Base Load Power Hub (BLPH)

PRESERVATION PROCEDURE

Document Number:

123A90-PML-QHSE-PRO-00126

Document Class: 2

03	19/08/2025	Issue for Construction	D.Cavirani	R.Degli Esposti	W.Borghi
02	18/07/2025	Issue for Construction	D.Cavirani	R.Degli Esposti	W.Borghi
01	17/06/2025	Issue for Construction	D.Cavirani	R. Degli Esposti	W.Borghi
00	29/05/2025	Issue for Review	D.Cavirani	R. Degli Esposti	W.Borghi
Rev.	Date	Description	Prepared	Reviewed	Approved

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

Revision / Change Log

Rev.	Description
00	Issue for Review (IFR)
01	Issue for construction-CPY comments has been considered
02	Issue for construction-Requirements for CPI have been included.
03	Issue for construction-Additional CPY comments have been reviewed and implemented where applicable.

HOLDS LIST

No.	Description
1	
2	
3	
4	

Table of contents

1. INTRODUCTION 5
   1.1 PROJECT OVERVIEW 5
      1.1.1 Project Location 5
      1.1.2 Project Concept 6
2. DOCUMENT SCOPE 8
   2.1. DEFINITIONS 8
3. PRESERVATION PRINCIPLES AT EEMSHAVEN 9
   3.1 INITIAL PRESERVATION 9
   PRESERVATION MAINTENANCE 9
   3.2 9
4. GENERAL GUIDELINES FOR EQUIPMENT PRESERVATION 10
   4.1 ELECTRICAL AND ELECTRONIC EQUIPMENT (General Guidance) 10
   4.2 INSTRUMENT EQUIPMENT (General Guidance) 10
   4.3 MECHANICAL EQUIPMENT (General Guidance) 10
5. preservation materials 12
      5.1.1 Product Specifications 15
      5.1.2 Features 15
      5.1.3 Protected meters 16
      5.1.4 Storage of materials 16
      5.1.5 Description 16
   5.2 SILICA GEL 16
      5.2.1 Product specifications 17
      5.2.2 Types of desiccant sachets and absorption characteristics 17
      5.2.3 Utilization 18
      5.2.4 Storage instructions 18
6. "B 100" HV (66KV/6.6KV) SWITCHGEAR ROOM 19
   6.1 "B100" VPCI Application quantity for equipment 19
7. "B 200" LV (400V) SWITCHGEAR ROOM 22

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

8. "B 300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM 25
9. "B 400" I&T EQUIPMENT ROOM 29
10. Junction box and lighting fixture.....32
11. AIR INSTRUMENT PACKAGE.....33
12. NITROGEN GENERATOR PACKAGE.....35
13. HYDROGEN STORAGE VESSEL.....37
14. VALVES.....39
15. WATER TREATMENT PACKAGE 41
16. TRANSFORMERS.....43
17. CRANE.....44
18. PIPING LINE 46
19. HYOSUNG GAS INSULATED SWITCHGEAR (GIS).....47
20. PRESERVATION FOR COMPANY-PROVIDED ITEMS (CPI).....50
21. PRESERVATION CHECK LIST.....50
22. ANNEX 1: CHECK LIST 51
23. ANNEX 2: TAG LIST 52
24. ANNEX 3: CPI CHECK LISTS.....53
25. ANNEX 4: VPCI DATA SHEETS.....54

1. INTRODUCTION

1.1 PROJECT OVERVIEW

Crosswind, a Shell and Eneco joint venture, was awarded the tender to develop the offshore Hollandse Kust Noord (HKN) wind farm, located 18.5km off the coast of Netherlands near the town of Egmond aan Zee. The consortium plans to have HKN operational in 2023 with an installed capacity of 759MW generating at least 3.3TWh per year. This is sufficient renewable power to supply more than 1 million Dutch households with green electricity.

Offshore wind farms produce intermittent electricity and balancing these dips and peaks and integrating this electricity into the national energy system requires new technologies. For this reason, the offshore wind farm will include several new technologies that could be implemented at full-scale in the future. The new technologies being explored include a floating solar park, a short-duration battery storage as well as long-term storage via green hydrogen produced by water electrolysis and subsequently consumed in a fuel cell. The combination of these individual measures, herein referred to as the Base Load Power Hub (BLPH) will ensure a continuous power supply regardless of the wind situation.

1.1.1 Project Location

The Hollandse Kust Noord (HKN) wind farm is located 18.5km off the coast of the Netherlands near the town of Egmond aan Zee.

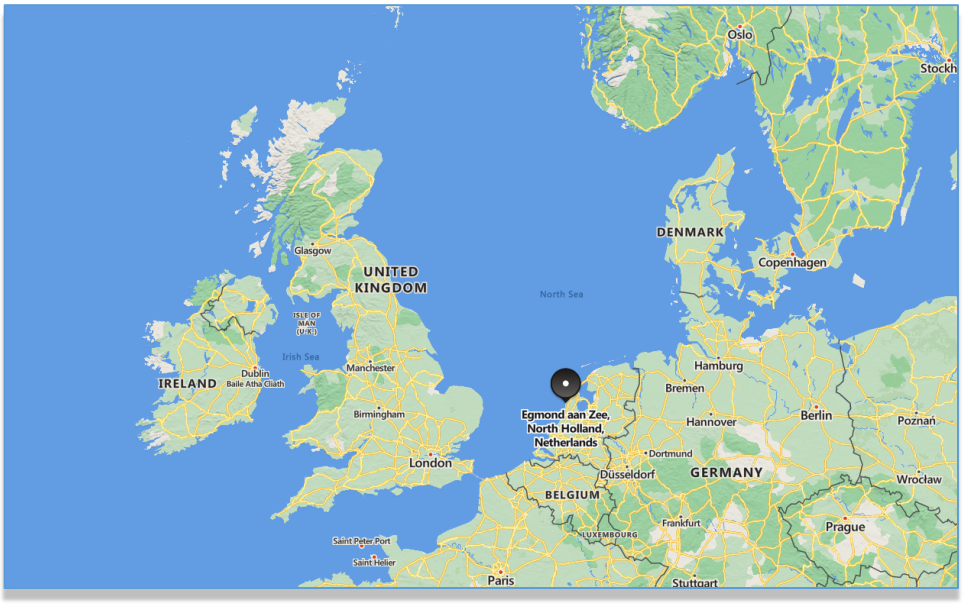


Figure 1 HOLLANDSE KUST NOORD WIND PARK Location Map

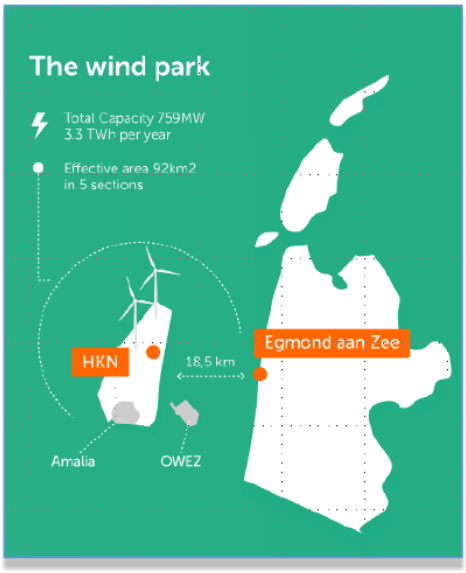


Figure 2 - Wind Park Details

The wind farm will consist of No. 69 x 11.5MW wind turbine generators each to be installed on a dedicated monopile structure. A 70th monopile located on coordinates E 590719.1, N 5841602.3 is reserved for installing the platform accommodating the BLPH. The monopile structure was designed and installed by Van Oord Offshore Wind (VooW) and therefore not part of the BLPH scope.

1.1.2 Project Concept

All components included in the BLPH will be integrated onshore on a topsides and installed in an offshore location within the boundaries of the HKN wind farm. At its simplest, the BLPH will store energy during periods of high electricity generation from renewable sources (a wind turbine generator and the floating solar PV farm) and release it during periods of low generation. In practice. It is expected that the energy stored will supplement generation from renewable sources to ensure that at least 1.0MW of power is exported to the electrical grid regardless of wind/solar availability.

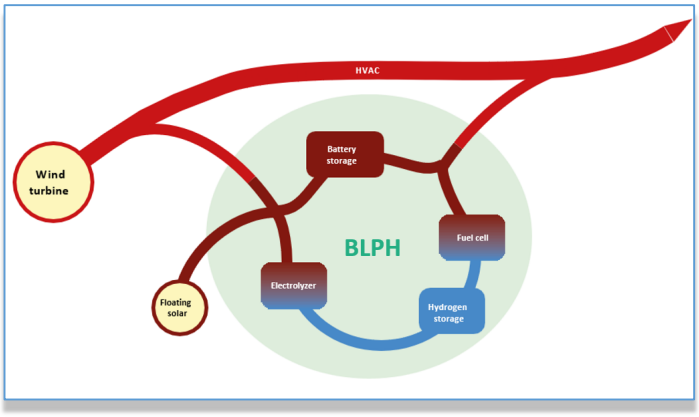


Figure 3 – BLPH Concept

Electricity in the BLPH will be stored in the form of electrons in a battery energy storage system (BESS) as well as converted into green hydrogen via water electrolysis. When the power output from the connecting wind turbine drops to below 1 MWe, the BLPH will return its stored energy to supplement the remaining power output. This will be by discharging the BESS, while stored hydrogen will be converted back into electricity using a fuel cell to extend the discharge duration.

The purpose of the BLPH s to function as a testbed for the integration of energy storage technologies with renewable generation. It is expected that equipment installed on the BLPH will operate as Normally Unmanned Installation for at least two (2) years with no or minimal maintenance and it will have its own independent control room with the ability to communicate with Crosswind's control room.

2. DOCUMENT SCOPE

This document is prepared for information purposes only, as an onshore installation and storage period is foreseen. The new Owner of the BLPH shall be responsible for adapting the preservation activities to the revised purpose and for engaging with the Original Equipment Manufacturers (VENDORs) to validate or complement these instructions as necessary.

Initial and sail-away preservation activities have already been completed in Ravenna under CPY approved procedure 123A90-PML-QHSE-PRO-00127. Consequently, this revision focuses exclusively on preservation during the onshore storage period in the Netherlands—i.e., after load-in.

The requirements for preservation are to apply and maintain the preservation condition and operability of systems, equipment, and piping spools before they are taken into use, and to ensure that piping spools are in a preservation condition before they are put into use.

The preservation method concentrates on high-value items using simple and passive solutions (such as VPCI emitters and sealing). Items that are low-cost or have low technical complexity are typically excluded unless specific risks of deterioration are identified. Some low-cost items are included when necessary for technical reasons.

For items supplied by Rosetti, no power or energisation is planned; passive methods will be employed, with the exception of external lighting circuits.

For Company-Provided Items (CPI), preservation measures shall follow the respective vendor procedures, which remain the primary reference.

This revision, therefore, supersedes any previous references to initial preservation within this procedure.

Disclaimer: The content of this procedure is provided for guidance only. Rosetti Marino shall not be held responsible or liable for any preservation activities performed, modified, or omitted by the new Owner after handover to COMPANY (CrossWind). All preservation decisions and implementations made after handover remain the sole responsibility of the Owner and their appointed vendors.

.

2.1. DEFINITIONS

COMPANY	CROSSWIND (SHELL&ENECO)
CONTRACTOR	ROSETTI MARINO - The party that holds the contract to carry out all or part of the design, engineering, procurement, construction, commissioning, or management on behalf of COMPANY

3. PRESERVATION PRINCIPLES AT EEMSHAVEN

3.1 INITIAL PRESERVATION

The initial and sail-away preservation activities were completed in Ravenna at the Rosetti yard, during sea-fastening preparation.

These activities were carried out in accordance with CPY-approved procedure 123A90-PML-QHSE-PRO-00127.

3.2 PRESERVATION MAINTENANCE

During storage at the Eemshaven site, preservation carried out according to the above-mentioned procedure is valid for up to six (6) months. Preservation status will be verified using the dedicated checklist provided in Annex 1.

The first activity performed upon arrival will be de-seafastening, followed by preservation verification against the items listed in Annex 2. This annex will also serve as a control document to track the execution of activities.

The guiding principle is to confirm that the preservation measures applied in Ravenna remain effective for the six-month duration. Whenever inspections indicate that preservation integrity is compromised, corrective actions shall be taken, based on the specific findings.

For Company-Provided Items (CPI), initial preservation was performed in Ravenna and documented through the signed checklists (Annex 3). Vendor procedures provided by CPY define the requirements for maintenance of preservation during storage. These procedures are listed in Section 19 of this document.

All inspections at Eemshaven will be conducted jointly by Rosetti and CPY, with results documented through the preservation checklist in Annex 1.

4. GENERAL GUIDELINES FOR EQUIPMENT PRESERVATION

Introduction

This section provides general guidelines only for the preservation of electrical, electronic, instrumentation and mechanical equipment. These guidelines are intended as general best practices and do not provide detailed instructions.

As clarified with CPY, Rosetti's onshore scope of work is limited to verifying—through the preservation checklist—that the preservation measures applied before sail-away remain valid for a maximum period of six (6) months. If the preservation period extends beyond six months, or if the new Owner wishes to apply additional or more detailed measures, it will be their responsibility to engage with the relevant vendors and adapt these guidelines accordingly.

4.1 ELECTRICAL AND ELECTRONIC EQUIPMENT (GENERAL GUIDANCE)

- Equipment exposed to humidity should be protected using vapour-phase corrosion inhibitors (VPCI) or equivalent passive means.
- Cable ends and spare entries should be properly sealed.
- Shafts and seals should be protected with suitable lubricants or protective tapes.
- Gaskets and O-rings should be greased with appropriate neutral products (e.g., acid-free Vaseline).
- Any energisation of heaters or panels, if required, falls outside Rosetti's preservation scope and shall only be implemented by the new Owner in consultation with vendors.

4.2 INSTRUMENT EQUIPMENT (GENERAL GUIDANCE)

- Instrument cabinets, junction boxes, and controllers should be sealed and protected using VPCI emitters or equivalent.
- Individual instruments should be protected according to vendor instructions.
- Computers, telecom and specialised equipment should follow the manufacturer's storage guidelines.
- Batteries must be stored according to vendor requirements for shelf life and safe conditions.
- Tubing ends should be capped with metallic plugs; non-metallic plugs are not recommended.
- Gaskets and O-rings should be lubricated with suitable neutral gels.

4.3 MECHANICAL EQUIPMENT (GENERAL GUIDANCE)

- Open ends of pipes, hoses, or flanges should be sealed or capped to avoid ingress of contaminants.
- Bearings should be lubricated as per vendor recommendations.
- Valves should be stored in the recommended position (gate valves closed, globe/ball valves open) and spindles protected with grease tapes or equivalent.
- Special connections (e.g., hubs, compact flanges) should be protected against mechanical damage.

- Insulation and HVAC ducting should be adequately sealed to avoid deterioration during storage.
- Rotating shafts may require periodic turning if mandated by the vendor; otherwise, no intervention is foreseen within the six-month preservation scope.

5. PRESERVATION MATERIALS

- VPCI 368 WAXY GREASE (mechanic)
- VPCI 369 LUBRICATING GREASE (mechanic)
- VPCI 126 FILM BLUE
- PLURIBALL 126 ANTICORROSION
- TERMO TAPE CD 20
- VPCI 130 EMITTER 25X25cm (electric&mechanic)
- VPCI 137 EMITTER 68X48 (electric&mechanic)
- SILICA GEL (Not applied in Rosetti's preservation scope, as the maximum six-month duration is ensured by alternative passive methods. Mentioned here only as a reference for potential use by the new Owner if deemed necessary for extended storage periods)..



