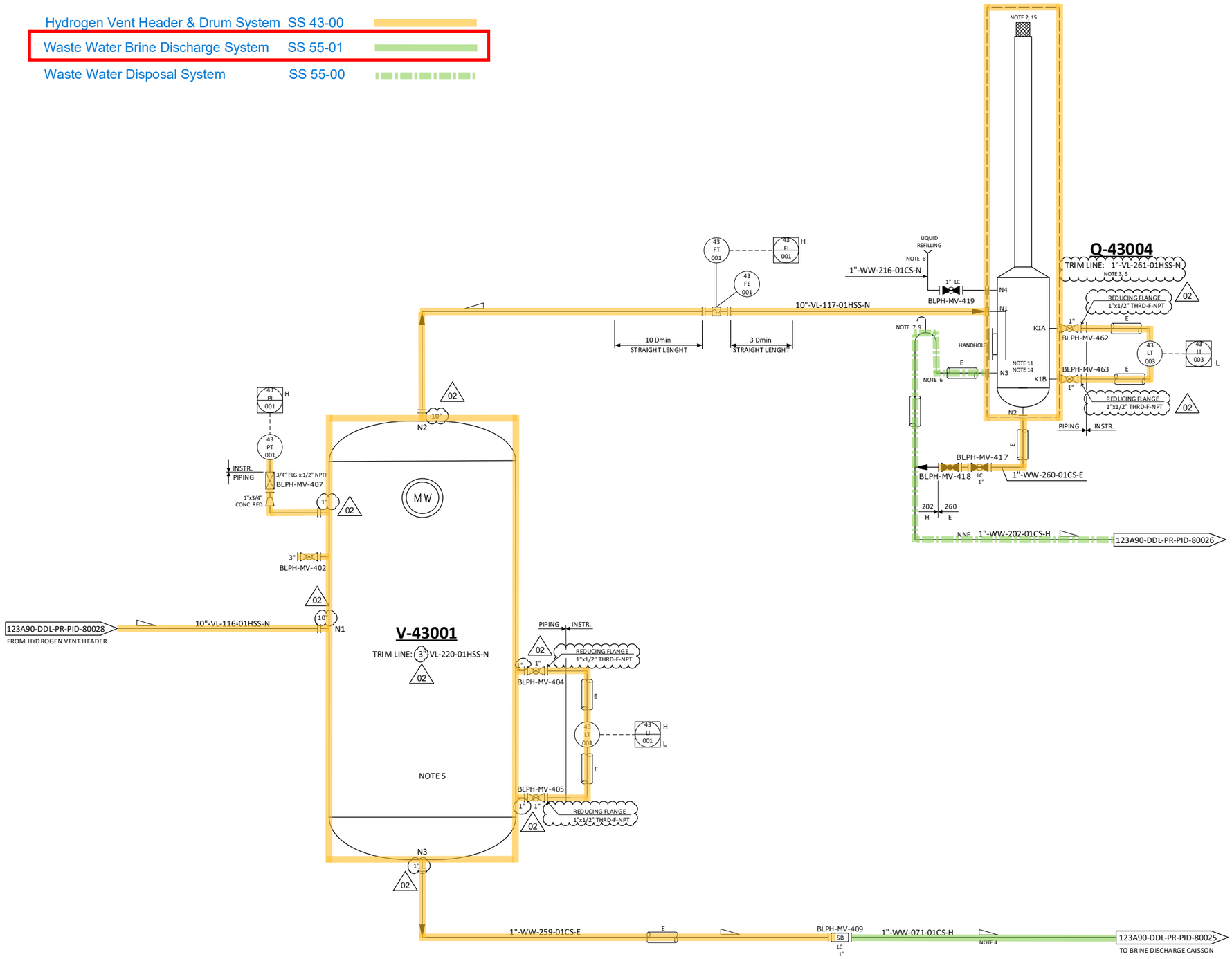
DRAWING NO. DRAWING_NO.

REV. REV

V-43001
HYDROGEN VENT KO DRUM
SIZE : 600 mm (ID) x 2350 mm (H)
DESIGN P/T : 3.5 barg / -10 / 80°C
MATERIAL : LTCS + 1 mm CA 02

Q-43004
HYDROGEN VENT NOTE 1
SIZE : 254 mm (ID)
DESIGN P/T : 3.5 barg / -10 / 80°C
MATERIAL : LTCS + 3 mm CA 02

Hydrogen Vent Header & Drum System SS 43-00
Waste Water Brine Discharge System SS 55-01
Waste Water Disposal System SS 55-00



NOTES

1. VENT TO SAFE LOCATION SEGREGATED FROM OTHER VENTS.
2. VENT TO BE EQUIPPED WITH FLAME ARRESTOR AND BIRD SCREEN.
3. LIQUID SEAL DRUM IS PART OF THE VENT SYSTEM.
4. LIQUID DRAIN LINES TO BE ROUTED TO ENSURE GRAVITY DRAIN.
5. HYDROGEN VENT KO DRUM AND LIQUID SEAL DRUM TO BE HEAT TRACING.
   - V-43001 HEAT TRACED FROM B.T.L. UP TO 600 mm, BOTTOM HEAD ALSO TO BE HEAT TRACED.
6. SEAL LEG WILL BE DETERMINATED ON THE MAXIMUM BACK PRESSURE IN THE VENT. 02
7. SEAL VENT TO BE PLACED INTO A SAFE POSITION.
8. FILLING LINE TO BE PLACED IN AN ACCESSIBLE POSITION.
9. TRACED FROM NOZZLE N3 UP TO SWAN NECK.
10. DELETED. 02
11. INLET DIP LEG SUBMERSION HEIGHT OF 0.6 m. 02
12. DELETED. 02
13. FOR DESCRIPTION AND SPECIFICATION OF VESSEL NOZZLE, REFERENCE SHALL BE MADE TO THE TECHNICAL DATA SHEET FOR H2 VENT KOD.
14. LIQUID INSIDE SEAL DRUM IS A WATER - GLYCOL MIXTURE WITH 40% VOLUME OF GLYCOL.
15. TOP OF TIP OF H2 VENT SHALL BE AT AS MINIMUM 6.2 m FROM HIGHEST REACHABLE PLATFORM.

HOLDS

1. DELETED.
2. DELETED.
3. 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
HYDROGEN VENT DRUM

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-80029			SHEET 001	REV. 02

File Name : FILE_NAME

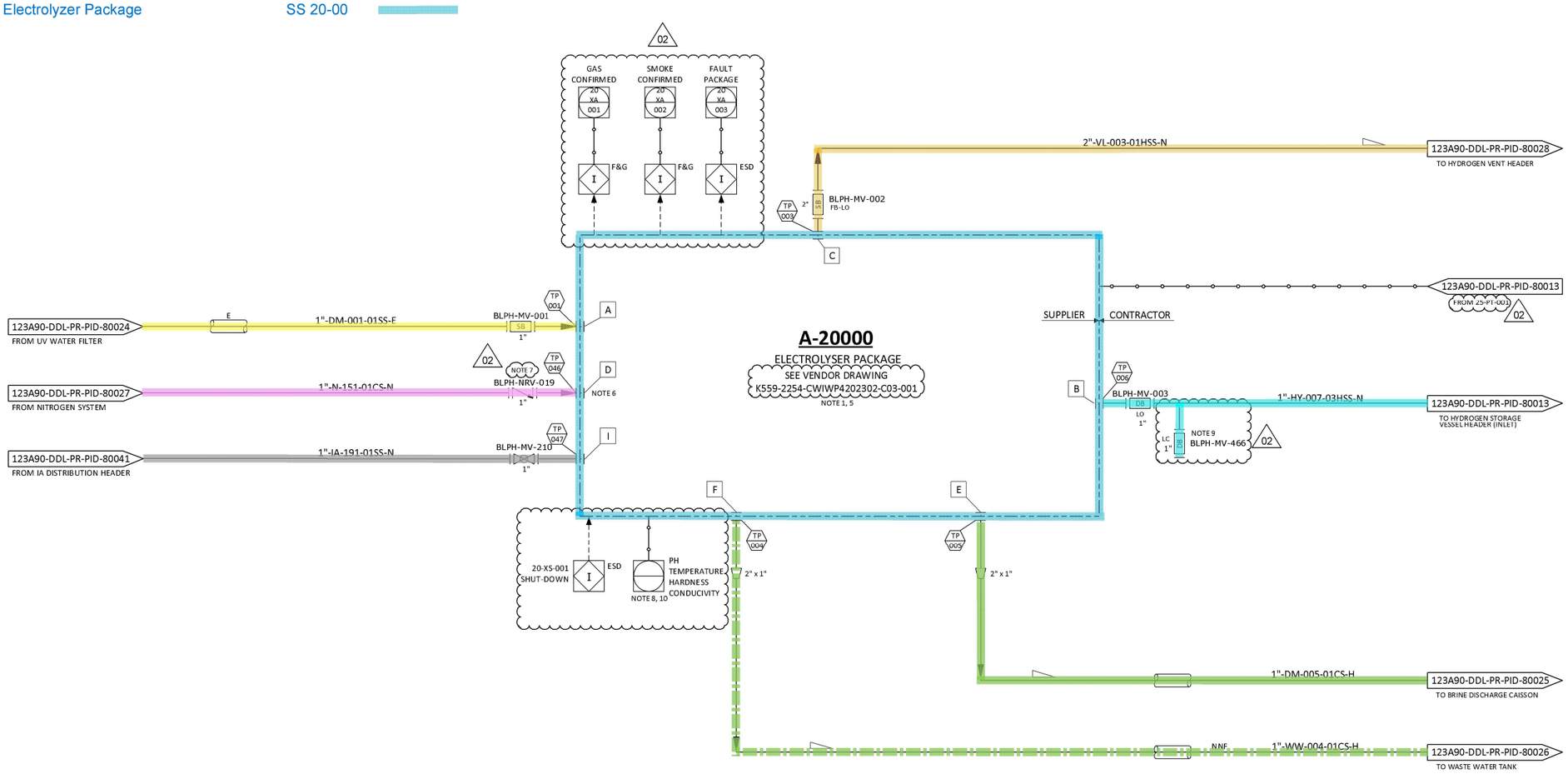
DRAWING NO. DRAWING_NO.

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 2 READY FOR OPERATION

Section 2.1 Achievement Of Ready for Operation Certificate (RFO)

ROSETTI MARINO

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Operation (RFO) Certificate

COMPLETE	●	PARTIAL	

Revision:	1		Issued on:	2025-05-09	

System:	55	/	Waste Water

SubSystem:	55-01	/	Waste Water Brine Discharge System

We hereby confirm that all Mechanical Completion (MC) and Pre-Commissioning/Commissioning (Pre-Comm./Comm.) activities for the above-mentioned System/Sub-System have been successfully completed in accordance with project specifications, relevant standards and contractual requirements. The System/Sub-System has been tested and verified to ensure readiness for operation. Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.

- **Mechanical Completion:** All required MC activities have been completed and approved
- **Pre-Commissioning & Commissioning:** All required Pre-Comm. and Comm. activities and OTPs have been completed and approved (Status Index attached)
- **Punch List:** All Punch items categorized as A and B have been cleared (PL report attached)
- **Documentation:** As-built documentation and Commissioning dossier has been completed, reviewed and approved

PUNCH LIST	PENDING POINTS
Note: All Category "A" and "B" Items must be cleared prior to issuance of the Ready For Operation (RFO) Certificate	B: 7

REMARKS:

	CONTRACTOR Commissioning Manager	**COMPANY** Commissioning Lead
Name	Anthony Iveson	Gerry McCann
Date	2025-05-12	2025-05-14
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-12T08:46:04.258Z	PROVERLIS Digitaly signed by Gerry McCann 2025-05-14T12:30:52.908Z

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 55-01 & process: COMM

Instrumental	55-01 Waste Water Brine Discharge System

ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
50-PT-014	Pressure Transmitter - Water Disposal Header to Caisson B-50014	ONSHORE	C10003181	FJ01A	100	2025-03-19	RFO 1
50-TT-002	Temperature Transmitter - Water Disposal Header to Caisson B-50014	ONSHORE	C10003183	FJ01A	100	2025-03-19	RFO 1
50-XV-005	On-Off Actuated Ball Valve	ONSHORE	C10004936	FJ01V	100	2025-04-10	RFO 1

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 55-01 & process: COMM

Piping	55-01 Waste Water Brine Discharge System						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
55-01	Service Test Waste Water Brine Discharge System	OFFSHORE	C10004911	4245	0	-	-

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM	55	Waste Water
SUBSYSTEM	55-01	Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002832	A	55-01-TP-003 C10003247	SK.032: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002833	A	55-01-TP-003 C10003247	SK.029: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002834	A	55-01-TP-003 C10003247	SK.007: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30003833	A	55-01-TP-046 C10003582	Earthing lug not connected to earth.	.		LNovaga 2025-02-15	2025-02-19	Ecarotenuto 2025-02-19	2025-02-19
C30004160	A	55-01-TP-003 C10003248	SK.007. Earthing lug not bonded to earth.	.		KAlbonetti 2025-02-27	2025-03-26	Gtangianu 2025-03-26	2025-03-26
C30001626	B	55-01-TP-021 C10003389	PS-02095.3 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001627	B	55-01-TP-021 C10003389	PS-01042.2 is missing.	.		KAlbonetti 2024-12-10	2025-02-14	LNovaga 2025-02-14	2025-02-14
C30001628	B	55-01-TP-021 C10003389	PS-01039.1 pos.P1 missing	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001629	B	55-01-TP-021 C10003389	PS-01040.2 missing	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001630	B	55-01-TP-021 C10003389	PS-01036.1 pos.P1 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001631	B	55-01-TP-021 C10003389	PS-01036.1 there is a gap of 30 mm between support and beam. Half the gap will be fixed by the pos.P1 (15mm plate) that shall be added but	.		KAlbonetti 2024-12-10	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30001633	B	55-01-TP-021 C10003389	PS-02086.2 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001634	B	55-01-TP-021 C10003389	PS-02086.1: the clamp height is 4 mm higher than requested.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001636	B	55-01-TP-021 C10003389	PS-02095 is different from the drawing. F2 is HEA120 instead of a UPN120. Distance of calmp shoe from end is 380 mm in place of 263. See	.		KAlbonetti 2024-12-10			
C30001637	B	55-01-TP-021 C10003389	PS-02096 position F1 is a UPN120 instead of a HEA120. See attached PDF	.		KAlbonetti 2024-12-10			
C30001638	B	55-01-TP-021 C10003389	All piping supports' bolts have not been tightened.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30002835	B	55-01-TP-003 C10003247	SK.032: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002836	B	55-01-TP-003 C10003247	SK.031 (SH.2/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002837	B	55-01-TP-003 C10003247	SK.031 (SH.1/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002838	B	55-01-TP-003 C10003247	SK.029: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002839	B	55-01-TP-003 C10003247	SK.007: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002840	B	55-01-TP-003 C10003247	Flanges have not been torqued for finals. Connection points have not been joined before testing. All falnge management related points,	.		KAlbonetti 2025-01-14	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003179	B	55-01-TP-046 C10003581	All supports type "C-33" and "S-75" have not been assembled as for Standard. To be checked during reinstatement.	.		KAlbonetti 2025-01-24	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003180	B	55-01-TP-046 C10003581	Point n.4 not checked because the line has not been aligned in the correct position for the hydrotest.	.		KAlbonetti 2025-01-24	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003781	B	55-01-TP-021 C10003392	General touch up do to, especially near the supports of the piping line.	.		LNovaga 2025-02-13	2025-02-24	LNovaga 2025-02-24	2025-02-24
C30003782	B	55-01-TP-021 C10003392	There are holes in structural support PS-02095 (SK 30 2/3), they must be closed and painted.	.		LNovaga 2025-02-13	2025-04-15	LNovaga 2025-04-15	2025-04-15
C30003821	B	55-01-TP-021 C10003390	Support PS-01030.2 is C-33 and not C-34.	.		LNovaga 2025-02-14	2025-02-14	LNovaga 2025-02-14	2025-02-14

