Base Load Power Hub (BLPH)

Monthly Weight Report

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Revision / Change Log

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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.

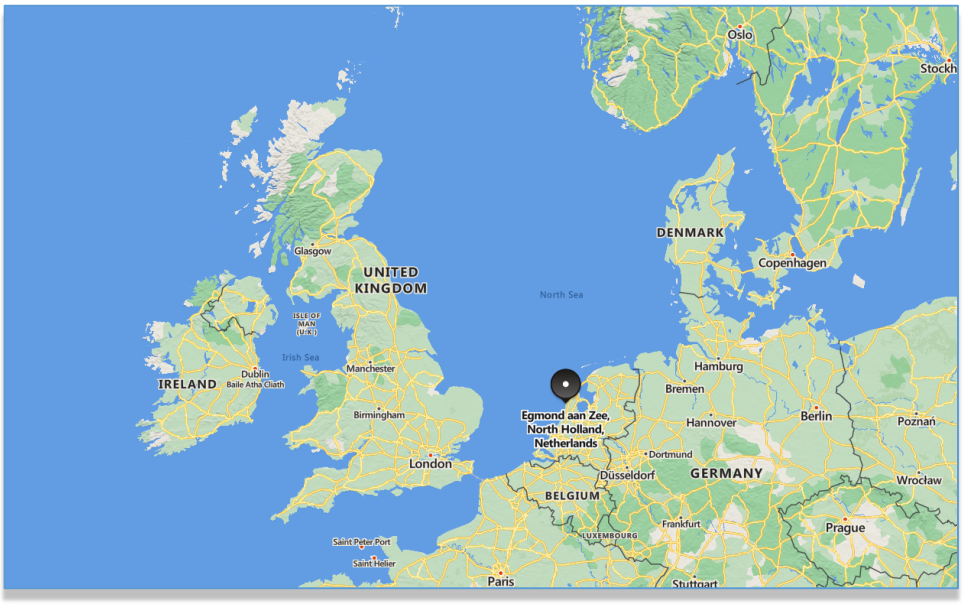


Figure 1 HOLLANDSE KUST NOORD WIND PARK Location Map

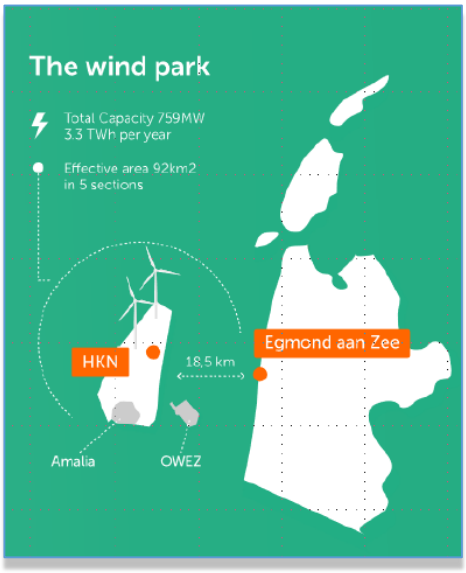


Figure 2 - Wind Park Details

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.

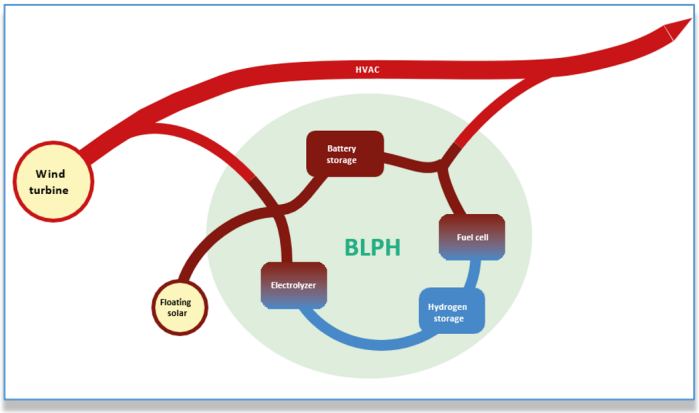


Figure 3 – BLPH Concept

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.

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2 DOCUMENT SCOPE

The purpose of this document is to present the Weight Report for the BLPH topsides.

BLPH topsides comprises three separate installations:

- Caissons and support structure, which will be lift installed into receptacles previously fabricated onto the BLPH monopile sub-structure;
- A Transition Piece (TP) structure that is bolted onto the top flange of the monopile and provides the support structure interface between the monopile and the topside facilities; and
- The topsides facilities which will be stabbed onto the TP using stabbing cones on the topsides and receptacles on the TP.

2.1 REFERENCES

Doc. No.	Description
123A90-PML-MD-PRO-01002	Weight Control Procedure
K559-2254-ST-REP-001	Structural Topsides Analysis Report
K559-2254-ST-PHI-001	Structural Topsides Design & Installation Philosophy

Table 1 - Reference Documents

2.2 DEFINITIONS AND ABBREVIATIONS

COMPANY or Client (CPY):	Crosswind
CONTRACTOR (CTR) :	ROSETTI MARINO S.p.A.
PROJECT:	HOLLANDSE KUST NOORD WIND PARK Project
BESS:	Battery Energy Storage System
BfD:	Basis for Design
BLPH	Base Load Power Hub
CoG:	Centre of Gravity
CW:	CrossWind

EPCI:	Engineering Procurement Construction and Installation
FEED:	Front End Engineering Design
F&G:	Fire and Gas
HKN:	Hollandse Kust Noord
HLV:	Heavy Lift Vessel
HSE:	Health, Safety and Environment
HUC:	Hook-Up and Commissioning
ISO:	International Standards Organisation
LAT:	Lowest Astronomical Tide
NA:	Not applicable
NTE:	Not-to-Exceed
P&ID:	Piping and Instrumentation Diagram
PV:	Photovoltaic
QA:	Quality Assurance
SGSI:	Shell Global Solutions International
SWL:	Safe Working Load
TP:	Transition Piece
TSO:	Transmission System Operator
WCC:	Weight Control Class
WGF:	Weight Growth Factor
WLB:	Weight and Load Budget
WTG:	Wind Turbine Generator
WR \WCR:	Weight Report\ Weight Control Report

Table 2 - Definitions and Abbreviations

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3 REGULATIONS, CODES AND STANDARDS

3.1 INTERNATIONAL CODES & STANDARDS

1. ISO 19901 ISO/DIS Specific Requirements for offshore structures: 19901 Part 5 - Weight control during engineering and construction

3.2 PROJECT SPECIFICATIONS APPLICABLE

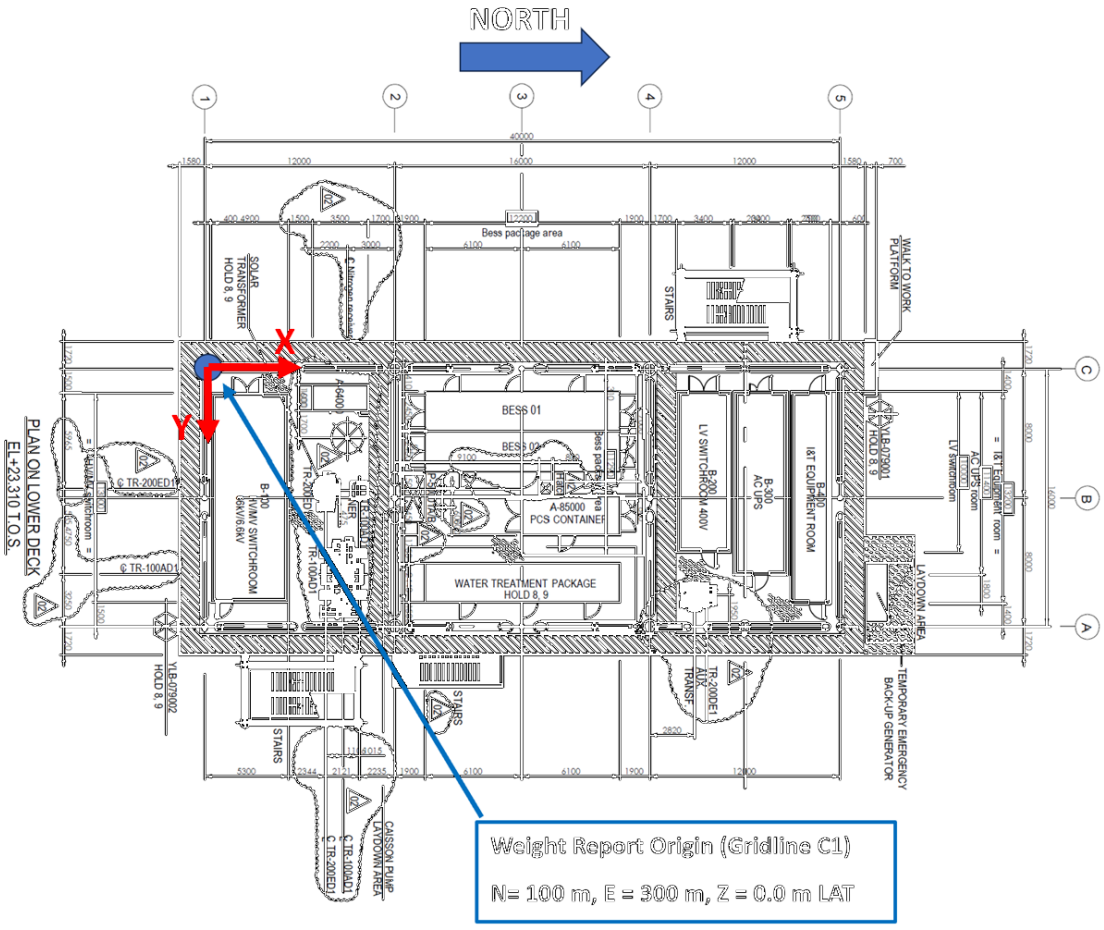
2. Shell "Basis for Design Base Load Power Hub (BLPH)", Rev. F, 26 Sept 2022.
3. KBR "Structural Analysis Report of Topsides Facilities", Doc. No. K559-2254-ST-RPT-001, not yet issued.
4. KBR "Topsides NTE Weight and Topsides Level", TQ-0016, 8 November 2022.
5. Shell Basic Design Engineering Package, K559-2254-PM-PLN-003 Rev. 2 dated 6/7/2023

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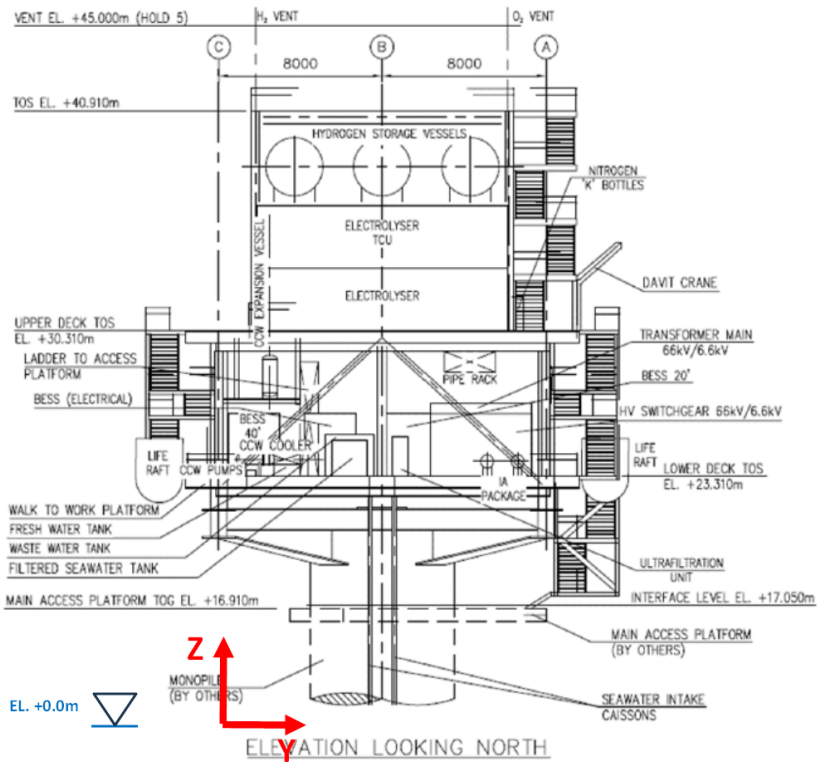
4 WEIGHT CONTROL REPORT

4.1 BLPH GLOBAL REFERENCE SYSTEM

BLPH GENERAL ARRANGEMENT DRAWING - PLAN VIEW



BLPH GENERAL ARRANGEMENT DRAWING - ELEVATION VIEW



4.2 BLPH WEIGHT SUMMARY

BLPH WEIGHT SUMMARY

BLPH - TOPSIDE (NO LIVE LOAD AND SNOW) - Summary by Phase

Phase Code	Phase Description	Base Wt. (t)	Center of Gravity			Factored Wt. (t)	Center of Gravity			Design Net Wt. (t)	Center of Gravity			Design Gross (Expected) Wt. (t)	Center of Gravity		
			Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)
LO	Loadout	1521	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3
ST	Sea Transport	1521	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3
OP	Operating weight (Dry + Contents)	1570	19,7	7,9	29,3	1669	19,7	7,9	29,3	1669	19,7	7,9	29,3	1669	19,7	7,9	29,3
L	Lifting	1521	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3	1617	19,8	7,9	29,3

BLPH - TRANSITION PIECE (TP) - Summary by Phase

Phase Code	Phase Description	Base Wt. (t)	Center of Gravity			Factored Wt. (t)	Center of Gravity			Design Net Wt. (t)	Center of Gravity			Design Gross (Expected) Wt. (t)	Center of Gravity		
			Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)
LO	Loadout	270	20,0	8,0	20,1	283	20,0	8,0	19,1	283	20,0	8,0	20,1	283	20,0	8,0	20,1
ST	Sea Transport	270	20,0	8,0	20,1	283	20,0	8,0	19,1	283	20,0	8,0	20,1	283	20,0	8,0	20,1
OP	Operating weight (Dry + Contents)	260	20,2	8,0	20,3	273	20,2	8,0	19,3	273	20,2	8,0	20,3	273	20,2	8,0	20,3
L	Lifting	237	20,0	8,0	20,4	248	20,0	8,0	19,4	248	20,0	8,0	20,4	248	20,0	8,0	20,4

BLPH - CAISSON - Summary by Phase

Phase Code	Phase Description	Base Wt. (t)	Center of Gravity			Factored Wt. (t)	Center of Gravity			Design Net Wt. (t)	Center of Gravity			Design Gross (Expected) Wt. (t)	Center of Gravity		
			Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)
LO	Loadout	34	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9
ST	Sea Transport	34	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9
OP	Operating weight (Dry + Contents)	34	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9
L	Lifting	34	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9	35	19,0	8,0	10,9

BLPH - TOPSIDE (with live load and snow) + TRANSITION PIECE (TP) + CAISSON - Summary by Phase