VPCI 368 WAXY GREASE for carbon steel



VPCI 369 LUBRICATING GREASE for carbon steel

Th cycle within EDMS Fusion live". Its distribution is electronically controlled. Once printed shall be co oy



VPCI 126 FILM BLUE



PLURIBALL 126 ANTICORROSION

Vapor phase corrosion inhibitor 130 emitter 25x25cm(vpci130)



CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

Vapor phase corrosion inhibitor 137 emitter 68x48cm(vpci137)



The VPCI 137 66x48cm sponge has an absorption capacity of 1000 litres or 1.00 m3

Table of dimensions and absorption properties of VPCI 137/130

VPCI 130	Sizes (mm)	Protected Vol. (Litres)	Protected Vol. (m3)
5-off	5x (250x250)	1150 Liters	1.15 m^3
4-off	4x (250x250)	920 Liters	0.92 m^3
3-off	3x (250x250)	690 Liters	0.69 m^3
2-off	2x (250x250)	460 Liters	0.46 m^3
1-off	250x250	230 Liters	0.23 m^3
Half (1/2)	(250x125)	115 liters	0.12 m^3
1/4	(125x125)	57 liters	0.06 m^3
1/8	(125x60)	28 liters	0.03 m^3
1/16	(60x60)	14 liters	0.014 m^3
1/32	(60x30)	7 liters	0.007 m^3
1/64	(30x30)	3 liters	0.003 m^3

5.1.1 Product Specifications

Cortec VpCI-137 sponges are polymer sponges impregnated with a single product that guarantees effective anti-corrosion protection for packaged metals. They possess antistatic properties, protect against shocks, and offer slight desiccant action.

The sponges in this series provide a very effective method of dry protection, even in large volumes such as crates and containers. As the VpCI vaporises, it is attracted to metal surfaces, reaching every exposed area, including deep cavities.

This series of products protects against corrosion caused by moisture, condensation, residues, and impurities from previous processing, as well as galvanic corrosion.

VPCI emitters shall be applied based on the volume of the rooms, considering that sealed panels will be internally protected once the emitter is placed. External applications (e.g., in containers) are ineffective for internal protection.

Replacement interval for VPCI emitters is set at 12 months, unless otherwise indicated by OEM data sheets.

5.1.2 Features

The VpCI-137 Cortec sponges:

- They are nitrite-free or chromate free and are non-toxic. Thanks to their chemical content, in fact, they are considered safe and acceptable for industrial use.
- are more efficient than VCI papers and other materials VpCI for packaging, thanks to the highest concentration VpCI they have (about 10 times greater).
- have immediate use and the metal surface to be protected, beyond good previous cleaning, it does not require any special preparation.
- guarantee continuous protection for a period of up to 2 years. If the packaging needs to be opened, at once closed, it is still guaranteed by VpCi vapors, which recreate and regenerate a layer of protection.
- do not interfere with mechanical properties and chemical components of electronic components.
- are often used for the dry protection of vacuum zones that can be closed once the product has been applied.

5.1.3 Protected meters

They are excellent for protecting aluminium, brass, Carbon Steel, Copper, Iron, Steel, Steel Stainless, Galvanized Steel, Silver, Zinc

5.1.4 Storage of materials

To keep VPCI features intact, store unused sponges in a plastic container tightly closed.

5.1.5 Description

CORTEC VpCI-137 f.to 1 m2	Protects up to 3 cubic meters of volume
CORTEC VpCI-137 f.to 25x25 cm	A sponge frame protects up to 220 lt. Packs of 200 pcs
CORTEC VpCI-137 f.to 48x68 cm	A sponge frame protects up to 1000 lt. Packs of 40 pcs

5.2 SILICA GEL



5.2.1 Product specifications

Desiccant bags absorb water vapor inside the packaging. Their use allows goods to be protected from damage caused by moisture both during transport and storage.

The product is suitable for application in the Electronics, chemical - pharmaceutical, food, confectionery, industrial packaging, automotive- metalworking, protection of artistic heritage.

White Silica Gel is a synthetic product, chemically it is of an amorphous silicon oxide. The White Silica Gel used to manufacture desiccant bags, is following technical standards DIN 55473, MIL 3464E, NFH00320.

For more information, please refer to the safety data sheet of White Silica Gel.

5.2.2 Types of desiccant sachets and absorption characteristics

Grams	3 g	5 g	10 g	15 g	30 g	60 g	120 g	240 g	480 g	960 g
NFH Matching units m^3	1/200	1/100	1/50	1/32	1/16	1/8	1/4	1/2	1	2
Grams of water vapor absorbed by each bag	0,6 g	1 g	2 g	3 g	6 g	12 g	24 g	48 g	96 g	192g

5.2.3 Utilization

Place the sachets inside the packaging that contains the goods to be protected. Seal the packaging hermetically.

The sachet remains effective even if the packaging is not vacuum-sealed.

Use the correct number of sachets per packaging unit.

The dosage of sachets depends on the amount of moisture present in the air and in the materials contained within the packaging, the moisture that may enter from the outside during transportation and storage, the climatic conditions, and the desired humidity level to be achieved and maintained during the storage period.

The correct dosage can be determined with the help of technical data sheet TDS 85, which is useful for collecting the necessary data to calculate the number of sachets required to protect the goods.

Sachet expiration: Information regarding the expiration of the material can be found in technical data sheet TDS 57.

Sachet regeneration: Information regarding the regeneration of the material can be found in technical data sheet TDS 54.

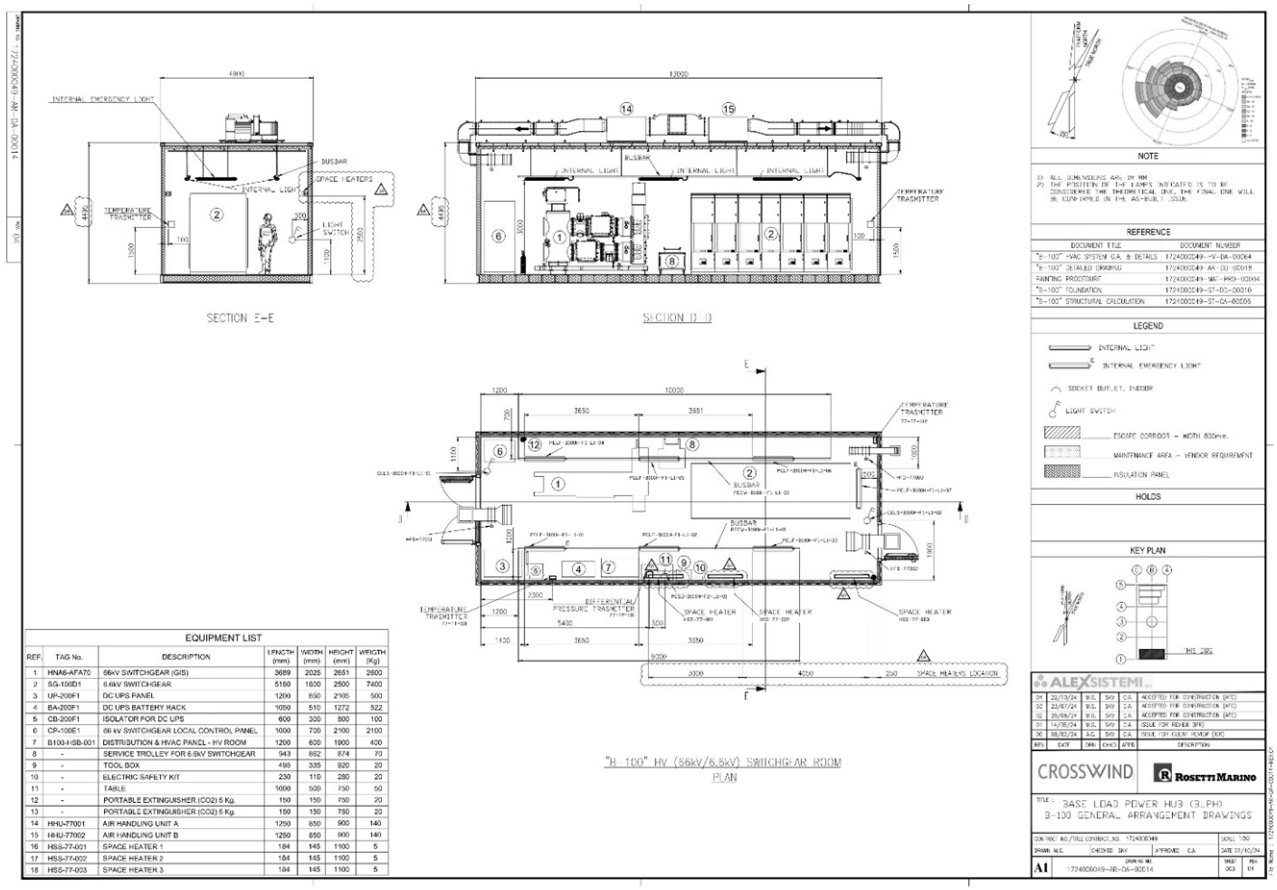
5.2.4 Storage instructions

The storage conditions for the sachets prior to use are as follows:

The product must be stored in its original, undamaged packaging, in a covered warehouse. Once the packaging is opened, the desiccant sachets should be used within a short period of time.

The PE packaging must be resealed after each removal (preferably by heat sealing the bag).

6. "B 100" HV (66KV/6.6KV) SWITCHGEAR ROOM



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HRIGHT (mm)	WRIGTH (Kg)
1	HNA6-AFA70	66kV SWITCHGEAR (GIS)	3689	2025	2651	2600
2	SG-100D1	6.6kV SWITCHGEAR	5160	1605	2500	7400
3	UP-200F1	DC UPS PANEL	1200	650	2105	500
4	BA-200F1	DC UPS BATTERY RACK	1050	510	1272	522
5	CB-200F1	ISOLATOR FOR DC UPS	600	300	800	100
6	CP-100E1	66 kV SWITCHGEAR LOCAL CONTROL PANEL	1000	700	2100	2100
7	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV ROOM	1200	600	1900	400
8	-	SERVICE TROLLEY FOR 6.6kV SWITCHGEAR	943	662	874	70
9	-	TOOL BOX	495	335	920	20
10	-	ELECTRIC SAFETY KIT	230	110	280	20
11	-	TABLE	1000	500	750	50
12	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
14	HHU-77001	AIR HANDLING UNIT A	1250	850	900	140
15	HHU-77002	AIR HANDLING UNIT B	1250	850	900	140
16	HSS-77-001	SPACE HEATER 1	184	145	1100	5
17	HSS-77-002	SPACE HEATER 2	184	145	1100	5
18	HSS-77-003	SPACE HEATER 3	184	145	1100	5

Emitting vapors will be applied respecting the table of dimensions and absorption properties

6.1 "B100" VPCI APPLICATION QUANTITY FOR EQUIPMENT



ISOLATOR FOR DC UPS CB-200F1. It has an internal volume of 0.144m^3, VPCI130 25x25 sponge will be applied Quantity 1



DISTIBUTION&HVAC PANEL-HV ROOM B100-HSB-001. It has an internal volume of 1.368m^3, VPCI130 25x25cm will be applied Quantity 2 and VPCI 137 66x48cm quantity 1.

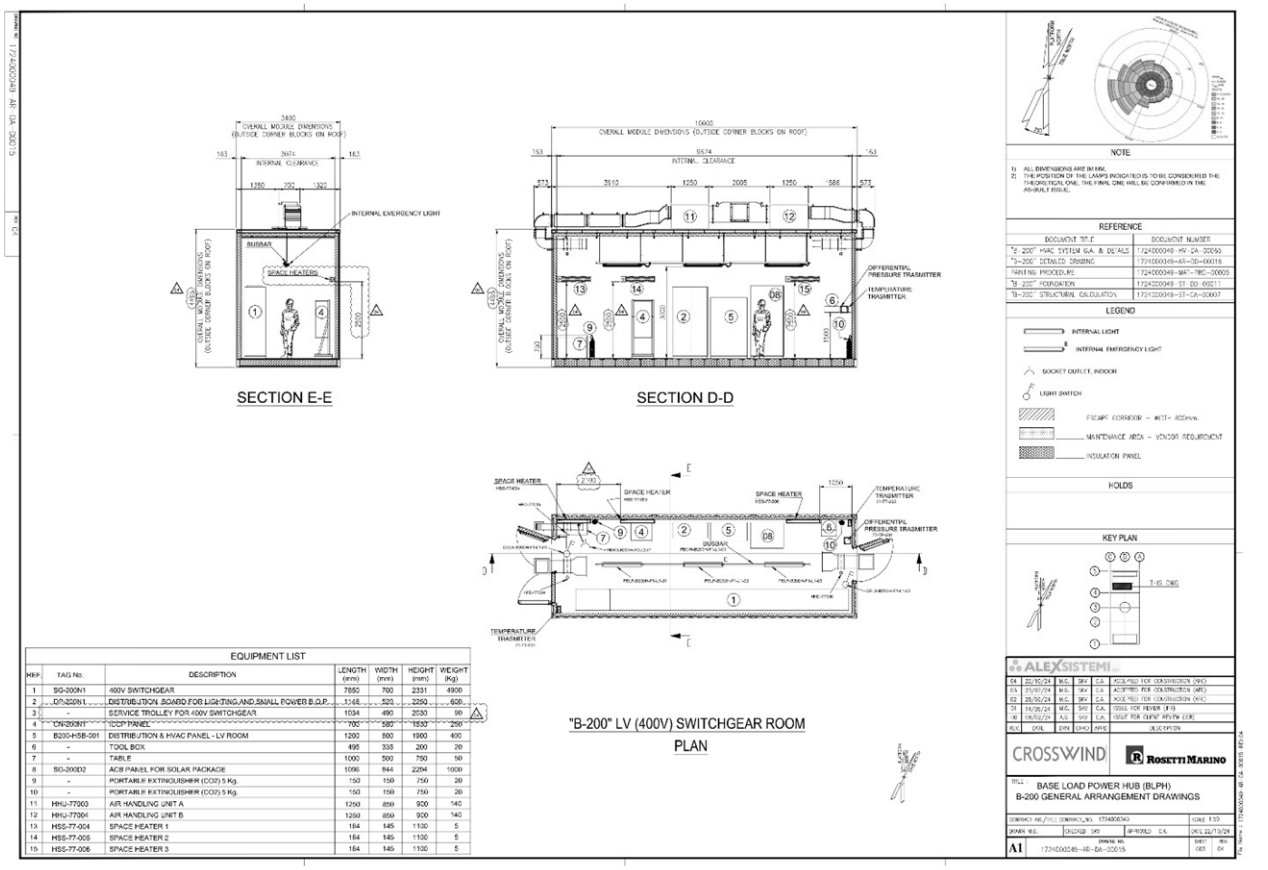


DC UPS PANEL UP-200F1. It has an internal volume of 1.36m^3, VPCI130 25x25cm will be applied Quantity 1 and VPCI 137 66x48cm quantity 2.



6.6kv SWITCHGEAR SG-100D1. It has an internal volume of 23.31m^3, VPCI 137 66x48cm will be applied Quantity 23.

7. "B 200" LV (400V) SWITCHGEAR ROOM



Emitting vapours will be applied, respecting the table of dimensions and absorption properties

"B200" VPCI Application quantity for equipment



400V SWITCHGEAR SG-200N1. It has an internal volume of 12.84m^3, VPCI 137 66x48cm will be applied Quantity 12.