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003829	B	55-01-TP-046 C10003584	Joint 004-1-J3, 004-1-J2 and support PS-02121.4 needs several touch up. See attached photos.	.		LNovaga 2025-02-15	2025-02-22	LNovaga 2025-02-22	2025-02-22
C30003830	B	55-01-TP-046 C10003582	Support PS-02122.4 is not installed correctly, see attached photo.	.		LNovaga 2025-02-15	2025-02-21	LNovaga 2025-02-21	2025-02-21
C30003831	B	55-01-TP-046 C10003582	Washer on the support PS-02121.4 is missing.	.		LNovaga 2025-02-15	2025-02-20	LNovaga 2025-02-20	2025-02-20
C30003832	B	55-01-TP-046 C10003582	Correct gap of support C-33 not yet achieved. It must be 2mm (PS-02123.3 SK 004)	.		LNovaga 2025-02-15	2025-02-20	LNovaga 2025-02-20	2025-02-20
C30003902	B	55-01-TP-046 C10003584	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-17	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30003903	B	55-01-TP-021 C10003392	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-17	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30004217	B	55-01-TP-003 C10003248	The 50-PT-014 is oriented to the north, correct the isometric. SK-031 2/3.	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02
C30004218	B	55-01-TP-003 C10003248	In isometric the 50-TT-002 seems to have inclination but the Nipoflange is orthogonal to the line. Correct isometric. SK.031 2/3.	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02
C30004219	B	55-01-TP-003 C10003248	Spool A in modification isometric must be updated accordingly. SK029	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004220	B	55-01-TP-003 C10003248	In the sketch 007 the PS-02001.1 and PS-02140.2 supports touch partially the structure, correct the gap where possible.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004221	B	55-01-TP-003 C10003248	In the sketch 031 2/3 the supports PS-01020.1 (S-64) / PS-01020.2 (C-34) and PS-01070.1 (S-64) PS-01070.2 (C-34) are not installed.	.		LNovaga 2025-03-10			
C30004222	B	55-01-TP-003 C10003248	In SK 031 2/3 PS-01022.1 (S-75) and PS-01022.2 (C-34) lock nut is missing.	.		LNovaga 2025-03-10	2025-05-07	LNovaga 2025-05-07	2025-05-07
C30004223	B	55-01-TP-003 C10003248	In PS-01022.1 (S-64) and PS-01022.2 (C-34) nuts not tightened. SK 032	.		LNovaga 2025-03-10	2025-04-14	LNovaga 2025-04-14	2025-04-14
C30004224	B	55-01-TP-003 C10003248	In the isometric 032 the Supports PS-02033.2 (S-75), PS-02027.3 (S-75), PS-02025.1 (S-75): Shoe partially touches the structure (shoe tilted	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004225	B	55-01-TP-003 C10003248	In the isometric 032 the supports PS-02026.3 and PS-02028.2: Shoe touches partially the structure, correct the gap where possible.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004226	B	55-01-TP-003 C10003248	In the isometric 031 1/3 Support PS-02048.1 (S-75): The shoe does not touch the structural support.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004227	B	55-01-TP-003 C10003248	In the sketch 031 1/3, support PS-02069.4 (C-33) is not installed.	.		LNovaga 2025-03-10	2025-04-14	LNovaga 2025-04-14	2025-04-14
C30004228	B	55-01-TP-003 C10003248	In the isometric 031 1/3, the supports PS-02066.1 (S-75), PS-02071.1 (S-75), PS-02072.1 (S-75), PS-02074.1 (S-75): shoes partially touches the	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004229	B	55-01-TP-003 C10003248	The slope of the line was not measurable in the insulated sections.	.		LNovaga 2025-03-10			
C30004259	B	55-01-TP-003 C10003250	Almost the entire line was not inspected because it was already insulated. (pending non-conformity report from quality dpt)	.		LNovaga 2025-03-24			
C30004298	B	55-01-TP-003 C10003249	Missing portion of insulation in isometrics 031 (2/3) and 029 for commissioning activities.	.		LNovaga 2025-03-28			
C30004299	B	55-01-TP-046 C10003583	Missing the insulation pillows around jonts 004-1-J1, 004-1-J2 and 004-1-J3.	.		LNovaga 2025-03-28	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30004300	B	55-01-TP-046 C10003583	Missing portion of insulation, see attached.	.		LNovaga 2025-03-28	2025-04-07	LNovaga 2025-04-07	2025-04-07

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004068	A	50-PT-014 C10000903	Missing the earth connection on the instrument.	.		APolo 2025-02-21	2025-02-25	JKrizanic 2025-02-25	2025-02-25
C30004071	A	50-TT-002 C10000905	Missing the earth connection on the instrument.	.		APolo 2025-02-21	2025-02-25	JKrizanic 2025-02-25	2025-02-25
C30004067	B	C-50-PT-014/00 -JE-11004 C10000057	The cable is not support .	.		APolo 2025-02-21	2025-02-27	JKrizanic 2025-02-27	2025-02-27
C30004069	B	50-PT-014 C10000903	Missing tag SS , on the instrument.	.		APolo 2025-02-21	2025-02-24	APolo 2025-02-24	2025-02-24
C30004070	B	C-50-TT-002/00- JE-11004 C10000052	The cable is not support .	.		APolo 2025-02-21	2025-02-27	JKrizanic 2025-02-27	2025-02-27
C30004072	B	50-TT-002 C10000905	Missing tag SS , on the instrument.	.		APolo 2025-02-21	2025-02-24	APolo 2025-02-24	2025-02-24
C30004205	B	C-50-XV-005/00 -JE-12006 C10004664	Missing all identification tag wires inside the limitswitch.(50-XV-005). See attached photo.	.		Gtangianu 2025-03-07	2025-03-27	Gtangianu 2025-03-27	2025-03-27
C30004206	B	C-50-XV-005/00 -JE-12006 C10004664	Missing cable tag on both side. (C-50-XV-005/00-JE-12006). See attached photo.	.		Gtangianu 2025-03-07	2025-03-12	JKrizanic 2025-03-12	2025-03-12
C30004209	B	C-50-XY-005/00 -JE-13003 C10004665	Missing all identification tag wires inside the Solenoid.(50-XY-005). See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25

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PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004210	B	C-50-XY-005/00 -JE-13003 C10004665	Missing cable tag on both side. (C-50-XY-005/00-JE-13003). See attached photo.	.		Gtangianu 2025-03-07	2025-04-02	Gtangianu 2025-04-02	2025-04-02
C30004211	B	50-XV-005 C10004657	Missing tag plate SS on the valve.(50-XV-005).	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25
C30004212	B	50-XY-005 C10004661	Missing tag plate SS on the Solenoid valve.(50-XY-005).See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25
C30004213	B	50-ZSHL-005 C10004662	Missing tag plate SS on the LIMITSWITCH valve.(50-ZSHL-005).See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Building

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004268	B	B-50014 C10004927	Some points needs touch up.	.		LNovaga 2025-03-25			

Section 2.2 Exception Punch Lists (per discipline)

CROSSWIND

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Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001636	B	55-01-TP-021 C10003389	PS-02095 is different from the drawing. F2 is HEA120 instead of a UPN120. Distance of calmp shoe from end is 380 mm in place of 263. See	.		KAlbonetti 2024-12-10			
C30001637	B	55-01-TP-021 C10003389	PS-02096 position F1 is a UPN120 instead of a HEA120. See attached PDF	.		KAlbonetti 2024-12-10			
C30004221	B	55-01-TP-003 C10003248	In the sketch 031 2/3 the supports PS-01020.1 (S-64) / PS-01020.2 (C-34) and PS-01070.1 (S-64) PS-01070.2 (C-34) are not installed.	.		LNovaga 2025-03-10			
C30004229	B	55-01-TP-003 C10003248	The slope of the line was not measurable in the insulated sections.	.		LNovaga 2025-03-10			
C30004259	B	55-01-TP-003 C10003250	Almost the entire line was not inspected because it was already insulated. (pending non-conformity report from quality dpt)	.		LNovaga 2025-03-24			
C30004298	B	55-01-TP-003 C10003249	Missing portion of insulation in isometrics 031 (2/3) and 029 for commissioning activities.	.		LNovaga 2025-03-28			

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Building									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004268	B	B-50014 C10004927	Some points needs touch up.	.		LNovaga 2025-03-25			

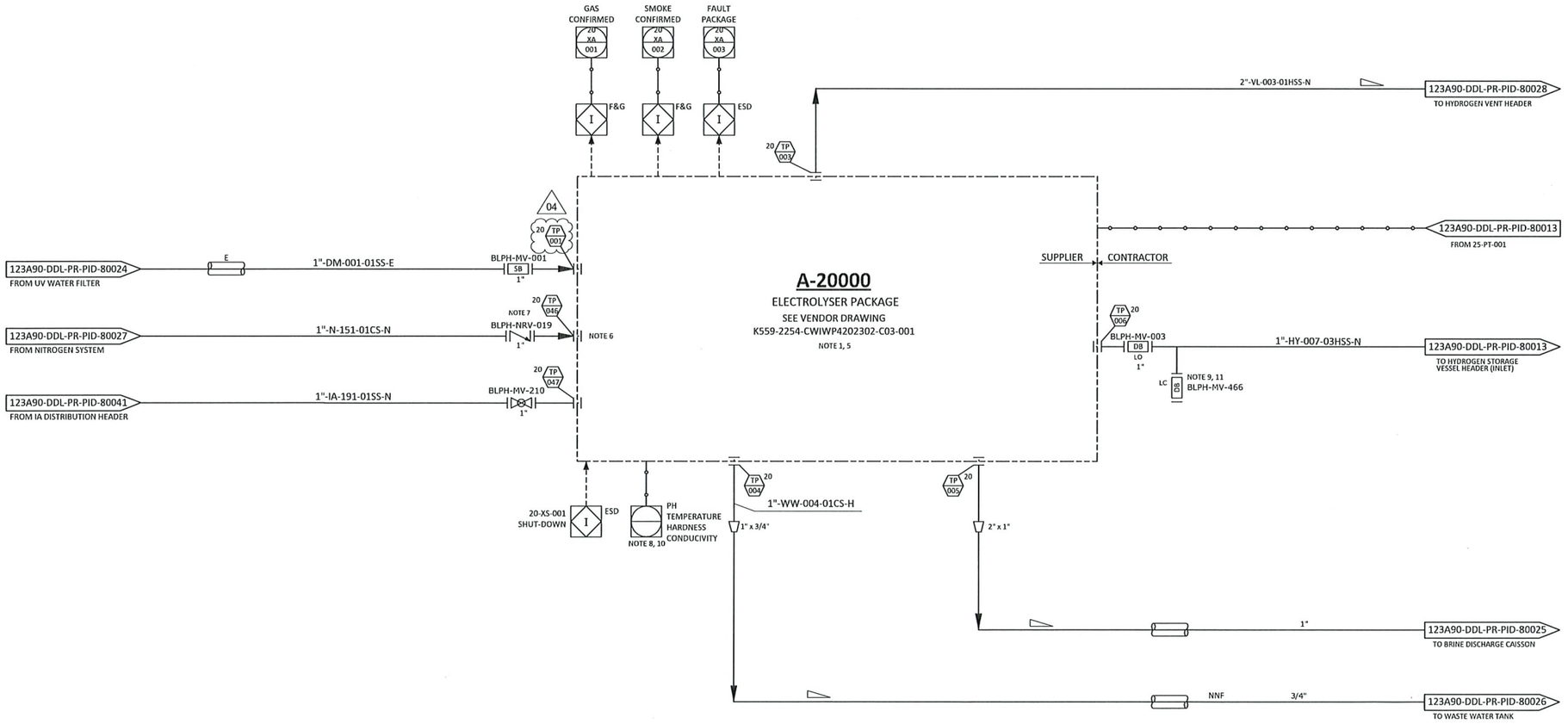
Section 2.3 “As-Commissioned” P&ID's / SLD's / D&ID's / C&E's

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 Nm^3/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.
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

As Commissioning
02-04-2025
Giandonato Del Missier

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	16/04/2025	CIM	RZI	CGI	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
ELECTROLYSER PACKAGE