Phase Code	Phase Description	Base Wt. (t)	Center of Gravity			Factored Wt. (t)	Center of Gravity			Design Net Wt. (t)	Center of Gravity			Design Gross (Expected) Wt. (t)	Center of Gravity		
			Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)		Northing (m)	Easting (m)	Elevation (m)
OP	Operating weight (Dry + Contents)	2057	20,4	8,2	27,7	2171	20,4	8,2	27,7	2171	20,4	8,2	27,7	2171	20,4	8,2	27,7

NOTE:

1 - Lower grillage for transition piece and topside is not considered in the above presented tables

4.3 BLPH WEIGHT TREND

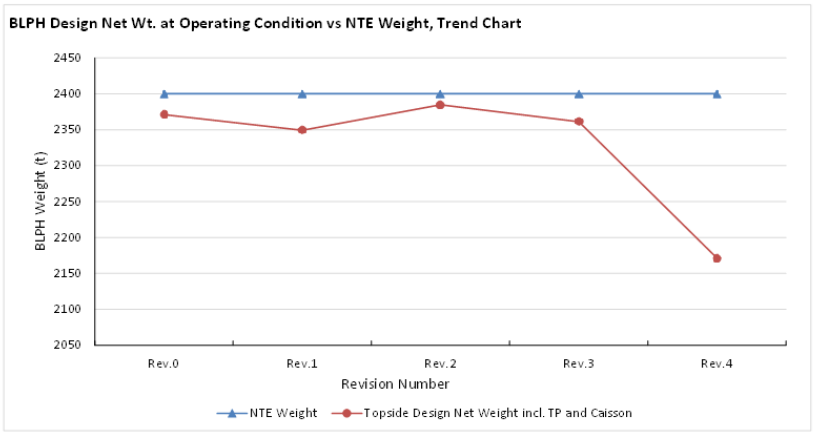
TOPSIDE + TP + CAISSON WEIGHT TREND TABLES

Phase		WCR_Rev.0		WCR_Rev.1	
Phase Code	Phase Decription	Design Net Wt. (t)	Design Gross Wt. (t)	Design Net Wt. (t)	Design Gross Wt. (t)
LO	Load Out	2.176	2.176	2.167	2.167
ST	Sea Transport	2.154	2.154	2.167	2.167
L	Lifting	2.126	2.126	2.130	2.130
OP	Operating Condition	2.371	2.371	2.349	2.349
NOTE: Live Load and Snow Included only at operating condition					

Phase		WCR_Rev.2		WCR_Rev.3	
Phase Code	Phase Decription	Design Net Wt. (t)	Design Gross Wt. (t)	Design Net Wt. (t)	Design Gross Wt. (t)
LO	Load Out	2.200	2.200	2.129	2.129
ST	Sea Transport	2.200	2.200	2.129	2.129
L	Lifting	2.163	2.163	2.093	2.093
OP	Operating Condition	2.385	2.385	2.361	2.361
NOTE: Live Load and Snow Included only at operating condition					

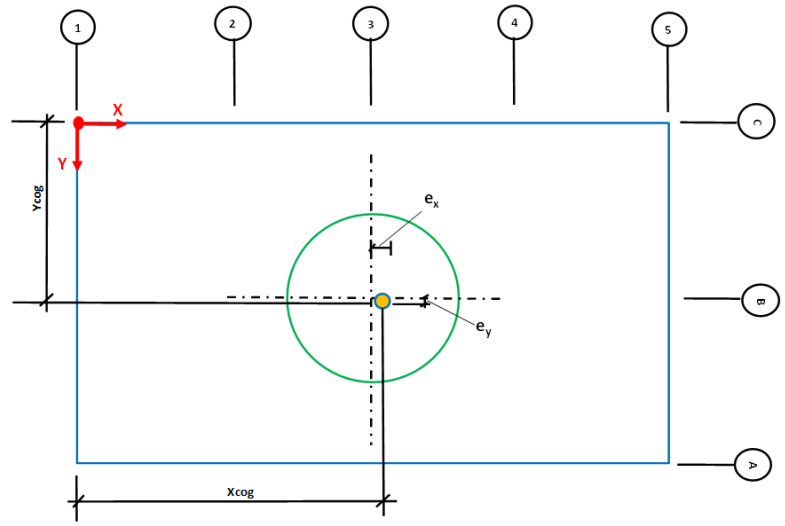
Phase		WCR_Rev.4		WCR_Rev.5	
Phase Code	Phase Decription	Design Net Wt. (t)	Design Gross Wt. (t)	Design Net Wt. (t)	Design Gross Wt. (t)
LO	Load Out	1.936	1.936		
ST	Sea Transport	1.936	1.936		
L	Lifting	1.901	1.901		
OP	Operating Condition	2.171	2.171		
NOTE: Live Load and Snow Included only at operating condition					

Phase		WCR_Rev.6		WCR_Rev.7	
Phase Code	Phase Decription	Design Net Wt. (t)	Design Gross Wt. (t)	Design Net Wt. (t)	Design Gross Wt. (t)
LO	Load Out				
ST	Sea Transport				
L	Lifting				
OP	Operating Condition				
NOTE: Live Load and Snow Included only at operating condition					



4.4 BLPH COG EVOLUTION

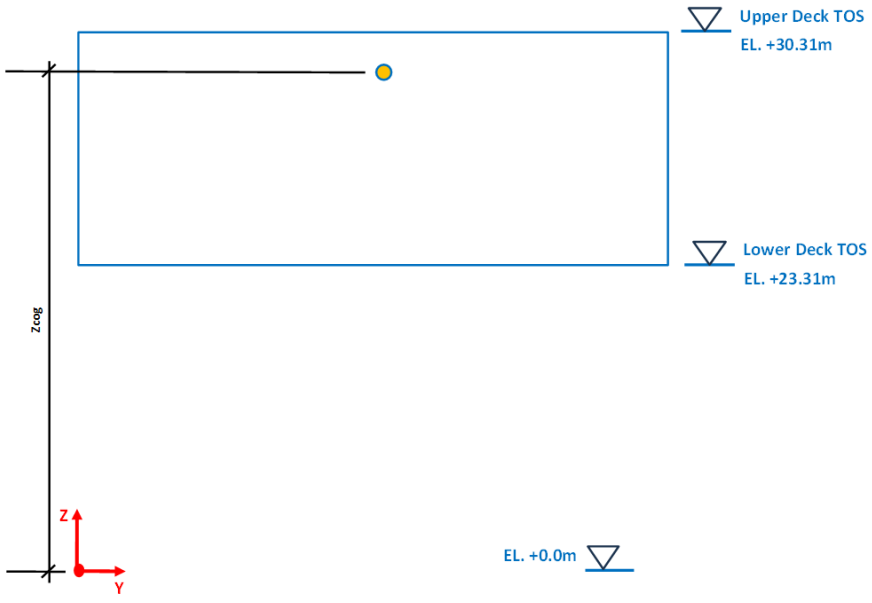
BLPH TOPSIDE CoG EVOLUTION - LIFTING CONDITION - DESIGN NET WEIGHT



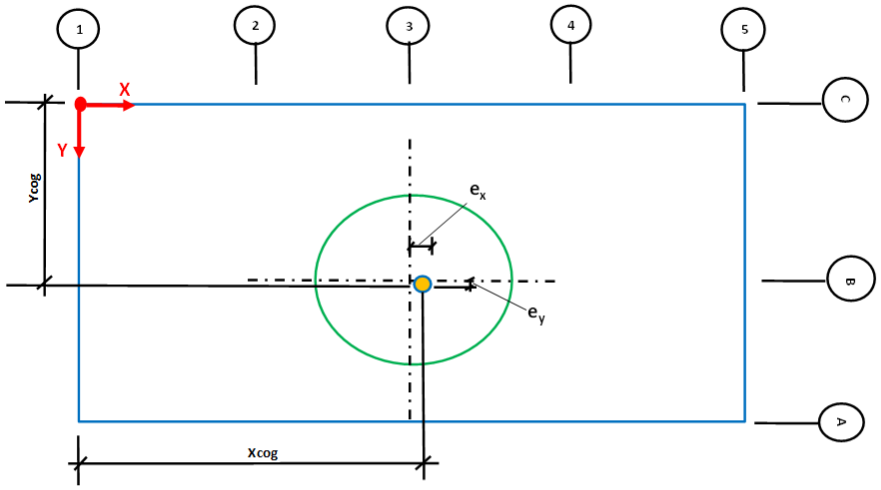
LEGEND:

- BLPH MODULE
- MONOPILE
- CoG AT LIFTING CONDITION

BLPH - TOPSIDE (NO TP) - Lifting condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
LIFTING (L)	1617	19,76	7,90	29,29	0,76	0,10



BLPH TOPSIDE CoG EVOLUTION - SEA TRANSPORT CONDITION - DESIGN NET WEIGHT



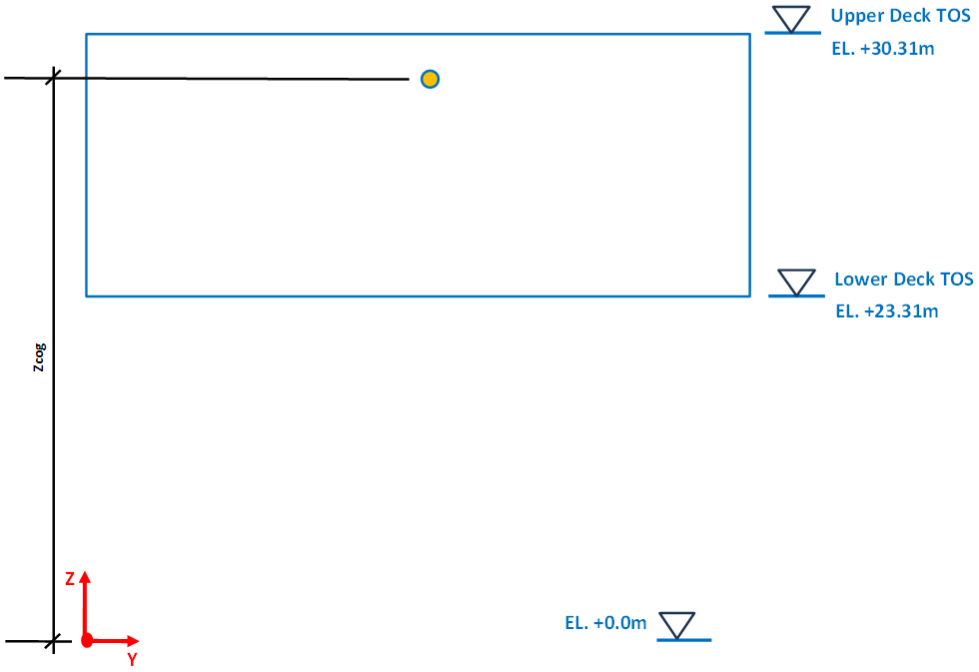
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BLPH MODULE

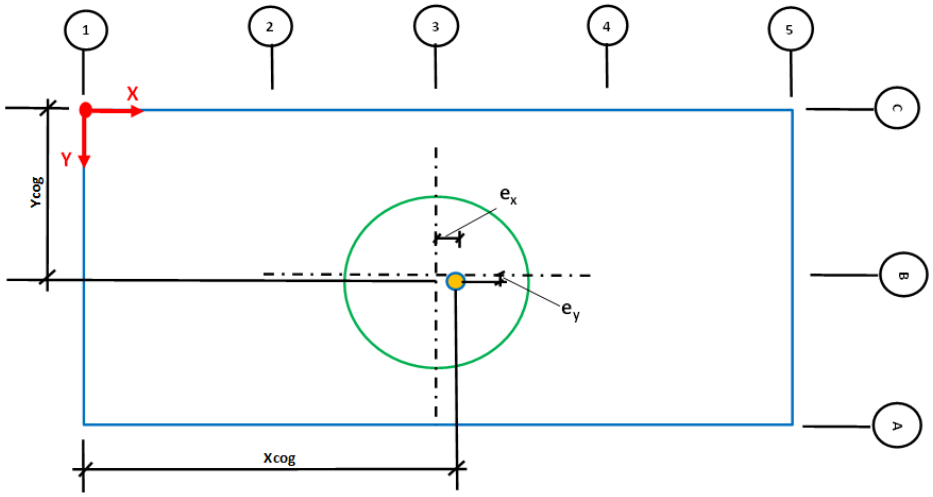
MONOPILE

CoG AT SEA TRANSPORT CONDITION

BLPH - TOPSIDE (NO TP) - Sea Transport condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
SEA TRANSPORT (ST)	1617	19,76	7,90	29,29	0,76	0,10



BLPH TOPSIDE CoG EVOLUTION - LOADOUT CONDITION - DESIGN NET WEIGHT



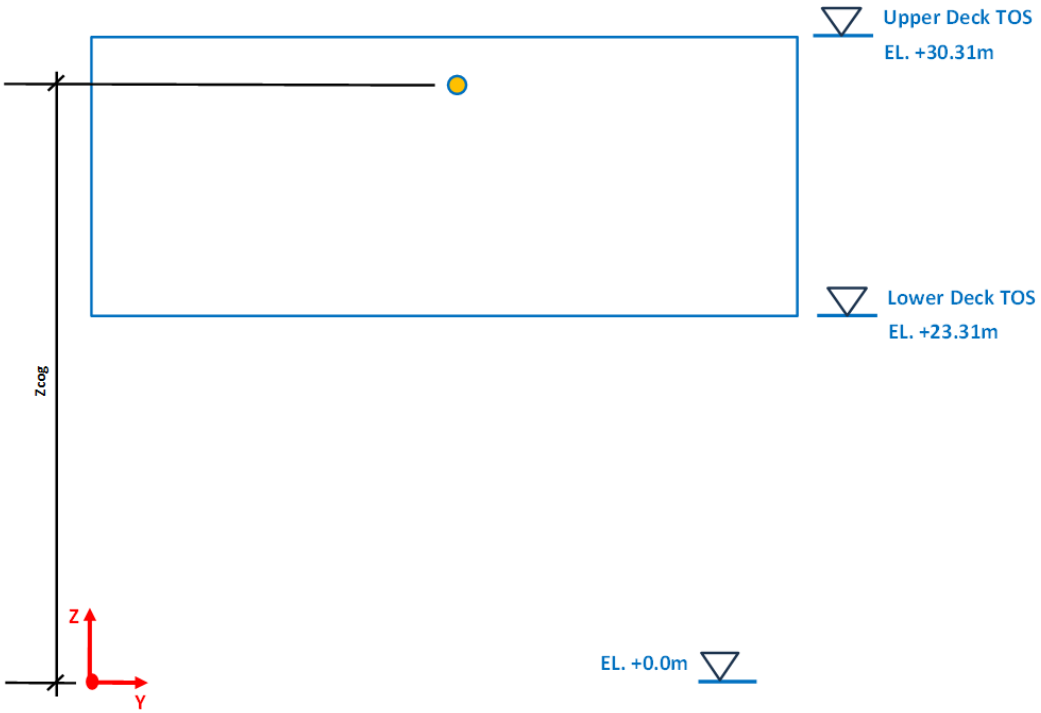
LEGEND:

BLPH MODULE

MONOPILE

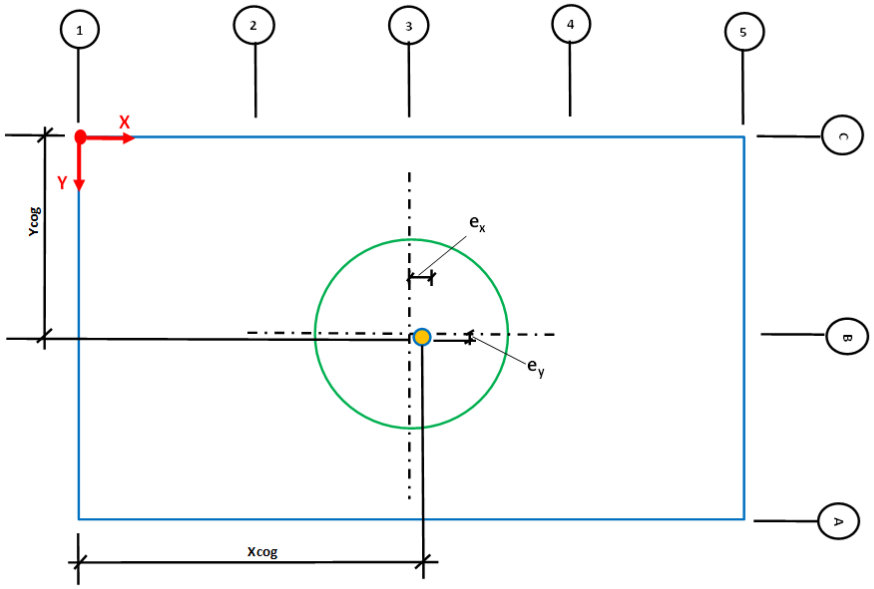
CoG AT LOADOUT CONDITION

BLPH - TOPSIDE (NO TP) - Loadout condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
LOADOUT (LO)	1617	19,76	7,90	29,29	0,76	0,10



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BLPH TRANSITION PIECE CoG EVOLUTION - LIFTING CONDITION - DESIGN NET WEIGHT



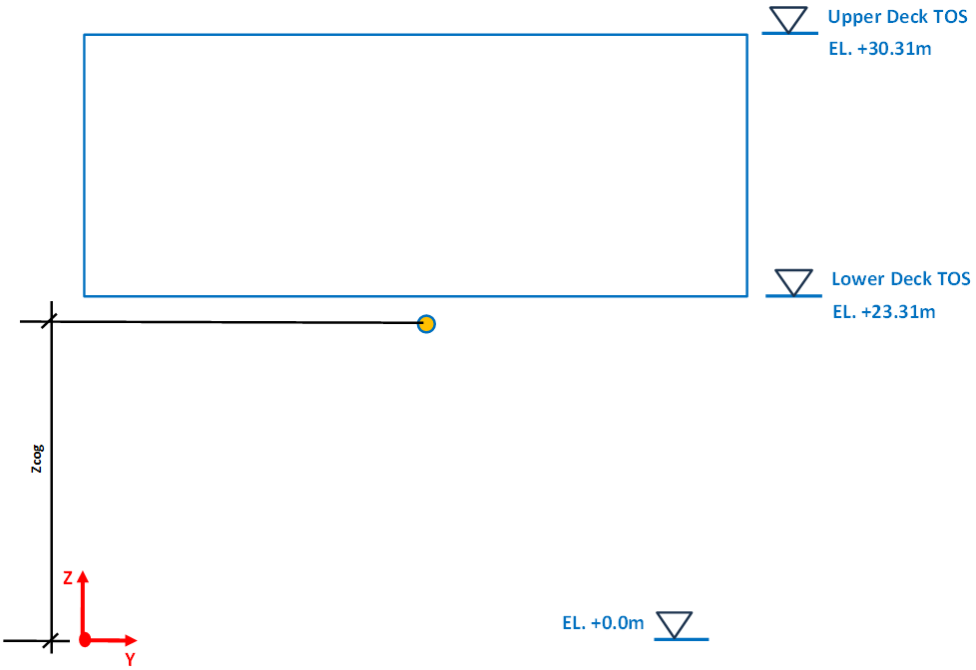
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BLPH MODULE

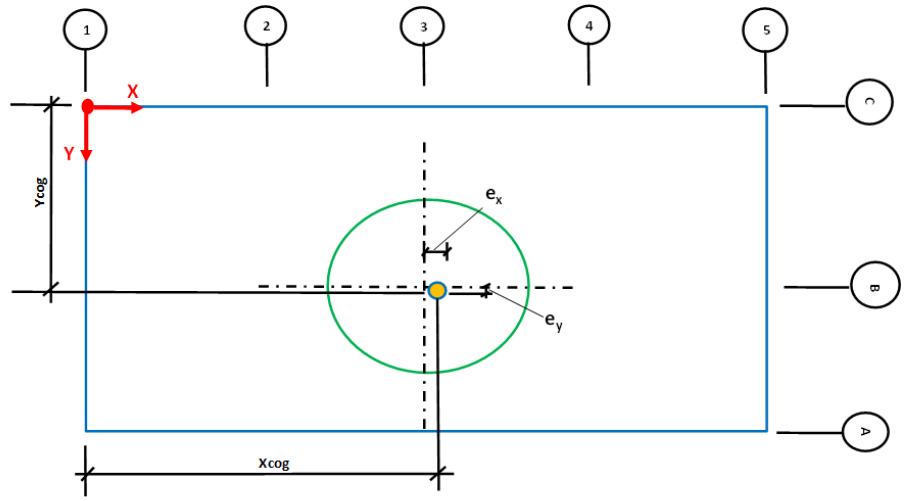
MONOPILE

CoG AT LIFTING CONDITION

BLPH - TRANSITION PIECE (TP) - Lifting condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
LIFTING (L)	248	20,04	7,98	20,36	1,04	0,02



BLPH TRANSITION PIECE CoG EVOLUTION - SEA TRANSPORT CONDITION - DESIGN NET WEIGHT



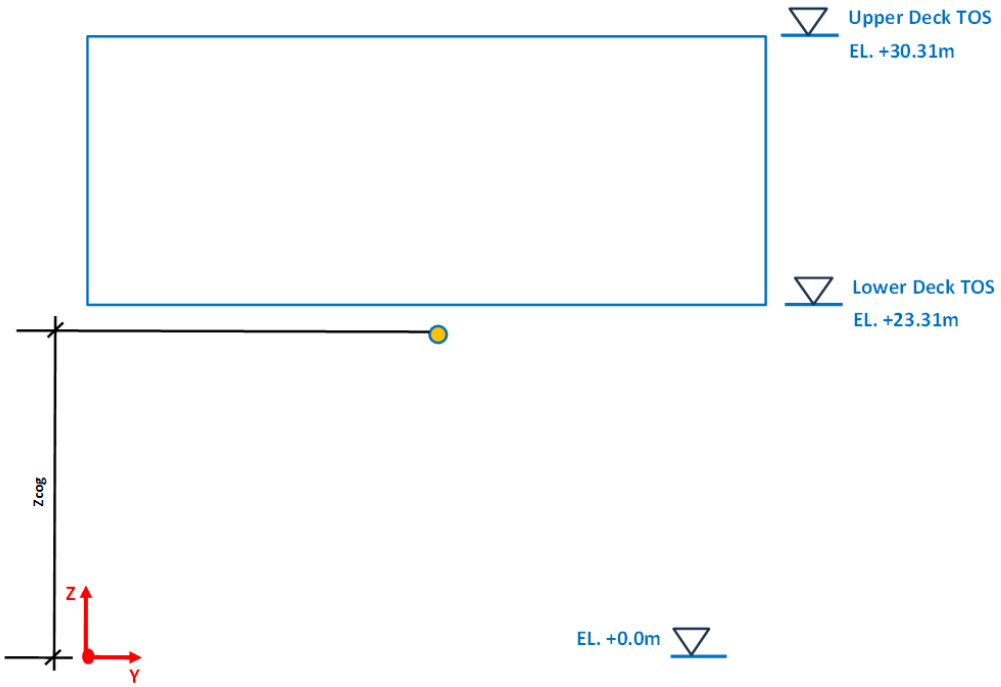
LEGEND:

BLPH MODULE

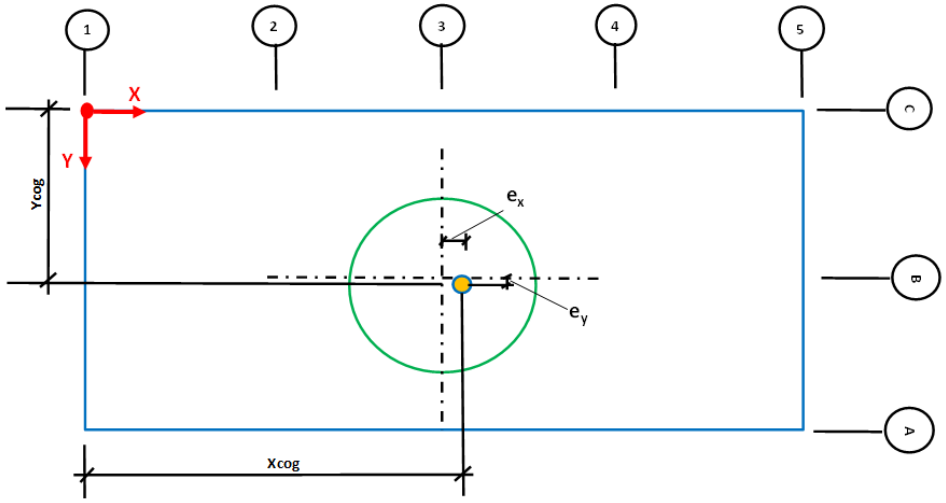
MONOPILE

CoG AT SEA TRANSPORT CONDITION

BLPH - TRANSITION PIECE (TP) - Sea Transport condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
SEA TRANSPORT (ST)	283	20,04	7,98	20,10	1,04	0,02



BLPH TRANSITION PIECE CoG EVOLUTION - LOADOUT CONDITION - DESIGN NET WEIGHT



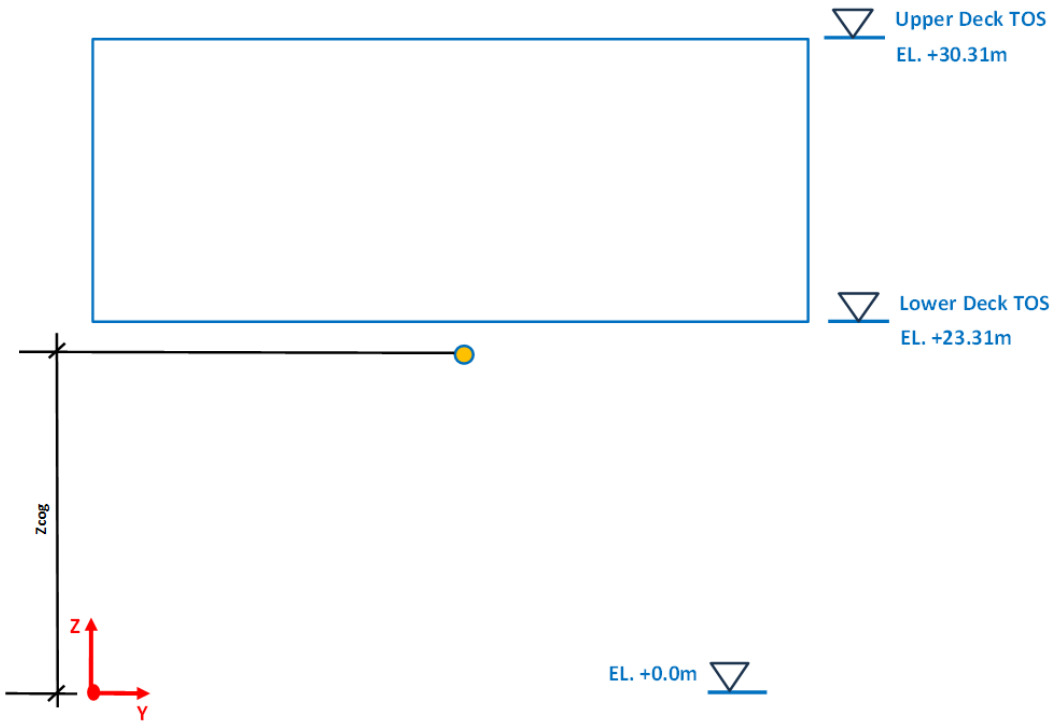
LEGEND:

BLPH MODULE

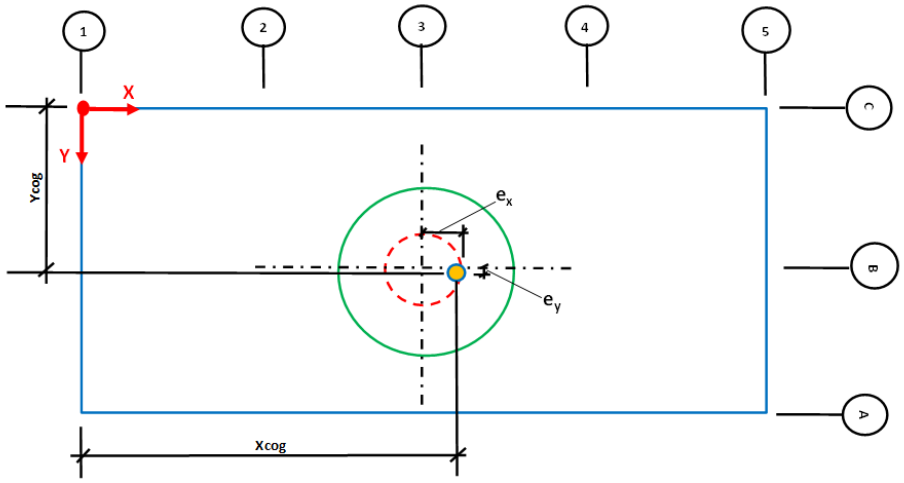
MONOPILE

CoG AT LOADOUT CONDITION

BLPH - TRANSITION PIECE (TP) - Loadout condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
LOADOUT (LO)	283	20,04	7,98	20,10	1,04	0,02



BLPH TOPSIDE + TRANSITION PIECE CoG EVOLUTION - OPERATING CONDITION - DESIGN NET WEIGHT



LEGEND:

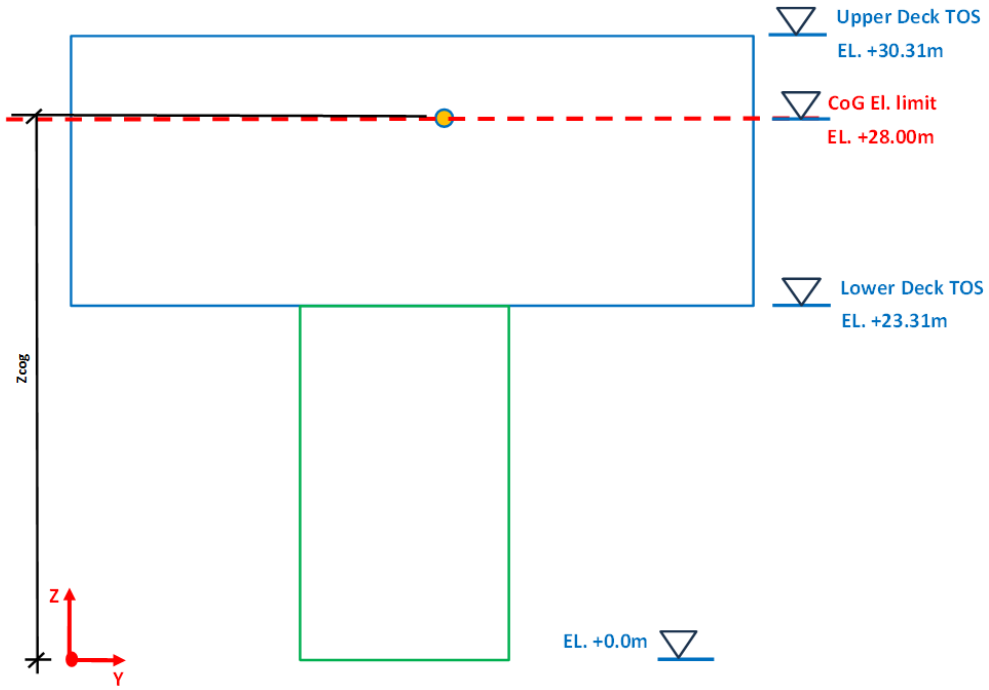
BLPH MODULE

MONOPILE

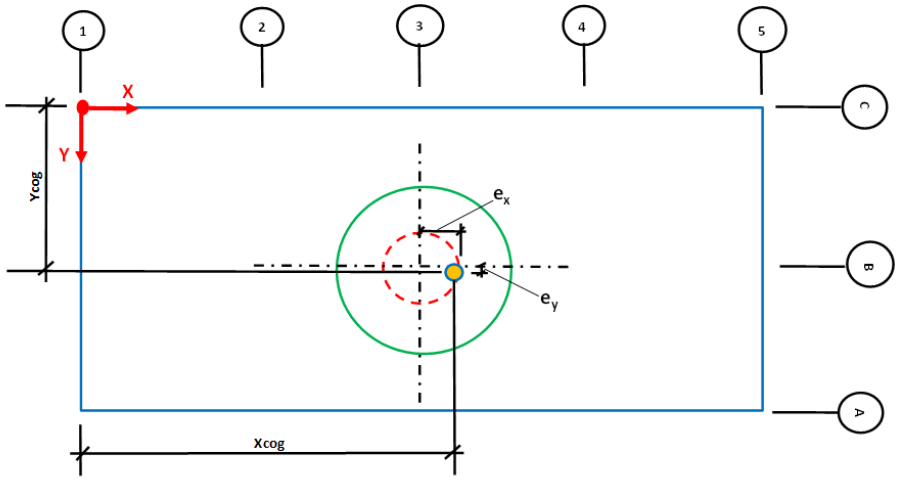
CoG ENVELOPE

CoG AT OPERATING CONDITION

BLPH - TOPSIDE + TRANSITION PIECE + CAISSON - Operating condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
OPERATING (OP)	2136	20,41	8,21	28,03	1,41	0,21
NOTE: Live load and snow included						



BLPH TOPSIDE + TRANSITION PIECE + CAISSON CoG EVOLUTION - OPERATING CONDITION - DESIGN NET WEIGHT



LEGEND:

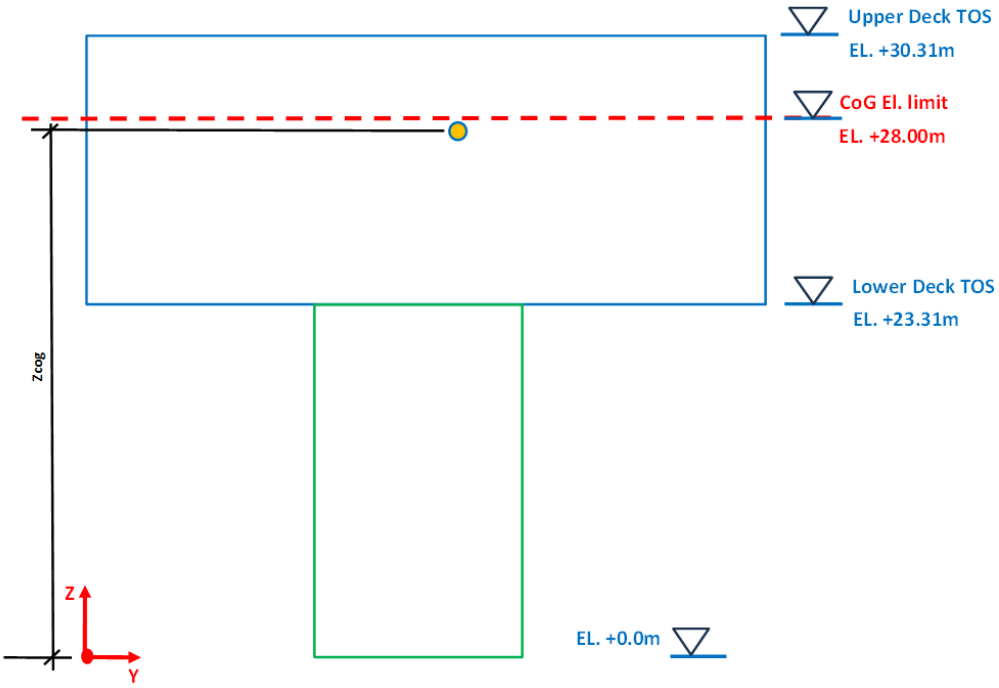
BLPH MODULE

MONOPILE

CoG ENVELOPE

CoG AT OPERATING CONDITION

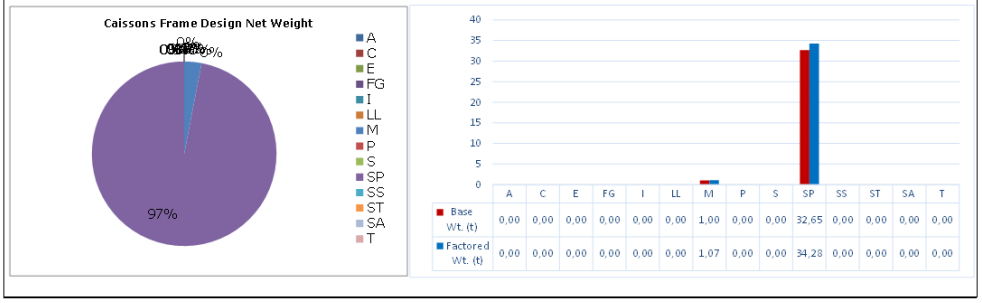
BLPH - TOPSIDE + TRANSITION PIECE + CAISSON - Operating condition						
Phase	Design Net Wt. (t)	CoG Coordinates			CoG Eccentricity	
		x_{cog} (m)	y_{cog} (m)	z_{cog} (m)	e_x (m)	e_y (m)
OPERATING (OP)	2171	20,38	8,21	27,75	1,38	0,21
NOTE: Live load and snow included						



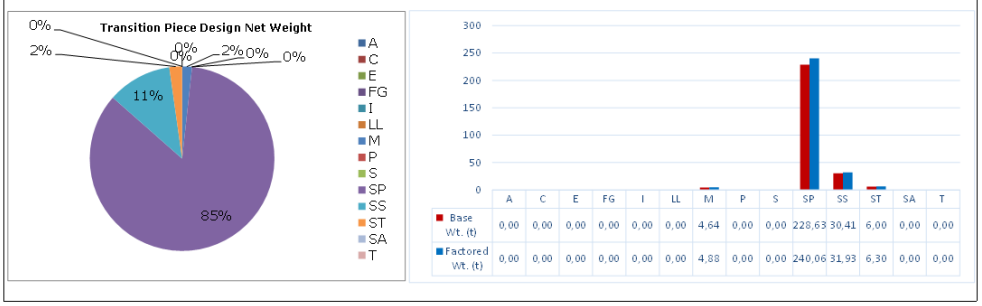
4.5 BLPH DISCIPLINE WEIGHT SUMMARY

BLPH DISCIPLINE WEIGHT SUMMARY

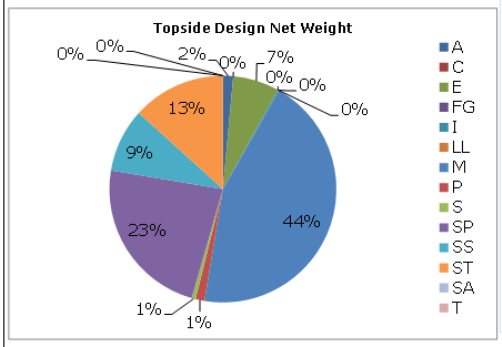
AREA	BLPH LOAD OUT CONDITION PER DISCIPLINE								
CS = Caisson	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	1,00	7%	1,07	1,00	1,07	1,00	1,07
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	32,65	5%	34,28	1,00	34,28	1,00	34,28
	SS	Secondary Steel	0,00	0%	0,00	-	0,00	-	0,00
	ST	Tertiary Steel	0,00	0%	0,00	-	0,00	-	0,00
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**33,65**	**5%**	**35,35**	**1,00**	**35,35**	**1,00**	**35,35**

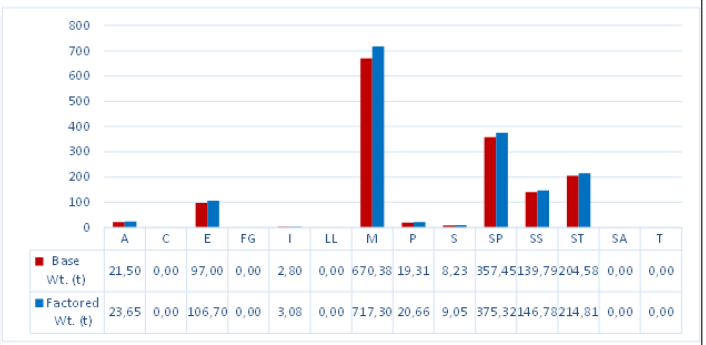


AREA	BLPH LOAD OUT CONDITION PER DISCIPLINE								
TP = Transition piece	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	4,64	6%	4,88	1,00	4,88	1,00	4,88
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	228,63	5%	240,06	1,00	240,06	1,00	240,06
	SS	Secondary Steel	30,41	5%	31,93	1,00	31,93	1,00	31,93
	ST	Tertiary Steel	6,00	5%	6,30	1,00	6,30	1,00	6,30
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**269,68**	**5%**	**283,17**	**1,00**	**283,17**	**1,00**	**283,17**



AREA	BLPH LOAD OUT CONDITION PER DISCIPLINE								
TS = Topside	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	21,50	10%	23,65	1,00	23,65	1,00	23,65
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	97,00	10%	106,70	1,00	106,70	1,00	106,70
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	2,80	10%	3,08	1,00	3,08	1,00	3,08
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	670,38	7%	717,30	1,00	717,30	1,00	717,30
	P	Piping	19,31	7%	20,66	1,00	20,66	1,00	20,66
	S	Safety / loss prevention	8,23	10%	9,05	1,00	9,05	1,00	9,05
	SP	Primary Steel	357,45	5%	375,32	1,00	375,32	1,00	375,32
	SS	Secondary Steel	139,79	5%	146,78	1,00	146,78	1,00	146,78
	ST	Tertiary Steel	204,58	5%	214,81	1,00	214,81	1,00	214,81
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**1521,04**	**6%**	**1617,36**	**1,00**	**1617,36**	**1,00**	**1617,36**

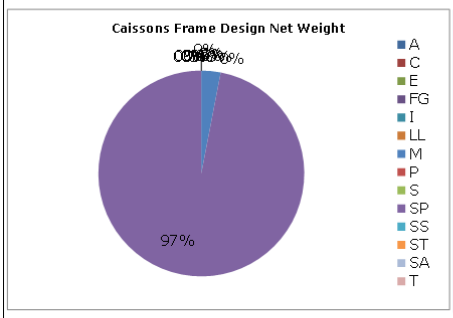


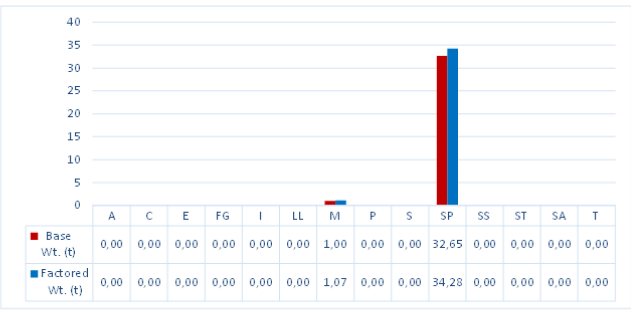


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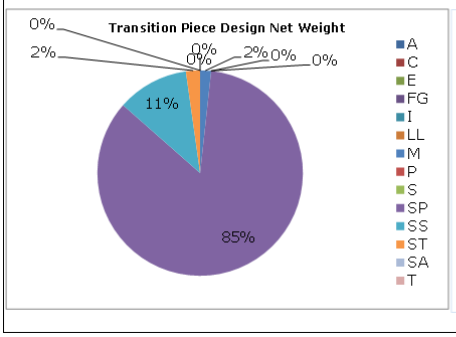
BLPH DISCIPLINE WEIGHT SUMMARY

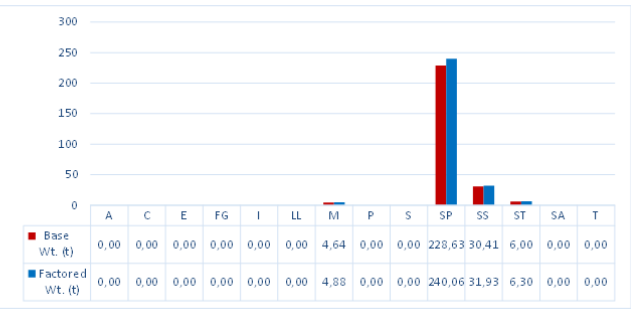
AREA	BLPH SEA-TRANSPORT CONDITION PER DISCIPLINE								
CS = Caisson	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	1,00	7%	1,07	1,00	1,07	1,00	1,07
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	32,65	5%	34,28	1,00	34,28	1,00	34,28
	SS	Secondary Steel	0,00	0%	0,00	-	0,00	-	0,00
	ST	Tertiary Steel	0,00	0%	0,00	-	0,00	-	0,00
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**33,65**	**5%**	**35,35**	**1,00**	**35,35**	**1,00**	**35,35**



