Base Load Power Hub (BLPH)

Mechanical Equipment List

Document Number: 123A90-DDL-MAC-LIS-50000

Document Class: 2

03	24/07/2025	Accepted for Construction (AFC)	F.Mura	M.Marchetti	C.Giunchi
02	16/05/2025	Accepted for Construction (AFC)	F.Mura	M.Marchetti	C.Giunchi
01	04/11/2024	Accepted for Construction (AFC)	F.Mura	M.Marchetti	D. Lo Sterzo
00	25/07/2024	Issue for Review (IFR)	F.Mura	M.Marchetti	D. Lo Sterzo
Rev.	Date	Description	Prepared	Reviewed	Approved

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

Table of Contents

SH.	DESCRIPTION	REVISIONS							
		00	01	02	03				
1	Cover	X		X					
2	Table of Contents	X		X					
3	Revision / Change Log	X		X					
4	Pumps	X	X	X	X				
5	Tanks		X	X					
6	Drums & Vessels		X	X					
7	Filters		X	X					
8	Heaters		X	X	x				
9	Compressors		X	X					
10	Packages		X	X					
11	Handling		X	X					
12	Miscellaneous		X	X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					
				X					

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

Revision / Change Log

Rev.	Description
00	ISSUE FOR REVIEW (IFR)
01	ACCEPTED FOR CONSTRUCTION (AFC)
02	ACCEPTED FOR CONSTRUCTION (AFC)
03	ACCEPTED FOR CONSTRUCTION (AFC)

HOLDS LIST

No.	Description
1.	
2.	
3.	
4.	

GENERAL NOTES

a) Symbol '-' means that no more information is to come form equipment supplyer

b) TAG management criterion is explained in doc 123A90-PML-DIG-PRO-00002 - Equipment and System Tag Numbering"