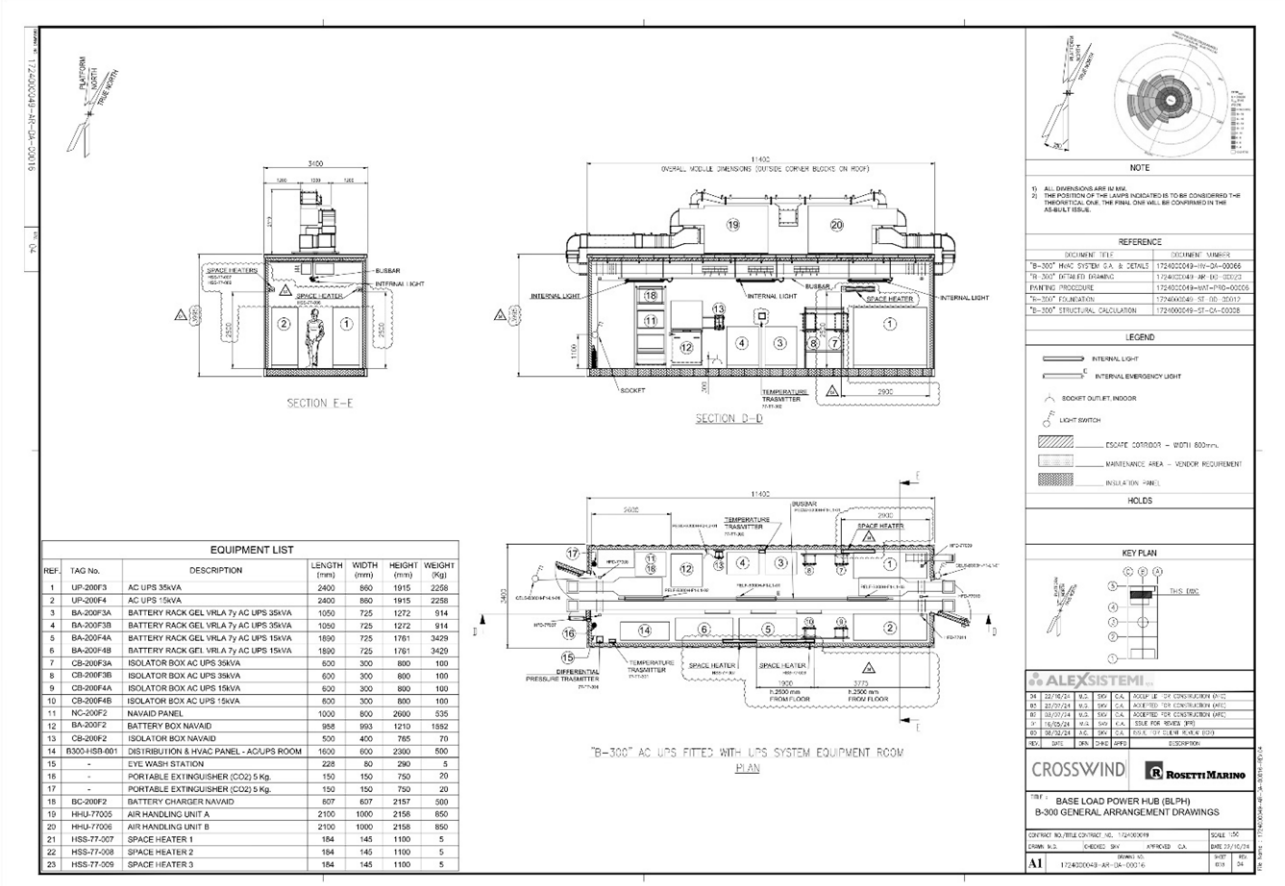


ICCP PANEL CN-200N1. It has an internal volume of 0.756 m^3, VPCI 130 25x25cm will be applied Quantity 3.



- DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P DP-200-N1. It has an internal volume of 1.34m^{3,} , VPCI 137 66x48cm will be applied quantity 1 and VPCI 130 25X25 quantity 1.
- DISTIBUTION & HVAC PANEL-LV ROOM B200-HSB-001. It has an internal volume of 1.36m^{3,} VPCI 137 66x48cm will be applied quantity 1 and VPCI 130 25X25 quantity 1.
- ACB PANEL FOR SOLAR PACKAGE SG-200D2. It has an internal volume of 2.11m^3, VPCI 137 66x48cm will be applied quantity 2

8. "B 300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5

Emitting vapors will be applied respecting the table of dimensions and absorption properties

B300 VPCI Application quantity for equipment





AC UPS 35KVA UP-200F3 and AC UPS 15KVA UP 200F4 have the usual volume of 3.95m^3 each, VPCI 137 66x48cm will be applied quantity 4 for equipment.





ISOLATOR BOX AC UPS 35KVA CB-200F3A/CB 200-F3B and ISOLATOR BOX AC UPS 15 KVA CB-200F4A/CB 200-F4B, each piece of equipment has an internal volume of 0.14m^3, VPCI 137 25x25cm will be applied quantity 1 for equipment.





The batteries will be covered with nylon to form a casing and vapor emitters or alternatively silica gel will be introduced inside it to reduce corrosion



BATTERY BOX NAVAID BA-200F2. It has an internal volume of 1.15 m^3, VPCI 137 66x48cm will be applied quantity 1.

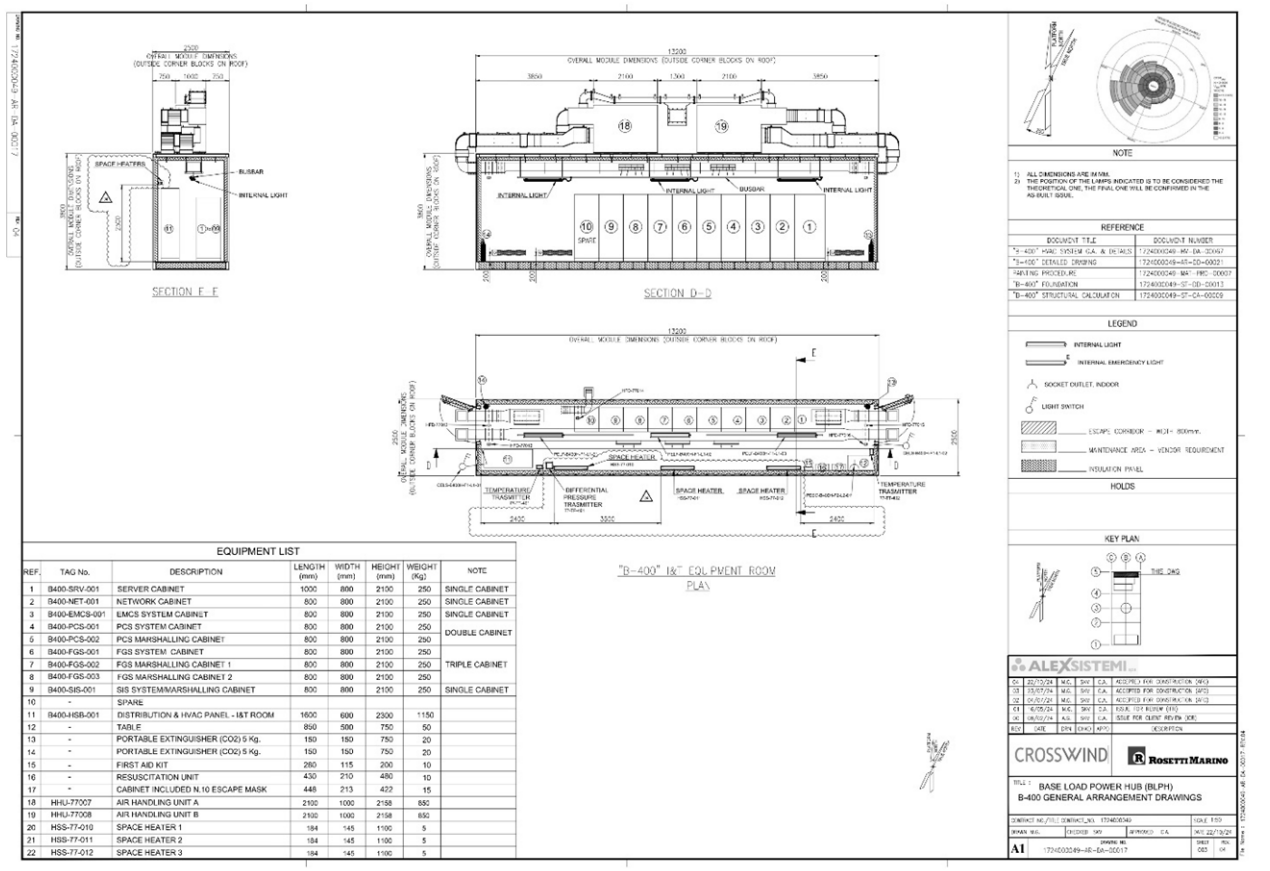


NAVAID PANEL NC-200F2. It has an internal volume of 1.05 m^3, VPCI 137 25x25cm will be applied quantity 3.



DISTRIBUTION & HVAC PANEL-AC/UPS ROOM B300-HSB-001. It has an internal volume of 2.20 m^3, VPCI 137 25x25cm will be applied quantity 1 and VPCI 137 68X46 quantity 2.

9. "B 400" I&T EQUIPMENT ROOM



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	SINGLE CABINET
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	SINGLE CABINET
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	SINGLE CABINET
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	DOUBLE CABINET
5	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	250	
6	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	250	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	250	TRIPLE CABINET
8	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	250	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	250	SINGLE CABINET
10	-	SPARE					
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	1150	
12	-	TABLE	850	500	750	50	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	180	150	750	20	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
15	-	FIRST AID KIT	280	115	200	10	
16	-	RESUSCITATION UNIT	430	210	480	10	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	15	
18	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	650	
19	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	650	
20	HSS-77-010	SPACE HEATER 1	184	145	1100	5	
21	HSS-77-011	SPACE HEATER 2	184	145	1100	5	
22	HSS-77-012	SPACE HEATER 3	184	145	1100	5	

Emitting vapors will be applied respecting the table of dimensions and absorption properties

B400 VPCI Application quantity for equipment.



- B400-SRV-001 SERVER CABINET
- B400-NET-001-NETWORK CABINET
- B400-EMCS-001 EMCS SYSTEM CABINET
- B400-PCS-001 PCS SYSTEM CABINET
- B400-PCS-002 PCS MARSHALLING CABINET
- B400-FGS-001 FGS SYSTEM CABINET
- B400-FGS-002 FGS MARSHALLING CABINET 1
- B400-FGS-003 FGS MARSHALLING CABINET 2
- B400-SIS-001 SIS SYSTEM/MARSHALLING CABINET

These are 9 separate volumes, and each of them is 1.34 m^3 , VPCI 137 25x25cm will be applied quantity 1 and VPCI 137 68X46 quantity 1 for cabinet.



DISTRIBUTION&HVAC PANEL_I&T ROOM B400-HSB-001. It has an internal volume of 2.20 m^3, , VPCI 137 25x25cm will be applied quantity 1 and VPCI 137 68X46 quantity 2

Note

For the preservation of Alex Sistemi, approximately 63 pieces of VPCI 137 66x48 and 30 pieces of VPCI 130 25x25 will be applied

10. JUNCTION BOX AND LIGHTING FIXTURE

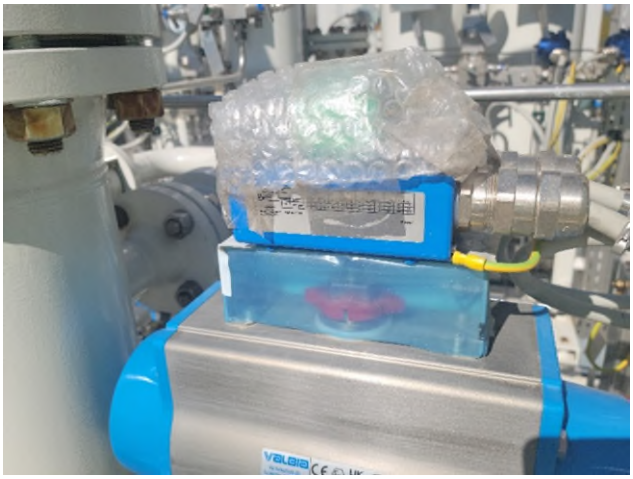




For the junction boxes and lighting fixture, we apply VpCI-130 inside, with the quantity depending on the size of the equipment. After that, we close the cover and seal it is using VpCI-126 blue film. A VpCI identification tape is then used to mark the application date and expiration date.

11. AIR INSTRUMENT PACKAGE





Application of VpCI-369 on the valve stem, followed by protection with VpCI-126, to prevent corrosion and the ingress of external agents throughout the construction, commissioning, and sail-away phases.



VpCI-130 will be placed inside the electrical panel, with the quantity determined based on the internal volume



The carbon steel bolting has been coated with VpCI-368 waxy grease to inhibit corrosion.

12. NITROGEN GENERATOR PACKAGE





Application of VpCI-369 on the valve stem, followed by protection with VpCI-126, to prevent corrosion and the ingress of external agents throughout the construction, commissioning, and sail-away phases



VpCI-130 will be placed inside the electrical panel, with the quantity determined based on the internal volume.



The carbon steel bolting has been coated with VpCI-368 waxy grease to inhibit corrosion.

13. HYDROGEN STORAGE VESSEL





Internal cleaning of the vessel carried out by a confined space certified operator, using rags and nitro thinner







Cleaning of the manway gasket seating surface using rags and thinner, followed by application of VpCI-369 lubricating grease to reduce corrosion.





External cleaning of the bolting and application of VpCI-368 waxy grease to reduce corrosion.

Hydrogen vessels will be delivered under nitrogen blanketing at 2.5 barg @ 20 °C. Manometers are installed on each vessel to monitor internal pressure and ensure preservation integrity.

A positive internal pressure must be maintained at all times. The acceptable operating range, adjusted for temperature to 20 °C, is 0.5 to 2.5 barg. If pressure drops below 0.5 barg, stop and investigate for leaks or instrumentation issues before re-pressurising.

If blanketing is lost (0 barg), do not repressurise until root-cause analysis and corrective actions are completed.

No chemicals or other preservation media are introduced in these vessels or other pressure equipment.

During preparation for sail away, all tanks and vessels supplied by Rosetti Marino have been drained. No liquids be present inside the vessels at the time of transport.

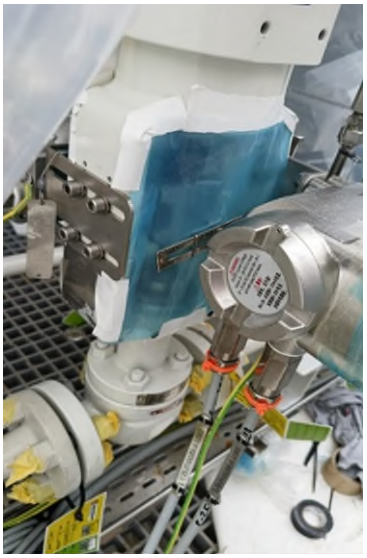
14. VALVES



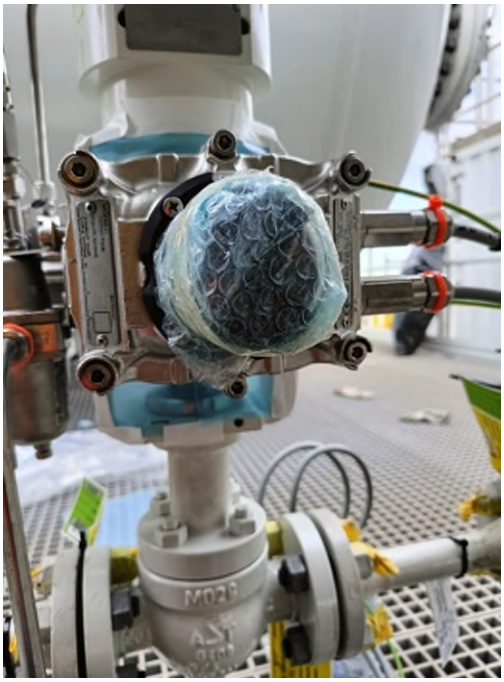


Cleaning of the valve stem and application of VpCI-369 lubricating grease.





Protection of the valve stem with VpCI-126 blue film to prevent the ingress of external agents that could compromise functionality. Refer to the attached DS.





Protection of sensitive parts, such as plastic or glass, using VpCI-126 anticorrosion bubble wrap. (refer to attached DS).

15. WATER TREATMENT PACKAGE





VpCI-137 has been applied inside the electrical panel, according to its volume. (refer to attached DS)



In the pumps, VpCI-130 sponges have been applied to the grille, after which an envelope will be formed with VpCI-126 to enhance the action of the vapour emitter.

Prior to transport and sea-fastening operations, the Water Treatment Package has been completely drained.

The SWRO membranes currently installed are not intended for reuse and will be replaced in the Netherlands before the system is reactivated.

Considering that the topside will remain inactive during the onshore storage period, and provided that the package remains properly closed and protected against environmental exposure, no additional preservation measures are deemed necessary for internal piping and components at this stage.