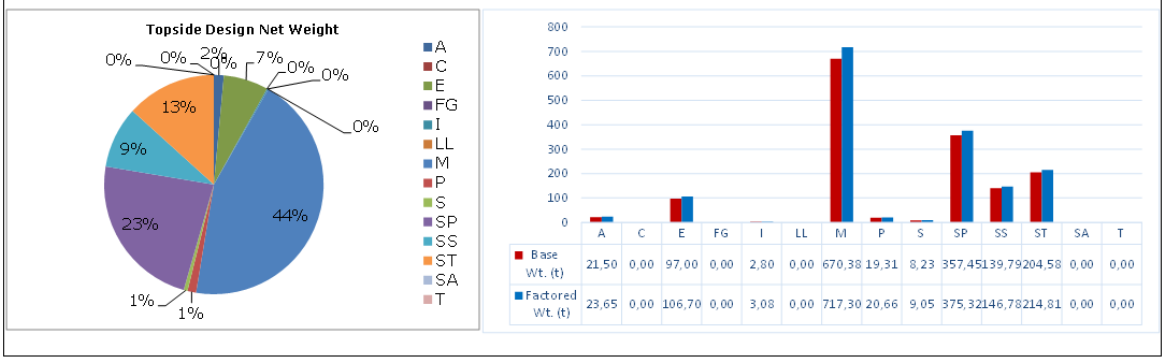


AREA	BLPH SEA-TRANSPORT CONDITION PER DISCIPLINE								
TP = Transition piece	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	4,64	6%	4,88	1,00	4,88	1,00	4,88
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	228,63	5%	240,06	1,00	240,06	1,00	240,06
	SS	Secondary Steel	30,41	5%	31,93	1,00	31,93	1,00	31,93
	ST	Tertiary Steel	6,00	5%	6,30	1,00	6,30	1,00	6,30
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**269,68**	**5%**	**283,17**	**1,00**	**283,17**	**1,00**	**283,17**





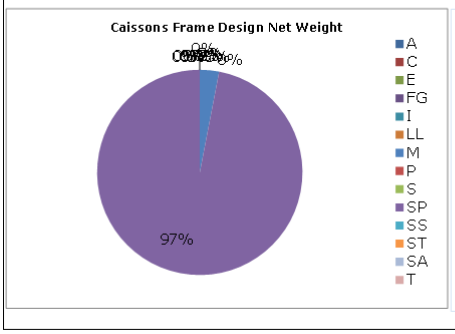
AREA	BLPH SEA-TRANSPORT CONDITION PER DISCIPLINE								
TS = Topside	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	21,50	10%	23,65	1,00	23,65	1,00	23,65
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	97,00	10%	106,70	1,00	106,70	1,00	106,70
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	2,80	10%	3,08	1,00	3,08	1,00	3,08
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	670,38	7%	717,30	1,00	717,30	1,00	717,30
	P	Piping	19,31	7%	20,66	1,00	20,66	1,00	20,66
	S	Safety / loss prevention	8,23	10%	9,05	1,00	9,05	1,00	9,05
	SP	Primary Steel	357,45	5%	375,32	1,00	375,32	1,00	375,32
	SS	Secondary Steel	139,79	5%	146,78	1,00	146,78	1,00	146,78
	ST	Tertiary Steel	204,58	5%	214,81	1,00	214,81	1,00	214,81
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**1521,04**	**6%**	**1617,36**	**1,00**	**1617,36**	**1,00**	**1617,36**

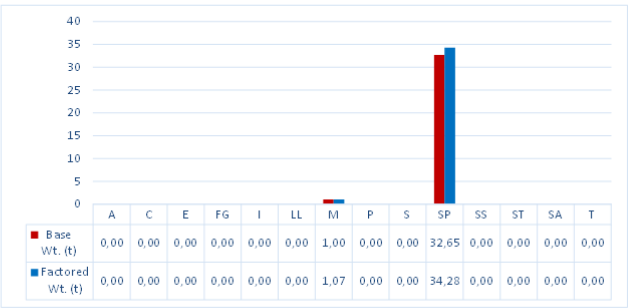


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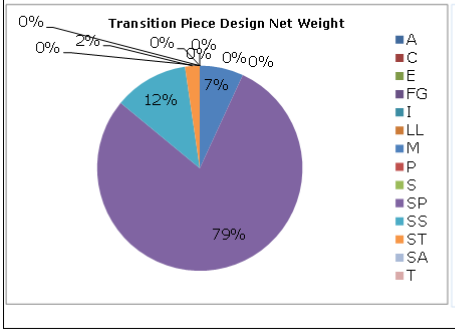
BLPH DISCIPLINE WEIGHT SUMMARY

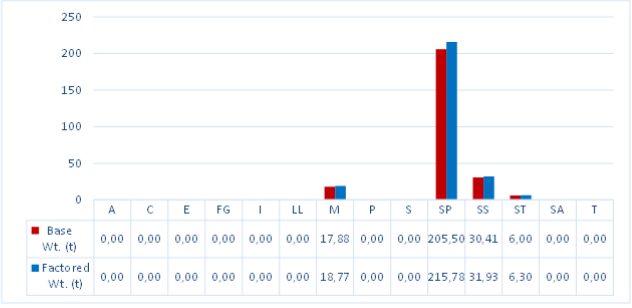
AREA	BLPH OPERATING CONDITION PER DISCIPLINE								
CS = Caisson	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	1,00	7%	1,07	1,00	1,07	1,00	1,07
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	32,65	5%	34,28	1,00	34,28	1,00	34,28
	SS	Secondary Steel	0,00	0%	0,00	-	0,00	-	0,00
	ST	Tertiary Steel	0,00	0%	0,00	-	0,00	-	0,00
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**33,65**	**5%**	**35,35**	**1,00**	**35,35**	**1,00**	**35,35**



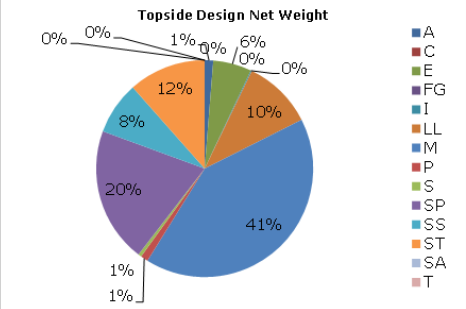


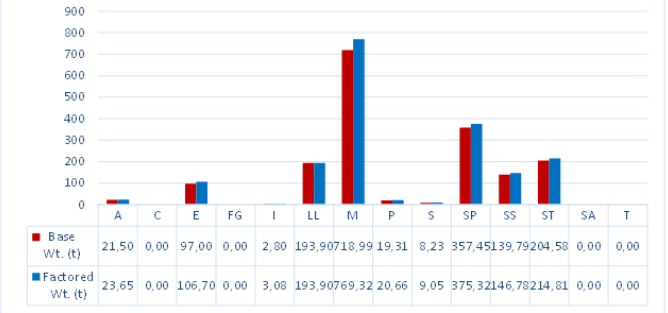
AREA	BLPH OPERATING CONDITION PER DISCIPLINE								
TP = Transition piece	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	17,88	6%	18,77	1,00	18,77	1,00	18,77
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	205,50	5%	215,78	1,00	215,78	1,00	215,78
	SS	Secondary Steel	30,41	5%	31,93	1,00	31,93	1,00	31,93
	ST	Tertiary Steel	6,00	5%	6,30	1,00	6,30	1,00	6,30
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**259,78**	**5%**	**272,78**	**1,00**	**272,78**	**1,00**	**272,78**





AREA	BLPH OPERATING CONDITION PER DISCIPLINE								
TS = Topside	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	21,50	10%	23,65	1,00	23,65	1,00	23,65
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	97,00	10%	106,70	1,00	106,70	1,00	106,70
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	2,80	10%	3,08	1,00	3,08	1,00	3,08
	LL	Live Loads	193,90	0%	193,90	1,00	193,90	1,00	193,90
	M	Mechanical	718,99	7%	769,32	1,00	769,32	1,00	769,32
	P	Piping	19,31	7%	20,66	1,00	20,66	1,00	20,66
	S	Safety / loss prevention	8,23	10%	9,05	1,00	9,05	1,00	9,05
	SP	Primary Steel	357,45	5%	375,32	1,00	375,32	1,00	375,32
	SS	Secondary Steel	139,79	5%	146,78	1,00	146,78	1,00	146,78
	ST	Tertiary Steel	204,58	5%	214,81	1,00	214,81	1,00	214,81
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**1763,55**	**6%**	**1863,28**	**1,00**	**1863,28**	**1,00**	**1863,28**

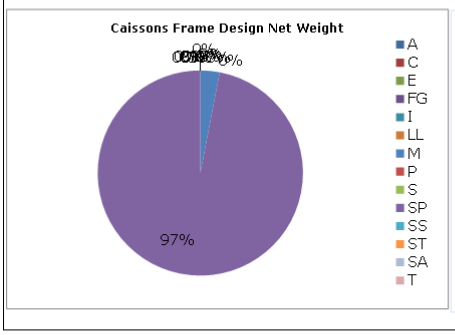


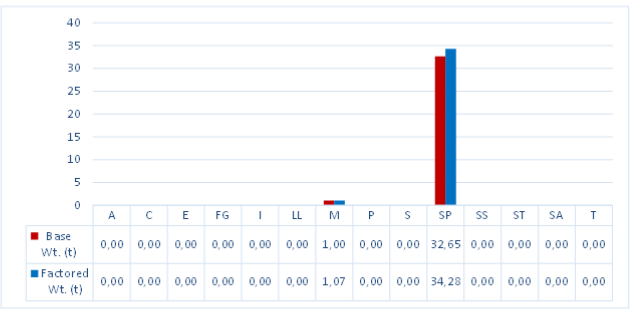


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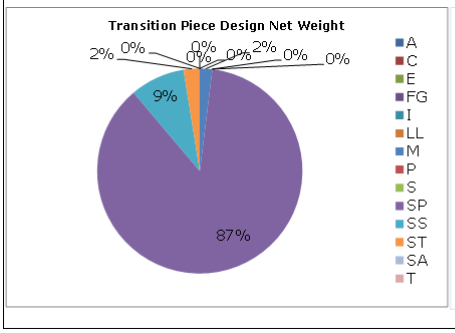
BLPH DISCIPLINE WEIGHT SUMMARY

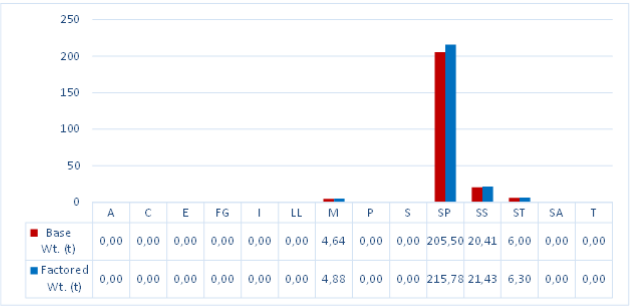
AREA	BLPH LIFTING CONDITION PER DISCIPLINE								
CS = Caisson	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	1,00	7%	1,07	1,00	1,07	1,00	1,07
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	32,65	5%	34,28	1,00	34,28	1,00	34,28
	SS	Secondary Steel	0,00	0%	0,00	-	0,00	-	0,00
	ST	Tertiary Steel	0,00	0%	0,00	-	0,00	-	0,00
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**33,65**	**5%**	**35,35**	**1,00**	**35,35**	**1,00**	**35,35**



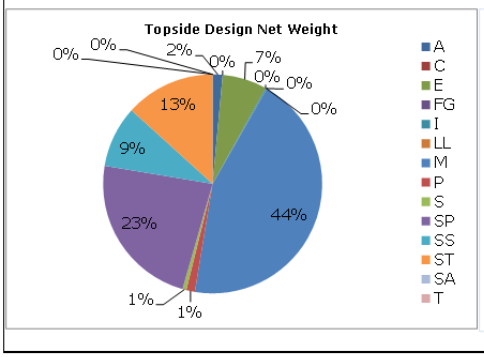


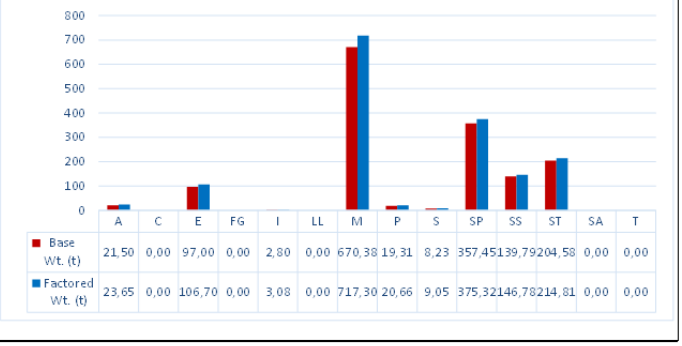
AREA	BLPH LIFTING CONDITION PER DISCIPLINE								
TP = Transition piece	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	0,00	0%	0,00	-	0,00	-	0,00
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	0,00	0%	0,00	-	0,00	-	0,00
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	0,00	0%	0,00	-	0,00	-	0,00
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	4,64	6%	4,88	1,00	4,88	1,00	4,88
	P	Piping	0,00	0%	0,00	-	0,00	-	0,00
	S	Safety / loss prevention	0,00	0%	0,00	-	0,00	-	0,00
	SP	Primary Steel	205,50	5%	215,78	1,00	215,78	1,00	215,78
	SS	Secondary Steel	20,41	5%	21,43	1,00	21,43	1,00	21,43
	ST	Tertiary Steel	6,00	5%	6,30	1,00	6,30	1,00	6,30
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**236,55**	**5%**	**248,38**	**1,00**	**248,38**	**1,00**	**248,38**





AREA	BLPH LIFTING CONDITION PER DISCIPLINE								
TS = Topside	Code	Discipline	Base Wt. (t)	Wt. Cont'y (%)	Factored Wt. (t)	Wt. Growth Factor (-)	Design Net Wt. (t)	Wt. Growth Factor (-)	Design Gross (Estimated) Wt. (t)
	A	Architectural	21,50	10%	23,65	1,00	23,65	1,00	23,65
	C	Surface protection (coating galvanizing)	0,00	0%	0,00	-	0,00	-	0,00
	E	Electrical	97,00	10%	106,70	1,00	106,70	1,00	106,70
	FG	Fire & Gas	0,00	0%	0,00	-	0,00	-	0,00
	I	Instrumentation	2,80	10%	3,08	1,00	3,08	1,00	3,08
	LL	Live Loads	0,00	0%	0,00	-	0,00	-	0,00
	M	Mechanical	670,38	7%	717,30	1,00	717,30	1,00	717,30
	P	Piping	19,31	7%	20,66	1,00	20,66	1,00	20,66
	S	Safety / loss prevention	8,23	10%	9,05	1,00	9,05	1,00	9,05
	SP	Primary Steel	357,45	5%	375,32	1,00	375,32	1,00	375,32
	SS	Secondary Steel	139,79	5%	146,78	1,00	146,78	1,00	146,78
	ST	Tertiary Steel	204,58	5%	214,81	1,00	214,81	1,00	214,81
	SA	Architectural Steel	0,00	0%	0,00	-	0,00	-	0,00
	T	Telecommunications	0,00	0%	0,00	-	0,00	-	0,00
	Total		**1521,04**	**6%**	**1617,36**	**1,00**	**1617,36**	**1,00**	**1617,36**