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

PUMPS

Parent Tag	Item	Quantity	Description	Area/Location	Class/Subclass	Discipline	Driver type	Driver installed power [kW]	P&ID No	Fluid	Design Code	Variable Speed	Design Capacity [m3/h]	Design Pressure [barg]	Design Temperature [°C]	Discharge Pressure [barg]	Differential Pressure [barg]	Operating Temp [°C]	MOC Casing	MOC Impeller	MOC Shaft	NPSH Available [m]	Calculated Differential Head [m]	Sealing Type	Width [mm]	Height [mm]	Dry Weight [kg]	Insulation Type	Vendor	Manufacturer	Remarks	Revision
N/A	P-50001A	1	Sea water lift progressive cavity pump	Under Lower Deck	Pump / Volumetric	MECH	El. Motor	5.5	123A90-DDL-PR-PID-80021	Sea Water	API 676	NO	33	20	20	5,3	8,28	20	Super Duplex SS	Super Duplex SS	Super Duplex SS	7	530	Mechanical Single + Plan 51	973	31570	1967	N/A	PCM	PCM	Indicated Diff. Pressure referes to discharge flange on pump body needed to endure 5.3 bar discharge pressure at flange on top above the mounting flange	3
N/A	P-50001B	1	Sea water lift progressive cavity pump	Under Lower Deck	Pump / Volumetric	MECH	El. Motor	5.5	123A90-DDL-PR-PID-80021	Sea Water	API 676	NO	33	20	20	5,3	8,28	20	Super Duplex SS	Super Duplex SS	Super Duplex SS	7	530	Mechanical Single + Plan 51	973	31570	1967	N/A	PSC	PCM	Indicated Diff. Pressure referes to discharge flange on pump body needed to endure 5.3 bar discharge pressure at flange on top above the mounting flange	3
A-50000	P-50009A	1	Fresh Water Pumps	Lower Deck	Pump / Centrifugal	MECH	El. Motor	0,37	1724000448-PR-PID-00013	Fresh Water	Mfr.Standard	NO	11,00	25,00	120,00	6,30	5,20	25,00	AISI 316	AISI 316	AISI 316	7	52	MECHANICAL SINGLE	250	635	25,00	N/A	PSC	GRUNDFOS		
A-50000	P-50009B	1	Fresh Water Pumps	Lower Deck	Pump / Centrifugal	MECH	El. Motor	0,37	1724000448-PR-PID-00013	Fresh Water	Mfr.Standard	NO	11,00	25,00	120,00	6,30	5,20	25,00	AISI 316	AISI 316	AISI 316	7	52	MECHANICAL SINGLE	250	635	25,00	N/A	PSC	GRUNDFOS		
A-50000	P-50002A	1	Backwash Pump	Lower Deck	Pump / Centrifugal	MECH	El. Motor	1,10	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	23,00	6,00	60,00	2,60	1,50	25,00	PP	PVDF	AISI 203	10,4	14,5	MECHANICAL SINGLE	205	275	18,80	N/A	PSC	GEMMECOTTI	Part of SWRO A-50007A/B	
A-50000	P-50002B	1	Backwash Pump	Lower Deck	Pump / Centrifugal	MECH	El. Motor	1,10	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	23,00	6,00	60,00	2,60	1,50	25,00	PP	PVDF	AISI 203	10,4	14,5	MECHANICAL SINGLE	205	275	18,80	N/A	PSC	GEMMECOTTI	Part of SWRO A-50007A/B	
A-50000	P-50003A	1	Booster Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	4,00	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	9,00	6,00	60,00	5,10	4,00	25,00	PP	PVDF	AISI 203	10,4	41,2	MECHANICAL SINGLE	250	307	43,00	N/A	PSC	GEMMECOTTI	Part of SWRO A-50007A/B	
A-50000	P-50003B	1	Booster Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	4,00	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	9,00	6,00	60,00	5,10	4,00	25,00	PP	PVDF	AISI 203	10,4	41,2	MECHANICAL SINGLE	250	307	43,00	N/A	PSC	GEMMECOTTI	Part of SWRO A-50007A/B	
A-50000	P-50004A	1	High Pressure Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	7,50	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	2,00	83,00	50,00	63,50	59,50	25,00	DUPLEX SS	DUPLEX SS	DUPLEX SS	30	595	MECHANICAL SINGLE	256	321	66,50	N/A	PSC	DANFOSS	Part of SWRO A-50007A/B	
A-50000	P-50004B	1	High Pressure Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	7,50	1724000448-PR-PID-00013	Sea Water	Mfr.Standard	NO	2,00	83,00	50,00	63,50	59,50	25,00	DUPLEX SS	DUPLEX SS	DUPLEX SS	30	595	MECHANICAL SINGLE	256	321	66,50	N/A	PSC	DANFOSS	Part of SWRO A-50007A/B	
A-50000	P-50005A	1	Caustic Soda Dosing Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Caustic Soda	Mfr.Standard	NO	0.0001	10	45	5.3	5.3	25	PVC	PVDF	N/A	7	53	N/A	168	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50005B	1	Caustic Soda Dosing Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Caustic Soda	Mfr.Standard	NO	0.0001	10	45	5.3	5.3	25	PVC	PVDF	N/A	7	53	N/A	168	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50006A	1	Antiscalant Dosing Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Antiscalant	Mfr.Standard	NO	0.0001	10	45	5.3	5.3	25	PVC	PVDF	N/A	7	53	N/A	168	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50006B	1	Antiscalant Dosing Pump	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Antiscalant	Mfr.Standard	NO	0.0001	10	45	5.3	5.3	25	PVC	PVDF	N/A	7	53	N/A	168	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50007A	1	Biocide Dosing Pump to Container Inlet	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50007B	1	Biocide Dosing Pump to Container Inlet	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50008A	1	Biocide Dosing Pump to Sea Water Intake	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50008B	1	Biocide Dosing Pump to Sea Water Intake	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50010A	1	Biocide Dosing Pump to WWT	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	
A-50000	P-50010B	1	Biocide Dosing Pump to WWT	Lower Deck	Pump / Volumetric	MECH	El. Motor	0.22	1724000448-PR-PID-00013	Biocide	Mfr.Standard	NO	0.0006	10,00	45	4.5	4.5	25	PVC	PVDF	N/A	7	38	N/A	280	201	2	N/A	PSC	GRUNDFOS	No impeller, material indicated is for membrane Part of SWRO A-5007A/B	

