





B	29.10.2024	TEMPLATE CHANGE	MCM	TT	GC
A	28.10.2024	ISSUED FOR PRODUCTION	MCM	TT	GC
REV.	DATE	DESCRIPTION	MOD.BY	CKD.BY	APP.BY

REVISIONS

 			SHIP  ORKIM POWER		
			TITLE  PIPING MTO 1”& ABOVE		

SCALE N.T.S.	DRAWN	MCM	DRAWING NUMBER GSPL-P1513-PI-0101	HULL NUMBER --	REV B
	CHECKED	TT			
SIZE: A4	VERIFIED	GC	DATE:-29.10.2024	SHEET:- 1 OF 3	

Sl. No.	Description	Dimension	Material	Standard	Quantity	Unit	Unit Weight (kg)	Total Weight (kg)	Remarks
PIPE AND PIPE FITTINGS (CLASS III )									
1	Pipe Seamless, BW	200A Sch80	STPG370	JIS G3454	32.4	m.	63.8	2066.67	
2	Pipe Seamless, BW	150A Sch80	STPG370	JIS G3454	1.75	m.	41.8	72.82	
3	Pipe Seamless, BW	125A Sch80	STPG370	JIS G3454	0.27	m.	30.5	8.24	
4	Pipe Seamless, BW	100A Sch80	STPG370	JIS G3454	1.94	m.	22.4	43.35	
5	Pipe Seamless, BW	80A Sch80	STPG370	JIS G3454	6.52	m.	15.3	99.64	
6	Elbow 15Deg. LR, BW	200A Sch80	PG 370	JIS B 2312	1	Pcs.	4.98	4.98	
7	Elbow 30Deg. LR, BW	200A Sch80	PG 370	JIS B 2312	4	Pcs.	9.97	39.88	
8	Elbow 45Deg. SR, BW	200A Sch80	PG 370	JIS B 2312	11	Pcs.	9.97	109.67	
9	Elbow 90Deg. SR, BW	200A Sch80	PG 370	JIS B 2312	21	Pcs.	19.9	417.9	
10	Elbow 90Deg. SR, BW	100A Sch80	PG 370	JIS B 2312	4	Pcs.	3.6	14.4	
11	Elbow 90Deg. SR, BW	80A Sch80	PG 370	JIS B 2312	9	Pcs.			
12	Reducer Concentric, BW	300A x 200A Sch80	PG 370	JIS B 2312	2	Pcs.	22.5	45	
13	Reducer Concentric, BW	250A x 200A Sch80	PG 370	JIS B 2312	2	Pcs.	15.2	30.4	
14	Reducer Concentric, BW	200A x 150A Sch80	PG 370	JIS B 2312	4	Pcs.	8.61	34.44	
15	Flange SOFF	200A JIS5K	SS 400	JIS B2220	74	Pcs.	6.33	468.43	
16	Flange SOFF	150A JIS5K	SS 400	JIS B2220	2	Pcs.	4.41	8.82	
17	Flange SOFF	100A JIS5K	SS 400	JIS B2220	11	Pcs.	2.39	26.29	
18	Flange SOFF	80A JIS5K	SS 400	JIS B2220	12	Pcs.	1.99	23.88	
19	Flange SOFF	DN300 PN10	Carbon Steel	DIN	2	Pcs.	13.8	27.6	
20	Flange SOFF	DN250 PN10	Carbon Steel	DIN	2	Pcs.	11.9	23.8	
21	Flange SOFF	DN200 PN10	Carbon Steel	DIN	10	Pcs.	9.31	93.1	
22	Flange SOFF	DN125 PN10	Carbon Steel	DIN	2	Pcs.	5.46	10.92	
23	Flange SOFF	DN80 PN10	Carbon Steel	DIN	7	Pcs.	3.79	26.53	
24	Flange SOFF	DN150 PN16	Carbon Steel	DIN	2	Pcs.	7	14	
25	Female boss G1/2 with male connector G1/2		CS		3	Pcs.	0.15	0.45	PI1,PI2,PI3
26	Female boss G1/4 with male connector G1/4		CS		2	Pcs.	0.1	0.2	PT3,PT4
27	Machine bolt with single nut	M 24 x 100	Galvanized Steel, Grade 10.9		29	Pcs.			
28	Machine bolt with single nut	M 24 x 95	Galvanized Steel, Grade 10.9		29	Pcs.			
29	Machine bolt with single nut	M 20 x 195	Galvanized Steel, Grade 10.9		10	Pcs.			
30	Machine bolt with single nut	M 20 x 155	Galvanized Steel, Grade 10.9		72	Pcs.			
31	Machine bolt with single nut	M 20 x 85	Galvanized Steel, Grade 10.9		72	Pcs.			
32	Machine bolt with single nut	M 20 x 80	Galvanized Steel, Grade 10.9		20	Pcs.			
33	Machine bolt with single nut	M 20 x 70	Galvanized Steel, Grade 10.9		308	Pcs.			
34	Machine bolt with single nut	M 20 x 45	Galvanized Steel, Grade 10.9		77	Pcs.			
35	Machine bolt with single nut	M 16 x 125	Galvanized Steel, Grade 10.9		6	Pcs.			
36	Machine bolt with single nut	M 16 x 120	Galvanized Steel, Grade 10.9		40	Pcs.			
37	Machine bolt with single nut	M 16 x 70	Galvanized Steel, Grade 10.9		20	Pcs.			
38	Machine bolt with single nut	M 16 x 65	Galvanized Steel, Grade 10.9		30	Pcs.			
39	Machine bolt with single nut	M 16 x 60	Galvanized Steel, Grade 10.9		68	Pcs.			
40	Machine bolt with single nut	M 16 x 55	Galvanized Steel, Grade 10.9		20	Pcs.			
41	Machine bolt with single nut	M 16 x 40	Galvanized Steel, Grade 10.9		40	Pcs.			
42	Machine bolt with single nut	M 16 x 35	Galvanized Steel, Grade 10.9		10	Pcs.			
43	Gasket Full Face, JIS5K, Thk 3mm	200A	CNAF	JIS5K	44	Pcs.			
44	Gasket Full Face, JIS5K, Thk 3mm	150A	CNAF	JIS5K	4	Pcs.			
45	Gasket Full Face, JIS5K, Thk 3mm	100A	CNAF	JIS5K	6	Pcs.			
46	Gasket Full Face, JIS5K, Thk 3mm	80A	CNAF	JIS5K	6	Pcs.			
47	Gasket Full Face, PN10, Thk 3mm	DN300	CNAF	PN10	4	Pcs.			
48	Gasket Full Face, PN10, Thk 3mm	DN250	CNAF	PN10	4	Pcs.			
49	Gasket Full Face, PN10, Thk 3mm	DN125	CNAF	PN10	4	Pcs.			
50	Gasket Full Face, PN10, Thk 3mm	DN80	CNAF	PN10	5	Pcs.			
51	Gasket Full Face, PN16, Thk 3mm	DN150	CNAF	PN16	2	Pcs.			
52	U-Bolt with Double Nuts	DN200	Galv. Steel		26	Pcs.	2.9	66.7	
53	U-Bolt with Double Nuts	DN150	Galv. Steel		2	Pcs.	2.4	2.4	
54	U-Bolt with Double Nuts	DN100	Galv. Steel		2	Pcs.	0.8	0.8	
55	U-Bolt with Double Nuts	DN80	Galv. Steel		6	Pcs.	0.3	1.5	