4.6 BLPH WBS

BASE LOAD POWER HUB

Title	WEIGHT CONTROL REPORT	Performed By:	JEL
Rev.	4	Date:	30.01.25

Area Code	Tag No.	Item Description	Discipline	Note	Project Status	Painted Surface [m2]	Item's height	Center of Gravity (Local System of Reference) [mm] x	y	z	Base Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Weight Contingency [%]	Factored Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Confidence Class	Design Net Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Design Gross (Expected) Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting
Primary Structure																																				
TS-LD		HV - MV (B-100) Module Structure	SP		AB			2.850	8.000	25.300	18.883	18.883	18.883	18.883	18.883	18.883	5%	19.827	19.827	19.827	19.827	19.827	19.827	A	19.827	19.827	19.827	19.827	19.827	19.827	19.827	19.827	19.827	19.827	19.827	19.827
TS-LD		400V LV (B-200) Module Structure	SP		AB			31.400	6.400	26.300	17.800	17.800	17.800	17.800	17.800	17.800	5%	18.690	18.690	18.690	18.690	18.690	18.690	A	18.690	18.690	18.690	18.690	18.690	18.690	18.690	18.690	18.690	18.690	18.690	18.690
TS-LD		AC-UPS (B-300) Module Structure	SP		AB			35.000	7.100	25.300	15.500	15.500	15.500	15.500	15.500	15.500	5%	16.275	16.275	16.275	16.275	16.275	16.275	A	16.275	16.275	16.275	16.275	16.275	16.275	16.275	16.275	16.275	16.275	16.275	16.275
TS-LD		AC-UPS ITER (B-400) Module Structure	SP		AB			38.150	8.000	25.300	12.500	12.500	12.500	12.500	12.500	12.500	5%	13.125	13.125	13.125	13.125	13.125	13.125	A	13.125	13.125	13.125	13.125	13.125	13.125	13.125	13.125	13.125	13.125	13.125	13.125
TS-LD		Water treatment container structure	SP		AB			18.450	12.355	24.632	7.236	7.236	7.236	7.236	7.236	7.236	5%	7.598	7.598	7.598	7.598	7.598	7.598	A	7.598	7.598	7.598	7.598	7.598	7.598	7.598	7.598	7.598	7.598	7.598	7.598
TP		Transition Piece Upper grillage	SP		AB			20.000	8.000	16.700	23.133	23.133	23.133	0	0	0	5%	24.290	24.290	24.290	0	0	0	A	24.290	24.290	24.290	0	0	0	24.290	24.290	24.290	0	0	0
TP		Transit. Piece primary beams incl. CF upper part and internal Fittings	SP		AB			19.995	7.973	20.342	205.500	205.500	205.500	205.500	205.500	205.500	5%	215.775	215.775	215.775	215.775	215.775	215.775	A	215.775	215.775	215.775	215.775	215.775	215.775	215.775	215.775	215.775	215.775	215.775	215.775
TS-LD		Lower Deck - primary beams + joints	SP		AB			20.936	8.381	22.810	86.949	86.949	86.949	86.949	86.949	86.949	5%	91.296	91.296	91.296	91.296	91.296	91.296	A	91.296	91.296	91.296	91.296	91.296	91.296	91.296	91.296	91.296	91.296	91.296	91.296
TS-UD		Upper Deck - primary beams + joints	SP		AB			20.936	8.381	29.810	107.285	107.285	107.285	107.285	107.285	107.285	5%	112.650	112.650	112.650	112.650	112.650	112.650	A	112.650	112.650	112.650	112.650	112.650	112.650	112.650	112.650	112.650	112.650	112.650	112.650
TS-LD		Structure elevations	SP		AB			20.936	8.381	26.810	58.180	58.180	58.180	58.180	58.180	58.180	5%	61.089	61.089	61.089	61.089	61.089	61.089	A	61.089	61.089	61.089	61.089	61.089	61.089	61.089	61.089	61.089	61.089	61.089	61.089
TS-UD		PAU (H2 storage vessel structure)	SP		AB			20.000	8.000	34.150	25.567	25.567	25.567	25.567	25.567	25.567	5%	26.845	26.845	26.845	26.845	26.845	26.845	A	26.845	26.845	26.845	26.845	26.845	26.845	26.845	26.845	26.845	26.845	26.845	26.845
TS-UD		Lifting Trunnions	SP		AB			20.936	8.381	31.210	7.547	7.547	7.547	7.547	7.547	7.547	5%	7.924	7.924	7.924	7.924	7.924	7.924	A	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924
CS		Caissons Frame	SP		AB			19.000	8.000	10.850	32.649	32.649	32.649	32.649	32.649	32.649	5%	34.281	34.281	34.281	34.281	34.281	34.281	A	34.281	34.281	34.281	34.281	34.281	34.281	34.281	34.281	34.281	34.281	34.281	34.281
Secondary and Tertiary Structure																																				
TS-LD		HV - MV (B-100) Variuous	ST		AB			2.850	8.000	25.300	500	500	500	500	500	500	5%	525	525	525	525	525	525	A	525	525	525	525	525	525	525	525	525	525	525	525
TS-LD		400V LV (B-200) Variuous	ST		AB			31.400	6.400	26.300	985	985	985	985	985	985	5%	1.034	1.034	1.034	1.034	1.034	1.034	A	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034
TS-LD		AC-UPS (B-300) Variuous	ST		AB			35.000	7.100	25.300	496	496	496	496	496	496	5%	521	521	521	521	521	521	A	521	521	521	521	521	521	521	521	521	521	521	521
TS-LD		AC-UPS ITER (B-400) Variuous	ST		AB			38.150	8.000	25.300	335	335	335	335	335	335	5%	352	352	352	352	352	352	A	352	352	352	352	352	352	352	352	352	352	352	352
TP		temporary handrails / inst AIDS	ST		AB			20.000	8.000	22.500	6.000	6.000	6.000	6.000	6.000	6.000	5%	6.300	6.300	6.300	6.300	6.300	6.300	A	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300
TP		slings for transition piece	SS		AB			20.000	8.000	22.000	10.000	10.000	10.000	10.000	10.000	0	5%	10.500	10.500	10.500	10.500	10.500	0	A	10.500	10.500	10.500	10.500	10.500	0	10.500	10.500	10.500	10.500	10.500	0
TP		TP stair (without grating)	SS		AB			19.681	8.582	20.320	15.952	15.952	15.952	15.952	15.952	15.952	5%	16.749	16.749	16.749	16.749	16.749	16.749	A	16.749	16.749	16.749	16.749	16.749	16.749	16.749	16.749	16.749	16.749	16.749	16.749
TP		TP flooring stair (grating)	SS		AB			19.681	8.582	20.320	1.921	1.921	1.921	1.921	1.921	1.921	5%	2.017	2.017	2.017	2.017	2.017	2.017	A	2.017	2.017	2.017	2.017	2.017	2.017	2.017	2.017	2.017	2.017	2.017	2.017
TP		TP stabbing guides	SS		AB			19.000	9.000	21.800	2.536	2.536	2.536	2.536	2.536	2.536	5%	2.663	2.663	2.663	2.663	2.663	2.663	A	2.663	2.663	2.663	2.663	2.663	2.663	2.663	2.663	2.663	2.663	2.663	2.663
TS-LD		Flooring lower deck (grating + plate)	ST		AB			20.936	8.381	23.310	51.379	51.379	51.379	51.379	51.379	51.379	5%	53.948	53.948	53.948	53.948	53.948	53.948	A	53.948	53.948	53.948	53.948	53.948	53.948	53.948	53.948	53.948	53.948	53.948	53.948
TS-UD		Flooring upper deck (grating + plate)	ST		AB			20.936	8.381	30.310	51.564	51.564	51.564	51.564	51.564	51.564	5%	54.143	54.143	54.143	54.143	54.143	54.143	A	54.143	54.143	54.143	54.143	54.143	54.143	54.143	54.143	54.143	54.143	54.143	54.143
TS-LD		Flooring stairs (grating)	ST		AB			20.936	8.381	26.810	2.595	2.595	2.595	2.595	2.595	2.595	5%	2.725	2.725	2.725	2.725	2.725	2.725	A	2.725	2.725	2.725	2.725	2.725	2.725	2.725	2.725	2.725	2.725	2.725	2.725
TS-LD		Lower Deck - Secondary beams + joints	SS		AB			20.936	8.381	22.810	52.010	52.010	52.010	52.010	52.010	52.010	5%	54.611	54.611	54.611	54.611	54.611	54.611	A	54.611	54.611	54.611	54.611	54.611	54.611	54.611	54.611	54.611	54.611	54.611	54.611
TS-UD		Upper Deck - Secondary beams + joints	SS		AB			20.936	8.381	29.810	57.784	57.784	57.784	57.784	57.784	57.784	5%	60.673	60.673	60.673	60.673	60.673	60.673	A	60.673	60.673	60.673	60.673	60.673	60.673	60.673	60.673	60.673	60.673	60.673	60.673
TS-LD		Topside access stairs (n.2)	ST		AB			20.000	8.000	26.741	28.349	28.349	28.349	28.349	28.349	28.349	5%	29.766	29.766	29.766	29.766	29.766	29.766	A	29.766	29.766	29.766	29.766	29.766	29.766	29.766	29.766	29.766	29.766	29.766	29.766
TS-UD		PAU service stairs/access ptfs	ST	From MTO 26-11-2024	AB			21.500	8.000	35.000	38.379	38.379	38.379	38.379	38.379	38.379	5%	40.298	40.298	40.298	40.298	40.298	40.298	A	40.298	40.298	40.298	40.298	40.298	40.298	40.298	40.298	40.298	40.298	40.298	40.298
TS-LD		EQUIPMENT SUPPORTS	SS		AB			19.572	7.781	28.672	30.000	30.000	30.000	30.000	30.000	30.000	5%	31.500	31.500	31.500	31.500	31.500	31.500	A	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500
TS-LD		CONT BULK (overall + inside TP)	ST		AB			20.000	8.000	25.733	30.000	30.000	30.000	30.000	30.000	30.000	5%	31.500	31.500	31.500	31.500	31.500	31.500	A	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500	31.500
Mechanical																																				
TS-LD	RR-100AD1-NER	Neutral Earthing Resistor	M		AFC	-		9.765	7.525	24.300	380	380	380	380	380	380	7%	407	407	407	407	407	407	A	407	407	407	407	407	407	407	407	407	407	407	407
TS-UD	V-25001 A	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	4.000	32.035	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	V-25001 B	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	8.000	32.035	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	V-25001 C	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	12.000	32.035	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	V-25001 D	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	12.000	36.535	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	V-25001 E	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	8.000	36.535	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	V-25001 F	Hydrogen storage vessel	M	Datasheet 1723001756-MAC-DA-00004	AFC	-		19.800	4.000	36.535	58.700	58.700	58.700	58.900	160.400	58.700	7%	62.809	62.809	62.809	63.023	171.628	62.809	A	62.809	62.809	62.809	63.023	171.628	62.809	62.809	62.809	62.809	63.023	171.628	62.809
TS-UD	A-80000-C	Fuel cell package (transformer)	M	Datasheet K559-2254-CWIWP4202202-B01-001	AFC	-		33.819	3.298	31.750	7.310	7.310	7.310	7.350	7.350	7.310	7%	7.822	7.822	7.822	7.865	7.865	7.822	A	7.822	7.822	7.822	7.865	7.865	7.822	7.822	7.822	7.822	7.865	7.865	7.822
TS-UD	A-80000-A	Fuel cell pakage (40ft container)	M	Datasheet K559-2254-CWIWP4202202-B01-001	AFC	-		37.757	11.697	31.930	21.320	21.320	21.320	21.680	21.680	21.320	7%	22.812	22.812	22.812	23.198	23.198	22.812	A	22.812	22.812	22.812	23.198	23.198	22.812	22.812	22.812	22.812	23.198	23.198	22.812
TS-UD	A-80000-B	Fuel cell pakage (flatbed)	M	Datasheet K559-2254-CWIWP4202202-B01-001	AFC	-		33.819	9.894	31.034	9.060	9.060	9.060	10.060	10.060	9.060	7%	9.694	9.694	9.694	10.764	10.764	9.694	A	9.694	9.694	9.694	10.764	10.764	9.694	9.694	9.694	9.694	10.764	10.764	9.694