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

TANKS

Parent Tag	Item	Quantity	Description	Area/Location	Class/Subclass	Discipline	P&ID	Fluid	Design Volume [m3]	Design Pressure [barg]	Design Temp. [°C]	Operating Pressure [barg]	Operating Temperature [°C]	Blanketing Required (Y/N)	MOC Shell	MOC - Bottom	MOC - Roof	Insulation Required (Y/N)	Design Code	Agitator Required	Heating Required	Diameter (mm)	Width [mm]	Height [mm]	Lenght (mm)	Dry Weight [kg]	Operating Weight [kg]	Total Weight Dry / Operating (kg)	Vendor	Manufacturer	Remarks	Revision
N/A	T-55001	1	Waste Water Tank	Below Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Waste Water	16	atm	80	0.005	35	N	Carbon Steel	Carbon Steel	Carbon Steel	N	N/A	NO	NO	N/A	N/A	N/A	'-'	N/A	N/A	N/A	Rosetti Marino	Rosetti Marino	Embedded in the piece as a section of a toroid ref. RM Doc n° 123A90-DDL-PP-DL-70070	
A-50000	T-50006	1	Filtered Water Tank	Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Seawater	3	atm	50	0.005	10 ÷ 23	N	Fiberglass	Fiberglass	Fiberglass	N	N/A	NO	NO	N/A	1050	1540	2300	300	3300	3300	PSC	CMP		
A-50000	T-50008	1	Fresh Sea water Tank	Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Fresh Water	2.2	atm	50	0.005	10 ÷ 23	N	Fiberglass	Fiberglass	Fiberglass	N	N/A	NO	NO	N/A	N/A	1450	2040	200	2200	2200	PSC	CMP		
A-50000	T-50002	1	Caustic Soda Dosing Tank	Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Caustic Soda - 2% wt	0.06	atm	50	0.005	10 ÷ 23	N	EPDM	EPDM	EPDM	N	N/A	NO	NO	380	N/A	680	N/A	5.5	57	57	PSC	CMP		
A-50000	T-50003	1	Antiscalant Dosing Tank	Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Antiscalant	0.06	atm	50	0.005	10 ÷ 23	N	EPDM	EPDM	EPDM	N	N/A	NO	NO	380	N/A	680	N/A	5.5	84	84	PSC	CMP		
A-50000	T-50004	1	Biocide Dosing Tank	Lower Deck	TANK	MECH	1724000448-PR-PID-00013	Biocide	0.110	atm	50	0.005	10 ÷ 23	N	EPDM	EPDM	EPDM	N	N/A	NO	NO	380	N/A	680	N/A	5.6	84	84	PSC	CMP		

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

DRUMS & VESSELS

Parent Tag	Item	Quantity	Description	Area/Location	Class / Subclass	Discipline	Code / Norm	P&ID	Fluid	Design Volume [m3]	Design Pressure [barg]	Design Temp. [°C]	Operating Pressure [barg]	Operating Temperature [°C]	Internal Diameter [mm]	Height [mm]	High High Liquid Level (mm)	Thickness Shell [mm]	Thickness Head [mm]	Support	MOC Shell	Insulation Required (Y/N)	Dry Weight [kg]	Operating Weight [kg]	Vendor Name	Manufacturer	Remarks	Revision
A-63000	D-63002B	1	Dryer Unit 2	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000428-PR-PID-00019	Air	0.08	12	90	9.2	35	273	1935	N/A	4.19	4.19	Legs	AISI 316 SS	N/A	55	115	COES	COES		
A-63000	D-63002A	1	Dryer Unit 2	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000428-PR-PID-00019	Air	0.08	12	90	9.2	35	273	1935	N/A	4.19	4.19	Legs	AISI 316 SS	N/A	55	115	COES	COES		
A-63000	D-63001B	1	Dryer Unit 1	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000428-PR-PID-00019	Air	0.08	12	90	9.2	35	273	1935	N/A	4.19	4.19	Legs	AISI 316 SS	N/A	55	115	COES	COES		
A-63000	D-63001A	1	Dryer Unit 1	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000428-PR-PID-00019	Air	0.08	12	90	9.2	35	273	1935	N/A	4.19	4.19	Legs	AISI 316 SS	N/A	55	115	COES	COES		
N/A	V-25001A	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80015	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-25001B	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80016	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-25001C	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80017	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-25001D	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80018	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-25001E	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80019	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-25001F	1	Hydrogen Storage Vessels	Upper Deck	Vessel / NA	MECH	ASME VIII Div 2 / PED	123A90-DDL-PR-PID-80020	Hydrogen	95,00	40	-10 ÷ 80	30,000	20,00	2000	15500	N/A	44	40	Saddles	LTCS	N/A	4000,00	4000,00	Brembana & Rolle	Brembana & Rolle	U-stamp	
N/A	V-43001	1	Hydrogen Vent KO Drum	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	123A90-DDL-PR-PID-80029	Hydrogen	0.7	3.5	80	0,000	25,00	1000	3000	N/A	6	6	Legs	LTCS	Y - Winterisation	600,00	600,00	CAMPI	CAMPI		
P-50001A	V-50000A	1	Seal Pot Plan 51 of P-50001A	Under Lower Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	123A90-DDL-PR-PID-80021	Fresh Water	0.007	12	-10 ÷ 93	ATM	20	128.2	1273	400	6.55	6.54	Bracket	A316	Y - Winterisation	40	45	PCM	FLOWSERVE		
P-50001B	V-50000B	1	Seal Pot Plan 51 of P-50001B	Under Lower Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	123A90-DDL-PR-PID-80021	Fresh Water	0.007	12	-10 ÷ 94	ATM	20	128.2	1273	400	6.55	6.54	Bracket	A316	Y - Winterisation	40	45	PCM	FLOWSERVE		
A-64000	V-64001	1	N2 Receiver	Lower Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000437-PR-PID-00018	Nitrogen	11	12	90	9.2	35	1970	4684	N/A	15	15	Legs	LTCS	N/A	4000	4000	COES	COES		
A-63000	V-63001	1	Instrument Air Receiver	Upper Deck	Vessel / NA	MECH	ASME VIII Div 1 / PED	1724000428-PR-PID-00019	Instrument Air	23.1	12	90	9	35	2464	5832	N/A	18	18	Legs	LTCS	N/A	7450	7450	COES	COES		