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

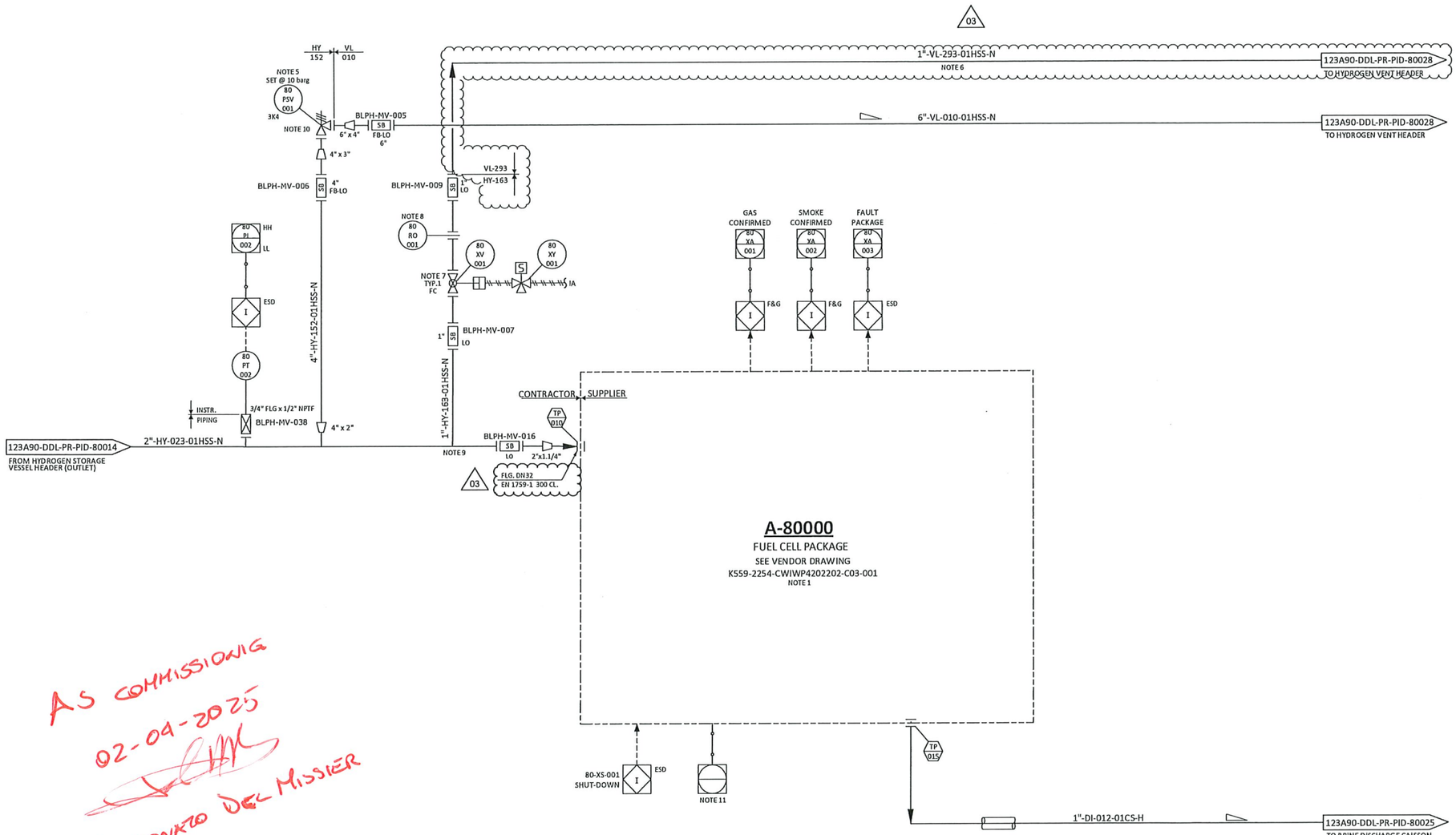
DRAWN | CHECKED | APPROVED | DATE

A1 | DRAWING NO. 123A90-DDL-PR-PID-80011 | SHEET 001 | REV. 04

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV



AS COMMISSIONING
02-09-2025
GIANDONATO DEL MISSIER

NOTES

1. THE VENDOR PACKAGE WILL CONTAIN AIR INTAKE AND EXHAUST, SUITABLY SAFEGUARDED AND SEPARATED.
2. DELETED.
3. DELETED.
4. DELETED
5. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
6. LINE REQUIRED FOR PURGING OF PIPING WORK.
7. TIGHT SHUT-OFF VALVE.
8. FOR ORIFICE DIAMETER REFERENCE SHALL BE MADE TO "RELIEF, VENT AND BLOWDOWN REPORT" DOC. N. "123A90-DDL-PR-RE-80030".
9. LINE 1"-HY-163-01HSS-N WILL BE LOCATED AS CLOSE TO THE PACKAGE AS POSSIBLE TO ENSURE COMPLETE PURGING OF THE LINE.
10. 80-PSV-001 SIZED FOR CV FAILURE OF UPSTREAM CONTROL VALVE 25-PV-055A/B.
11. SERIAL COMMUNICATION WITH CONTROL SYSTEM.

HOLDS

1. DELETED.
2. 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
FUEL CELL 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-80012	SHEET 001	REV. 03

File Name : FILE_NAME

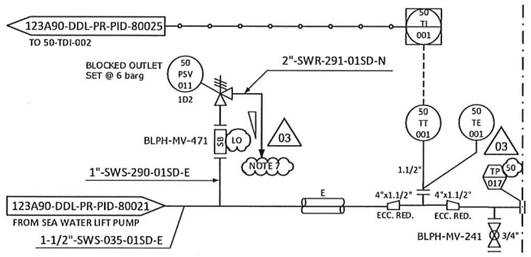
DRAWING NO. DRAWING_NO.

REV. REV

A-50000
WATER TREATMENT PACKAGE
CAPACITY : 2.5 m³/hr



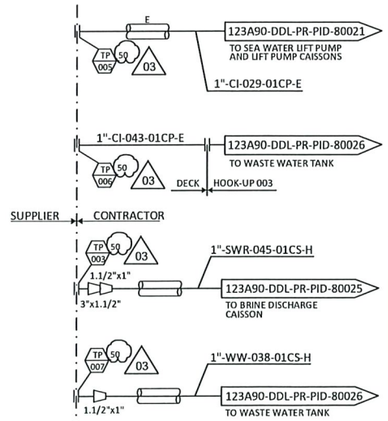
CONTRACTOR | SUPPLIER



FOR CONTINUATION SEE DOC N. 123A90-DDL-PR-PID-80023

A-50000
WATER TREATMENT PACKAGE
SEE VENDOR DRAWING
DOC. N. 1724000448-PR-PID-00013

FOR CONTINUATION SEE DOC N. 123A90-DDL-PR-PID-80023



AS COMMISSIONING
16-04-2025
GIANDONATO DA MISSIER

NOTES
1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.
5. DELETED.
6. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
7. ROUTED TO THE SEA. 03

HOLDS
1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.
5. DELETED.
6. 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
SEA-WATER INTAKE SYSTEM SHEET 2

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-80022		SHEET 001 / REV. 03

File Name : FILE_NAME

DRAWING NO. DRAWING_NO.

REV. REV

B-50014

BRINE DISCHARGE CAISSON
SIZE : 323 mm (ID) x 21808 mm (H)
MATERIAL : CARBON STEEL)

123A90-DDL-PR-PID-80022
FROM 50-TI-001

123A90-DDL-PR-PID-80027
FROM INSTRUMENT AIR PACKAGE
1"-WW-079-01CS-H

123A90-DDL-PR-PID-80012
FROM FUEL CELL PACKAGE
1"-DI-012-01CS-H

123A90-DDL-PR-PID-80011
FROM ELECTROLYSER PACKAGE
1"-DM-005-01CS-H

DM 005 / WW 073

1-1/2"-WW-073-01CS-H

50 PI 014 H

50 PT 014

3/4" FLG x 1/2" NPTF
BLPH-MV-411

INSTR. PIPING

E

3/4"

4"x1.1/2" ECC. RED.

1.1/2"

4"x1.1/2" ECC. RED.

50 TDI 002 H

50 TI 002

50 TT 002

50 TE 002

50 XY 005

IA

50 XV 005

FO TYP.1

DECK HOOK-UP 005

BLPH-NRV-028

LC BLPH-MV-412

05

123A90-DDL-PR-PID-80022
FROM WATER TREATMENT PACKAGE
1"-SWR-045-01CS-H

123A90-DDL-PR-PID-80029
FROM HYDROGEN VENT KO DRUM
1"-WW-071-01CS-H NNF

1"-WW-071-01CS-H

DECK HOOK-UP 004

NOTE 2

B-50014
NOTE 1

EL. +21.8 m

ELEVATION
0.00m (L.A.T.)

AS COMMISSIONING
16-04-2025
GIANDONATO DEL MISSIER

NOTES

1. CAISSON IS OPEN TOPPED.
2. ALL LINES TO TERMINATE APPROXIMATLEY 21000 mm ABOVE SEAWATER LEVEL (LAT).

HOLDS

1. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
05	16/04/2025	CIM	RZI	CGI	ACCEPTED FOR CONSTRUCTION (AFC)
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
WATER DISPOSAL SHEET 1

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-80025		SHEET 001	REV. 05

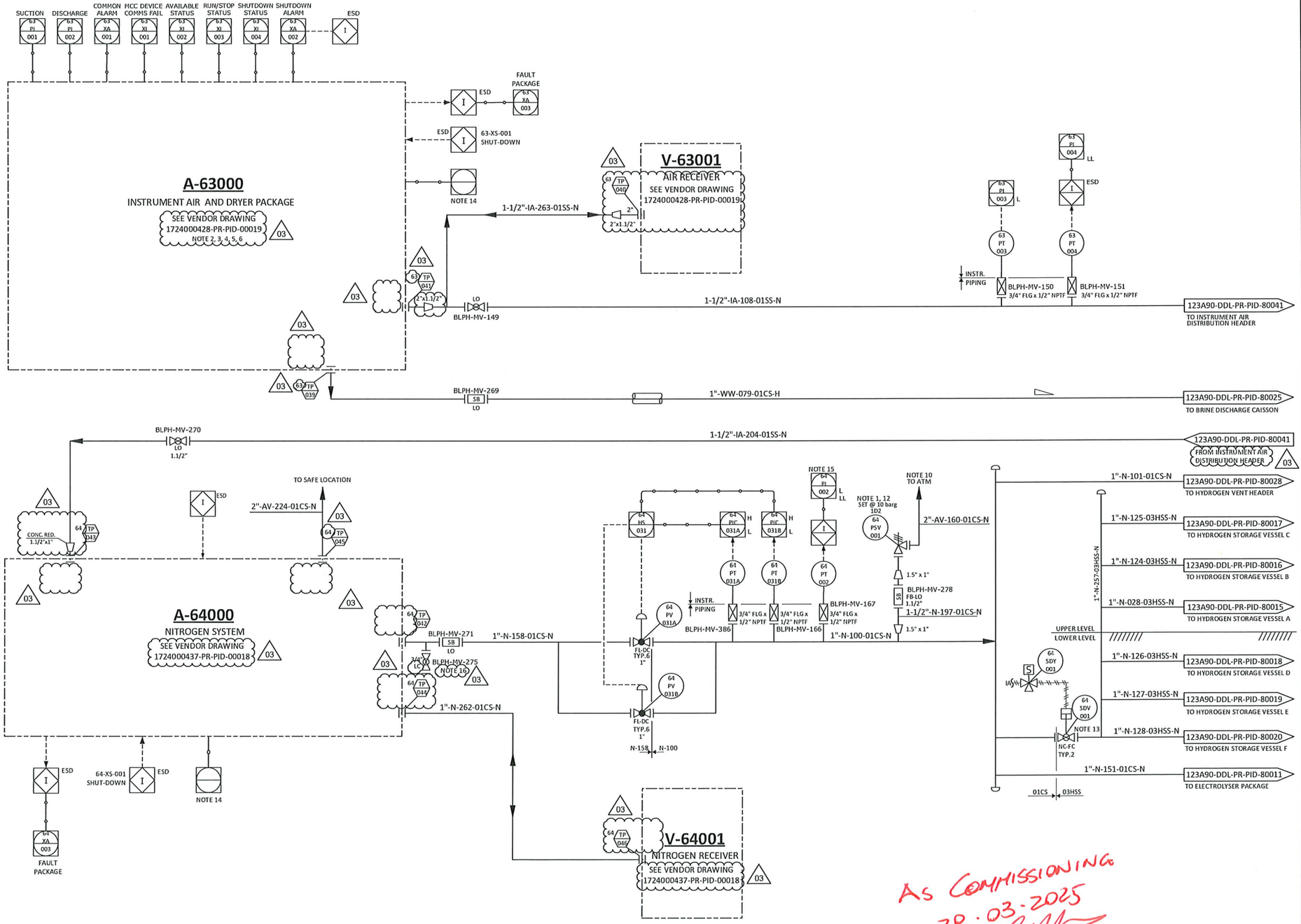
File Name : FILE_NAME

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.

As Commissioning
28.03.2025
Giandonato Del Mussier

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.

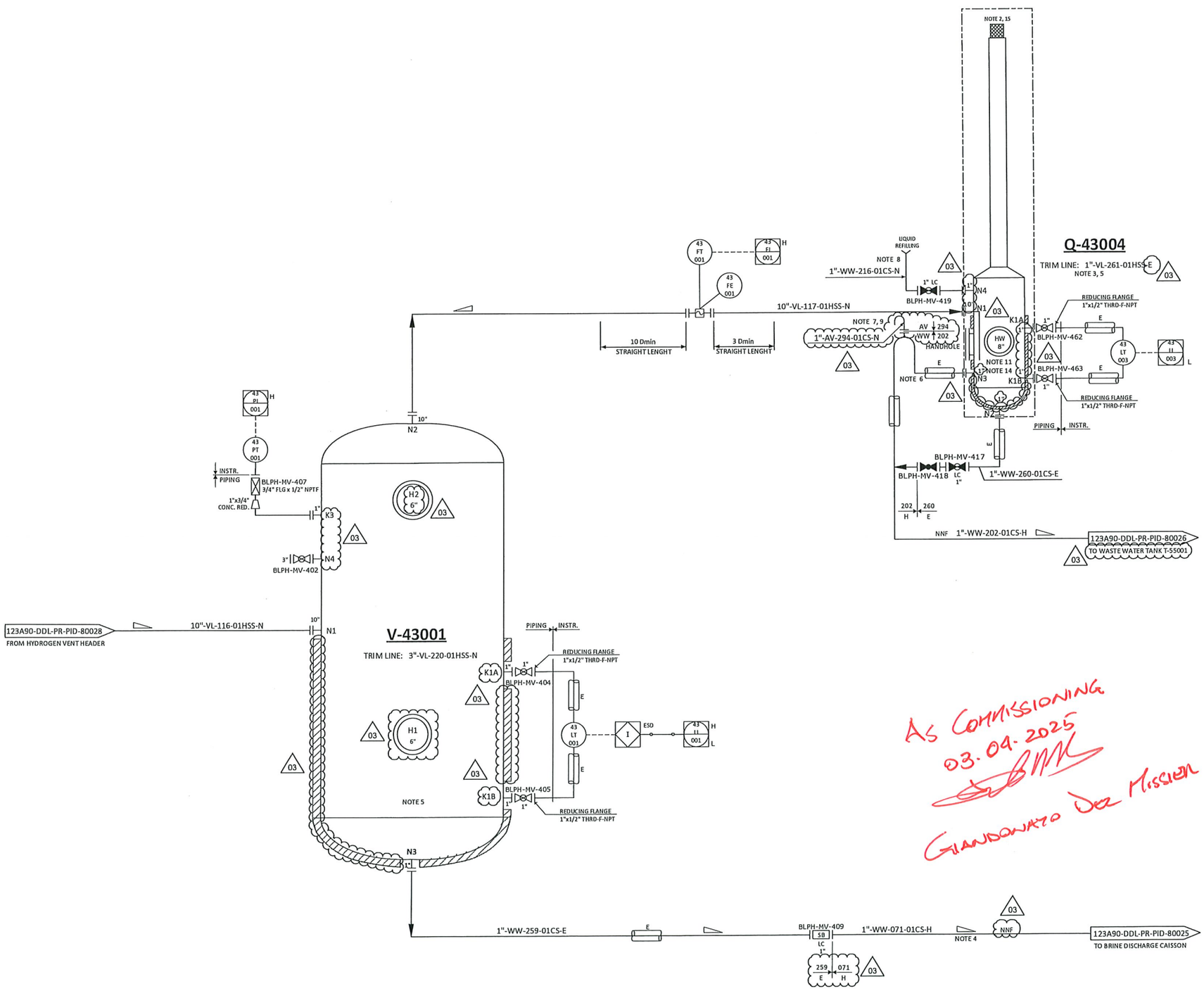
REV. REV

V-43001

HYDROGEN VENT KO DRUM
SIZE : 600 mm (ID) x 2350 mm (H)
DESIGN P/T : 3.5 barg / -10 / 80°C
MATERIAL : LTCS + 1 mm CA

Q-43004

HYDROGEN VENT NOTE 1
SIZE : 254 mm (ID)
DESIGN P/T : 3.5 barg / -10 / 80°C
MATERIAL : LTCS + 3 mm CA



NOTES

1. VENT TO SAFE LOCATION SEGREGATED FROM OTHER VENTS.
2. VENT TO BE EQUIPPED WITH BIRD SCREEN.
3. LIQUID SEAL DRUM IS PART OF THE VENT SYSTEM.
4. LIQUID DRAIN LINES TO BE ROUTED TO ENSURE GRAVITY DRAIN.
5. HYDROGEN VENT KO DRUM AND LIQUID SEAL DRUM TO BE HEAT TRACING.
   - V-43001 HEAT TRACED FROM B.T.L. UP TO 600 mm, BOTTOM HEAD ALSO TO BE HEAT TRACED.
6. SEAL LEG WILL BE DETERMINATED ON THE MAXIMUM BACK PRESSURE IN THE VENT.
7. SEAL VENT TO BE PLACED INTO A SAFE POSITION.
8. FILLING LINE TO BE PLACED IN AN ACCESSIBLE POSITION.
9. TRACED FROM NOZZLE N3 UP TO SWAN NECK.
10. DELETED.
11. INLET DIP LEG SUBMERSION HEIGHT OF 0.6 m.
12. DELETED.
13. FOR DESCRIPTION AND SPECIFICATION OF VESSEL NOZZLE, REFERENCE SHALL BE MADE TO THE TECHNICAL DATA SHEET FOR H2 VENT KOD.
14. LIQUID INSIDE SEAL DRUM IS A WATER - GLYCOL MIXTURE WITH 50% VOLUME OF GLYCOL. (03)
15. TOP OF TIP OF H2 VENT SHALL BE AT AS MINIMUM 6.2 m FROM HIGHEST REACHABLE PLATFORM.