16. TRANSFORMERS



For the transformers, the sensitive glass parts (electrical panel and pressure gauge) will be protected with VpCI-126 anticorrosion bubble wrap. VpCI-130 sponges will be placed inside the electrical panel (quantity based on the volume). The three oil-insulated power transformers have not been drained of their insulating oil.

17. CRANE





Cleaning of the bolting and rack, and application of VpCI-368 on the bolting, while VpCI-369 is applied to the rack.



VpCI-137 sponge will be placed inside the electrical panel, based on its internal volume. (refer to attached DS)

18. PIPING LINE





For all piping lines, a preservation system has been implemented on the bolting, which consists of cleaning and applying VpCI-368 waxy grease. (refer to attached DS).

19. HYOSUNG GAS INSULATED SWITCHGEAR (GIS)

The 66 kV GIS switchgear supplied by Hyosung does not require any additional or specific preservation activities after installation.

The vendor documentation (Installation, Operation, and Maintenance Manual) only prescribes requirements related to transport, storage, and installation.

Once installed on site, the GIS does not require preservation beyond maintaining the normal environmental conditions specified by the vendor.

Accordingly, for the onshore storage period (up to 6 months in Eemshaven), no dedicated preservation measures apply to the GIS.

Please note that the three internal compartments of the GIS remain pressurised with inert gas (dry air) at 5.5 barg. The corresponding pressure gauges remain in service.

20. PRESERVATION FOR COMPANY PROVIDED ITEMS (CPI)

Preservation activities for Company-Provided Items (CPI), including Fuel Cells, Electrolysers, Battery Energy Storage Systems (BESS), and associated equipment, shall strictly follow the preservation and operational readiness procedures issued by their respective vendors. These vendor-specific procedures are to be considered as the primary reference for all preservation activities concerning CPI.

The following vendor procedures have been established and must be implemented accordingly:

FREQCON BESS and PCS systems:

"23A2007_241110_FREQCON_BESS_Long_Term_Storage_Strategy_v3.0"

Ballard Fuel Cell Modules:

"BALLARD_R04 Preservation and Ready for Sail Away Rev.002"

Elogen Electrolyser Package:

"C63-TRA-001 Drainage and Sealing of the Process Loops"

"C63-ELO-PRO-CO-0007 Seafastening and Preservation"

Some CPI systems (e.g., FREQCON BESS) may require energisation during the onshore preservation phase (only after 12 months of storage) to enable internal climate control, battery monitoring, and balancing. This shall only be carried out if explicitly required by the vendor procedures.

The electrolyser loops have been blanketed with nitrogen at a pressure of 0.5 barg.

A pressure drop exceeding 10% of the set value is unacceptable. In such cases, a thorough investigation shall be conducted to identify and address the root cause before any restoration actions are taken.

Important Note: For Rosetti Marino supplied packages, no energisation is foreseen during the preservation phase in the Netherlands. All systems are to be preserved using passive means only (e.g., nitrogen blanketing, desiccants, VPCI materials).

However, if any CPI requires energisation, this implies the need to implement a limited energisation of the entire topside to support such equipment. In this case, a dedicated addendum to the present procedure shall be issued. This addendum will detail the operational and safety conditions, access control, and monitoring requirements related to partial energisation.

SUMMARY TABLE

CPI	Vendor	Reference Procedure	Preservation Description	Energization Required	Notes
BESS (Battery System)	Freqcon	23A2007_241110_FREQCON_BESS_Long_Term_Storage_Strategy_v3.0	Initial SoC 50% Charge/discharge every 6 months Storage temp: 0–35°C Humidity <90%	✅ Yes, if >12 months or 400V AC available	With power: climatization, monitoring, battery balancing
Fuel Cell Modules	Ballard	BALLARD_R04 Preservation and Ready for Sail Away Rev.002	Mechanical fixation Sealing and protection No power required	❌ No	Physical/mechanical protection only
Electrolyser Package	Elogen	C63-TRA-001 C63-ELO-PRO-CO-0007	N_2 purging and draining Stacks filled with ultrapure water and sealed Pressurized at 3 barg	❌ No	Includes temporary flanges and air removal precautions
Water Treatment Package	OVIVO	SWL0000767 Preservation Procedure	Drained completely Membranes removed	❌ No	Storable up to 6 months
Rectifier / Transformer	Nidec	C63-NID-ELO-REP00 / REP01 C63-ELO-PRO-CO-0007	Temporary mechanical fixings No draining required	❌ No	Mechanical transport protection only
HVAC System	Paumier	C63-ELO-PRO-CO-0007	Valves closed R513a not drained (prohibited) Desiccants in shelters	❌ No	Inclination limits for compressors during transport

21. PRESERVATION CHECK LIST.

During the preparation for sail-away, preservation checklists, as outlined in procedure 123A90-PML-QHSE-PRO-00127, were used. Those checklists are no longer considered valid for the onshore phase in the Netherlands.

For the current scope, preservation activities will be managed and verified using the new checklist attached to this procedure (Annex 1). This updated checklist consolidates and replaces the previous ones, serving as a reference tool to ensure the proper tracking and implementation of preservation activities during the onshore storage period.

22. ANNEX 1: CHECK LIST

BLPH Walkdown Checklist
Removal of Transport Protections & Verification of Preservation

Check list nr_____ Date _____

General Information

Item Description	☐Technical Room B100 ☐Technical Room B200 ☐Technical Room B300 ☐Technical Room B400 ☐Electrolyzer ☐Fuel Cell ☐BESS ☐Water treatment package ☐Lower Deck ☐Upper Deck (included access platform) ☐_____
Reference	
Walkdown Date	
Participants ()	☐Rosetti ☐Client ☐_____
Final Outcome	☐ Completed ☐ Preservation up to 6 months in place and effective
The package key was handed over to Crosswind (refer to the Keys register)	☐ Confirmed
Notes	

BLPH Walkdown Checklist
Removal of Transport Protections & Verification of Preservation

1. Sea Fastening Removal

#	Item	Check Y/N/NA	Comments / Actions Required
1.1	Remove wooden bracings/supports from battery racks		
1.2	Remove wooden supports from transformers		
1.3	Remove wooden supports from electrical panels (WTP, HVAC, UPS, etc.)		
1.4	Remove cargo straps from piping		
1.5	Remove cargo straps from valves and actuators		
1.6	Remove ropes/straps from lights, speakers, cameras, and detectors		
1.7	Remove ropes securing fire extinguishers, gates, and manhole walkways		
1.8	Remove clamps/blocks on PCS transformers and cabinets (Freqcon)		
1.9	Remove Ballard fuel cell transport brackets (if installed)		
1.10	All waste wood, straps, ropes have been collected and removed from BLPH		

Notes

BLPH Walkdown Checklist
Removal of Transport Protections & Verification of Preservation

2. Preservation Integrity – Electrical & Instrumentation

#	Item	Check Y/N/NA	Comments / Actions Required
2.1	Confirm VPCI bags are present in panels		*Check only if the panel shows damage or preservation appears compromised – do not open otherwise.*
2.2	Verify desiccants inside CPI (Ballard, Elogen, Freqcon) are intact		*Check only if the panel shows damage or preservation appears compromised – do not open otherwise.*
2.3	Inspect preservation film or tape for damage		
2-4	Confirm cable entries and spare penetrations remain sealed		
2.5	No moisture/condensation or mould visible outside preserved panels (between casing and plastic)		
2.6	Electrical items' preservation is in place. To be verified that the preservation applied for sail-away, in accordance with the preservation procedure or Vendor requirements, remains valid for the six-month period.		*To identify which items have been checked, refer to the attached item list. See point 4.6.*
2.7	Instrumentation items' preservation is in place. To be verified that the preservation applied for sail-away, in accordance with the preservation procedure or Vendor requirements, remains valid for the six-month period.		*To identify which items have been checked, refer to the attached item list. See point 4.6.*
2.8	With reference to TR B200, confirm positive energisation of main switchboard SG-200N1 and distribution panel DP-200N1.		☐Technical Room B200
2.9	With reference to external areas, normal and emergency lighting circuits confirm correct working operation of all light fittings and automatic nighttime switch-on.		☐Lower Deck ☐Upper Deck (included access platform)

Notes

BLPH Walkdown Checklist
Removal of Transport Protections & Verification of Preservation

3. Preservation Integrity – Mechanical & General

#	Item	Check Y/N/NA	Comments / Actions Required
3.1	Inspect protective wraps/films on transformers & gauges		
3.2	Inspect protective wraps on valves and mechanical equipment		
3.2	Verify nitrogen blanketing on electrolyser loops (approx. 0.5 barg)		*The key requirement is to keep the system under positive pressure. For the acceptance criteria regarding dropping, please refer to the preservation procedure.*
3.3	Confirm that stacks filled with ultrapure water remain sealed with counter flanges		*Visual inspection only*
3.4	Inspect preservation of WTP: Emptied and membranes removed		
3.5	Confirm that the desiccants and VPCI emitters inside the rooms are valid.		
3.6	Confirm valve insulation cushions are still in place and undamaged		
3.7	Verify vessels remain under nitrogen blanketing		*The key requirement is to keep the system under positive pressure. For the acceptance criteria regarding dropping, please refer to the preservation procedure.*
3.8	Valves' preservation is in place. To verify that the preservation applied for sail-away, in accordance with the preservation procedure, or Vendor requirements, is valid for the six-month period.		*Notes: To identify which items have been checked, refer to the attached item list. See point 4.6.*
3.9	Pump preservation is in place. To verify that the preservation applied for sail-away, in accordance with the preservation procedure, or Vendor requirements, is valid for the six-month period.		*Notes: To identify which items have been checked, refer to the attached item list. See point 4.6.*

Notes

BLPH Walkdown Checklist
Removal of Transport Protections & Verification of Preservation

4. Final Walkdown Confirmation

#	Item	Check Y/N/NA	Comments / Actions Required
4.1	All temporary protections removed		
4.2	No transport-related damage found on equipment and structures		
4.3	All preservation measures remain valid for 6 months of storage		
4.4	Walkways/access areas clear, no loose items left		
4.5	Joint inspection completed with the Client witness		
4.6	List of controlled items attached		
4.7	P&ID & or SLD attached		
4.8	Verify the integrity and validity of LOTO / LO-LC measures.		*For LOTO: Confirm that locks, tags, registers, and keys are in place and effective (only applicable to LV switchboards SG-200N1, DP-200N1, external lighting, and auxiliary LV power for BESS, once energisation is implemented onshore).* *For LO-LC: confirm that valves and breakers identified in the LO-LC list remain in the correct locked position (open/closed), with locks and tags intact.* *LOTO/LO-LC shall be updated on site to reflect any changes carried out during preservation before handover.*

Notes

5. Signatures

Rosetti Marino Representative	CrossWind Representative
Name / Signature / Date	Name / Signature / Date