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

FILTERS

ParentTag	Item	Quantity	Description	Area/Location	Handled Fluid	Class/Subclass	Discipline	Power [kW]	Power Supply	Height [mm]	Diameter [mm]	Width [mm]	Length [mm]	Dry Weight [kg]	Operating Weight [kg]	P&ID No	Flowrate [m3/h]	Insulation type	Material	Vendor Name	Manufacturer	Remarks	Revision
A-50000	S-50010	1	UV Sterilizer	Lower Deck	FRESH WATER	FILTER	MECH	0.04	220v/3/50Hz	930	150	160	N/A	15	150	1724000-440-PR-PID-00013	0.8	N/A	AISI 316 SS	PSC	NOBEL		
A-50000	A-50003	1	Coarse Filter	Lower Deck	SEA WATER	FILTER	MECH	0.09	220v/3/50Hz	610	190	320	N/A	7	25	1724000-440-PR-PID-00013	2.5	N/A	PLASTIC	PSC	ELFI		
A-50000	S-50001	1	SAND FILTER	Lower Deck	SEA WATER	FILTER	MECH	0.01	220v/3/50Hz	2000	460	N/A	N/A	250,00	850,00	1724000-440-PR-PID-00013	2,00	N/A	GRP	PSC	NOBEL		
A-50000	S-50002A	1	SW 1ST CARTRIDGE FILTER	Lower Deck	SEA WATER	FILTER	MECH	N/A	N/A	597.5	N/A	180	300	19	40	1724000-440-PR-PID-00013	2	N/A	PLASTIC	PSC	EVERBLUE		
A-50000	S-50002B	1	SW 1ST CARTRIDGE FILTER	Lower Deck	SEA WATER	FILTER	MECH	N/A	N/A	597.5	N/A	180	300	19	40	1724000-440-PR-PID-00013	2	N/A	PLASTIC	PSC	EVERBLUE		
A-50000	S-50004	1	SOFTENING FILTER	Lower Deck	FRESH WATER	FILTER	MECH	0.01	220v/3/50Hz	1000	N/A	300	450	35	110	1724000-440-PR-PID-00013	1.8	N/A	GRP	PSC	NOBEL		
A-64000	S-64001A	1	PSA After Filter	Lower Deck	NITROGEN	FILTER	MECH	N/A	N/A	400	114.3	N/A	N/A	35	40	1724000437-PR-PID-00018	150	N/A	LTCS	COES	COES		
A-64000	S-64001B	1	PSA After Filter	Lower Deck	NITROGEN	FILTER	MECH	N/A	N/A	400	114.3	N/A	N/A	35	40	1724000437-PR-PID-00018	150	N/A	LTCS	COES	COES		
A-63000	S-63001A	1	Dryer pre-filter	Upper Deck	AIR	FILTER	MECH	N/A	N/A	168.3	N/A	N/A	N/A	60	65	1724000428-PR-PID-00019	415,00	N/A	AISI 316 SS	COES	COES		
A-63000	S-63001B	1	Dryer pre-filter	Upper Deck	AIR	FILTER	MECH	N/A	N/A	168.3	N/A	N/A	N/A	60	65	1724000428-PR-PID-00019	415,00	N/A	AISI 316 SS	COES	COES		
A-63000	S-63002A	1	Dryer after-filter	Upper Deck	AIR	FILTER	MECH	N/A	N/A	168.3	N/A	N/A	N/A	60	65	1724000428-PR-PID-00019	350,00	N/A	AISI 316 SS	COES	COES		
A-63000	S-63002B	1	Dryer after-filter	Upper Deck	AIR	FILTER	MECH	N/A	N/A	168.3	N/A	N/A	N/A	60	65	1724000428-PR-PID-00019	350,00	N/A	AISI 316 SS	COES	COES		
A-50000	S-50003A	1	SW 2ND CARTRIDGE FILTER	Lower Deck	SEA WATER	FILTER	MECH	N/A	N/A	597.5	N/A	180	300	19	40	1724000-440-PR-PID-00013	2	N/A	PLASTIC	PSC	EVERBLUE		
A-50000	S-50003B	1	SW 2ND CARTRIDGE FILTER	Lower Deck	SEA WATER	FILTER	MECH	N/A	N/A	597.5	N/A	180	300	19	40	1724000-440-PR-PID-00013	2	N/A	PLASTIC	PSC	EVERBLUE		