HOLDS

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

As Commissioning
03.09.2025
Giandonato Dal Missier

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
HYDROGEN VENT DRUM

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-80029		SHEET 001 / REV. 03

File Name : FILE_NAME

Section 3 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002832	A	55-01-TP-003 C10003247	SK.032: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002833	A	55-01-TP-003 C10003247	SK.029: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002834	A	55-01-TP-003 C10003247	SK.007: piping at the terminal point is not aligned vertically with the connection points of the package.	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30003833	A	55-01-TP-046 C10003582	Earthing lug not connected to earth.	.		LNovaga 2025-02-15	2025-02-19	Ecarotenuto 2025-02-19	2025-02-19
C30004160	A	55-01-TP-003 C10003248	SK.007. Earthing lug not bonded to earth.	.		KAlbonetti 2025-02-27	2025-03-26	Gtangianu 2025-03-26	2025-03-26
C30001626	B	55-01-TP-021 C10003389	PS-02095.3 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001627	B	55-01-TP-021 C10003389	PS-01042.2 is missing.	.		KAlbonetti 2024-12-10	2025-02-14	LNovaga 2025-02-14	2025-02-14
C30001628	B	55-01-TP-021 C10003389	PS-01039.1 pos.P1 missing	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001629	B	55-01-TP-021 C10003389	PS-01040.2 missing	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM	55	Waste Water
SUBSYSTEM	55-01	Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001630	B	55-01-TP-021 C10003389	PS-01036.1 pos.P1 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001631	B	55-01-TP-021 C10003389	PS-01036.1 there is a gap of 30 mm between support and beam. Half the gap will be fixed by the pos.P1 (15mm plate) that shall be added but	.		KAlbonetti 2024-12-10	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30001633	B	55-01-TP-021 C10003389	PS-02086.2 missing.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001634	B	55-01-TP-021 C10003389	PS-02086.1: the clamp height is 4 mm higher than requested.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30001636	B	55-01-TP-021 C10003389	PS-02095 is different from the drawing. F2 is HEA120 instead of a UPN120. Distance of calmp shoe from end is 380 mm in place of 263. See	.	Changes have been recorded on RLMUs	KAlbonetti 2024-12-10	RDegliEsposti 2025-06-25	RDegliEsposti 2025-06-25	2025-06-25
C30001637	B	55-01-TP-021 C10003389	PS-02096 position F1 is a UPN120 instead of a HEA120. See attached PDF	.	Changes have been recorded on RLMUs	KAlbonetti 2024-12-10	RDegliEsposti 2025-06-25	RDegliEsposti 2025-06-25	2025-06-25
C30001638	B	55-01-TP-021 C10003389	All piping supports' bolts have not been tightened.	.		KAlbonetti 2024-12-10	2025-02-11	LNovaga 2025-02-11	2025-02-11
C30002835	B	55-01-TP-003 C10003247	SK.032: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002836	B	55-01-TP-003 C10003247	SK.031 (SH.2/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002837	B	55-01-TP-003 C10003247	SK.031 (SH.1/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002838	B	55-01-TP-003 C10003247	SK.029: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002839	B	55-01-TP-003 C10003247	SK.007: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the	.		KAlbonetti 2025-01-14	2025-03-07	LNovaga 2025-03-07	2025-03-07
C30002840	B	55-01-TP-003 C10003247	Flanges have not been torqued for finals. Connection points have not been joined before testing. All falnge management related points,	.		KAlbonetti 2025-01-14	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003179	B	55-01-TP-046 C10003581	All supports type "C-33" and "S-75" have not been assembled as for Standard. To be checked during reinstatement.	.		KAlbonetti 2025-01-24	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003180	B	55-01-TP-046 C10003581	Point n.4 not checked because the line has not been aligned in the correct position for the hydrotest.	.		KAlbonetti 2025-01-24	2025-02-19	KAlbonetti 2025-02-19	2025-02-19
C30003781	B	55-01-TP-021 C10003392	General touch up do to, especially near the supports of the piping line.	.		LNovaga 2025-02-13	2025-02-24	LNovaga 2025-02-24	2025-02-24
C30003782	B	55-01-TP-021 C10003392	There are holes in structural support PS-02095 (SK 30 2/3), they must be closed and painted.	.		LNovaga 2025-02-13	2025-04-15	LNovaga 2025-04-15	2025-04-15
C30003821	B	55-01-TP-021 C10003390	Support PS-01030.2 is C-33 and not C-34.	.		LNovaga 2025-02-14	2025-02-14	LNovaga 2025-02-14	2025-02-14

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003829	B	55-01-TP-046 C10003584	Joint 004-1-J3, 004-1-J2 and support PS-02121.4 needs several touch up. See attached photos.	.		LNovaga 2025-02-15	2025-02-22	LNovaga 2025-02-22	2025-02-22
C30003830	B	55-01-TP-046 C10003582	Support PS-02122.4 is not installed correctly, see attached photo.	.		LNovaga 2025-02-15	2025-02-21	LNovaga 2025-02-21	2025-02-21
C30003831	B	55-01-TP-046 C10003582	Washer on the support PS-02121.4 is missing.	.		LNovaga 2025-02-15	2025-02-20	LNovaga 2025-02-20	2025-02-20
C30003832	B	55-01-TP-046 C10003582	Correct gap of support C-33 not yet achieved. It must be 2mm (PS-02123.3 SK 004)	.		LNovaga 2025-02-15	2025-02-20	LNovaga 2025-02-20	2025-02-20
C30003902	B	55-01-TP-046 C10003584	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-17	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30003903	B	55-01-TP-021 C10003392	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-17	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30004217	B	55-01-TP-003 C10003248	The 50-PT-014 is oriented to the north, correct the isometric. SK-031 2/3.	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02
C30004218	B	55-01-TP-003 C10003248	In isometric the 50-TT-002 seems to have inclination but the Nipoflange is orthogonal to the line. Correct isometric. SK.031 2/3.	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02
C30004219	B	55-01-TP-003 C10003248	Spool A in modification isometric must be updated accordingly. SK029	.		LNovaga 2025-03-10	2025-04-02	LNovaga 2025-04-02	2025-04-02

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004220	B	55-01-TP-003 C10003248	In the sketch 007 the PS-02001.1 and PS-02140.2 supports touch partially the structure, correct the gap where possible.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004221	B	55-01-TP-003 C10003248	In the sketch 031 2/3 the supports PS-01020.1 (S-64) / PS-01020.2 (C-34) and PS-01070.1 (S-64) PS-01070.2 (C-34) are not installed.	.	Supports installed	LNovaga 2025-03-10	RDegliEsposti 2025-07-22	RDegliEsposti 2025-07-22	2025-07-22
C30004222	B	55-01-TP-003 C10003248	In SK 031 2/3 PS-01022.1 (S-75) and PS-01022.2 (C-34) lock nut is missing.	.		LNovaga 2025-03-10	2025-05-07	LNovaga 2025-05-07	2025-05-07
C30004223	B	55-01-TP-003 C10003248	In PS-01022.1 (S-64) and PS-01022.2 (C-34) nuts not tightened. SK 032	.		LNovaga 2025-03-10	2025-04-14	LNovaga 2025-04-14	2025-04-14
C30004224	B	55-01-TP-003 C10003248	In the isometric 032 the Supports PS-02033.2 (S-75), PS-02027.3 (S-75), PS-02025.1 (S-75): Shoe partially touches the structure (shoe tilted	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004225	B	55-01-TP-003 C10003248	In the isometric 032 the supports PS-02026.3 and PS-02028.2: Shoe touches partially the structure, correct the gap where possible.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004226	B	55-01-TP-003 C10003248	In the isometric 031 1/3 Support PS-02048.1 (S-75): The shoe does not touch the structural support.	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11
C30004227	B	55-01-TP-003 C10003248	In the sketch 031 1/3, support PS-02069.4 (C-33) is not installed.	.		LNovaga 2025-03-10	2025-04-14	LNovaga 2025-04-14	2025-04-14
C30004228	B	55-01-TP-003 C10003248	In the isometric 031 1/3, the supports PS-02066.1 (S-75), PS-02071.1 (S-75), PS-02072.1 (S-75), PS-02074.1 (S-75): shoes partially touches the	.		LNovaga 2025-03-10	2025-03-11	LNovaga 2025-03-11	2025-03-11

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004229	B	55-01-TP-003 C10003248	The slope of the line was not measurable in the insulated sections.	.	The line is fully insulated, and verifying the slope would require removing and	LNovaga 2025-03-10	RDegliEsposti 2025-06-24	RDegliEsposti 2025-06-24	2025-06-24
C30004259	B	55-01-TP-003 C10003250	Almost the entire line was not inspected because it was already insulated. (pending non-conformity report from quality dpt)	.	NCR No. 2025-Q-123A90-0005 has been formally issued and	LNovaga 2025-03-24	RDegliEsposti 2025-05-29	RDegliEsposti 2025-05-29	2025-05-29
C30004298	B	55-01-TP-003 C10003249	Missing portion of insulation in isometrics 031 (2/3) and 029 for commissioning activities.	.	Insulation installed.	LNovaga 2025-03-28	RDegliEsposti 2025-07-22	RDegliEsposti 2025-07-22	2025-07-22
C30004299	B	55-01-TP-046 C10003583	Missing the insulation pillows around jonts 004-1-J1, 004-1-J2 and 004-1-J3.	.		LNovaga 2025-03-28	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30004300	B	55-01-TP-046 C10003583	Missing portion of insulation, see attached.	.		LNovaga 2025-03-28	2025-04-07	LNovaga 2025-04-07	2025-04-07

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water
SUBSYSTEM 55-01 Waste Water Brine Discharge System

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004068	A	50-PT-014 C10000903	Missing the earth connection on the instrument.	.		APolo 2025-02-21	2025-02-25	JKrizanic 2025-02-25	2025-02-25
C30004071	A	50-TT-002 C10000905	Missing the earth connection on the instrument.	.		APolo 2025-02-21	2025-02-25	JKrizanic 2025-02-25	2025-02-25
C30004067	B	C-50-PT-014/00 -JE-11004 C10000057	The cable is not support .	.		APolo 2025-02-21	2025-02-27	JKrizanic 2025-02-27	2025-02-27
C30004069	B	50-PT-014 C10000903	Missing tag SS , on the instrument.	.		APolo 2025-02-21	2025-02-24	APolo 2025-02-24	2025-02-24
C30004070	B	C-50-TT-002/00- JE-11004 C10000052	The cable is not support .	.		APolo 2025-02-21	2025-02-27	JKrizanic 2025-02-27	2025-02-27
C30004072	B	50-TT-002 C10000905	Missing tag SS , on the instrument.	.		APolo 2025-02-21	2025-02-24	APolo 2025-02-24	2025-02-24
C30004205	B	C-50-XV-005/00 -JE-12006 C10004664	Missing all identification tag wires inside the limitswitch.(50-XV-005). See attached photo.	.		Gtangianu 2025-03-07	2025-03-27	Gtangianu 2025-03-27	2025-03-27
C30004206	B	C-50-XV-005/00 -JE-12006 C10004664	Missing cable tag on both side. (C-50-XV-005/00-JE-12006). See attached photo.	.		Gtangianu 2025-03-07	2025-03-12	JKrizanic 2025-03-12	2025-03-12
C30004209	B	C-50-XY-005/00 -JE-13003 C10004665	Missing all identification tag wires inside the Solenoid.(50-XY-005). See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 55 Waste Water

SUBSYSTEM 55-01 Waste Water Brine Discharge System

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004210	B	C-50-XY-005/00 -JE-13003 C10004665	Missing cable tag on both side. (C-50-XY-005/00-JE-13003). See attached photo.	.		Gtangianu 2025-03-07	2025-04-02	Gtangianu 2025-04-02	2025-04-02
C30004211	B	50-XV-005 C10004657	Missing tag plate SS on the valve.(50-XV-005).	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25
C30004212	B	50-XY-005 C10004661	Missing tag plate SS on the Solenoid valve.(50-XY-005).See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25
C30004213	B	50-ZSHL-005 C10004662	Missing tag plate SS on the LIMITSWITCH valve.(50-ZSHL-005).See attached photo.	.		Gtangianu 2025-03-07	2025-03-25	Gtangianu 2025-03-25	2025-03-25

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM	55	Waste Water
SUBSYSTEM	55-01	Waste Water Brine Discharge System

Building									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30004268	B	B-50014 C10004927	Some points needs touch up.	.	Touch up completed	LNovaga 2025-03-25	RDegliEsposti 2025-07-10	RDegliEsposti 2025-07-10	2025-07-10

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004298

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003249	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing portion of insulation in isometrics 031 (2/3) and 029 for commissioning activities.

Name: Lorenzo Novaga
Date: 2025-03-28
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	2025-03-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Insulation installed.

Name: Raffaele Degli Esposti
Date: 2025-07-22
Signature:

5 - CLEARANCE CHECK

Flange management completed.

Name: Raffaele Degli Esposti
Date: 2025-07-22
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-07-22
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004299

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003583	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing the insulation pillows around jonts 004-1-J1, 004-1-J2 and 004-1-J3.

Name: Lorenzo Novaga

Date: 2025-03-28

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	2025-03-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004300

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003583	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing portion of insulation, see attached.

Name: Lorenzo Novaga

Date: 2025-03-28

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	2025-03-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-04-07

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-04-07

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004205

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004664	1.4 Discipline	Instrumental
1.2 Item	C-50-XV-005/00-JE-12006		On-Off Actuated Ball Valve/DI JB to PCS
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing all identification tag wires inside the limitswitch.(50-XV-005). See attached photo.