TS-UD	A-20000	Electrolyser	M		AFC	-		4.850	7.590	33.700	135.300	135.300	135.300	146.800	146.800	135.300	7%	144.771	144.771	144.771	157.076	157.076	144.771	A	144.771	144.771	144.771	157.076	157.076	144.771	144.771	144.771	144.771	157.076	157.076	144.771
TS-UD	A-20000	Transformer on electrolyser package area	M		AFC	-		7.925	750	33.700	8.200	8.200	8.200	8.200	8.200	8.200	7%	8.774	8.774	8.774	8.774	8.774	8.774	A	8.774	8.774	8.774	8.774	8.774	8.774	8.774	8.774	8.774	8.774	8.774	8.774
TS-LD	A-85000	BESS (PCS Container)	M		AFC	-		23.010	9.219	24.400	15.000	15.000	15.000	15.000	15.000	15.000	7%	16.050	16.050	16.050	16.050	16.050	16.050	A	16.050	16.050	16.050	16.050	16.050	16.050	16.050	16.050	16.050	16.050	16.050	16.050
TS-LD	A-85001	BESS (Battery Container 1)	M		AFC	-		20.000	2.635	24.400	35.000	35.000	35.000	35.000	35.000	35.000	7%	37.450	37.450	37.450	37.450	37.450	37.450	A	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450
TS-LD	A-85002	BESS (Battery Container 2)	M		AFC	-		20.000	5.073	24.400	35.000	35.000	35.000	35.000	35.000	35.000	7%	37.450	37.450	37.450	37.450	37.450	37.450	A	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450	37.450
TP	T-55001	Waste Water Tank	M		AB	-		23.000	7.797	17.500	4.366	4.366	4.366	17.600	17.600	4.366	5%	4.584	4.584	4.584	18.480	18.480	4.584	A	4.584	4.584	4.584	18.480	18.480	4.584	4.584	4.584	4.584	18.480	18.480	4.584
TP		ICCP	M		AFC	-		20.000	8.000	17.500	275	275	275	275	275	275	7%	294	294	294	294	294	294	A	294	294	294	294	294	294	294	294	294	294	294	294
TS-LD	A50003	Sea Water Coarse Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	7	7	7	20	20	7	7%	7	7	7	21	21	7	A	7	7	7	21	21	7	7	7	7	21	21	7
TS-LD	H50001	Electric Heater	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	155	155	155	180	180	155	7%	166	166	166	193	193	166	A	166	166	166	193	193	166	166	166	166	193	193	166
TS-LD	S50001	Sea Water Sand Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	250	250	250	300	300	250	7%	268	268	268	321	321	268	A	268	268	268	321	321	268	268	268	268	321	321	268
TS-LD	P50002A	Backwash Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-LD	P50002B	Backwash Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-LD	P50003A	SW Booster Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-LD	P50003B	SW Booster Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-LD	S50002A	SW 1St. Cartridge Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	18	18	18	35	35	18	7%	19	19	19	37	37	19	A	19	19	19	37	37	19	19	19	19	37	37	19
TS-LD	S50002B	SW 1St. Cartridge Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	18	18	18	35	35	18	7%	19	19	19	37	37	19	A	19	19	19	37	37	19	19	19	19	37	37	19
TS-LD	S50003A	SW 2ND. Cartridge Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	18	18	18	35	35	18	7%	19	19	19	37	37	19	A	19	19	19	37	37	19	19	19	19	37	37	19
TS-LD	S50003B	SW 2ND. Cartridge Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	18	18	18	35	35	18	7%	19	19	19	37	37	19	A	19	19	19	37	37	19	19	19	19	37	37	19
TS-LD	P50004A	Hight Pressure Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	50	50	50	55	55	50	7%	54	54	54	59	59	54	A	54	54	54	59	59	54	54	54	54	59	59	54
TS-LD	P50004B	Hight Pressure Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	50	50	50	55	55	50	7%	54	54	54	59	59	54	A	54	54	54	59	59	54	54	54	54	59	59	54
TS-LD	A50007A	Sea Water Reverse Osmosis Unit	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	60	60	60	120	120	60	7%	64	64	64	128	128	64	A	64	64	64	128	128	64	64	64	64	128	128	64
TS-LD	A50007B	Sea Water Reverse Osmosis Unit	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	60	60	60	120	120	60	7%	64	64	64	128	128	64	A	64	64	64	128	128	64	64	64	64	128	128	64
TS-LD	S50004	Softening Filter	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	35	35	35	125	125	35	7%	37	37	37	134	134	37	A	37	37	37	134	134	37	37	37	37	134	134	37
TS-LD	S50010	UV Sterilizer	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	15	15	15	50	50	15	7%	16	16	16	54	54	16	A	16	16	16	54	54	16	16	16	16	54	54	16
TS-LD	T50002	Caustic Soda Dosing Tank	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	20	20	20	80	80	20	7%	21	21	21	86	86	21	A	21	21	21	86	86	21	21	21	21	86	86	21
TS-LD	P50005A	Caustic Soda Dosing Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50005B	Caustic Soda Dosing Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	T50003	Antiscalant Dosing Tank	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	20	20	20	80	80	20	7%	21	21	21	86	86	21	A	21	21	21	86	86	21	21	21	21	86	86	21
TS-LD	P50006A	Antiscalant Dosing Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50006B	Antiscalant Dosing Pump	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	T50004	Non-Oxidant Biocide Dosing Tank	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	30	30	30	130	130	30	7%	32	32	32	139	139	32	A	32	32	32	139	139	32	32	32	32	139	139	32
TS-LD	P50007A	Non-Oxidant Biocide Dosing Pump - Container Inlet	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50007B	Non-Oxidant Biocide Dosing Pump - Container Inlet	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50008A	Non-Oxidant Biocide Dosing Pump - B.L. TP005	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50008B	Non-Oxidant Biocide Dosing Pump - B.L. TP005	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50010A	Non-Oxidant Biocide Dosing Pump - B.L. TP006	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	P50010B	Non-Oxidant Biocide Dosing Pump - B.L. TP006	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	2	2	2	3	3	2	7%	2	2	2	3	3	2	A	2	2	2	3	3	2	2	2	2	3	3	2
TS-LD	HHS-50003A	Container Electrical Heater	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	90	90	90	90	90	90	7%	96	96	96	96	96	96	A	96	96	96	96	96	96	96	96	96	96	96	96
TS-LD	HHS-50003B	Container Electrical Heater	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	90	90	90	90	90	90	7%	96	96	96	96	96	96	A	96	96	96	96	96	96	96	96	96	96	96	96
TS-LD	-	PLC	M	GA drawing 1724000448-MAC-DA-00005	AFC			18.450	12.355	24.632	1.800	1.800	1.800	1.800	1.800	1.800	7%	1.926	1.926	1.926	1.926	1.926	1.926	A	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926
TS-LD	A-63000	Instrument air package	M	Datasheet 1724000428-MAC-DA-00005	AFC	-		39.000	5.260	24.310	11.000	11.000	11.000	11.000	11.000	11.000	7%	11.770	11.770	11.770	11.770	11.770	11.770	A	11.770	11.770	11.770	11.770	11.770	11.770	11.770	11.770	11.770	11.770	11.770	11.770
TS-LD	V-63000	Instrument air receiver	M	Datasheet 1724000428-MAC-DA-00006	AFC	-		39.000	5.260	24.310	7.450	7.450	7.450	7.450	7.450	7.450	7%	7.972	7.972	7.972	7.972	7.972	7.972	A	7.972	7.972	7.972	7.972	7.972	7.972	7.972	7.972	7.972	7.972	7.972	7.972
TS-UD	V-43001	Hydrogen vent KO drum	M	Datasheet 1724000163-MAC-DA-00004	AFC	-	3.450	20.150	250	32.210	780	780	780	1.015	1.500	780	7%	835	835	835	1.086	1.605	835	A	835	835	835	1.086	1.605	835	835	835	835	1.086	1.605	835
TS-LD	P-50001A	Seawater lift pump A	M	Datasheet 1724000936-MAC-DA-00004	AFC	-		15.000	7.400	22.000	1.967	1.967	1.967	4.072	4.072	1.967	7%	2.105	2.105	2.105	4.357	4.357	2.105	A	2.105	2.105	2.105	4.357	4.357	2.105	2.105	2.105	2.105	4.357	4.357	2.105
TS-LD	P-50001B	Seawater lift pump B	M	Datasheet 1724000936-MAC-DA-00004	AFC	-		15.000	8.600	22.000	1.967	1.967	1.967	4.072	4.072	1.967	7%	2.105	2.105	2.105	4.357	4.357	2.105	A	2.105	2.105	2.105	4.357	4.357	2.105	2.105	2.105	2.105	4.357	4.357	2.105
TS-LD	P50009A	Fresh Water Pump A	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-LD	P50009B	Fresh Water Pump B	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	20	20	20	25	25	20	7%	21	21	21	27	27	21	A	21	21	21	27	27	21	21	21	21	27	27	21
TS-UD	O-43004	Hydrogen vent	M	Datasheet 1724000887-MAC-DA-00003	AFC	-		23.500	1.000	36.000	4.500	4.500	4.500	4.500	4.500	4.500	7%	4.815	4.815	4.815	4.815	4.815	4.815	A	4.815	4.815	4.815	4.815	4.815	4.815	4.815	4.815	4.815	4.815	4.815	4.815
TS-LD	T50006	Filtered Water Tank	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	300	300	300	3.300	3.300	300	7%	321	321	321	3.531	3.531	321	A	321	321	321	3.531	3.531	321	321	321	321	3.531	3.531	321
TS-LD	T50008	Fresh Water Tank	M	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	200	200	200	2.200	2.200	200	7%	214	214	214	2.354	2.354	214	A	214	214	214	2.354	2.354	214	214	214	214	2.354	2.354	214
TS-UD	X-99001	Crane Davit	M	GA drawing 1724001010-MAC-DA-00009	AFC	-		34.000	16.000	31.310	6.000	6.000	6.000	6.000	6.000	6.000	7%	6.420	6.420	6.420	6.420	6.420	6.420	A	6.420	6.420	6.420	6.420	6.420	6.420	6.420	6.420	6.420	6.420	6.420	6.420
TS-LD	YLB-079001	Life raft	M		AFC	-		41.975	2.645	23.310	2.750	2.750	2.750	2.750	2.750	2.750	7%	2.943	2.943	2.943	2.943	2.943	2.943	A	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943
TS-LD	YLB-079002	Life raft	M		AFC	-		-1.975	16.000	23.310	2.750	2.750	2.750	2.750	2.750	2.750	7%	2.943	2.943	2.943	2.943	2.943	2.943	A	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943	2.943
TS-UD	A-64000	Nitrogen generation package	M	Datasheet 1724000437-MAC-DA-00005	AFC	-		8.315	1.015	24.410	5.000	5.000	5.000	5.000	5.000	5.000	7%	5.350	5.350	5.350	5.350	5.350	5.350	A	5.350	5.350	5.350	5.350	5.350	5.350	5.350	5.350	5.350	5.350	5.350	5.350
TS-UD	V-64001	N2 receiver	M	Datasheet 1724000437-MAC-DA-00006	AFC	-		8.315	1.015	24.410	4.000	4.000	4.000	4.000	4.000	4.000	7%	4.280	4.280	4.280	4.280	4.280	4.280	A	4.280	4.280	4.280	4.280	4.280	4.280	4.280	4.280	4.280	4.280	4.280	4.280
CS		Mechanical equip	M		AFC	-		19.000	8.000	10.850	1.000	1.000	1.000	1.000	1.000	1.000	7%	1.070	1.070	1.070	1.070	1.070	1.070	A	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070