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

HEATERS

ParentTag	Item	Description	Quantity	Area/Location	Class/Subclass	Discipline	Power [kW]	Power Supply	Height [mm]	Diameter [mm]	Width [mm]	Length [mm]	Dry Weight [kg]	Test Weight [kg]	Flowrate [m3/h]	Insulation type	Shell Operating Press [barg]	Shell Design Temp [°C]	Shell Operating Temp [°C]	Shell Design Press [barg]	Material	P&ID	Vendor Name	Manufacturer	Remarks	Revision
A-50000	H-50001	Electrical Heater	1	Lower/Deck	Heater	MECH	30,00	400/3/50	N/A	334	N/A	2021	197	270	2.5	N/A	5,00	60,00	10,00	11	A185 F53 / Titanium Cladded for heat. elements shell in Vinylester	1724000448-PR-PID-00013	PSC	MASTERWATT shell by PLASTIC GLASS		3
A-50000	HHS-50003A	Container Electrical Heater	1	Lower/Deck	Heater	MECH	8.4	400/3/50	290.5	N/A	885	1101	26.4	N/A	0.65	N/A	N/A	N/A	N/A	N/A	AIS 316	1724000448-PR-PID-00013	PSC	AC Graf		
A-50000	HHS-50003B	Container Electrical Heater	1	Lower/Deck	Heater	MECH	8.4	400/3/50	290.5	N/A	885	1101	26.4	N/A	0.65	N/A	N/A	N/A	N/A	N/A	AISI 316	1724000448-PR-PID-00013	PSC	AC Graf		

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

COMPRESSORS

ParentTag	Item	Quantity	Description	AreaLocation	Class/Subclass	Discipline	Driver	Power [kW]	Power Supply	Height [mm]	Width [mm]	Length [mm]	Dry Weight [kg]	Operating Weight [kg]	P&ID No	Flowrate [Nm3/h]	Disch Pressure (barg)	Disch Temp [°C]	Insulation type	Material	Manufacturer	Vendor Name	Remarks	Revision
A-63000	K-63001A	1	Air Compressor	Upper Deck	Compressor/Screw	MECHANICAL	EL.MOTOR	70	400/3/50	2200	1600	2600	2775	2775	1724000428-PR-PID-00019	415	9.5	35	N/A	CARBON STEEL	ATLAS COPCO	COES	Oil free	
A-63000	K-63001B	1	Air Compressor	Upper Deck	Compressor/Screw	MECHANICAL	EL.MOTOR	70	400/3/50	2200	1600	2600	2775	2775	1724000428-PR-PID-00019	415	9.5	35	N/A	CARBON STEEL	ATLAS COPCO	COES	Oil free	