Name: Giovanni Tangianu

Date: 2025-03-07

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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-03-27

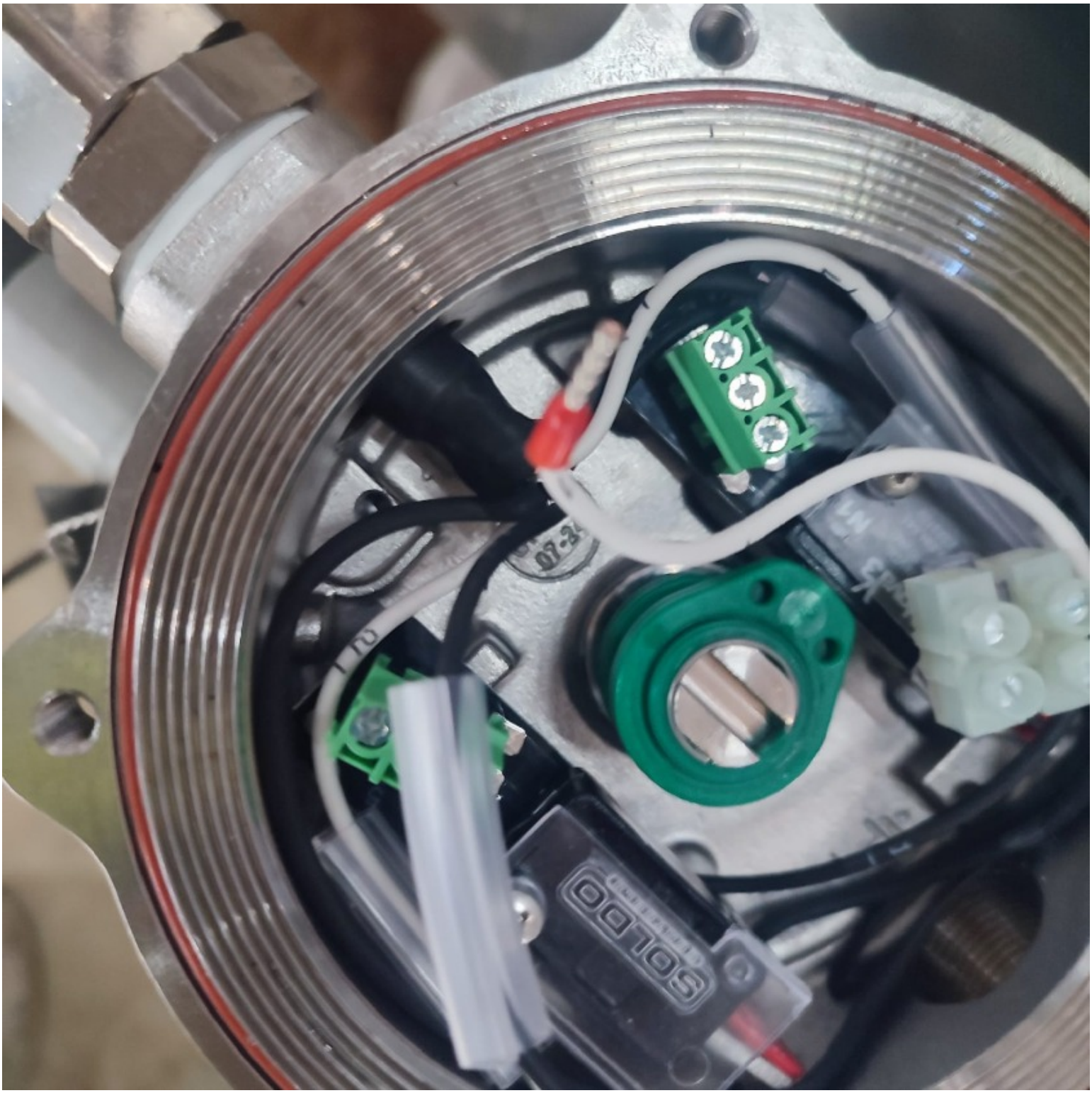
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004206

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004664	1.4 Discipline	Instrumental
1.2 Item	C-50-XV-005/00-JE-12006	On-Off Actuated Ball Valve/DI JB to PCS	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing cable tag on both side. (C-50-XV-005/00-JE-12006). See attached photo.

Name: Giovanni Tangianu
Date: 2025-03-07
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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-12
Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic
Date: 2025-03-12
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-12
Signature:




00-JE-12006

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004209

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004665	1.4 Discipline	Instrumental
1.2 Item	C-50-XY-005/00-JE-13003		Solenoid Valve/DO JB to PCS
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing all identification tag wires inside the Solenoid.(50-XY-005). See attached photo.

Name: Giovanni Tangianu
Date: 2025-03-07
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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

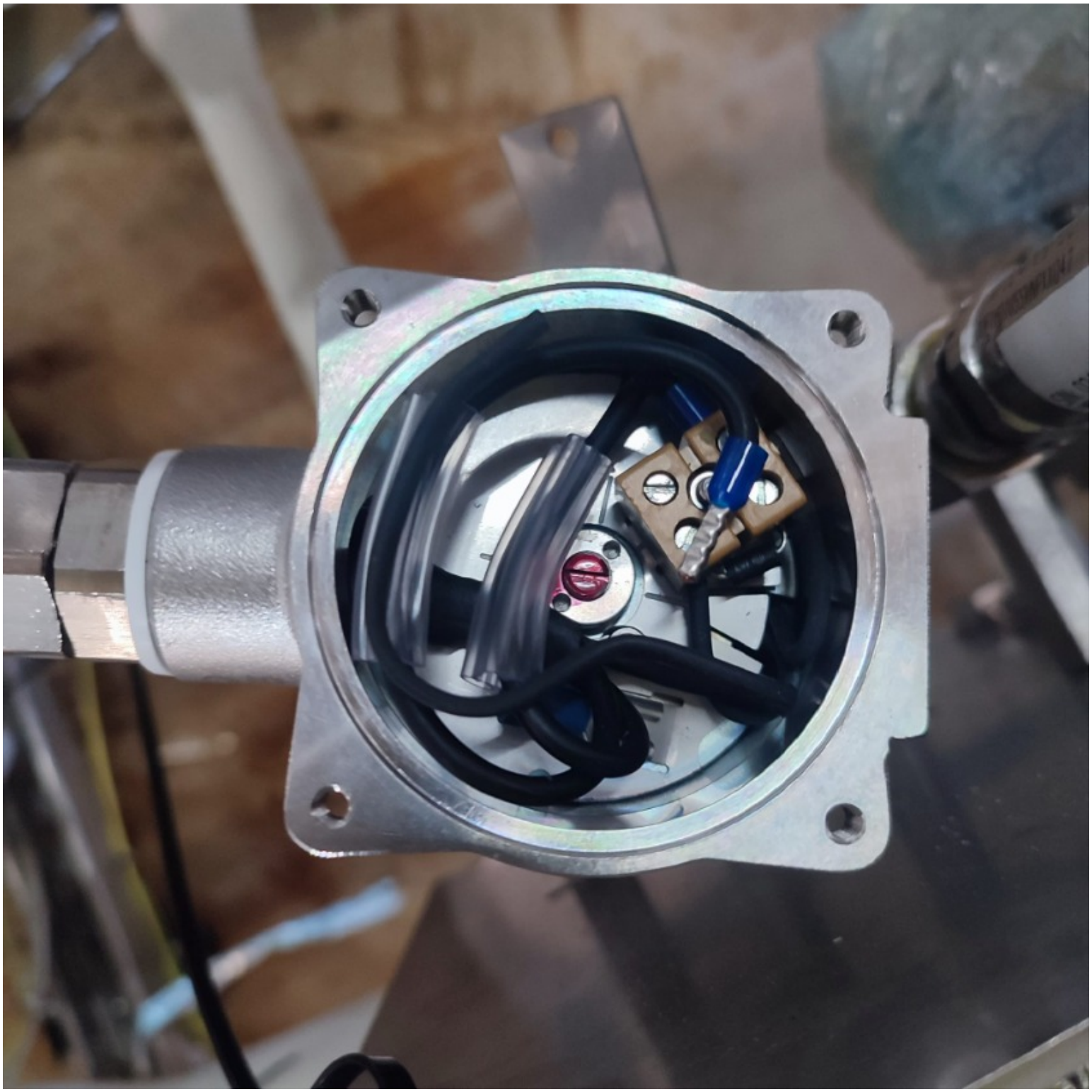
5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu
Date: 2025-03-25
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004210

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004665	1.4 Discipline	Instrumental
1.2 Item	C-50-XY-005/00-JE-13003	Solenoid Valve/DO JB to PCS	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing cable tag on both side. (C-50-XY-005/00-JE-13003). See attached photo.

Name: Giovanni Tangianu

Date: 2025-03-07

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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-04-02

Signature:

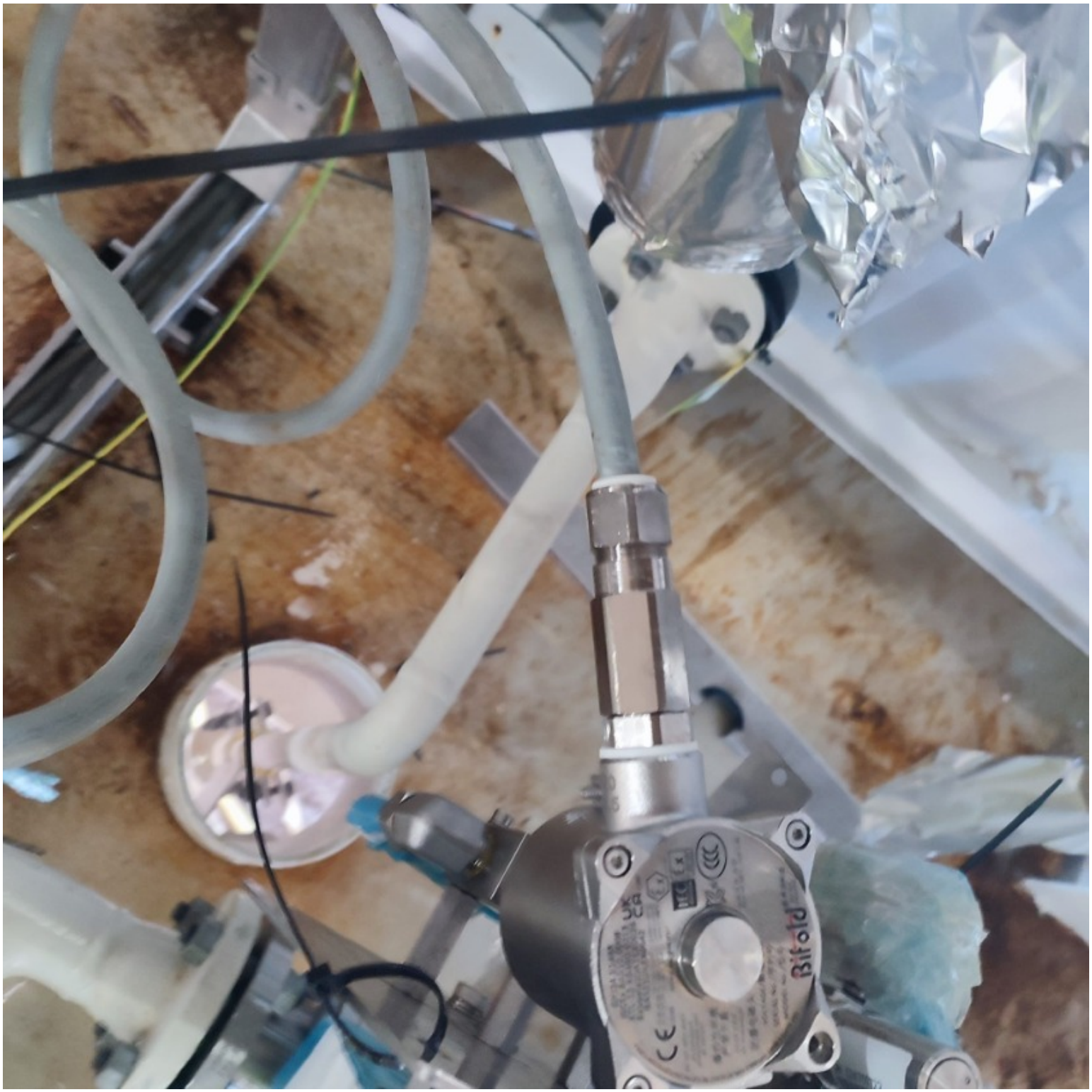
6- CLEARANCE APPROVAL

Name:

Date:

Signature:


00-JE-13003
CORTEC
Date Installed
Replacement Date


Bifold

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004211

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004657	1.4 Discipline	Instrumental
1.2 Item	50-XV-005	On-Off Actuated Ball Valve	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing tag plate SS on the valve.(50-XV-005).

Name: Giovanni Tangianu

Date: 2025-03-07

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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-03-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004212

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004661	1.4 Discipline	Instrumental
1.2 Item	50-XY-005	Solenoid Valve - Brine Discharge Caisson B-50014	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Missing tag plate SS on the Solenoid valve.(50-XY-005).See attached photo.

Name: Giovanni Tangianu

Date: 2025-03-07

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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-03-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004213

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004662	1.4 Discipline	Instrumental
1.2 Item	50-ZSHL-005		Limit Switch box Brine Discharge Caisson B-50014
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing tag plate SS on the LIMITSWITCH valve.(50-ZSHL-005).See attached photo.

Name: Giovanni Tangianu

Date: 2025-03-07

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	2025-03-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-03-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004217

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

The 50-PT-014 is oriented to the north, correct the isometric. SK-031 2/3.

Name: Lorenzo Novaga

Date: 2025-03-10

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	2025-03-10
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:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004218

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In isometric the 50-TT-002 seems to have inclination but the Nipoflange is orthogonal to the line. Correct isometric. SK.031 2/3.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
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:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004219

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Spool A in modification isometric must be updated accordingly.
SK029

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
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:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004220

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the sketch 007 the PS-02001.1 and PS-02140.2 supports touch partially the structure, correct the gap where possible.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-11
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga
Date: 2025-03-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-11
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004221

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the sketch 031 2/3 the supports PS-01020.1 (S-64) / PS-01020.2 (C-34) and PS-01070.1 (S-64) PS-01070.2 (C-34) are not installed.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

Supports installed

Name: Raffaele Degli Esposti
Date: 2025-07-22
Signature:

5 - CLEARANCE CHECK

Flange management completed.

Name: Raffaele Degli Esposti
Date: 2025-07-22
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-07-22
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004222

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In SK 031 2/3 PS-01022.1 (S-75) and PS-01022.2 (C-34) lock nut is missing.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-05-07
Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga
Date: 2025-05-07
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-05-07
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004223

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In PS-01022.1 (S-64) and PS-01022.2 (C-34) nuts not tightened.
SK 032

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-04-14
Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga
Date: 2025-04-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-04-14
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004224

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the isometric 032 the Supports PS-02033.2 (S-75), PS-02027.3 (S-75), PS-02025.1 (S-75): Shoe partially touches the structure (shoe tilted upwards).