23. ANNEX 2: TAG LIST

CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

ROSETTI MARINO

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
82	82-40	Power Transformer 1.6 MVA (TR-200DE1)	TR-200DE1	6,6 / 0,42 kV 1,6 MVA Transformer	E	TRANSFO-LV	LD	Yes	01/08/2025	CLOSED				Yes	19/07/2025	CLOSED				
82	82-50	Solar PV Package Power Transformer 0.5 MVA (TR-200ED1)	TR-200ED1	6,6 / 0,8 kV 0,5 MVA Transformer	E	TRANSFO-LV	LD	Yes	01/08/2025	CLOSED				Yes	19/07/2025	CLOSED				
81	81-20	Power Transformer 7 MVA (TR-100AD1)	TR-100AD1	66 / 6.9 kV 7 MVA Transformer	E	TRANSFO-HV	LD	Yes	01/08/2025	CLOSED				Yes	19/07/2025	CLOSED				
86	86-20	Fibre Optic Links	CP-100E1/B400-NET-001.01	66 kV GIS Local Control Panel / Network Cabinet / EMCS System	T	OFC-TEL	LD_B-100/LD_B-400	Yes	29/07/2025	CLOSED				No	01/08/2025	CLOSED				
86	86-20	Fibre Optic Links	CP-100E1/B400-NET-001.02	66 kV GIS Local Control Panel / Network Cabinet / EMCS System	T	OFC-TEL	LD_B-100/LD_B-400	Yes	29/07/2025	CLOSED				No	29/07/2025	CLOSED				
81	81-10	GIS 66 kV (HNA6-AFA70)	HNA6-AFA70	66 kV Switchgear (GIS)	E	SWBD-HV	LD_B-100	Yes	01/08/2025	CLOSED				Yes	17/07/2025	CLOSED				
70	70-00-01	#N/D	950-JE-01101	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-02	#N/D	950-JE-01102	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-04	#N/D	950-JE-02101	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-05	#N/D	950-JE-02102	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-06	#N/D	950-JE-02103	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-07	#N/D	950-JE-03101	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-08	#N/D	950-JE-03102	AI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-10	#N/D	950-JE-04101	AI JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-12	#N/D	950-JE-04201	AI JB TO FGS	I	JB-INS	LD_B-200	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
70	70-00-13	#N/D	950-JE-04204	AI JB TO FGS	I	JB-INS	LD_B-200	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
70	70-00-14	#N/D	950-JE-04205	AI JB TO FGS	I	JB-INS	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
70	70-00-15	#N/D	950-JE-04208	AI JB TO FGS	I	JB-INS	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
70	70-00-16	#N/D	950-JE-05101	AI JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-18	#N/D	950-JE-06101	AI JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-20	#N/D	950-JE-06201	AI JB TO FGS	I	JB-INS	LD_B-100	Yes	23/07/2025	CLOSED				Yes	17/07/2025	CLOSED				
70	70-00-21	#N/D	950-JE-06204	AI JB TO FGS	I	JB-INS	LD_B-100	Yes	23/07/2025	CLOSED				Yes	17/07/2025	CLOSED				
87	87-10-01	#N/D	00-JE-11001	AI/AO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-02	#N/D	00-JE-11002	AI/AO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-03	#N/D	00-JE-11003	AI/AO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-04	#N/D	00-JE-11004	AI/AO JB TO PCS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-05	#N/D	00-JE-11005	AI/AO JB TO PCS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-01	#N/D	00-JE-21001	AI/AO JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-02	#N/D	00-JE-21002	AI/AO JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PG-031	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PG-035	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PG-032	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PG-037	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PG-033	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PG-040	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PG-034	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PG-043	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PG-038	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PG-046	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PG-036	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PG-049	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG-055A	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG-055B	Air Set Pressure Gauge Filter	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG-023	Air Set Pressure Gauge Filter - Hyrogen from Vessels Outlet Header Shut-Down	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG-022	Air Set Pressure Gauge Filter - Hyrogen from Vessels Outlet Header Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	80-PG -001	Air Set Pressure Gauge Filter - Hyrogen Storage to A-80000 Package Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG-001	Air Set Pressure Gauge Filter - Hyrogen to Vessels Inlet Header Shut-Down	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -024	Air Set Pressure Gauge Filter - Hyrogen to Vessels Inlet Header Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
64	64-10	Nitrogen Distribution Network	64-PG-001	Air Set Pressure Gauge Filter - Nitrogen to Distribution Header Shut-Down	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -004	Air Set Pressure Gauge Filter - Vessel V-25001A Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -006	Air Set Pressure Gauge Filter - Vessel V-25001A Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PG-005	Air Set Pressure Gauge Filter - Vessel V-25001A Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -008	Air Set Pressure Gauge Filter - Vessel V-25001B Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -009	Air Set Pressure Gauge Filter - Vessel V-25001B Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PG-007	Air Set Pressure Gauge Filter - Vessel V-25001B Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -011	Air Set Pressure Gauge Filter - Vessel V-25001C Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -012	Air Set Pressure Gauge Filter - Vessel V-25001C Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PG-010	Air Set Pressure Gauge Filter - Vessel V-25001C Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -014	Air Set Pressure Gauge Filter - Vessel V-25001D Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -015	Air Set Pressure Gauge Filter - Vessel V-25001D Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PG-013	Air Set Pressure Gauge Filter - Vessel V-25001D Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -017	Air Set Pressure Gauge Filter - Vessel V-25001E Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -018	Air Set Pressure Gauge Filter - Vessel V-25001E Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PG-016	Air Set Pressure Gauge Filter - Vessel V-25001E Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PG -020	Air Set Pressure Gauge Filter - Vessel V-25001F Hydrogen Inlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PG -021	Air Set Pressure Gauge Filter - Vessel V-25001F Hydrogen Outlet	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PG-019	Air Set Pressure Gauge Filter - Vessel V-25001F Hydrogen Vent System	I	GAUGE-PRES	UD	No		N / A				Yes	D.Cavirani	CLOSED				
85	85-00	BESS Package (A-85000)	A6/+02-QF1	AUX BESS LV1 CABINET - A6/+02-QF1	E	FT-MISC-ELE		No		N / A				Yes	29/07/2025	CLOSED				
85	85-00	BESS Package (A-85000)	A6/+03-QF1	AUX BESS LV2 CABINET - A6/+03-QF1	E	FT-MISC-ELE		No		N / A				Yes	29/07/2025	CLOSED				
85	85-00	BESS Package (A-85000)	A4/+04-QF1	AUX BESS PCS CABINET - A4/+04-QF1	E	FT-MISC-ELE		No		N / A				Yes	29/07/2025	CLOSED				
84	84-00	DC 10 kVA UPS System (UP-200F1)	BA-200F1	Battery Bank for DC UPS 10 kVA	E	BATTERY	LD_B-100	Yes		CLOSED				Yes	29/07/2025	CLOSED				
72	72-00	NAVAID	BA-200F2	Battery Bank for NAVAID	E	BATTERY	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
84	84-20	AC 15 kVA UPS System (UP-200F4)	BA-200F4A	Battery Rack GEL VRLA-20Y for AC UPS 15 kVA	E	BATTERY	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
84	84-20	AC 15 kVA UPS System (UP-200F4)	BA-200F4B	Battery Rack GEL VRLA-20Y for AC UPS 15 kVA	E	BATTERY	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
84	84-10	AC 35 kVA UPS System (UP-200F3)	BA-200F3A	Battery Rack GEL VRLA-7Y for AC UPS 35 kVA	E	BATTERY	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
84	84-10	AC 35 kVA UPS System (UP-200F3)	BA-200F3B	Battery Rack GEL VRLA-7Y for AC UPS 35 kVA	E	BATTERY	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
85	85-00	BESS Package (A-85000)	A-85000	BESS	M	PACKAGE	LD	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
85	85-00	BESS Package (A-85000)	85001-CEC	BESS / 6.6KV HV Switchgear	E	CABLE-ELE-LV-MUL	LD/LD_B-100	Yes	29/07/2025	CLOSED				No		N / A				
87	87-50	OER & CCR ONSHORE	HKN-WPO1-BLPH-NET-01	CCR onshore network cabinet	I	CAB-PAN-INDOOR		Yes	29/07/2025	CLOSED				No		N / A				
87	87-50	OER & CCR ONSHORE	HKN-WPO1-BLPH-SRV-01	CCR onshore server cabinet	I	CAB-PAN-INDOOR		Yes	29/07/2025	CLOSED				No		N / A				
20	20-00	Electrolyser Package (A-20000)	20-UCP-001/B400-NET-001.01	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RI45	UD/LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
20	20-00	Electrolyser Package (A-20000)	20-UCP-001/B400-NET-001.02	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RI45	UD/LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
50	50-10	Water Desalination Package & Distribution	50-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RI45	LD/LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
63	63-00	Instrument Air Package (A-63000)	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	UD/LD_B-400	No		N / A				Yes	29/07/2025	CLOSED				
64	64-00	Nitrogen Generator Package (U-64000)	64-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD/LD_B-400	No		N / A				Yes	29/07/2025	CLOSED				
77	77-10	HVAC HV/MV Switchgear Room B-100	B100-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD_B-100/LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
77	77-20	HVAC LV Switchgear Room B-200	B200-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD_B-200/LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
77	77-30	HVAC UPS Equipment Room B-300	B300-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD_B-300/LD_B-400	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
80	80-00	Hydrogen Fuel Cell Package (A-80000)	80-UCP-001/B400-NET-001.01	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	UD/LD_B-400	Yes		CLOSED				No	29/07/2025	N / A				
80	80-00	Hydrogen Fuel Cell Package (A-80000)	80-UCP-001/B400-NET-001.02	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	UD/LD_B-400	Yes		CLOSED				No	29/07/2025	N / A				
85	85-00	BESS Package (A-85000)	P320PLC/B400-NET-001.01	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD/LD_B-400	Yes		CLOSED				No	29/07/2025	N / A				
85	85-00	BESS Package (A-85000)	P320PLC/B400-NET-001.02	COMMUNICATION / NETWORK CABINET	T	CABLE-TEL-RJ45	LD/LD_B-400	Yes		CLOSED				No	29/07/2025	N / A				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PV-055A	Control Valve - Hyrogen from Vessels Outlet Header Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PV-055B	Control Valve - Hyrogen from Vessels Outlet Header Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
64	64-10	Nitrogen Distribution Network	64-PV-031A	Control Valve - Nitrogen Pressure Control to Distribution Header	I	VALVE-CTR-PNEU-HYD	LD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
64	64-10	Nitrogen Distribution Network	64-PV-031B	Control Valve - Nitrogen Pressure Control to Distribution Header	I	VALVE-CTR-PNEU-HYD	LD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-FV-031	Control Valve - Nitrogen to V-25001A Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-FV-032	Control Valve - Nitrogen to V-25001B Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-FV-033	Control Valve - Nitrogen to V-25001C Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-FV-034	Control Valve - Nitrogen to V-25001D Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-FV-038	Control Valve - Nitrogen to V-25001E Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-FV-036	Control Valve - Nitrogen to V-25001F Vessel	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PV-035	Control Valve - Vessel V-25001A Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PV-037	Control Valve - Vessel V-25001B Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PV-040	Control Valve - Vessel V-25001C Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PV-043	Control Valve - Vessel V-25001D Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PV-046	Control Valve - Vessel V-25001E Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PV-049	Control Valve - Vessel V-25001F Pressure Control	I	VALVE-CTR-PNEU-HYD	UD	Yes	17/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
99	99-00	Crane	JB-200E3	Davit crane JB	E	JB-ELE	UD	Yes	15/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-03	#N/D	950-JE-01103	DI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-09	#N/D	950-JE-03103	DI JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-11	#N/D	950-JE-04102	DI JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-17	#N/D	950-JE-05102	DI JB TO FGS	I	JB-INS	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-19	#N/D	950-JE-06102	DI JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-06	#N/D	00-JE-12001	DI JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-07	#N/D	00-JE-12002	DI JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-08	#N/D	00-JE-12003	DI JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-09	#N/D	00-JE-12004	DI JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-10	#N/D	00-JE-12005	DI JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-11	#N/D	00-JE-12006	DI JB TO PCS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-03	#N/D	00-JE-22001	DI JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-04	#N/D	00-JE-22002	DI JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
77	77-30	HVAC UPS Equipment Room B-300	B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	E	DIST-SWBD	LD_B-300	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
77	77-40	HVAC I&T Equipment Room B-400	B400-HSB-001/B400-NET-001	Distribution & HVAC Panel/Network Cabinet	T	CABLE-TEL-RJ45	LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
70	70-00-22	#N/D	950-JE-01104	DO JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-23	#N/D	950-JE-02104	DO JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-24	#N/D	950-JE-03104	DO JB TO FGS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-25	#N/D	950-JE-04103	DO JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-26	#N/D	950-JE-04203	DO JB TO FGS	I	JB-INS	LD_B-200	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-27	#N/D	950-JE-04207	DO JB TO FGS	I	JB-INS	LD_B-300	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-28	#N/D	950-JE-05103	DO JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-29	#N/D	950-JE-06103	DO JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-30	#N/D	950-JE-06203	DO JB TO FGS	I	JB-INS	LD_B-100	Yes	21/07/2025	CLOSED				Yes	17/07/2025	CLOSED				
70	70-00-31	#N/D	950-JE-07101	DO JB TO FGS	I	JB-INS	TP	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
70	70-00-32	#N/D	950-JE-05104	DO JB TO FGS	I	JB-INS	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-12	#N/D	00-JE-13001	DO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-13	#N/D	00-JE-13002	DO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
87	87-10-14	#N/D	00-JE-13003	DO JB TO PCS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-05	#N/D	00-JE-23001	DO JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
79	79-00-06	#N/D	00-JE-23002	DO JB TO SIS	I	JB-INS	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	PM-50001A	Electric Motor for sea water pump	E	MOT-LV	LD	No		N / A				Yes	20/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	PM-50001B	Electric Motor for sea water pump	E	MOT-LV	LD	No		N / A				Yes	20/07/2025	CLOSED				
20	20-00	Electrolyser Package (A-20000)	A-20000	Electrolyser Auxiliary Load	M	PACKAGE	UD	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
87	87-00	Power Distribution System (EMCS)	B400-EMCS-001	EMCS Cabinet	I	CAB-PAN-INDOOR	LD_B-400	Yes	23/07/2025	CLOSED				No	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-23	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-01	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-02	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-03	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-04	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-05	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-06	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-07	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-08	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-09	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-10	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-11	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-12	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-13	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-14	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-15	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-16	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-17	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-18	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-19	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-20	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-21	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-22	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-01	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-02	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-03	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-04	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-05	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-06	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-07	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-08	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-09	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-12	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-13	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-14	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				

CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

ROSETTI MARINO

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-15	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-10	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-11	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-16	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-17	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-18	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-19	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-20	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-21	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-22	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-23	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-01	EMERGENCY LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-02	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-03	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-06	EMERGENCY LIGHT	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-05	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-04	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-08	EMERGENCY LIGHT	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-07	EMERGENCY LIGHT	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				No	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-09-L2-24	EMERGENCY LIGHT	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-09-L2-25	EMERGENCY LIGHT	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-23	EMERGENCY LIGHT	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	DP-200N1-Q9	EMERGENCY LIGHT LOWER DECKSPAREDP-200N1-Q9	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	DP-200N1-Q10	EMERGENCY LIGHT STAIRSSPAREDP-200N1-Q10	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	DP-200N1-Q8	EMERGENCY LIGHT UPPER DECKSPAREDP-200N1-Q8	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-24	Emergency Lighting Fixture	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	ELF-200N1-08-L1-25	Emergency Lighting Fixture	E	LIGHT-FIXTURE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-26	Emergency Lighting Fixture	E	LIGHT-FIXTURE	LD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	ELF-200N1-09-L2-27	Emergency Lighting Fixture	E	LIGHT-FIXTURE	LD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-11	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-12	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-09	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-10	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-13	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	ELF-200N1-10-L3-14	Emergency Lighting Fixture	E	LIGHT-FIXTURE	TP	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
70	70-00	F&G Control System	B400-FGS-002	FGS Marshalling Cabinet 1	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
70	70-00	F&G Control System	B400-FGS-003	FGS Marshalling Cabinet 2	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
70	70-00	F&G Control System	B400-FGS-001	FGS System Cabinet	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
64	64-10	Nitrogen Distribution Network	64-FG-001	Flow Gauge - Nitrogen to Hydrogen Vent Header	I	GAUGE-FLW	LD	No		N / A				Yes	21/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	43-FT-001	Flow Transmitter - Hydrogen form KO DRUM V-43001 to vent stack Q-43004	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-FT-031	Flow Transmitter - Nitrogen to V-25001A Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-FT-032	Flow Transmitter - Nitrogen to V-25001B Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-FT-033	Flow Transmitter - Nitrogen to V-25001C Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-FT-034	Flow Transmitter - Nitrogen to V-25001D Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-FT-038	Flow Transmitter - Nitrogen to V-25001E Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-FT-036	Flow Transmitter - Nitrogen to V-25001F Vessel	I	TRANS-FLW	UD	No		N / A				Yes	21/07/2025	CLOSED				
80	80-00	Hydrogen Fuel Cell Package (A-80000)	A-80000	Fuel Cell	M	PACKAGE	UD	Yes	17/07/2025	CLOSED				??		N / A				
83	83-65	Electrical Heat Tracing	ETB-200N1-17-L1-01	HEAT TRACING - INSTRUMENT - 43-LT-003 Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-17-L1-04	HEAT TRACING - PROCESS LINE (WW 259, V-43001, LT-001) Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-17-L1-03	HEAT TRACING - PROCESS LINES - (WW-202) Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-17-L1-02	HEAT TRACING - PROCESS LINES - 4 (WW LINES) Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-14-L1-01	HEAT TRACING - PROCESS LINES - FEEDER 1 (Pipe Line)	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	EJB-200N1-14-L1-01	HEAT TRACING - PROCESS LINES - FEEDER 1 (SWS LINES) Cold JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	EJB-200N1-15-L2-01	HEAT TRACING - PROCESS LINES - FEEDER 2 (CI LINES) Cold JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-15-L2-01	HEAT TRACING - PROCESS LINES - FEEDER 2 (CI LINES) Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-16-L3-01	HEAT TRACING - PROCESS LINES - FEEDER 3 (DM-001)	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-19-L3-01	HEAT TRACING - PROCESS LINES - FEEDER 6 (H2 VENT)	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-20-L1-01A	HEAT TRACING - PROCESS LINES - FEEDER 7 (SEA WATER PUMPS)	E	JB-ELE	LD	No	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-20-L1-01B	HEAT TRACING - PROCESS LINES - FEEDER 7 (SEA WATER PUMPS)	E	JB-ELE	LD	No	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	EJB-200N1-20-L1-01	HEAT TRACING - PROCESS LINES - FEEDER 7 (SEA WATER PUMPS) Cold JB	E	JB-ELE	LD	No	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	EJB-200N1-17-L1-01	HEAT TRACING - PROCESS LINES (WW LINES & LT) Cold JB	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	Q-43004	Hydrogen Vent	M	PACKAGE	UD	Yes	29/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
77	77-40	HVAC I&T Equipment Room B-400	B-400	I&T Equipment Room B-400	M	PACKAGE	LD_B-400	Yes	29/07/2025	CLOSED				Yes	01/08/2025	CLOSED				
83	83-60	Cathodic Protection	EAJ-200-02	ICCP Junction Box	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				Yes	31/05/2025	CLOSED				
83	83-60	Cathodic Protection	EAJ-200-01	ICCP Junction Box	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				Yes	31/05/2025	CLOSED				
63	63-00	Instrument Air Package (A-63000)	A-63000	Instrument Air Package	M	PACKAGE	UD	Yes	23/07/2025	CLOSED				Yes	23/07/2025	CLOSED				
72	72-00	NAVAID	EJB-200F2-02	Intermediate obstruction lights junction box	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	22/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-05	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-06	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-08	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-07	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-09	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-10	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-11	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-12	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-14	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-15	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-16	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-17	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-18	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-19	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-20	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-03	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-04	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				

CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

ROSETTI MARINO

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-05	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-06	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-07	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-08	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-09	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-10	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-11	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-12	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-13	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-14	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-15	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-16	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-02	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-04	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-06	JB - EMERGENCY LIGHTING	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-09-L2-17	JB - EMERGENCY LIGHTING	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-02	JB - EMERGENCY LIGHTING	E	JB-ELE	LD	Yes	31/05/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-03	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-04	JB - EMERGENCY LIGHTING	E	JB-ELE	UD	Yes	16/07/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-05	JB - EMERGENCY LIGHTING	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-07	JB - EMERGENCY LIGHTING	E	JB-ELE	TP	Yes	31/05/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-05	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-06	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-07	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-08	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-10	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-11	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-09	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-12	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-13	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-14	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-15	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-16	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-17	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-18	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-19	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-02	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-03	JB - NORMAL LIGHTING	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-05	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-06	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-07	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-08	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-09	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-10	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-11	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-12	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-13	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-14	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-02	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-03	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-04	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-42	Normal Lighting Stairs/Transition Piece	EJB-200N1-04-L3-02	JB - NORMAL LIGHTING	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-36	Emergency Lighting Lower Deck	EJB-200N1-09-L2-01	JB Emergency Lighting Lower Deck - Circuit No. 1	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-37	Emergency Lighting Stairs/Transition Piece	EJB-200N1-10-L3-01	JB Emergency Lighting stairs	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				No	19/07/2025	CLOSED				
83	83-35	Emergency Lighting Upper Deck	EJB-200N1-08-L1-01	JB Emergency Lighting Upper Deck - Circuit No. 1	E	JB-ELE	UD	Yes	22/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
50	50-10	Water Desalination Package & Distribution	JB-500E8	JB Water treatment package 1	E	JB-ELE	UD	No		N / A				Yes	19/07/2025	CLOSED				
50	50-10	Water Desalination Package & Distribution	JB-500F8	JB Water treatment package 2	E	JB-ELE	UD	No		N / A				Yes	19/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	43-LT-003	Level DP Transmitter - H2 Vent Q-43004 Low Level	I	TRANS-LVL-DP	UD	No		N / A				Yes	23/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	43-LT-001	Level DP Transmitter - KO Drum V-43001 High/Low Level	I	TRANS-LVL-DP	UD	No		N / A				Yes	23/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	C-43-LT-003/00-JE-11002	LEVEL TRANSMITTER / MARSHALLING PCS	I	CABLE-INS-MUL	UD	No		N / A				Yes	29/07/2025	CLOSED				
55	55-00	Waste Water Disposal	C-55-LIT-001/00-JE-11005	LEVEL TRANSMITTER / MARSHALLING PCS	I	CABLE-INS-MUL	LD/LD_B-100_Ext	Yes	29/07/2025	CLOSED				No		N / A				
99	99-00	Crane	X-99001	Lifting Davit	M	PACKAGE	UD	Yes	22/07/2025	CLOSED				Yes		N / A				
83	83-00		400 V Switchboard & Connection Box (SG-200N1)	SG-200N1	LV 0,4 kV MCC Switchgear	E	SWBD-LV	LD_B-200	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-10	400 V Switchboard Solar (SG-200D2)	SG-200D2	LV 0,4 kV MCC Switchgear (Solar)	E	SWBD-LV	LD_B-200	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
82	82-00	MV 6.6 kV Switchboard (SG-100D1)	SG-100D1	MV 6,6kV Switchgear	E	SWBD-HV	LD_B-100	Yes	01/08/2025	CLOSED				Yes		N / A				
86	86-00	Data Networks	B400-NET-001	Network Cabinet	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				No		N / A				
81	81-20	Power Transformer 7 MVA (TR-100AD1)	RR-100D1	Neutral Earthing Resistor	E	EARTH-RES	LD	Yes	29/07/2025	CLOSED				No		N / A				
64	64-00	Nitrogen Generator Package (U-64000)	A-64000	Nitrogen Package	M	PACKAGE	LD	Yes	29/07/2025	CLOSED				Yes		N / A				
64	64-00	Nitrogen Generator Package (U-64000)	V-64001	Nitrogen Receiver Vessel	M	VESSEL_M	LD	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-01	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-02	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-10	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-09	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-08	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-07	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-06	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-05	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-11	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-12	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-13	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-16	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-17	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-18	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-19	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-20	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-21	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-22	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-04	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-24	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-25	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	ELF-200N1-02-L1-03	NORMAL LIGHT	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-01	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-02	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-03	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-04	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-05	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-06	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-07	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-08	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-09	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-10	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-11	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-12	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-13	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-14	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-15	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	ELF-200N1-03-L2-16	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-42	Normal Lighting Stairs/Transition Piece	ELF-200N1-04-L3-02	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				

CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

ROSETTI MARINO

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
83	83-42	Normal Lighting Stairs/Transition Piece	ELF-200N1-04-L3-01	NORMAL LIGHT	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	DP-200N1-Q3	NORMAL LIGHT LOWER DECKSPAREDP-200N1-Q3	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-42	Normal Lighting Stairs/Transition Piece	DP-200N1-Q4	NORMAL LIGHT STAIRSSPAREDP-200N1-Q4	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	DP-200N1-Q2	NORMAL LIGHT UPPER DECKSPAREDP-200N1-Q2	E	FT-LIGHT		Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-02	Normal Lighting Fixture / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-06	Normal Lighting Fixture / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-07	Normal Lighting Fixture / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-10	Normal Lighting Fixture / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-20	Normal Lighting JB	E	JB-ELE	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-01	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-03	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-04	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-05	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-08	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-09	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-12	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-11	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-13	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-16	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-17	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-18	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-19	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-20	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-21	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-22	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-23	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-24	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-ELF-200N1-02-L1-25	Normal Lighting JB / Normal Lighting Fixture	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-02	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-05	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-06	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-07	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-03	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-08	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-09	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-10	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-11	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-12	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-13	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-14	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-15	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-16	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-17	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-18	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-19	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	P-EJB-200N1-02-L1-20	Normal Lighting JB / Normal Lighting JB	E	CABLE-ELE-LV	UD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-41	Normal Lighting Lower Deck	EJB-200N1-03-L2-01	Normal Lighting Lower Deck - Circuit No. 1	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	20/07/2025	CLOSED				
83	83-42	Normal Lighting Stairs/Transition Piece	EJB-200N1-04-L3-01	Normal Lighting stairs	E	JB-ELE	LD	Yes	16/07/2025	CLOSED				Yes	16/07/2025	CLOSED				
83	83-40	Normal Lighting Upper Deck	EJB-200N1-02-L1-01	Normal Lighting Upper Deck - Circuit No. 1	E	JB-ELE	UD	Yes		N / A				Yes	20/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-SDV-023	On/Off Valve - Hyrogen from Vessels Outlet Header Shut-Down	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	20/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-SDV-001	On/Off Valve - Hyrogen to Vessels Inlet Header Shut-Down	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	20/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-024	On/Off Valve - Hyrogen to Vessels Inlet Header Vent System	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	20/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-XV-001	On/Off Valve - Sea Water from Pump P-50001A	I	VALVE-O/F-PNEU	LD	No		N / A				Yes	21/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-XV-003	On/Off Valve - Sea Water from Pump P-50001B	I	VALVE-O/F-PNEU	LD	No		N / A				Yes	21/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-XV-002	On/Off Valve - Sea Water Recirculation from Pump P-50001A	I	VALVE-O/F-PNEU	LD	No		N / A				Yes	21/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-XV-004	On/Off Valve - Sea Water Recirculation from Pump P-50001B	I	VALVE-O/F-PNEU	LD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-011	On/Off Valve - Vessel V-25001C Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-012	On/Off Valve - Vessel V-25001C Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-BDV-010	On/Off Valve - Vessel V-25001C Hydrogen Vent System	I	VALVE-O/F-PNEU	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-014	On/Off Valve - Vessel V-25001D Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-015	On/Off Valve - Vessel V-25001D Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-BDV-013	On/Off Valve - Vessel V-25001D Hydrogen Vent System	I	VALVE-O/F-PNEU	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-017	On/Off Valve - Vessel V-25001E Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				

CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05
PRESERVATION REGISTER
UPDATE: 22/09/2025

ROSETTI MARINO

SYSTEM CODE	Sub-system code		Item code	Item description	Discipline code	Item type code	Module code	Seafastening	Sea fastening Application date	Sea fastening status	Sea Fastening Removal Date	Sea Fastening Removal status	Check list reference	Preservation	Preservation Application date	Preservation status	Preservation check date after Load in	Preservation status	Check list reference	Remarks
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-018	On/Off Valve - Vessel V-25001E Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-BDV-016	On/Off Valve - Vessel V-25001E Hydrogen Vent System	I	VALVE-O/F-PNEU	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-020	On/Off Valve - Vessel V-25001F Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-021	On/Off Valve - Vessel V-25001F Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-BDV-019	On/Off Valve - Vessel V-25001F Hydrogen Vent System	I	VALVE-O/F-PNEU	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
55	55-01	Waste Water Brine Discharge System	50-XV-005	On-Off Actuated Ball Valve	I	VALVE-O/F-PNEU	LD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	80-XV-001	On-Off Actuated Ball Valve - Hyrogen Storage to A-80000 Package Vent System	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-004	On-Off Actuated Ball Valve - Vessel V-25001A Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-006	On-Off Actuated Ball Valve - Vessel V-25001A Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-XV-008	On-Off Actuated Ball Valve - Vessel V-25001B Hydrogen Inlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-XV-009	On-Off Actuated Ball Valve - Vessel V-25001B Hydrogen Outlet	I	VALVE-O/F-PNEU	UD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PT-055A	Pressure Transmitter - Hyrogen from Vessels Outlet Header Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	25-PT-055B	Pressure Transmitter - Hyrogen from Vessels Outlet Header Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-08	Hydrogen Storage Vessels Header (Outlet)	80-PT-002	Pressure Transmitter - Hyrogen Storage to A-80000 Package	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PT-001	Pressure Transmitter - Hyrogen to Vessels Inlet Header	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-07	Hydrogen Storage Vessels Header (Inlet)	25-PT-002	Pressure Transmitter - Hyrogen to Vessels Inlet Header Shut-Down	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
63	63-30	Instrument Air Distribution Network	63-PT-003	Pressure Transmitter - Instrument Air to Distribution Header	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
63	63-30	Instrument Air Distribution Network	63-PT-004	Pressure Transmitter - Instrument Air to Distribution Header Low Pressure	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
43	43-00	Hydrogen Vent Header & Drum System	43-PT-001	Pressure Transmitter - KO Drum V-43001 Pressure	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
64	64-10	Nitrogen Distribution Network	64-PT-031A	Pressure Transmitter - Nitrogen Pressure Control to Distribution Header	I	TRANS-PRES	LD	No	21/07/2025	CLOSED				Yes		N / A				
64	64-10	Nitrogen Distribution Network	64-PT-031B	Pressure Transmitter - Nitrogen Pressure Control to Distribution Header	I	TRANS-PRES	LD	No	21/07/2025	CLOSED				Yes		N / A				
64	64-10	Nitrogen Distribution Network	64-PT-002	Pressure Transmitter - Nitrogen to Distribution Header Low Pressure	I	TRANS-PRES	LD	No	21/07/2025	CLOSED				Yes		N / A				
50	50-00	Seawater Intake System (Lifting Pumps)	50-PT-001	Pressure Transmitter - Sea Water from Pump P-50001A	I	TRANS-PRES	LD	No		N / A				Yes	21/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-PT-002	Pressure Transmitter - Sea Water from Pump P-50001B	I	TRANS-PRES	LD	No		N / A				Yes	21/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PT-004	Pressure Transmitter - Vessel V-25001A Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-01	Hydrogen Storage Vessel A (V-25001A)	25-PT-035	Pressure Transmitter - Vessel V-25001A Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PT-006	Pressure Transmitter - Vessel V-25001B Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-02	Hydrogen Storage Vessel B (V-25001B)	25-PT-037	Pressure Transmitter - Vessel V-25001B Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PT-008	Pressure Transmitter - Vessel V-25001C Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-03	Hydrogen Storage Vessel C (V-25001C)	25-PT-040	Pressure Transmitter - Vessel V-25001C Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PT-009	Pressure Transmitter - Vessel V-25001D Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-04	Hydrogen Storage Vessel D (V-25001D)	25-PT-043	Pressure Transmitter - Vessel V-25001D Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PT-011	Pressure Transmitter - Vessel V-25001E Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-05	Hydrogen Storage Vessel E (V-25001E)	25-PT-046	Pressure Transmitter - Vessel V-25001E Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PT-012	Pressure Transmitter - Vessel V-25001F Hydrogen Vent System	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
25	25-06	Hydrogen Storage Vessel F (V-25001F)	25-PT-049	Pressure Transmitter - Vessel V-25001F Pressure Control	I	TRANS-PRES	UD	No		N / A				Yes	25/07/2025	CLOSED				
55	55-01	Waste Water Brine Discharge System	50-PT-014	Pressure Transmitter - Water Disposal Header to Caisson B-50014	I	TRANS-PRES	LD	No		N / A				Yes	21/07/2025	CLOSED				
55	55-00	Waste Water Disposal	55-LIT-001	Radar Level Transmitter - Vessel T-55001 Level	I	TRANS-LVL	LD	No	21/07/2025	CLOSED				Yes		N / A				
86	86-00	Data Networks	B400-SRV-001	Server Cabinet ITER	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
77	77-30	HVAC UPS Equipment Room B-300	B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	M	PACKAGE	LD_B-300	Yes	29/07/2025	CLOSED				Yes	01/08/2025	CLOSED				
77	77-10	HVAC HV/MV Switchgear Room B-100	B-100	Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100	M	PACKAGE	LD_B-100	Yes	29/07/2025	CLOSED				Yes	01/08/2025	CLOSED				
77	77-20	HVAC LV Switchgear Room B-200	B-200	Shelter LV (400V) Switchroom B-200	M	PACKAGE	LD_B-200	Yes	29/07/2025	CLOSED				Yes	01/08/2025	CLOSED				
79	79-00	Emergency Shutdown Systems (SIS)	B400-SIS-001	SIS -Controller and I/O Cabinet	I	CAB-PAN-INDOOR	LD_B-400	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-55	Power Sockets	ESO-200N1-06-L2-02	SMALL POWER SOCKET	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-55	Power Sockets	ESO-200N1-06-L2-03	Small Power Socket (Below lower Deck)	E	LIGHT-FIXTURE	TP	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-55	Power Sockets	ESO-200N1-06-L2-01	Small Power Socket (Lower Deck)	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-55	Power Sockets	ESO-200N1-05-L1-01	Small Power Socket (Upper Deck)	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-55	Power Sockets	ESO-200N1-05-L1-02	Small Power Socket (Upper Deck)	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-10	400 V Switchboard Solar (SG-200D2)	JB-200E1	Solar PV Power Cable JB	E	JB-ELE	TP	Yes		N / A				Yes	19/07/2025	CLOSED				
50	50-00	Seawater Intake System (Lifting Pumps)	50-TT-001	Temperature Transmitter - Sea Water from Lift Pump P-50001A/B	I	TRANS-TEMP	LD	No		N / A				Yes	21/07/2025	CLOSED				
55	55-01	Waste Water Brine Discharge System	50-TT-002	Temperature Transmitter - Water Disposal Header to Caisson B-50014	I	TRANS-TEMP	LD	No		N / A				Yes	21/07/2025	CLOSED				
83	83-00	400 V Switchboard & Connection Box (SG-200N1)	JB-200E2	Temporary Generator / Mobile Battery Pack	E	JB-ELE	LD_B-200_Ext	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
82	82-99	MV 6.6 kV Temporary Yard Supply Integrated Test	JB100-TEMP	Temporary JB	E	JB-ELE		Yes		N / A				Yes	19/07/2025	CLOSED				
83	83-99	400 V Temporary Yard Supply	JB-200E2_TEMP	Temporary Junction Box	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
XX	XX-01	#N/D	TEST_JB-ELE_1	TEST_JB-ELE_1	E	JB-ELE		Yes		N / A				Yes	19/07/2025	CLOSED				
XX	XX-01	#N/D	TEST_JB-INS_1_ATEX	TEST_JB-INS_1_ATEX	I	JB-INS		Yes		N / A				Yes	19/07/2025	CLOSED				
72	72-00	NAVAID	EJB-200F2-01	Top Obstruction Lights Junction Box	E	JB-ELE	TV	Yes	29/07/2025	CLOSED				Yes	29/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-17-L1-05	TRACE HEATING - PROCESS LINES - (WW LINES) 43-LT-001, Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	ETB-200N1-15-L2-02	TRACE HEATING - PROCESS LINES - FEEDER 2 (CI LINES) Hot JB	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	19/07/2025	CLOSED				
83	83-65	Electrical Heat Tracing	EAT-200N1-01	Trace Heating Remote Ambient Thermostat	E	JB-ELE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
50	50-10	Water Desalination Package & Distribution	A-50000	Water Treatment Package	M	PACKAGE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-50	Welding Sockets	ESW-200N1-01	WELDING SOCKET	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-50	Welding Sockets	ESW-200N1-02	WELDING SOCKET	E	LIGHT-FIXTURE	UD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-50	Welding Sockets	ESW-200N2-01	Welding Socket (Lower Deck)	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				
83	83-50	Welding Sockets	ESW-200N2-02	Welding Socket (Lower Deck)	E	LIGHT-FIXTURE	LD	Yes	21/07/2025	CLOSED				Yes	21/07/2025	CLOSED				