BASE LOAD POWER HUB

Title	WEIGHT CONTROL REPORT	Performed By:	JEL
Rev.	4	Date:	30.01.25

Area Code	Tag No.	Item Description	Discipline	Note	Project Status	Painted Surface [m2]	Center of Gravity (Local System of Reference) [mm]				Base Weight [kg]						Weight Contingency [%]	Factored Weight [kg]						Confidence Class	Design Net Weight [kg]						Design Gross (Expected) Weight [kg]					
							Item's height	x	y	z	Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting		Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting		Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting
Piping																																				
TS-UD	25-BDV-022	Split Body Floating Ball Valve	P	Datasheet D240062-01	AFC	-		30.000	4.055	34.574	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-BDV-005	Split Body Floating Ball Valve	P	Datasheet D240062-02	AFC	-		27.500	2.425	39.500	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-BDV-007	Split Body Floating Ball Valve	P	Datasheet D240062-03	AFC	-		27.500	6.595	39.500	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-BDV-010	Split Body Floating Ball Valve	P	Datasheet D240062-04	AFC	-		27.500	10.600	39.500	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-BDV-013	Split Body Floating Ball Valve	P	Datasheet D240062-05	AFC	-		27.500	10.620	34.500	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-BDV-016	Split Body Floating Ball Valve	P	Datasheet D240062-06	AFC	-		27.500	6.670	35.100	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-BDV-019	Split Body Floating Ball Valve	P	Datasheet D240062-07	AFC	-		27.500	2.700	34.910	169	169	169	169	169	169	7%	181	181	181	181	181	181	A	181	181	181	181	181	181	181	181	181	181	181	181
TS-UD	25-SDV-001	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		13.700	2.655	35.300	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	64-SDV-001	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		13.700	2.655	35.300	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-004	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	5.210	35.250	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-006	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	3.970	39.000	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-008	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	9.200	35.250	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-009	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	7.900	39.000	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-011	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	13.200	35.250	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-012	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	11.955	39.150	40	40	40	40	40	40	7%	43	43	43	43	43	43	A	43	43	43	43	43	43	43	43	43	43	43	43
TS-UD	25-XV-014	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	13.300	30.700	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-015	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	11.900	34.500	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-017	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	9.200	30.810	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-018	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	7.900	34.500	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-020	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		14.500	5.300	30.810	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-021	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		28.000	3.900	34.500	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	25-XV-024	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		13.800	2.400	35.210	41	41	41	41	41	41	7%	44	44	44	44	44	44	A	44	44	44	44	44	44	44	44	44	44	44	44
TS-UD	80-XV-001	Split Body Floating Ball Valve	P	Datasheet D240062-08	AFC	-		26.000	5.360	34.480	40	40	40	40	40	40	7%	43	43	43	43	43	43	A	43	43	43	43	43	43	43	43	43	43	43	43
TS-UD	25-SDV-023	Split Body Floating Ball Valve	P	Datasheet D240062-09	AFC	-		29.300	1.800	30.970	54	54	54	54	54	54	7%	58	58	58	58	58	58	A	58	58	58	58	58	58	58	58	58	58	58	58
TS-LD	50-XV-001	Split Body Floating Ball Valve	P	Datasheet D240062-24	AFC	-		14.625	7.900	24.190	134	134	134	134	134	134	7%	143	143	143	143	143	143	A	143	143	143	143	143	143	143	143	143	143	143	143
TS-LD	50-XV-003	Split Body Floating Ball Valve	P	Datasheet D240062-26	AFC	-		14.625	9.000	24.190	134	134	134	134	134	134	7%	143	143	143	143	143	143	A	143	143	143	143	143	143	143	143	143	143	143	143
TS-LD	50-XV-002	Split Body Floating Ball Valve	P	Datasheet D240062-25	AFC	-		14.000	7.700	24.175	40	40	40	40	40	40	7%	43	43	43	43	43	43	A	43	43	43	43	43	43	43	43	43	43	43	43
TS-LD	50-XV-004	Split Body Floating Ball Valve	P	Datasheet D240062-27	AFC	-		14.000	8.900	24.180	40	40	40	40	40	40	7%	43	43	43	43	43	43	A	43	43	43	43	43	43	43	43	43	43	43	43
TS-LD		PIPING BULKS	P		AFC	-		20.000	8.000	25.500	17.200	17.200	17.200	17.200	17.200	17.200	7%	18.404	18.404	18.404	18.404	18.404	18.404	A	18.404	18.404	18.404	18.404	18.404	18.404	18.404	18.404	18.404	18.404	18.404	18.404
Electrical																																				
TS-LD	HNA6-AFA70	66kV SWITCHGEAR (GIS)	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	2.600	2.600	2.600	2.600	2.600	2.600	10%	2.860	2.860	2.860	2.860	2.860	2.860	A	2.860	2.860	2.860	2.860	2.860	2.860	2.860	2.860	2.860	2.860	2.860	2.860
TS-LD	SG-100D1	6.6kV SWITCHGEAR	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	7.400	7.400	7.400	7.400	7.400	7.400	10%	8.140	8.140	8.140	8.140	8.140	8.140	A	8.140	8.140	8.140	8.140	8.140	8.140	8.140	8.140	8.140	8.140	8.140	8.140
TS-LD	UP-200F1	DC UPS PANEL	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	500	500	500	500	500	500	10%	550	550	550	550	550	550	A	550	550	550	550	550	550	550	550	550	550	550	550
TS-LD	TR-100AD1	MAIN TRAFO 66 kV	E	Datasheet 1723001697-EL-DA-00006	AFC	-	3.490	8.750	12.550	24.710	22.750	22.750	22.750	22.750	22.750	22.750	10%	25.025	25.025	25.025	25.025	25.025	25.025	A	25.025	25.025	25.025	25.025	25.025	25.025	25.025	25.025	25.025	25.025	25.025	25.025
TS-LD	TR-200DE1	AUX trafo 6.6 kV	E	Datasheet 1723001697-EL-DA-00007	AFC	-	2.480	30.820	14.050	24.310	5.050	5.050	5.050	5.050	5.050	5.050	10%	5.555	5.555	5.555	5.555	5.555	5.555	A	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555
TS-LD	TR-200ED1	Solar TRAFO	E	Datasheet 1723001697-EL-DA-00008	AFC	-	2.086	7.644	7.465	24.310	3.340	3.340	3.340	3.340	3.340	3.340	10%	3.674	3.674	3.674	3.674	3.674	3.674	A	3.674	3.674	3.674	3.674	3.674	3.674	3.674	3.674	3.674	3.674	3.674	3.674
TS-LD	BA-200F1	DC UPS BATTERY RACK	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	522	522	522	522	522	522	10%	574	574	574	574	574	574	A	574	574	574	574	574	574	574	574	574	574	574	574
TS-LD	CB-200F1	ISOLATOR FOR DC UPS	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	CP-100E1	66kV SWITCHGEAR LOCAL CONTROL PANEL	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	2.100	2.100	2.100	2.100	2.100	2.100	10%	2.310	2.310	2.310	2.310	2.310	2.310	A	2.310	2.310	2.310	2.310	2.310	2.310	2.310	2.310	2.310	2.310	2.310	2.310
TS-LD	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV MV ROOM	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	400	400	400	400	400	400	10%	440	440	440	440	440	440	A	440	440	440	440	440	440	440	440	440	440	440	440
TS-LD	-	SERVICE TROLLEY FOR 6.6kV SWITCHGEAR	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	70	70	70	70	70	70	10%	77	77	77	77	77	77	A	77	77	77	77	77	77	77	77	77	77	77	77
TS-LD	-	TOOL BOX	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	TABLE	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	50	50	50	50	50	50	10%	55	55	55	55	55	55	A	55	55	55	55	55	55	55	55	55	55	55	55
TS-LD	HHU-77001A	AIR HANDLING UNIT A	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HHU-77001B	AIR HANDLING UNIT B	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HSS-77-001	SPACE HEATER 1	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HSS-77-002	SPACE HEATER 2	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HSS-77-003	SPACE HEATER 3	E	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-UD	SG-200N1	400V SWITCHGEAR	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	4.900	4.900	4.900	4.900	4.900	4.900	10%	5.390	5.390	5.390	5.390	5.390	5.390	A	5.390	5.390	5.390	5.390	5.390	5.390	5.390	5.390	5.390	5.390	5.390	5.390
TS-UD	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	600	600	600	600	600	600	10%	660	660	660	660	660	660	A	660	660	660	660	660	660	660	660	660	660	660	660
TS-LD	CN-200N1	ICCP PANEL	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	1.000	1.000	1.000	1.000	1.000	1.000	10%	1.100	1.100	1.100	1.100	1.100	1.100	A	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
TS-LD	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	400	400	400	400	400	400	10%	440	440	440	440	440	440	A	440	440	440	440	440	440	440	440	440	440	440	440
TS-LD	-	TOOL BOX	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	TABLE	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	50	50	50	50	50	50	10%	55	55	55	55	55	55	A	55	55	55	55	55	55	55	55	55	55	55	55
TS-LD	HHU-77003	AIR HANDLING UNIT A	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HHU-77004	AIR HANDLING UNIT B	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HSS-77-004	SPACE HEATER 1	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HSS-77-005	SPACE HEATER 2	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HSS-77-006	SPACE HEATER 3	E	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	UP-200F3	AC UPS 35 kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	2.258	2.258	2.258	2.258	2.258	2.258	10%	2.484	2.484	2.484	2.484	2.484	2.484	A	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484
TS-LD	UP-200F4	AC UPS 15kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	2.258	2.258	2.258	2.258	2.258	2.258	10%	2.484	2.484	2.484	2.484	2.484	2.484	A	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484
TS-LD	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	914	914	914	914	914	914	10%	1.005	1.005	1.005	1.005	1.005	1.005	A	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005
TS-LD	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	914	914	914	914	914	914	10%	1.005	1.005	1.005	1.005	1.005	1.005	A	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005
TS-LD	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	3.429	3.429	3.429	3.429	3.429	3.429	10%	3.772	3.772	3.772	3.772	3.772	3.772	A	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772
TS-LD	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	3.429	3.429	3.429	3.429	3.429	3.429	10%	3.772	3.772	3.772	3.772	3.772	3.772	A	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772	3.772
TS-LD	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	NC-200F2	NAVAID PANEL	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	535	535	535	535	535	535	10%	589	589	589	589	589	589	A	589	589	589	589	589	589	589	589	589	589	589	589
TS-LD	BA-200F2	BATTERY BOX NAVAID	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	1.552	1.552	1.552	1.552	1.552	1.552	10%	1.707	1.707	1.707	1.707	1.707	1.707	A	1.707	1.707	1.707	1.707	1.707	1.707	1.707	1.707	1.707	1.707	1.707	1.707
TS-LD	CB-200F2	ISOLATOR BOX NAVAID	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	70	70	70	70	70	70	10%	77	77	77	77	77	77	A	77	77	77	77	77	77	77	77	77	77	77	77
TS-LD	-	EYE WASH STATION	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	BC-200F2	BATTERY CHARGER NAVAID	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	500	500	500	500	500	500	10%	550	550	550	550	550	550	A	550	550	550	550	550	550	550	550	550	550	550	550
TS-LD	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	500	500	500	500	500	500	10%	550	550	550	550	550	550	A	550	550	550	550	550	550	550	550	550	550	550	550
TS-LD	HHU-77003A	AIR HANDLING UNIT A	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	850	850	850	850	850	850	10%	935	935	935	935	935	935	A	935	935	935	935	935	935	935	935	935	935	935	935
TS-LD	HHU-77003B	AIR HANDLING UNIT B	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	850	850	850	850	850	850	10%	935	935	935	935	935	935	A	935	935	935	935	935	935	935	935	935	935	935	935
TS-LD	HHS-77-007	SPACE HEATER 1	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HHS-77-008	SPACE HEATER 2	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HHS-77-009	SPACE HEATER 3	E	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	B400-SRV-001	SERVER CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-NET-001	NETWORK CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-EMCS-001	EMCS SYSTEM CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-PCS-001	PCS SYSTEM CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-PCS-002	PCS MARSHALLING CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-FGS-001	FGS SYSTEM CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-FGS-002	FGS MARSHALLING CABINET 1	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-FGS-003	FGS MARSHALLING CABINET 2	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	250	250	250	250	250	250	10%	275	275	275	275	275	275	A	275	275	275	275	275	275	275	275	275	275	275	275
TS-LD	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	1.150	1.150	1.150	1.150	1.150	1.150	10%	1.265	1.265	1.265	1.265	1.265	1.265	A	1.265	1.265	1.265	1.265	1.265	1.265	1.265	1.265	1.265	1.265	1.265	1.265
TS-LD	-	TABLE	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	50	50	50	50	50	50	10%	55	55	55	55	55	55	A	55	55	55	55	55	55	55	55	55	55	55	55
TS-LD	HHU-77004A	AIR HANDLING UNIT A	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HHU-77004B	AIR HANDLING UNIT B	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	140	140	140	140	140	140	10%	154	154	154	154	154	154	A	154	154	154	154	154	154	154	154	154	154	154	154
TS-LD	HHS-77-010	SPACE HEATER 1	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HHS-77-011	SPACE HEATER 2	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD	HHS-77-012	SPACE HEATER 3	E	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	5	5	5	5	5	5	10%	6	6	6	6	6	6	A	6	6	6	6	6	6	6	6	6	6	6	6
TS-LD		ELECTRICAL & INSTR BULKS	E		AFC	-		20.000	8.000	25.430	22.064	22.064	22.064	22.064	22.064	22.064	10%	24.271	24.271	24.271	24.271	24.271	24.271	A	24.271	24.271	24.271	24.271	24.271	24.271	24.271	24.271	24.271	24.271	24.271	24.271
Instrumentation & Telecom																																				
TS-LD		HV - MV (B-100) Instr. Equipment+cables	I		AFC	-		2.850	8.000	25.300	500	500	500	500	500	500	10%	550	550	550	550	550	550	A	550	550	550	550	550	550	550	550	550	550	550	550
TS-LD		HV - MV (B-200) Instr. Equipment+cables	I		AFC	-		31.400	6.400	26.300	500	500	500	500	500	500	10%	550	550	550	550	550	550	A	550	550	550	550	550	550	550	550	550	550	550	550
TS-LD		AC-UPS (B-300) Instr. Equipment+cables	I		AFC	-		35.000	7.100	25.300	300	300	300	300	300	300	10%	330	330	330	330	330	330	A	330	330	330	330	330	330	330	330	330	330	330	330
TS-LD		AC-UPS ITER (B-400) Instr. Tel. Equipment+cables	I		AFC	-		38.150	8.000	25.300	1.500	1.500	1.500	1.500	1.500	1.500	10%	1.650	1.650	1.650	1.650	1.650	1.650	A	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650
Architectural																																				
TS-LD		HV - MV (B-100) Module Architectural	A		AFC	-		2.850	8.000	25.300	6.000	6.000	6.000	6.000	6.000	6.000	10%	6.600	6.600	6.600	6.600	6.600	6.600	A	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600
TS-LD		400V LV (B-200) Module Architectural	A		AFC	-		31.400	6.400	26.300	6.000	6.000	6.000	6.000	6.000	6.000	10%	6.600	6.600	6.600	6.600	6.600	6.600	A	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600	6.600
TS-LD		AC-UPS (B-300) Module Architectural	A		AFC	-		35.000	7.100	25.300	4.000	4.000	4.000	4.000	4.000	4.000	10%	4.400	4.400	4.400	4.400	4.400	4.400	A	4.400	4.400	4.400	4.400	4.400	4.400	4.400	4.400	4.400	4.400	4.400	4.400
TS-LD		AC-UPS ITER (B-400) Module Architectural	A		AFC	-		38.150	8.000	25.300	3.000	3.000	3.000	3.000	3.000	3.000	10%	3.300	3.300	3.300	3.300	3.300	3.300	A	3.300	3.300	3.300	3.300	3.300	3.300	3.300	3.300	3.300	3.300	3.300	3.300
TS-LD		ARCHITECTURAL BULKS	A		AFC	-		20.000	8.000	26.500	2.500	2.500	2.500	2.500	2.500	2.500	10%	2.750	2.750	2.750	2.750	2.750	2.750	A	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750

BASE LOAD POWER HUB

Title	WEIGHT CONTROL REPORT	Performed By:	JEL
Rev.	4	Date:	30.01.25

Area Code	Tag No.	Item Description	Discipline	Note	Project Status	Painted Surface [m2]	Center of Gravity (Local System of Reference) [mm] Item's height	x	y	z	Base Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Weight Contingency [%]	Factored Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Confidence Class	Design Net Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting	Design Gross (Expected) Weight [kg] Dry	Load Out	Sea Transport	Operating Condition	Hydro-Test	Lifting
Safety & Fire Gas																																				
TS-LD	-	HV - MV (B-100) - Electric Safety Kit	S	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5Kg	S	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5Kg	S	GA drawing 1724000049-AR-DA-00014 - HV SWITCHROOM 66kV/6.6 kV (B-100)	AFC	-		2.850	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD		HV - MV (B-200) Safety Equipment	S		AFC	-		31.400	6.400	26.300	160	160	160	160	160	160	10%	176	176	176	176	176	176	A	176	176	176	176	176	176	176	176	176	176	176	176
TS-LD		PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD		PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00015 - LV SWITCHROOM 400V (B-200)	AFC	-		31.400	6.400	26.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD		AC-UPS (B-300) Safety Equipment	S		AFC	-		35.000	7.100	25.300	100	100	100	100	100	100	10%	110	110	110	110	110	110	A	110	110	110	110	110	110	110	110	110	110	110	110
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00016 - AC UPS (B-300)	AFC	-		35.000	7.100	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	PORTABLE EXTINGUISHER (CO2) 5 kg	S	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	20	20	20	20	20	20	10%	22	22	22	22	22	22	A	22	22	22	22	22	22	22	22	22	22	22	22
TS-LD	-	FIRST AID KIT	S	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	10	10	10	10	10	10	10%	11	11	11	11	11	11	A	11	11	11	11	11	11	11	11	11	11	11	11
TS-LD	-	RESUSCITAION UNIT	S	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	10	10	10	10	10	10	10%	11	11	11	11	11	11	A	11	11	11	11	11	11	11	11	11	11	11	11
TS-LD	-	CABINET INCLUDED N. 10 ESCAPE MASK	S	GA drawing 1724000049-AR-DA-00017 - I&T EQUIPMENT ROOM (B-400)	AFC	-		38.150	8.000	25.300	15	15	15	15	15	15	10%	17	17	17	17	17	17	A	17	17	17	17	17	17	17	17	17	17	17	17
TS-LD	-	Antifire panel	S	GA drawing 1724000448-MAC-DA-00005	AFC	-		18.450	12.355	24.632	50	50	50	50	50	50	10%	55	55	55	55	55	55	A	55	55	55	55	55	55	55	55	55	55	55	55
TS-LD		SAFETY BULKS	S		AFC	-		20.000	8.000	25.500	7.700	7.700	7.700	7.700	7.700	7.700	10%	8.470	8.470	8.470	8.470	8.470	8.470	A	8.470	8.470	8.470	8.470	8.470	8.470	8.470	8.470	8.470	8.470	8.470	8.470
Live Load & Snow																																				
TS-LD		live load LAYDOWN LD	LL		-	-		42.971	14.544	23.350	33.250	0	0	33.250	33.250	0	0%	33.250	0	0	33.250	33.250	0	A	33.250	0	0	33.250	33.250	0	33.250	0	0	33.250	33.250	0
TS-UD		live load LAYDOWN UD	LL		-	-		38.257	19.032	30.350	33.250	0	0	33.250	33.250	0	0%	33.250	0	0	33.250	33.250	0	A	33.250	0	0	33.250	33.250	0	33.250	0	0	33.250	33.250	0
TS-LD		Snow	LL		-	-		20.000	8.000	28.560	127.400	0	0	127.400	0	0	0%	127.400	0	0	127.400	0	0	A	127.400	0	0	127.400	0	0	127.400	0	0	127.400	0	0
TP		Transition Piece Lower Grillage + Stopper + Sea Fastening	SP		AB	-		20.000	8.000	15.900	36.000	36.000	0	0	0	0	5%	37.800	37.800	0	0	0	0	A	37.800	37.800	0	0	0	0	37.800	37.800	0	0	0	0
TS-LD		Topside Lower Grillage + Sea-fastening	SP		AB	-		19.681	8.582	20.910	67.900	67.900	0	0	0	0	5%	97.946	97.946	0	0	0	0	A	97.946	97.946	0	0	0	0	97.946	97.946	0	0	0	0