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-11
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga
Date: 2025-03-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-11
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004225

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the isometric 032 the supports PS-02026.3 and PS-02028.2: Shoe touches partially the structure, correct the gap where possible.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-11
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga
Date: 2025-03-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-11
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004226

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the isometric 031 1/3 Support PS-02048.1 (S-75): The shoe does not touch the structural support.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-11
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga
Date: 2025-03-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-11
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004227

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the sketch 031 1/3, support PS-02069.4 (C-33) is not installed.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-04-14
Signature:

5 - CLEARANCE CHECK

Done

Name: Lorenzo Novaga
Date: 2025-04-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-04-14
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004228

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

In the isometric 031 1/3, the supports PS-02066.1 (S-75), PS-02071.1 (S-75), PS-02072.1 (S-75), PS-02074.1 (S-75): shoes partially touches the structure, correct the gap where possible.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-03-11
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga
Date: 2025-03-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-03-11
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004229

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

The slope of the line was not measurable in the insulated sections.

Name: Lorenzo Novaga
Date: 2025-03-10
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	2025-03-10
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

The line is fully insulated, and verifying the slope would require removing and reinstalling the insulation, leading to disproportionate effort and potential damage for a minor check.

As the line was installed according to the approved design and no functional issues have been reported, we close this punch as-is.

Name: Raffaele Degli Esposti
Date: 2025-06-24
Signature:

5 - CLEARANCE CHECK

Flange management completed.

Name: Raffaele Degli Esposti
Date: 2025-06-24
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-06-24
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004259

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003250	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Almost the entire line was not inspected because it was already insulated.
(pending non-conformity report from quality dpt)

Name: Lorenzo Novaga
Date: 2025-03-24
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	2025-03-24
3.5 Action by	RM Rosetti Marino Quality	Signature	

4 - PERFORMED ACTION

NCR No. 2025-Q-123A90-0005 has been formally issued and successfully closed with positive outcome. All verification activities were completed in accordance with the defined resolution plan, and the closure was duly recorded in the system.

Name: Raffaele Degli Esposti
Date: 2025-05-29
Signature:

5 - CLEARANCE CHECK

Refer to above

Name: Raffaele Degli Esposti
Date: 2025-05-29
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-05-29
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004268

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004927	1.4 Discipline	Building
1.2 Item	B-50014	Brine Discharge Caisson Frame	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Some points needs touch up.

Name: Lorenzo Novaga
Date: 2025-03-25
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	2025-03-25
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Touch up completed

Name: Raffaele Degli Esposti
Date: 2025-07-10
Signature:

5 - CLEARANCE CHECK

Flange management completed.

Name: Raffaele Degli Esposti
Date: 2025-07-10
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-07-10
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003179

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003581	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

All supports type "C-33" and "S-75" have not been assembled as for Standard. To be checked during reinstatement.

Name: Kangi Albonetti
Date: 2025-01-24
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	2025-01-24
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Done

Name: Kangi Albonetti
Date: 2025-02-19
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003180

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003581	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Point n.4 not checked because the line has not been aligned in the correct position for the hydrotest.

Name: Kangi Albonetti

Date: 2025-01-24

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	2025-01-24
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Kangi Albonetti

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003781

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003392	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

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

Name: Lorenzo Novaga

Date: 2025-02-13

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	2025-02-13
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done.

Name: Lorenzo Novaga

Date: 2025-02-24

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003782

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003392	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

There are holes in structural support PS-02095 (SK 30 2/3), they must be closed and painted.

Name: Lorenzo Novaga
Date: 2025-02-13
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	2025-02-13
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date: 2025-04-15
Signature:

5 - CLEARANCE CHECK

Done

Name: Lorenzo Novaga
Date: 2025-04-15
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-04-15
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003821

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003390	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Support PS-01030.2 is C-33 and not C-34.

Name: Lorenzo Novaga
Date: 2025-02-14
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	2025-02-14
3.5 Action by	ENG Engineering	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

As agreed with Engineering Dpt. standard C-33 is better than C-34.

Name: Lorenzo Novaga
Date: 2025-02-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003829

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003584	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Joint 004-1-J3, 004-1-J2 and support PS-02121.4 needs several touch up. See attached photos.

Name: Lorenzo Novaga
Date: 2025-02-15
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	2025-02-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Activity done.

Name: Lorenzo Novaga
Date: 2025-02-22
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:







FLANGE TAG
FLANGE TESTED
TORQUED
TENSIONED
RETURNED TO SUPERVISOR

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003830

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003582	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Support PS-02122.4 is not installed correctly, see attached photo.

Name: Lorenzo Novaga

Date: 2025-02-15

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	2025-02-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-02-21

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003831

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003582	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Washer on the support PS-02121.4 is missing.

Name: Lorenzo Novaga

Date: 2025-02-15

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	2025-02-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done.

Name: Lorenzo Novaga

Date: 2025-02-20

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003832

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003582	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Correct gap of support C-33 not yet achieved. It must be 2mm (PS-02123.3 SK 004)

Name: Lorenzo Novaga
Date: 2025-02-15
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	2025-02-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga
Date: 2025-02-20
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003833

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003582	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Earthing lug not connected to earth.

Name: Lorenzo Novaga

Date: 2025-02-15

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Lorenzo Novaga
3.4 Activity code	MC Mechanical Completion	Date	2025-02-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Eleonora Carotenuto

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003902

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003584	1.4 Discipline	Piping
1.2 Item	55-01-TP-046	Test Pack 55-01-TP-046	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Color coding and fluid direction are missing.

Name: Kangi Albonetti

Date: 2025-02-17

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	2025-02-17
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-03-21

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-21

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-03-21

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003903

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003392	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Color coding and fluid direction are missing.

Name: Kangi Albonetti

Date: 2025-02-17

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	2025-02-17
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

C30004067

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000057	1.4 Discipline	Instrumental
1.2 Item	C-50-PT-014/00-JE-11004	PRESSURE TRANSMITTER / MARSHALLING PCS	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

The cable is not support .

Name: Alessio Polo

Date: 2025-02-21

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	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-27

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

50-PT-014

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004068

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000903	1.4 Discipline	Instrumental
1.2 Item	50-PT-014		Pressure Transmitter - Water Disposal Header to Caisson B-50014
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing the earth connection on the instrument.

Name: Alessio Polo
Date: 2025-02-21
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic
Date: 2025-02-25
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

50-PT-014

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004069

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000903	1.4 Discipline	Instrumental
1.2 Item	50-PT-014		Pressure Transmitter - Water Disposal Header to Caisson B-50014
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing tag SS , on the instrument.

Name: Alessio Polo

Date: 2025-02-21

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	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-24

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004070

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000052	1.4 Discipline	Instrumental
1.2 Item	C-50-TT-002/00-JE-11004	FLOW TRANSMITTER / MARSHALLING PCS	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

The cable is not support .

Name: Alessio Polo
Date: 2025-02-21
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	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic
Date: 2025-02-27
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


50-TT-002
316L

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004071

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000905	1.4 Discipline	Instrumental
1.2 Item	50-TT-002		Temperature Transmitter - Water Disposal Header to Caisson B-50014
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing the earth connection on the instrument.

Name: Alessio Polo

Date: 2025-02-21

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


50-TT-002
316L

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004072

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000905	1.4 Discipline	Instrumental
1.2 Item	50-TT-002		Temperature Transmitter - Water Disposal Header to Caisson B-50014
1.3 Subsystem	55-01		Waste Water Brine Discharge System

2 - OBSERVATION

Missing tag SS , on the instrument.

Name: Alessio Polo
Date: 2025-02-21
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	2025-02-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo
Date: 2025-02-24
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004160

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003248	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.007. Earthing lug not bonded to earth.

Name: Kangi Albonetti

Date: 2025-02-27

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-02-27
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Connected.

Name: Giovanni Tangianu

Date: 2025-03-26

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001626

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-02095.3 missing.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Support Installed.

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001627

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-01042.2 is missing.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done.

Name: Lorenzo Novaga

Date: 2025-02-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001628

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-01039.1 pos.P1 missing

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Support Installed.

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001629

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-01040.2 missing

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Support Installed.

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001630

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-01036.1 pos.P1 missing.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM Rosetti Marino Quality	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Support Installed.

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001631

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-01036.1 there is a gap of 30 mm between support and beam. Half the gap will be fixed by the pos.P1 (15mm plate) that shall be added but there is still a 15/20 mm gap to to be fixed.

Name: Kangi Albonetti
Date: 2024-12-10
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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Metal plate and teflon added to bridge the gap.

Name: Kangi Albonetti
Date: 2025-02-19
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001633

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-02086.2 missing.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Support Installed.

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001634

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-02086.1: the clamp height is 4 mm higher than requested.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001636

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-02095 is different from the drawing. F2 is HEA120 instead of a UPN120. Distance of calmp shoe from end is 380 mm in place of 263. See attached PDF

Name: Kangi Albonetti
Date: 2024-12-10
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	2024-12-10
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:

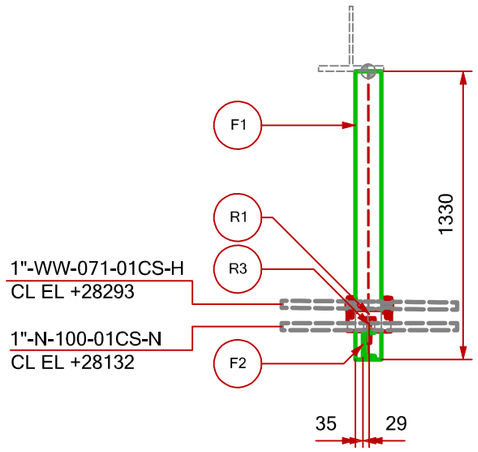
5 - CLEARANCE CHECK

Ref. to RLMU 123A90-DDL-PP-DD-72000-PS-02095_01_01A

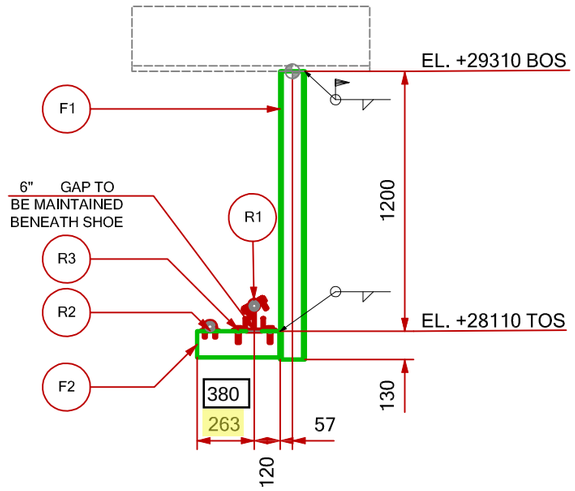
Name: Raffaele Degli Esposti
Date: 2025-06-25
Signature:

6- CLEARANCE APPROVAL

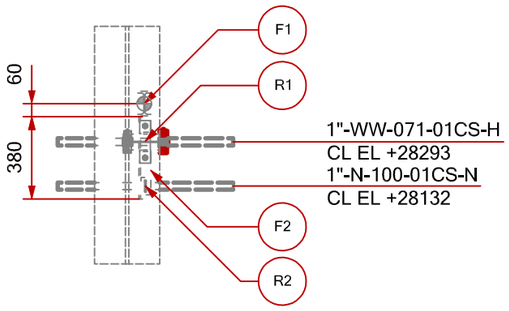
Name:
Date: 2025-06-25
Signature:



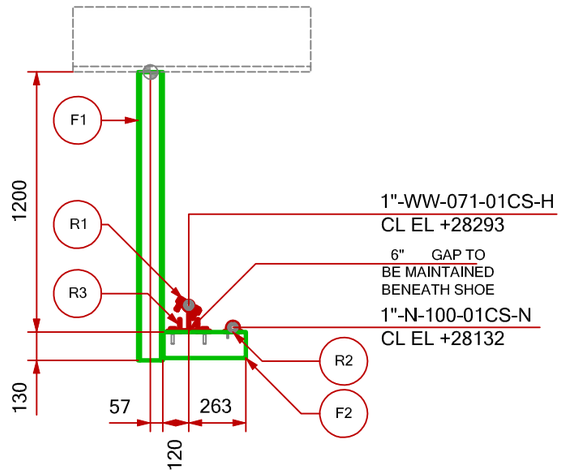
VIEW LOOKING NORTH



VIEW LOOKING WEST



PLAN VIEW

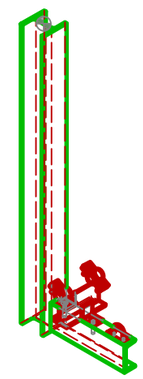


VIEW LOOKING EAST

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	-	0.29	-
R3	STD	C-34-1-I-2	-	-	1	-	2.04	0.023
F1	BEAM	HEA120	Carbon Steel	1330	1	19.98	26.57	0.905
F2	BEAM	UPN120 HEA120	Carbon Steel	383	1	13.35	5.07	0.166
						TOTAL	38.6	1.13





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-02095

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

File Name :

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001637

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

PS-02096 position F1 is a UPN120 instead of a HEA120. See attached PDF

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
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-02096_01_01A

Name: Raffaele Degli Esposti

Date: 2025-06-25

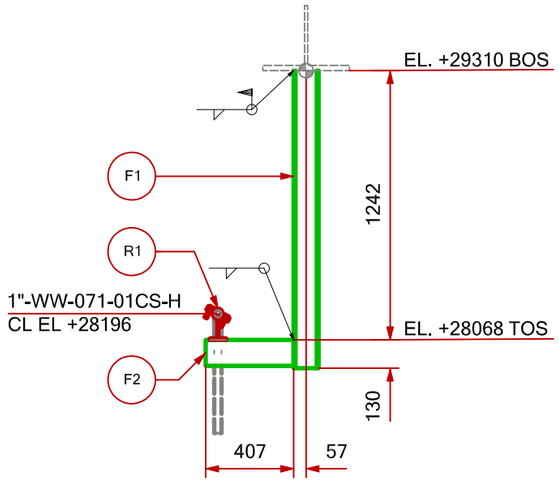
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6- CLEARANCE APPROVAL

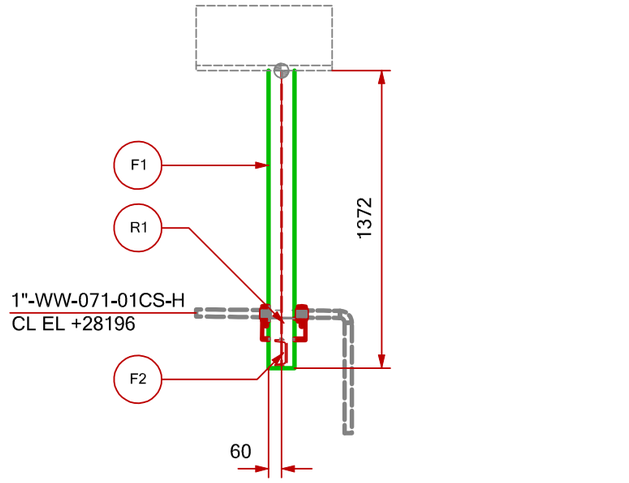
Name:

Date: 2025-06-25

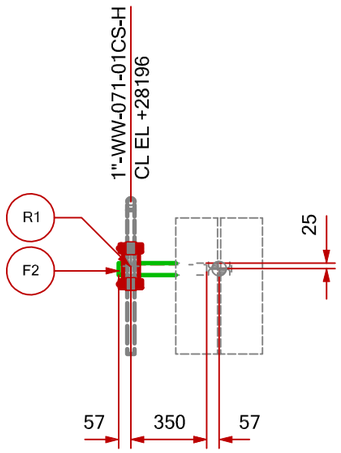
Signature:



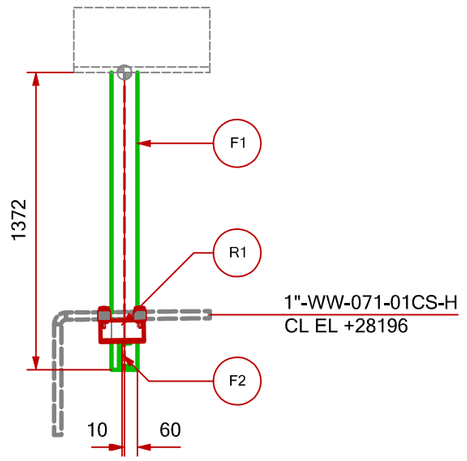
VIEW LOOKING NORTH



VIEW LOOKING WEST



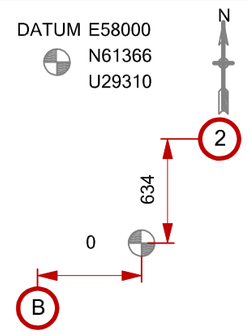
PLAN VIEW

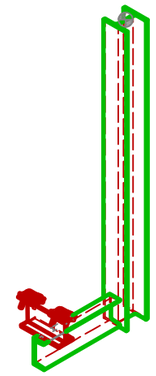


VIEW LOOKING EAST

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
F1	BEAM	HEA120 UPN 120	Carbon Steel	1372	1	19.98	27.41	0.934
F2	BEAM	UPN120	Carbon Steel	407	1	13.35	5.39	0.176
						TOTAL	37.4	1.14





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-02096

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

File Name :

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001638

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003389	1.4 Discipline	Piping
1.2 Item	55-01-TP-021	Test Pack 55-01-TP-021	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

All piping supports' bolts have not been tightened.

Name: Kangi Albonetti

Date: 2024-12-10

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	2024-12-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done

Name: Lorenzo Novaga

Date: 2025-02-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002832

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.032: piping at the terminal point is not aligned vertically with the connection points of the package.

Name: Kangi Albonetti

Date: 2025-01-14

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002833

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.029: piping at the terminal point is not aligned vertically with the connection points of the package.

Name: Kangi Albonetti

Date: 2025-01-14

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002834

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.007: piping at the terminal point is not aligned vertically with the connection points of the package.

Name: Kangi Albonetti

Date: 2025-01-14

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002835

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.032: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the specification). To be all re-checked during reinstatement.

Name: Kangi Albonetti

Date: 2025-01-14

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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Checked during reinstatement

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002836

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.031 (SH.2/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the specification). To be all re-checked during reinstatement.

Name: Kangi Albonetti

Date: 2025-01-14

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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Checked during reinstatement

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002837

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.031 (SH.1/3): All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the specification). To be all re-checked during reinstatement.

Name: Kangi Albonetti

Date: 2025-01-14

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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Checked during reinstatement

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002838

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.029: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the specification). To be all re-checked during reinstatement.

Name: Kangi Albonetti

Date: 2025-01-14

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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Checked during reinstatement

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002839

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

SK.007: All piping supports type "C-33", "C-34", "S-64", "-S-71" and "S-75" have been assembled in erection uncorrectly (nonconforming to the specification). To be all re-checked during reinstatement.

Name: Kangi Albonetti

Date: 2025-01-14

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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Checked during reinstatement

Name: Lorenzo Novaga

Date: 2025-03-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002840

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003247	1.4 Discipline	Piping
1.2 Item	55-01-TP-003	Test Pack 55-01-TP-003	
1.3 Subsystem	55-01	Waste Water Brine Discharge System	

2 - OBSERVATION

Flanges have not been torqued for finals. Connection points have not been joined before testing. All falnge management related points, Inspection points from 4 to 6 of the ITR, to be checked during flange management and reinstatement.

Name: Kangi Albonetti
Date: 2025-01-14
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	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Flange management completed.

Name: Kangi Albonetti
Date: 2025-02-19
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

Section 4 FUNCTIONAL TESTS SHEETS

Section 4.1 Electrical functional test sheets index

NOT APPLICABLE

Section 4.2 Electrical
“As-Commissioned” interconnection diagrams

NOT APPLICABLE

Section 4.3 Instrumentation functional test sheets index

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 55-01 & discipline : I

Instrumental	55-01 Waste Water Brine Discharge System						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
50-PT-014	Pressure Transmitter - Water Disposal Header to Caisson B-50014	ONSHORE	C10003181	FJ01A	100	2025-03-19	RFO 1
50-TT-002	Temperature Transmitter - Water Disposal Header to Caisson B-50014	ONSHORE	C10003183	FJ01A	100	2025-03-19	RFO 1
50-XV-005	On-Off Actuated Ball Valve	ONSHORE	C10004936	FJ01V	100	2025-04-10	RFO 1

ROSETTI MARINO | CROSSWIND

ITEM	Tag	50-PT-014	: Pressure Transmitter - Water Disposal Header to Caisson B-50014		Dwg	123A90-DDL-IN-DS-40039	
	S/Sys	55-01	: Waste Water Brine Discharge System		Module	LD	
TASK	code	C10003181	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Instrumental	Form	FJ01A	Analog Loop

LOOP DATA

Loop TAG	50-PT-014			TSLD	123A90-FDL-IN-DG-40014 rev.1A				
IO Type	Input	Yes	Output	No	Energy by transmitter	No	Energy by system	Yes	
Marshalling	B400-PCS-001	Terminal	09A/09B	Slot	01	Rack	03	Chanel	09

LOOP TEST

1	Check earth isolation of the loop			OK
2	Connect loop to terminal			OK
3	Confirm Process Scale	Unit barg	Min 0 / Max 18	OK

LOOP RANGE			0%	25%	50%	75%	100%
4	Physical value applied for test	Unit barg	0	4,5	9	13,5	18
5	Control System Display	Unit barg	0,2	4,51	8,99	13,5	18

LOOP SERVICE

		Value	Trip	Gen Alarm	DCS Alarm	SOE	DCS display	
6	Threshold 1	No		Yes	NA	OK	OK	
7	Threshold 2	NA	NA	NA	NA	NA	NA	
8	Threshold 3	NA	NA	NA	NA	NA	NA	
9	Threshold 4	NA	NA	NA	NA	NA	NA	
10	Checking of line monitoring	NA	NA	NA	NA	NA	NA	
11	Checking of Maintenance Inhibition	NA	NA	NA	NA	NA	NA	
12	Associated safety Level / bar							NA
13	Associated outputs							NA

TESTING & MEASUREMENT INSTRUMENT USED

Type	Serial N.	Calibration Certificate	Validity
HYDRAULIC PUMP	06/190151		
PRESSURE SENSOR	930547		

LOOP DOCUMENTATION

14	Loop diagram is marked up and attached to this test sheet	OK
15	Cause and effect chart is highlighted accordingly	NA
16	Any defect is recorded for punch list issuance	OK

Comments:

Page 1/1	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CW
Name	Laurentiu Grozavu	Giandonato Delmissier	John Mackillop
Date	2025-03-17	2025-03-18	2025-03-19
Signature	Digitaly signed by Laurentiu Grozavu 2025-03-17T14:28:03.087Z	Digitaly signed by Giandonato Delmissier 2025-03-18T06:57:43.519Z	Digitaly signed by John Mackillop 2025-03-19T12:15:39.028Z

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	WASTE WATER FROM HEADER TO BRINE DISCHARGE CAISSON B-50014		
Area	N.P.	Loop Tag	50-PI-014	Instrument Tag	50-PT-014
Type of verification	periodic	Calibration range	0,00 ÷ 18,00 bar	Report N°	020
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
50-PT-014	SPRIANO	SST76	SE240651

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	4,009	+0,009	+0,056
4,50	8,000	8,004	+0,004	+0,025
9,00	12,000	11,998	-0,002	-0,013
13,50	16,000	15,999	-0,001	-0,006
18,00	20,000	20,002	+0,002	+0,009
13,50	16,000	16,001	+0,001	+0,006
9,00	12,000	12,001	+0,001	+0,006
4,50	8,000	8,005	+0,005	+0,031
0,00	4,000	4,008	+0,008	+0,050
		max error detected %		0,056

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

RISULTATO VERIFICA: *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*

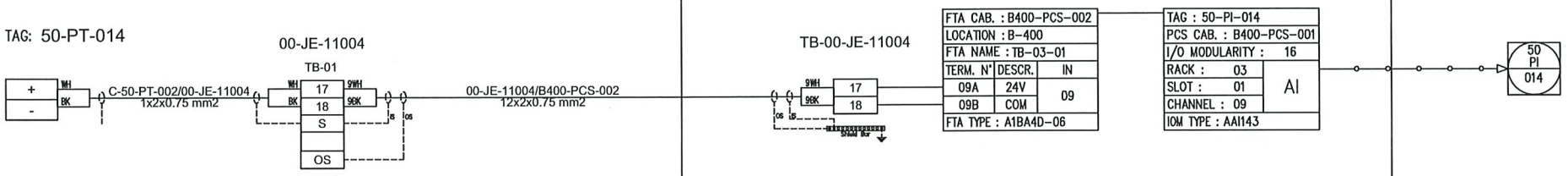
ABR SERVICE srl
Via M. Monti, 40 - 48123 RAVENNA
Tel. 0544 685411
C.F. e P.IVA 02764420390

GENERAL	1	Tag Number		50-PT-014	
	2	Service		WASTE WATER FROM HEADER TO BRINE DISCHARGE CAISSON (B-50014)	
	3	P&ID Number	Location	123A90-DDL-PR-PID-80025	1-1/2"-WW-073-01CS-H
	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		WASTE WATER	
	9	Pressure Des.	Oper. [barg]	17.7	ATM
	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	18
	15	Elevation	Suppression	-	-
	16	Element Type		Diaphragm	
	17	Element Material		SS AISI 316/316L	
	18	Body Material	Body Rating	AISI 316 SS	20 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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DRAWING NO. 123A90-DDL-IN-DG-40014 REV. 01

FIELD	ITER – B400	CENTRAL CONTROL ROOM
	PROCESS CONTROL SYSTEM	OPERATOR CONSOLE



NO MARK UP

12/03/25

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	06/12/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/10/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DG-40014
REV: 1_A | DATE: 20/12/24 | SIGNATURE: C.Pilato
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : INSTRUMENT LOOP DIAGRAM
50-PI-014
WATER DISPOSAL HEADER TO CAISSON B-50014

CONTRACT NO./TITLE CONTRACT_NO.			SCALE 1:1
DRAWN: VBA	CHECKED: LCA	APPROVED: DLO	DATE 23/10/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40014	SHEET 014	REV. 01

File Name : 123A90-DDL-IN-DG-40014_REV.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	50-TT-002	: Temperature Transmitter - Water Disposal Header to Caisson B-50014		Dwg	123A90-DDL-IN-DS-40039	
	S/Sys	55-01	: Waste Water Brine Discharge System		Module	LD	
TASK	code	C10003183	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Instrumental	Form	FJ01A	Analog Loop

LOOP DATA

Loop TAG	50-TT-002			TSLD	123A90-FDL-IN-DG-40014 rev.1A				
IO Type	Input	Yes	Output	No	Energy by transmitter	No	Energy by system	Yes	
Marshalling	B400-PCS-001	Terminal	08A/08B	Slot	01	Rack	03	Chanel	08

LOOP TEST

1	Check earth isolation of the loop						OK
2	Connect loop to terminal						OK
3	Confirm Process Scale	Unit	° C	Min	0	Max	80	OK

LOOP RANGE			**0%**	**25%**	**50%**	**75%**	**100%**	
4	Physical value applied for test	Unit mA	4	8	12	16	20	
5	Control System Display	Unit ° C	0	19,99	40	59,98	79,99	

LOOP SERVICE

		Value	Trip	Gen Alarm	DCS Alarm	SOE	DCS display	
6	Threshold 1	No		Yes	NA	OK	OK	
7	Threshold 2	NA	NA	NA	NA	NA	NA	
8	Threshold 3	NA	NA	NA	NA	NA	NA	
9	Threshold 4	NA	NA	NA	NA	NA	NA	
10	Checking of line monitoring	NA	NA	NA	NA	NA	NA	
11	Checking of Maintenance Inhibition	NA	NA	NA	NA	NA	NA	
12	Associated safety Level / bar							NA
13	Associated outputs							NA

TESTING & MEASUREMENT INSTRUMENT USED

Type	Serial N.	Calibration Certificate	Validity
HART COMMUNICATOR MERIAM	1948000038		

LOOP DOCUMENTATION

14	Loop diagram is marked up and attached to this test sheet	OK
15	Cause and effect chart is highlighted accordingly	
16	Any defect is recorded for punch list issuance	OK

Comments:

Page 1/1	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CW
Name	Laurentiu Grozavu	Giandonato Delmissier	John Mackillop
Date	2025-03-17	2025-03-18	2025-03-19
Signature	PROVERLIS Digitaly signed by Laurentiu Grozavu 2025-03-17T14:27:14.823Z	PROVERLIS Digitaly signed by Giandonato Delmissier 2025-03-18T06:58:39.607Z	PROVERLIS Digitaly signed by John Mackillop 2025-03-19T12:16:04.595Z

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	WASTE WATER FROM HEADER TO BRINE DISCHARGE CAISSON B-50014		
Area	N.P.	Loop Tag	50-TI-002	Instrument Tag	50-TT-002
Type of verification	periodic	Calibration range	0,00 ÷ 80,00 °C	Report N°	028
Type of instrument	RTD 3 wire Pt100	Max uncertainty required	± 0,1 % s.r.	Reference procedure data sheet	123A90-PML-QHSE-PRO-00122 Page N°13

UNDER EXAMINATION INSTRUMENT 'S DATA

Tag	Manufacture	Model	S/N
50-TT-002	SPRIANO	ST72	SE240659

USED REFERENCE SAMPLE 'S DATA

Manufacture	Model	S/N	n° of certification and calibration center	uncertainty (u.m.)	Expiration
BEAMEX	MC5-IS	20177766	0452/MT/2024 _LAT 150	± 0,1 °C	23/04/2024
ASIT INSTRUMENT	PT-100	20170421-S411	0452/MT/2024 _LAT 150	± 0,1 °C	23/04/2024

environment temperature at the time of check 24 °C

Value indicated before starting the check 23,73 °C

CHECK RESULT: *as found*

Verification functionality loop check

Generated value	Expected value	Read value	Error	Error % on s.r.
°C	mA	mA	mA	
0,00	4,000	3,936	-0,064	-0,400
24,05	8,800	8,746	-0,054	-0,338
40,00	12,000	11,936	-0,064	-0,400
80,00	20,000	19,936	-0,064	-0,400
40,00	12,000	11,937	-0,063	-0,394
24,05	8,800	8,745	-0,055	-0,344
0,00	4,000	3,935	-0,065	-0,406
		max error detected %		0,41