24. ANNEX 3: CPI CHECK LISTS

ROSETTI MARINO Ballard FC Wave – Sea Fastening Checklist

Document Reference: K559-2254-CWIWP4202202-R04-002 Rev.002

Applicable Equipment: FCwave Module, H_2 Manifold Heater, Transformer, External Coolers, Container Doors

Performed by: RM & Ballard

To be verified by: Ballard

1. Dry Out Procedure – FCwave Module

Step	Description	Completed (Y/N)	Date	Performed by	Notes
1.1	Dry Out requested via MODBUS after SAT completion	Y	13/07	Ballard	**Performed by Gedas before he leaves Sat 12th July**
1.2	I_Allow ramps to 0 A – current < 5 A	Y	13/07	Ballard	**Performed by Gedas before he leaves Sat 12th July**
1.3	Dry Out cycle executed (airflow/temp increase)	Y	13/07	Ballard	**Performed by Gedas before he leaves Sat 12th July**
1.4	Controlled shutdown completed	Y	13/07	Ballard	**Performed by Gedas before he leaves Sat 12th July**
1.5	Module declared ready for long-term storage	Y	13/07	Ballard	**Performed by Gedas before he leaves Sat 12th July**

2. Drainage Activities

System	Volume	Drain Valve Access	Drained (Y/N)	Date	Performed by	Notes
Internal HT loop (per module)	~45 L	Base of FCwave	N		N/A	Optional, per integrator
External HT loop (2 circuits)	~700 L total	2 valves	Y	16/07	Ballard	Gravity-drain **Requires IBC on platform and Ballard pallet with hoses and pump lifted on to platform.**
External LT loop	~400 L	4 valves inside container	Y	16/07	Ballard	Gravity-drain **Same IBC as HT loops**
H_2 Manifold Heater	~200 L	1 drain valve	Y	16/07	Ballard	Drain + venting **2nd IBC required**

ROSETTI MARINO Ballard FC Wave – Sea Fastening Checklist

3. Sea Fastening – Mechanical Installation

Component	Activity	Material Used	Installed (Y/N)	Date	By	Notes
Transformer	2 yellow-painted transport brackets installed	Supplied by Ballard	Y	17/07	Ballard	To be replaced with support brackets at destination
External Coolers	Secured to the container via straps	Straps from Yard	Y	17/07	Ballard /RM	4 corner protectors required **Requires 4 sets of scaffold adjacent to both sets of coolers on each side. Need RM support (1 person)**
H_2 Heater	Supported by wooden or custom block	Material by Yard	Y	17/07	Ballard	Required for transport
Container Doors	All doors strapped to prevent opening	8 lash straps + 3 foam blocks	Y	17/07	Ballard	Required for transport

4. Sea Fastening Materials Inventory

Item	Spec	Quantity Required	Quantity Available	Notes
Lash straps (50 mm, 5–15 m)	Pos. 1–8	8 total		Refer to the fastening sketch
Corner protectors for coolers		4 pcs		
Foam blocks (≥200 mm thick)	For doors	3 pcs		
Wooden Supports (H2 Heater)	4"x4" wooden beams	3 pcs		Refer to email 26/06

5. Final Check Before Sail Away

Item	Status (Y/N)	Remarks
All preservation activities completed (Dry Out, Drainage)	Y	
Sea fastening materials installed as per sketch	Y	
Equipment tagged "Ready for Transport"	Y	
All access doors locked / strapped	Y	

Ballard FC Wave – Sea Fastening Checklist

Rosetti Marino

Representative Name:

Signature:

ROSETTI MARINO SpA
Raffaele Dell'Esposti
Project Quality Manager

Date: 30/07/2025

Vendor Acknowledgement

Ballard Representative Name: Rasmus Knudsen

Signature:

Date: 30/07/2025

Company Acceptance: ☑ Yes ☐ No

Remarks:

Note: 31/7/25

All preservation and sea fastening actions must be verified against:

- BALLARD_R04 Preservation and Ready for Sail Away Rev.002

- Integration Manual – FCwave Modules (for Dry Out protocol)

Elogen – Sea Fastening & Preservation Checklist

Document References:

- C63-ELO-PRO-CO-300_Seafastening and Preservation Rev.02

- Electrolyser Preservation Draft

- SWL0000767 Preservation Procedure

- Transformer O&M Manual (Celme)

- Rectifier O&M Manual

Applicable Equipment: Electrolyser, Transformer, Rectifier, WTP, HPP, HVAC

Performed by: LUC PAOLETTI

Verified by: ZANELLATO MATTEO

1. Electrolyser Preservation – Internal Loops

Action	Completed (Y/N)	Date	Notes
Drain each loop; store MPG40% in temporary tank	Y	24/07/2025	
Disconnect stacks from distributor (4 flanged points)	Y	24/07/2025	
Fill stacks with ultra-pure water (<0.1 µS/cm)	Y	24/07/2025	
Install Elogen-provided counter flanges on stacks	Y	24/07/2025	
Flush stacks every 90 days	N		
Revert header/distributor to pre-stack config	Y	24/07/2025	
Blanket water loops with nitrogen (100 mbarg)	Y	24/07/2025	
Confirm pressure retention for full preservation period	Y	24/07/2025	

2. Water Treatment Package (WTP) – OVIVO Preservation

Step	Completed (Y/N)	Date	Notes
Drain all water from pipes	Y	25/07/2025	
Close all pipes except upper ones	Y	25/07/2025	
Fill each pressure tube with preservative (funnel)	Y	25/07/2025	Mix: 200L permeate, 2.33L Sodium Bisulfite, 34L Glycerin
Close remaining pipes – ready for 6-month storage	Y	25/07/2025	

3. Rectifier – Electrical Lockout

Component	Locked Out (Y/N)	Notes
Rectifier 01 – Power Section	N	
Rectifier 02 – Power Section	N	
Rectifier 01 – Aux Section	N	
Rectifier 02 – Aux Section	N	

4. Final Verification & Acknowledgement

Item	Status (Y/N)	Remarks
All internal loops preserved and nitrogen-blanketed	Y	
WTP preserved as per Ovivo procedure	Y	
All electrical sections locked out	N	
Equipment labeled 'Ready for Transport'	N	

5. Vendor Acknowledgement

Rosetti Marino

Representative Name:

Signature:

Date:

Vendor Acknowledgement

Fores Representative Name: ZANELLATO MATTEO

Signature: 

Date: 04/08/2025

Company Acceptance: ☐ Yes ☐ No

Remarks:

Note:

All preservation and fastening must comply with:

- C63-ELO-PRO-CO-300_Seafastening and Preservation Rev.02
- Electrolyser Preservation Draft
- Ovivo Procedure SWL0000767

Freqcon PCS – Sea Fastening Checklist

Document Reference: 54712 Sea Fastening - PCS.pdf

Applicable Equipment: Power Conversion System (PCS)

Performed by: Freqcon with Rosetti Marino support

To be verified by: Freqcon

1. Mechanical Sea Fastening – Transformer & PCS

Component	Fastening Method	Installed (Y/N)	Date	Notes
Transformer	Clamp square timber under transformer + tension straps	Y	25.07.25	-
PCS Cabinet	Secured inside container – straps and blocks	Y	25.07.25	-
All Doors	Locked and/or strapped to prevent movement	Y	25.07.25	-
Cables	Secured and isolated from mechanical stress	Y	25.07.25	-

2. Protection Materials

Material / Item	Used (Y/N)	Quantity	Notes
Tension straps	Y		For transformer and PCS container equipment
Square timber blocks	Y		Clamped under transformer
Foam padding / edge protectors	N/A Y		If applied to prevent friction damage

3. Final Check Before Transport

Item	Status (Y/N)	Remarks
All fastening materials installed and secure	Y	-
All cabinet doors locked or strapped	Y	-
Transformers clamped and stable	Y	-
Cable routing clean and protected	Y	-
Visual inspection completed	Y	-

4. Vendor Acknowledgement

Rosetti Marino

Representative Name: LAVIRANI DANIELE

Signature:

Date: 25/07/2025

ROSETTI MARINO SpA
Quality Department
25/07/2025

Vendor Acknowledgement

Freqcon Representative Name: CARLOS VALENZUELA

Signature:

Date: 25-07-25

Company Acceptance: ☑ Yes ☐ No

Remarks:

Note:

All fastening activities must be executed in accordance with:

- Freqcon Sea Fastening Drawing 54712

Freqcon BESS-Sea Fastening Checklist

Document References:

- 54732 Sea Fastening - BESS.pdf

- 23A2007_241110_FREQCON_BESS_Long_Term_Storage_Strategy_v3.0.pdf

Applicable Equipment: BESS Containers, Battery Modules

Performed by: Freqcon with Rosetti Marino support

To be verified by: Freqcon

BESS 2

1. Mechanical Sea Fastening – Installation Checks

Component	Position Ref.	Installed (Y/N)	Date	Notes
Wood profiles Norm 1014 - 40 (100 mm)	Pos. 1	Y	25.07.25	—
Wood profiles Norm 1014 - 40 (260 mm)	Pos. 2	Y	" "	
Wood profiles Norm 1014 - 40 (1220 mm)	Pos. 3	Y	" "	
Wood profiles Norm 1014 - 40 (1868 mm)	Pos. 4	Y	" "	
Wood profiles Norm 1014 - 40 (2270.5 mm)	Pos. 5	Y	" "	
Wood profiles Norm 1014 - 40 (1180 mm)	Pos. 6	Y	" "	
Wood profiles Norm 1014 - 40 (1828 mm)	Pos. 7	Y	" "	
Wood profiles Norm 1014 - 40 (2230.5 mm)	Pos. 8	Y	" "	
Wood profiles Norm 1014 - 40 (240 mm)	Pos. 9	Y	" "	
Wood profiles Norm 1014 - 40 (960 mm)	Pos.10	Y	" "	
Wood profiles Norm 1014 - 40 (120 mm)	Pos.11	Y	" "	

CARLOS PALENZUELA (FREQCON)

Freqcon BESS-Sea Fastening Checklist

2. Desiccant & Humidity Protection

Material	Quantity	Installed (Y/N)	Notes
Desiccant Stick 1000x135x35mm	3	Y	Knüppelshop Ref. 501873 / Freqcon Part 199131

3. Long Term Storage Strategy – Battery Modules

Condition to Check	Verified (Y/N)	Date	Notes
BESS storage temperature 0–35°C (without aux)	Y	25.07.25	-
BESS storage temperature -20–40°C (with 400V aux)	Y	" "	-
400 V aux. connected and verified (if >12 months storage)	Y	" "	-
Climatization, monitoring, and balancing active	Y	" "	-
Battery SoC verified at 50% on delivery	Y	" "	-
Charge/discharge cycle performed within 6 months	Y	" "	-
Humidity at storage location <90%	Y	" "	-

4. Final Inspection & Vendor Acknowledgement

Rosetti Marino

Representative Name:

Signature:

Date:

ROSETTI MARINO SpA Quality Department

25/07/2025

Vendor Acknowledgement

Freqcon Representative Name: CARLOS [illegible]

Signature:

ROSETTI MARINO Freqcon BESS-Sea Fastening Checklist

Date: 25.07.25

Company Acceptance: ☐ Yes ☐ No

Remarks:

Note:

All fastening and storage conditions must comply with:

- Freqcon Sea Fastening Drawing 54732
- Freqcon Long Term Storage Strategy v3.0

Freqcon BESS-Sea Fastening Checklist

Document References:

- 54732 Sea Fastening - BESS.pdf

- 23A2007_241110_FREQCON_BESS_Long_Term_Storage_Strategy_v3.0.pdf

Applicable Equipment: BESS Containers, Battery Modules

Performed by: Freqcon with Rosetti Marino support

To be verified by: Freqcon

BESS 1

1. Mechanical Sea Fastening – Installation Checks

Component	Position Ref.	Installed (Y/N)	Date	Notes
Wood profiles Norm 1014 - 40 (100 mm)	Pos. 1	Y	25.07.25	—
Wood profiles Norm 1014 - 40 (260 mm)	Pos. 2	Y	25.07.25	—
Wood profiles Norm 1014 - 40 (1220 mm)	Pos. 3	Y	25.07.25	—
Wood profiles Norm 1014 - 40 (1868 mm)	Pos. 4	Y	25.07.25	—
Wood profiles Norm 1014 - 40 (2270.5 mm)	Pos. 5	Y	" "	—
Wood profiles Norm 1014 - 40 (1180 mm)	Pos. 6	Y	" "	—
Wood profiles Norm 1014 - 40 (1828 mm)	Pos. 7	Y	" "	—
Wood profiles Norm 1014 - 40 (2230.5 mm)	Pos. 8	Y	" "	—
Wood profiles Norm 1014 - 40 (240 mm)	Pos. 9	Y	" "	—
Wood profiles Norm 1014 - 40 (960 mm)	Pos.10	Y	" "	—
Wood profiles Norm 1014 - 40 (120 mm)	Pos.11	Y	" "	—

CARLOS PALENZUELA (FREQCON)

ROSETTI MARINO Freqcon BESS-Sea Fastening Checklist

2. Desiccant & Humidity Protection

Material	Quantity	Installed (Y/N)	Notes
Desiccant Stick 1000x135x35mm	3	Y	Knüppelshop Ref. 501873 / Freqcon Part 199131

3. Long Term Storage Strategy – Battery Modules

Condition to Check	Verified (Y/N)	Date	Notes
BESS storage temperature 0–35°C (without aux)	Y	25.07.25	—
BESS storage temperature -20–40°C (with 400V aux)	Y	" "	—
400 V aux. connected and verified (if >12 months storage)	Y	" "	—
Climatization, monitoring, and balancing active	Y	" "	—
Battery SoC verified at 50% on delivery	Y	" "	—
Charge/discharge cycle performed within 6 months	Y	" "	—
Humidity at storage location <90%	Y	" "	—

4. Final Inspection & Vendor Acknowledgement

Rosetti Marino

Representative Name:

Signature:

Date: 25/07/2025

ROSETTI MARINO SpA Quality Department

Vendor Acknowledgement

Freqcon Representative Name: CARLOS PACENZUELA

Signature:

ROSETTI MARINO Freqcon BESS-Sea Fastening Checklist

Date: 25.07.25

Company Acceptance: ☐ Yes ☐ No

Remarks:

Note:

All fastening and storage conditions must comply with:

- Freqcon Sea Fastening Drawing 54732

- Freqcon Long Term Storage Strategy v3.0

25. ANNEX 4: VPCI DATA SHEETS

HIGH PERFORMANCE VpCI® PACKAGING

VpCI®-126 Shrink Film

High Technology Vapor phase Corrosion Inhibiting Film
Patented Worldwide
Multimetal VpCI Systems



DESCRIPTION

Cortec VpCI-126 Shrink Film combines the latest film technology with the most effective corrosion protection for all of your metal products. Sealing your product in VpCI Shrink Film will protect a wide variety of metals from rust, tarnish, stains, white rust, and oxidation for up to 5 years.* It's as easy as putting your product in VpCI Shrink Film!

VpCI-126 Shrink Film can replace conventional rust preventatives such as oils and desiccants. You save even more because VpCI-126 Shrink Film will eliminate all the degreasing or coating removal required in the past. Your product can now be used immediately. VpCI-126 is transparent, making it easy to identify parts. Additionally, it does not contain free amines, phosphates, or halogen-based materials and is non-toxic and recyclable.

FEATURES

- Multimetal corrosion inhibition providing contact, barrier, and vapor phase protection
- Excellent sealing properties using sealing temperatures of 190-240°F
- Will shrink using a wide variety of shrink tools
- Transparent, allowing easy visualization
- Excellent film for shrink tunnel applications (depending on temperature and dwell time)
- Film is recyclable and non-hazardous

MULTIMETAL VpCI

Metal parts packaged in VpCI-126 Shrink Film receive continuous protection against salt, excessive humidity, condensation, moisture, aggressive industrial atmospheres, and dissimilar metal corrosion. The Vapor phase Corrosion Inhibitors vaporize and condense on all metal surfaces in the enclosed package. VpCI reaches every area of your part, protecting its exterior as well as hard-to-reach interior surfaces. You get complete product protection during storage as well as during domestic and overseas shipments virtually eliminating any rust claims.