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

PACKAGES

Parent tag	Item	Description	Quantity	Area / Location	Class/Subclass	Discipline	P&ID	Operating °T / Design °T [°C]	Operating Press / Design Press [barg]	Materail	Length [mm]	Width [mm]	Diameter [mm]	Height [mm]	Dry Weight [kg]	Operating Weight [kg]	Insulation type	Supplier	Manufacturer	Remarks	Revision
A-50000	A-50000	Water Treatment Package	1	LOWER DECK	Machinery Package	MECH	1724000448-PR-PID-00013	N/A	N/A	N/A	12200	2440	N/A	2200	10500	15675	N/A	PSC	PSC	for details refer to items identified with parent item of the package	3
A-50000	A-50007A	SWRO Unit	1	LOWER DECK	Machinery Package	MECH	1724000448-PR-PID-00013	N/A	N/A	N/A	'-'	'-'	N/A	'-'	'-'	'-'	N/A	PSC	PSC	for details refer to items identified with parent item of the package inside A-50000 dimensions of each element in the dedicated section	3
A-50000	A-50007B	SWRO Unit	1	LOWER DECK	Machinery Package	MECH	1724000448-PR-PID-00013	N/A	N/A	N/A	'-'	'-'	N/A	'-'	'-'	'-'	N/A	PSC	PSC	for details refer to items identified with parent item of the package inside A-50000 dimensions of each element in the dedicated section	3
A-63000	A-63000	Instrument Air Package	1	UPPER DECK	Machinery Package	MECH	1724000428-PR-PID-00019	N/A	N/A	N/A	6500	3200	N/A	2300	11000	'-'	N/A	COES	COES	for details refer to items identified with parent tag of the package	3
A-64000	A-64000	Nitrogen System Package	1	LOWER DECK	Machinery Package	MECH	1724000437-PR-PID-00018	N/A	N/A	N/A	3500	1600	N/A	2547	5000	'-'	N/A	COES	COES	for details refer to items identified with parent tag of the package	3
A-80000	A-80000	Fuel Cell Package	1	UPPER DECK	Machinery Package	MECH	123A90-DDL-PR-PID-80012	N/A	N/A	'-'	750	1800	N/A	2600	37690	39090	N/A	BALLARD	BALLARD		
Q-43004	Q-43004	Hydrogen Vent	1	UPPER DECK	Machinery Package	MECH	123A90-DDL-PR-PID-80029	80 / 80	atm / 3.5	A516 gr.60	N/A	N/A	12" Tip 20" Vent	16500	4500	'-'	YES with electical tracing	ENCORE	ENCORE		

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

HANDLING

Parent Tag	Item	Description	Quantity	Class Name	Area/Location	Class/Subclass	Discipline	Standard/Norm	Driver	Power [kW]	Power Supply	Height [mm]	Width [mm]	Length [mm]	Operating Weight [kg]	Insulation type	Material	Manufacturer	Vendor Name	Remarks	Revision
N/A	X-99001	Lifting Davit	1	Handling	Upper Deck	Handling	MECH	DNV-ST-0378	El Mot Winch El Mot Slw+Rdl	20,00	400/3/50	5941	2143	11920	6000,00	N/A	S355 EN 10025-2	REMAZEL	REMAZEL	Indicated the overall absobed power	

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

MISCELLANEOUS

Parent Tag	Item	Description	Quantity	Area/Location	Class/Subclass	Discipline	Design Capacity [m3/h]	Design Temperature - Max [degC]	Design Press Max [barg]	MOC	Driver Type	Rated Power [W]	Diameter [mm]	Length [mm]	Width [mm]	Height [mm]	Dry Weight [kg]	Operating Weight [kg]	P&ID	Insulation type	Vendor	Manufacturer	Remarks	Revision
A-50000	HFA-50001A	Container Air fan	1	Lower Deck	Miscellaneous Equipment	MECH	1010	60	atm	Plastic UL94V-0	El. Motor	140	N/A	332	332	189	3.4	3.4	1724000448-PR-PID-00013	N/A	PSC	STEGO		
A-50000	HFA-50001B	Container Air fan	1	Lower Deck	Miscellaneous Equipment	MECH	1010	60	atm	Plastic UL94V-0	El. Motor	140	N/A	332	332	189	3.4	3.4	1724000448-PR-PID-00013	N/A	PSC	STEGO		
A-50000	HFA-50001C	Container Air fan	1	Lower Deck	Miscellaneous Equipment	MECH	1010	60	atm	Plastic UL94V-0	El. Motor	140	N/A	332	332	189	3.4	3.4	1724000448-PR-PID-00013	N/A	PSC	STEGO		
A-64000	C-64001A	PSA Tower	1	Lower Deck	Miscellaneous Equipment	MECH	150	80	12	Carbon Steel	N/A	N/A	114.3	N/A	N/A	400	35	40	1724000437-PR-PID-00018	N/A	COES	COES		
A-64000	C-64001B	PSA Tower	1	Lower Deck	Miscellaneous Equipment	MECH	150	80	12	Carbon Steel	N/A	N/A	114.3	N/A	N/A	400	35	40	1724000437-PR-PID-00018	N/A	COES	COES		

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