Check: FAILED

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
°C					

Blocks/alarms check:

Corrective action The instrument score 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.
°C	mA	mA	mA	
0	4,000	4,002	0,002	0,002
24,05	8,800	8,798	-0,002	-0,003
40	12,000	11,998	-0,002	-0,003
80	20,000	19,997	-0,003	-0,004
40	12,000	11,999	-0,001	-0,001
24,05	8,800	8,799	-0,001	-0,001
0	4,000	4,003	0,003	0,004
		errore massimo rilevato %		0,004

Check: PASSED

Verification activation of blocks/threshold alarms

Alarm signalling	Type of activation	Alarm intervention	Block description	Action type	Block intervention
°C	DESCENT				

Blocks/alarms check:

Value indicated after the check 24,05 °C

Note:

FINAL OUTCOME OF THE VERIFICATION: *The instrument is SUITABLE*

Verification Date	Verification Expiration	Technical Executor	Viewed	Approved by
23/09/2024	09/2025	PENSO SILVIO		
		signature	*signature*	*signature*

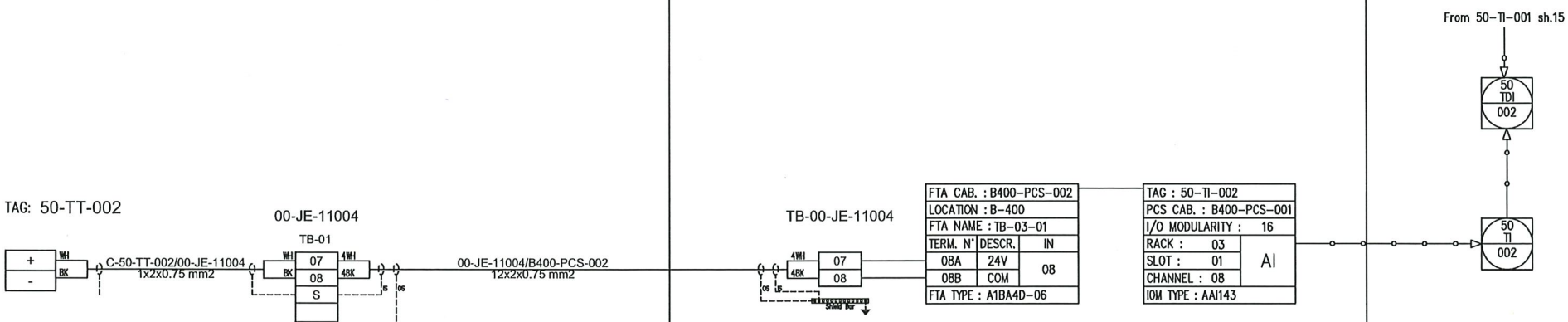
ABR SERVICE srl
Via M. Monti, 40 - 48123 RAVENNA
Tel. 0544 685411
C.F. e P.IVA 02764420390

GENERAL	1	Tag Number					50-TT-002 / 50-TE-002 / 50-TW-002			
	2	Service					WASTE WATER FROM HEADER TO BRINE DISCHARGE CAISSON (B-50014)			
	3	P&ID Number	Area Classification				123A90-DDL-PR-PID-80025			ATEX Zone2-IIC(IIB+H2) T1
PIPE LINE	4	Line Number	Equipment Numbrer				1-1/2"-WW-073-01CS-H			-
	5	Line Size	Schedule				4"			6.02 Thk (mm)
	6	Pipe Material	Pipe Insulation				ASTM A350 LF2			ELECTRICALLY HEAT TRACED
PROCESS CONDITIONS	7	Fluid	Phase				SEA WATER SUPPLY			LIQUID
	8	Temperature	Min.	Oper.	Max.			AMB		
	9	Pressure	Min.	Oper.	Max.			ATM		
	10	Design Temperature	Min.		Max.		-46 °C			100 °C
	11	Design Pressure	Min.		Max.		3.5 barg			
	12	Vibrations					ASME PTC 19.3			
	13	Erosion	Corrosion				-			-
	14	Flow Rate Max.	Velocity Max.				10000 kg/h			0.34 m/s
	15	Density					1000 kg/m^3			
	16	Viscosity					1 cP			
	17	Ambient Temperature					Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.			
ELEMENT	18	T/C	Type				-			
	19		Epoxy.	Ground		Unground	-		-	-
	20		Sheath Material							
	21	RTD	Type				RTD, 3 wire PT100			
	22		Sensor Material		Insulator Material		Platinum			MgO
	23		Tollerance Class		Resistance		Class A according IEC 60751			100 Ω at 0°C/138.5 at 100°C
	24	Single/Duplex/Other	2/3/4 Wire				Single			3 Wire
	25	Diameter	Length				6 mm			to be assembled with TWE
TRANSMITTER	26	Type	Mounting				4-20 mA - HART/Smart			Integral, head mounted
	27	Input	Head Material				-			N/A
	28	ATEX Certification	Ingress Protection				ATEX Ex II 2G Ex db IIC T5			IP-66
	29	Housing	Painting				SS AISI 316/316L			N/A
	30	Power Supply	Load Resistance				24 Vdc			220 ÷ 640 Ω (for HART)
	31	Electrical Connection	Input		Output		-			2 X M20X1.5
	32	Accuracy					As Per IEC 60751 Class A			
	33	Linearization					As Per IEC 60751 Class A			
	34	Instrument Range	Min.		Max.		-50 °C			450 °C
	35	Calibration Range	Min.		Max.		0 °C			80 °C
	36	SIL Certification					-			
	37	PED Certification					Required			
COMMUNICATION AND SOFTWARE	38	Communication Type	Signal Type				HART 6			4-20mA Loop Powered24 Vdc
	39	D D Revision	CFF Revision				-			-
	40	Hart Descriptor	Hart Tag				-			-
	41	Internal Diagnostics	Capacitance				-			-
	42	Segment	Device Address				-			-
	43	Device Class	Simulate				-			-
	44	Nominal Current	Operating Volage				-			-
WELL	45	Process Connection	Rating				1-1/2" Flanged			150# RF ASME B31.3
	46	Material	Type				SS AISI 316/316L			Tapered Type
	47	Construction Type	Internal Connection				Barstock Tapered			1/2" NPT-F
	48	Immersion Length ("U")	Head Length ("T")				220 mm			70 mm
	49	Treatments	Finish				-			-
	50	Tip Thickness	Bore Diameter				7 mm			6.5 mm
	51	Insertion Diam. Min.	Max.				28 mm			18 mm
PURCHASE	52	Manufacturer					TERRANOVA SRL			
	53	Model					SST72-TH-1-C-9-1-B-4-3 + TWE			
	54	Purchase Order Number					4718_OS			

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DRAWING NO. 123A90-DDL-IN-DG-40014 REV. 01

FIELD	ITER – B400	CENTRAL CONTROL ROOM
	PROCESS CONTROL SYSTEM	OPERATOR CONSOLE



NO MARK UP
Ligugnana
12/03/25

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	06/12/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/10/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DG-40014
REV: 1_A | DATE: 20/12/24 | SIGNATURE: C.Pilato
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : INSTRUMENT LOOP DIAGRAM
50-TI-002
WATER DISPOSAL HEADER TO CAISSON B-50014

CONTRACT NO./TITLE CONTRACT_NO.			SCALE 1:1
DRAWN: VBA	CHECKED: LCA	APPROVED: DLO	DATE 23/10/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40014	016	01

File Name : 123A90-DDL-IN-DG-40014_REV.01

ROSETTI MARINO — CROSSWIND

ITEM	Tag	50-XV-005	: On-Off Actuated Ball Valve			Dwg	123A90-DDL-IN-LIS-40088
	S/Sys	55-01	: Waste Water Brine Discharge System			Module	LD
TASK	code	C10004936		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	COMM	Activity FTS	Discipline	Instrumental	Form FJ01V	ON/OFF Valve

Data

Loop TAG: 50-XV-005 — TDSL Rev: 123A90-FDL-IN-DG-40014 rev.1A — Valve type: ON/OFF VALVE

Functional Test				Associated Tag	Comment	Result
Local reset						NA
Remote command : Solenoid valve 1 energized				50-XY-005		OK
Remote command : Solenoid valve 2 energized						NA
Local indication of the valve position						OK
Open limit switch				50-ZSH-005		OK
Closed limit switch				50-ZSL-005		OK
Pressure transmitter on control line						NA
Local closing command						NA
Local opening command						NA
Opening time	1 sec	Restriction adjusted	No			OK
Closing time	1 sec	Restriction adjusted	No			OK
Interlock function						NA
Fail safe position on loss of electrical signal				OPEN		OK
Fail safe position on loss of power fluid				OPEN		OK
Timer checking					4 SEC.	OK
Number of operations on accumulator						NA
ESD signal and solenoid valve test facility						NA
Solenoid valve override indication on ICS						OK
Local indication of the solenoid valve deenergization						NA
Partial stroke cheching						NA

TESTING & MEASUREMENT INSTRUMENT USED

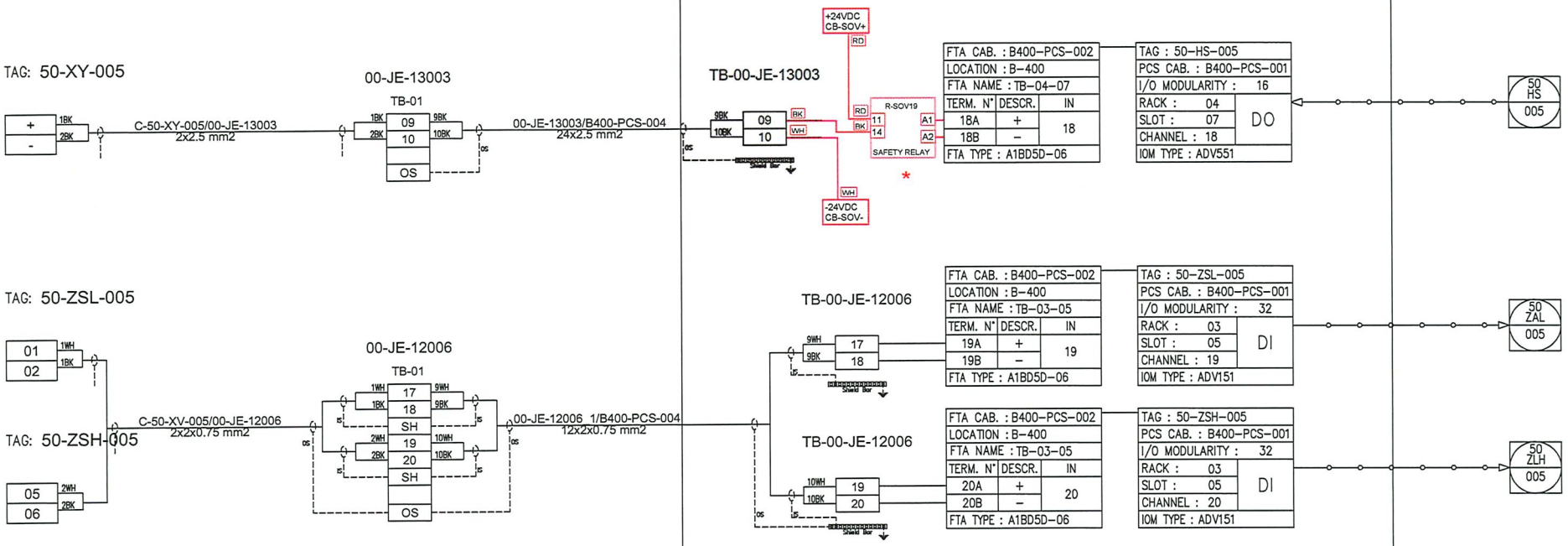
Type	Serial N.	Calibration Certificate	Validity
MULTIMETER FLUKE 175	AW1/018 17140769	7715/24	10/07/2025

Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☉ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CW
Name	Laurentiu Grozavu	Giandonato Delmissier	David Musgrove
Date	2025-04-08	2025-04-08	2025-04-10
Signature	PROVERLIS Digitaly signed by Laurentiu Grozavu 2025-04-08T11:51:23.801Z	PROVERLIS Digitaly signed by Giandonato Delmissier 2025-04-08T13:16:49.479Z	PROVERLIS Digitaly signed by David Musgrove 2025-04-10T09:11:18.804Z

DRAWING NO. 123A90-DDL-IN-DG-40014 REV. 01

FIELD	ITER – B400	CENTRAL CONTROL ROOM
	PROCESS CONTROL SYSTEM	OPERATOR CONSOLE



AS BUILT
15/03/2025

* RELAY SOVxx
PLC-RSC-24DC/21

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	06/12/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DG-40014
REV: 1_A | DATE: 20/12/24 | SIGNATURE: C.Pilato
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : INSTRUMENT LOOP DIAGRAM
50-XV-005
WATER DISPOSAL HEADER TO CAISSON B-50014

CONTRACT NO./TITLE CONTRACT_NO.			SCALE 1:1
DRAWN: VBA	CHECKED: LCA	APPROVED: DLO	DATE 23/10/2024
A3	DRAWING NO. 123A90-DDL-IN-DG-40014	SHEET 059	REV. 01

File Name : 123A90-DDL-IN-DG-40014_REV01

Section 4.4 Instrumentation “As-Commissioned” interconnection diagrams

NOT APPLICABLE

Section 4.5 Telecommunication functional test sheets index

NOT APPLICABLE

Section 4.6 Telecommunication
“As-Commissioned” I.C.D. / TSLD's

NOT APPLICABLE

Section 5 SITE / OPERATIONAL

Section 5.1 Operational Test Procedure

Section 5.2 Operational Test Certificates

NOT APPLICABLE

Section 6 PIPING AND VESSEL PREPARATION

Section 6.1 Final Mechanical / Vessel Inspection Checks Index

NOT APPLICABLE

Section 6.2 Leak Test / Drying / Inerting Test Sheets Index

Section 6.3 Chemical Loading & First Fill records Index

NOT APPLICABLE

Section 6.4 Chemical Cleaning Reports and Records Index

NOT APPLICABLE

Section 6.5 Lubrication Schedule

NOT APPLICABLE

Section 7 VENDOR

Section 7.1 Vendor Package Summary Index

NOT APPLICABLE

Section 7.2 SAT Procedure with associated punch list and reference (Front Page)

NOT APPLICABLE

Section 7.3 Vendor Spares & Special Tools lists references

NOT APPLICABLE

Section 7.4 Vendor Data / Operations / Maintenance Manuals References

NOT APPLICABLE

Section 8 LIST OF MODIFICATIONS

NOT APPLICABLE

Section 8.1 List of changes

NOT APPLICABLE

Section 9 SUPPORTING DOCUMENTS

NOT APPLICABLE