METALS PROTECTED

- Aluminum
- Carbon Steel
- Stainless Steel
- Copper
- Brass
- Galvanized Steel
- Silicon Steel
- Silver
- Solder

SHELF LIFE

The shelf life of VpCI-126 film is 2 years

SIZES

VpCI-126 Shrink Film is available in a standard size at 20′ x 100′ x 0.006″ rolls. (6.1m x 30.5m x 150μ) Contact a Cortec Representative for other sizes and constructions.
Now available in widths up to 30′ (9.2m).

* Depending on film construction thickness and application

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

APPLICATION INSTRUCTIONS

Shrink Wrapping

1. Measure unit and determine amount of film needed, allowing at least 12" overlap at all seams.
2. Lay out film in desired preparation area, making sure it is clean and dry.
3. Place vehicle or equipment on film.
4. Pad off any sharp edges and corners.
5. Wrap or shroud equipment with film.
6. Use shrink tape to attach loose ends onto film/ equipment.
7. Carefully apply heat and shrink film to desired fit.

Shrink Tunnel

VpCI-126 Shrink film can be used in shrink tunnel applications; however, the optimum temperature, speed and dwell time will vary depending on equipment and must be determined with testing.

Recommended starting point settings
Temperature range: 350-380° F (177 – 193 °C)
Speed: Low
Dwell time: 20-30 seconds

*Note: May require two passes through tunnel to achieve desired fit.

TYPICAL MECHANICAL PROPERTIES OF VpCI-126 SHRINK FILM

Property		Test Method	Units	VpCI-126 Shrink
Caliper		ASTM D6988	mil	6.00
Breaking Factor	MD	ASTM D882-02	lbs/in	14.06
	TD			14.89
Tensile Strength at Break	MD	ASTM D882-02	psi	2181.55
	TD			2363.45
Elongation at Break	MD	ASTM D882-02	%	451.38
	TD			615.18
Yield Strength	MD	ASTM D882-02	psi	1434.65
	CD			1443.89
Tear Strength	MD	ASTM D1922-06a	mN	6560.93
	CD			9700.13
Dart Drop Impact Resistance		ASTM D1709-04, Test Method A	grams	623.92

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT SAFETY DATA SHEET FOR MORE INFORMATION

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec Corporation warrants Cortec products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Distributed by:

4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
Internet http://www.cortecvci.com

printed on recycled paper 100% post consumer
Revised: 10/15/14. ©Cortec Corporation 2001-2014. All rights reserved. Supersedes: 5/9/14.
Cortec®, VpCI®-126 and Color of Blue® are registered trademark of Cortec Corporation.
© 2014, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. ISO accreditation applies to Cortec's processes only.

RoHS COMPLIANT

ISO/IEC-17025 LABORATORY TESTING ACCREDITED

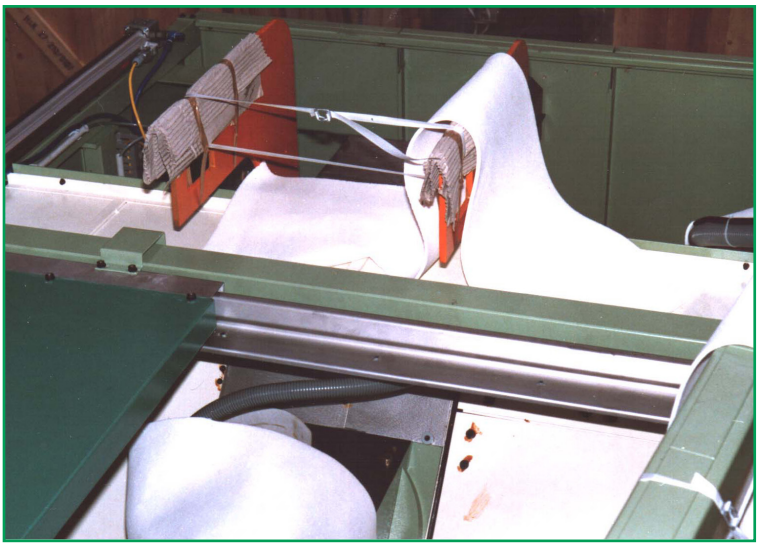
ISO 9001 CERTIFIED QUALITY SYSTEM REGISTERED

ISO 14001 CERTIFIED ENVIRONMENTAL SYSTEM REGISTERED

HIGH PERFORMANCE VpCI® PACKAGING

VpCI®-130 Series

Impregnated Foams Patented Multifunctional VpCI®, Desiccant and Antistatic Action



PRODUCT DESCRIPTION

Cortec® VpCI®-130 Series Foams are unique flexible packaging materials that combine VpCI® protection, and desiccant action; plus excellent antistatic capabilities all in one step! You can now eliminate expensive and messy rust preventatives with VpCI®-130 Series Foams. Parts protected are always ready for use; no degreasing or coating removal is required. Application of multifunctional materials such as VpCI®-130 Series Foams results in significant weight and labor savings.

Metal parts packaged with VpCI®-130 Series Foams receive continuous protection against humidity, condensation, aggressive industrial atmospheres, dissimilar metal corrosion (galvanic corrosion), salt air, and residual impurities left after processing.

National Stock Number:
#3850-01-426-3539

FEATURES

Cortec® VpCI®-130 Series Foams are specially designed withVapor phase Corrosion Inhibitor (VpCI®) impregnated throughout the foam's polymeric matrix. They are excellent for protection of ferrous, non-ferrous metals, and alloys such as: steel, copper, brass, aluminum, zinc, solder, silver, etc. VpCI®-130 Series Foams do not change critical physical and/or chemical properties of electronic components, and are suitable for protection of printed circuit boards.

BENEFITS

VpCI®-130 Series Foams are nitrite- and chromate-free. The high performance patented formulation of VpCI® provides fast, easy-to-use protection even in aggressive overseas shipments.

VpCI®-130 Series Foams contain approximately ten (10) times more VpCI® chemical per square foot (square meter) of substrate than the traditional VCI papers and other wrapping materials. This makes the protection of objects with large surface areas possible (i.e.: aluminum and steel coils). The unique combination of high and low vapor pressure VpCIs contained in VpCI®-130 Series Foams affords long-term protection for large export packages, crates, and seagoing containers.

Combine VpCI®-130 Foam with Cortec® VpCI®-125/126 film to create a highly effective VpCI® packaging solution.

TYPICAL APPLICATION

VpCI®-130 Series Foam forms a strong protection as long as the enclosure remains sealed and there are no barriers between the metal surface and the VpCI® molecules. The placement of the foam is not important as long as it has access to the same air space as the metal to be protected. This product line is not intended to be used for cushioning purposes; excess pressure applied to the foam can wring the inhibitor from the substrate. In some situations this may leave a residue on the surface which will need to be removed with water or rubbing alcohol.

Product	Sizes in Inches (Centimeters)	Protection Volume
131	2 x10 (5.08 x 25)	1.5 ft^3 (.042 m^3)
132	10x10 (25x25)	8 ft^3 (0.23 m^3)
133	1x1 (2.5x2.5) (adhesive back)	0.25 ft^3 (7L)
136	1x 1 (2.5 x 2.5)	0.25 ft^3 (7L)
137	130' x 4.5' (39.6m x 1.35m)	10ft^3/ft^2 (3m^3/m^2)

CORTEC CORPORATION

METALS PROTECTED (MULTI-METAL)

- Aluminum
- Galvanized Steel
- Brass
- Solder
- Carbon Steels
- Silver
- Copper
- Zinc

STORAGE AND PACKAGING

VpCI®-130 Series Foam has a shelf life of 2 years when sealed in the original package. To maintain VpCI® strength, unused foam should be kept sealed in plastic bags.

STANDARD TEST METHODS

NACE TM 0208-2008	Vapor Inhibiting Ability
NACE RP 0487-2000	Selection of Rust Preventative
MIL-PRF-26514G, Type 3, Class II	Polyurethane Foam

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec® Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec® Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec® Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec® Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.
BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec® Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC® CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Distributed by:

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
http://www.cortecvci.com

Printed on recycled paper 100% post consumer

Revised: 09/16/16. Supersedes: 06/20/16

©Cortec Corporation 2002-2016 of Cortec Corporation.
All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. 2016, ©Cortec Corp. ISO accreditation applies to Cortec's processes only.

CORTEC CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

VpCI®-368 Solvent Based Temporary Coating

DESCRIPTION

VpCI®-368 is a solvent-based temporary waxlike coating that provides protection in harsh, outdoor, unsheltered applications yet is removeable with alkaline cleaners such as VpCI®-414. Provides multi-metal protection.

Also available as VpCI®-368 M, a military qualified version that meets MIL-PRF-16173 E (Grade 1).

UFI: K250-Q0CN-C00X-P081

PACKAGING & STORAGE

VpCI®-368 is available in 5 gallon (19 L) pails, 55 gallon (208 L) metal drums, liquid totes, and bulk.

Also available as CorShield® VpCI®-368 in 11 oz. (312 g) aerosol cans.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 2 years



CHARACTERISTICS/TECHNICAL DATA

Volume Solids	61±3%
Gloss (ASTM D523)	NA
VOCs	2.9 lbs/gal (347 g/L)
Viscosity	2000-5000 cPs
Pencil Hardness (ASTM D3363)	NA
Spreading Rate	982 ft²/gal @ 1.0 mil (24 m²/L @ 25 µm) DFT
Weight per Gallon	7.63 lbs/gal (0.91 kg/L)
Flash Point	158 °F (70 °C)
Recommended DFT	2.0-3.0 mils (50-75 µm)
Recommended WFT	3.3-4.9 mils (84-125 µm)
Dry to Touch	5-7 hours (without forced air or heat)
Full Cure	3-7 days
Salt Spray (ASTM B117)	1500 hrs
Humidity (ASTM D1748)	2500 hrs
Adhesion (ASTM D3359)	NA

All tests performed after a 7 day cure at ambient temperature

VpCI®-368 Solvent Based Temporary Coating

APPLICATION

Surface Preparation

Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, rust inhibitors (except Cortec® approved), or any other surface contamination that could affect adhesion. Cortec® recommends a minimum of SSPC-SP1 over painted surfaces. For bare metal applications, Cortec® recommends a minimum surface preparation of SSPC-SP2 or, for best results, NACE #3/SSPC-SP6. Consult Cortec® Technical Service and/or test system adhesion prior to full scale application.

Power agitate to a uniform consistency using a "squirrel cage" type mixer, hand-held drill mixer, or other equivalent meth-od. CorShield® VpCI®-368 can be applied by spray, roll, brush, or dip.

Typical Equipment Setups

HVLP / Conventional Spray

- Tip 0.02"-0.11" (0.5-2.8 mm) dependent upon pressures and viscosity
- Air Pressure 45-55 psi
- Fluid Pressure 10 psi
- Fluid hose should be ⅜" (0.95 cm) I.D. with a maximum length of 50 feet (15.2 m). ¼" (0.64 cm) I.D. fluid hose can be used, but pressures may need to be adjusted. Pot should always have dual regulation and be kept at same elevation as spray gun.

Air Assisted Airless / Airless

- Tip 0.015"-0.035" (0.38-0.89 mm) dependent upon pressures and viscosity
- Pressure 1800-2500 psi
- Hose should be ⅜" (0.95 cm) I.D. minimum, but a ¼" (0.64 cm) I.D. whip end section may be used for ease of application. A maximum length of 100 feet (30.5 m) is suggested.

Cleanup

Clean tools/equipment immediately after use with Butyl Acetate when coating is still wet. When dry, use Butyl Cellusolve or MEK. Follow mfg's safety recommendations when using any solvent.

4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC
productinfo@cortecvci.com
https://www.cortecvci.com
https://www.corteccoatings.com

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec® Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec® Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec® Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec® Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.
BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec® Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC® CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Revised:02/08/24. Supersedes: 07/26/19. ©Cortec Corporation 2002-2024 of Cortec® Corporation. All Rights Reserved. Copying and/or manipulation of these materials in any form without the written authorization of Cortec® Corporation is strictly prohibited. 2024, ©Cortec Corp. ISO accreditation applies to Cortec's processes only.



VpCI®-369



PRODUCT DESCRIPTION

VpCI-369 is our best inhibitor for use as an oil additive and/or temporary coating. The protective film is self-healing and moisture-displacing, providing superior protection against aggressive environments. VpCI-369 is also excellent when used as an oil additive for mothballing, shipping, or storage of parts and equipment. In small percentages, VpCI-369 has a minimal effect on viscosities.

VpCI-369 is available prediluted with mineral spirits at the ratio 1:1 as VpCI-369 H, which is recommended for spray can applications.

FEATURES

- Self-healing
- Excellent lubricity
- Extends tool life for metalworking operations
- Excellent outdoor protection
- Excellent oil additive
- Dilutable with oil
- Meets MIL-PRF-16173E (Grade 2)
- NSN 8030-00-244-1295
- NSN 8030-00-244-1297
- NSN 8030-00-244-1298
- NSN 8030-01-149-1731

TYPICAL APPLICATIONS

- Wire rope
- Electrical connections/wiring
- Sheltered coating
- Gear protectant/lubricant
- Long-term (5+ years) equipment lay-up
- Stamping oil additive
- Drawing oil additive
- Cylinders
- Working/moving parts

PROTECTION PROPERTIES

	ASTM	DFT	Carbon Steel (1010)	Aluminum
Humidity	D-1748	2-3 mil (50-75 microns)	7000+ hr	3000+ hr
Salt Spray	B-117	2-3 mil (50-75 microns)	3500+ hr	3500+ hr

METALS PROTECTED

- Silver
- Cast Iron
- Stainless Steel
- Copper
- Magnesium
- Aluminum
- Carbon Steel

MINIMUM REQUIREMENTS FOR SURFACE PREPARATION

NACE	SSPC	ARS
4	7-63	As low as B-3

Methods for Monitoring:
Wet Film Thickness Gauge

TYPICAL PROPERTIES

Appearance	Light beige/tan viscous liquid
Film Type	Oily
Flash Point	233°F (112°C)
Shelf Life	24 months @ 75°F (24°C)
Non-volatile Content	95-99%
Theoretical Spread Rate	753-1506 ft^2/gal @ 1-2 mils (18.8-37.6 m^2/l @ 25-50 microns)
Viscosity	10,000-45,000 cps
Weight per Gallon	7.7-8.4 lb/gal (0.92-1.01 kg/l)
Temperature Resistance (Fully Cured)	-108°F to 500°F (-78°C to 260°C)

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

APPLICATION

Product Preparation:
Product should be mixed thoroughly and uniform prior to use.

Product Application:
Product can be applied by spray, brush, roll, or dip. Normal DFT is 1-3 mils (25-75 microns). Apply VpCI-369 in a well-ventilated area.

Air-Assisted Spray Equipment:

Manufacturer	Gun Model
Graco	AA Plus

Airless Spray Equipment:

Manufacturer	Gun Model
Graco	Model 510

Fluid hose should be 3/8" I.D. with a length of 10'. A ¼" whip hose may be used for ease of application. Best results will be achieved by using a 0.011"-0.015" tip at 1700 psi (117 bar). The minimum fluid atomization pressure required is 1500 psi (103 bar), which gives 2-4 mils (50-100 microns) WFT/pass.

Product Cleanup:
For cleanup of tools and overspray, use alkaline cleaners such as Cortec VpCI-414 or mineral spirits

LIMITATIONS

VpCI-369 can be removed if applied in splash zones, heavy rains, or similar conditions. Parts protected with VpCI-369 should be sheltered for best results.

PACKAGING

VpCI-369 and VpCI-369 H are available in 5 gallon (19 liter) plastic pails, 55 gallon (208 liter) metal drums, and VpCI-369 is also available in diluted forms.

Available as CorShield® VpCI-369 in 11 oz. (312 g) aerosol cans.

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT SAFETY DATA SHEET FOR MORE INFORMATION

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
Internet http://www.cortecvci.com

Distributed by:

printed on recycled paper 100% post consumer
Revised 8/5/13. ©Cortec Corporation 2001-2013. All rights reserved. Supersedes: 11/12/10
Cortec® is a trademark of Cortec Corporation. © 2010, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. ISO accreditation applies to Cortec's processes only.