Sl. No.	Description	Dimension	Material	Standard	Quantity	Unit	Unit Weight (kg)	Total Weight (kg)	Remarks
56	Equal Leg Angle	L 75 x 75 x 8.0	SS400		19.45	m.	8.99	174.78	
57	Equal Leg Angle	L 50 x 50 x 6.0	SS400		2.95	m.	4.47	13.18	
58	Pad	130 x 130 x 10	SS400		17	Pcs.	0.61	10.37	
59	Pad	70 x 70 x 8	SS400		4	Pcs.	0.16	0.64	
<b>COMPRESSED AIR SYSTEM</b>									
1	Pipe Seamless, BW	15A Sch40	STPG370	JISG3454	15.00	m.	1.31	19.65	
2	Socket Weld Flange	15A JIS10K	SF390A	JIS B2220	2	Pcs.			
3	Socket Weld Reducing Tee	20A x 15A	PG370	JIS B2316	2	Pcs.			
4	Socket Weld Elbow 90Deg.	15A (1/2)	PG370	JIS	5	Pcs.			
5	Socket Weld Elbow 45Deg.	15A (1/2)	PG370	JIS	2	Pcs.			
6	Socket weld coupling	15A (1/2)	Carbon Steel	JIS	4	Pcs.			
7	Gasket Full Face, JIS10K, Thk 3mm	15A	CNAF	JIS 10K	1	Pcs.			
8	Machine bolt with single nut	M12X40	Galvanized Steel, Grade 10.9		24	Pcs.			
9	U-Bolt with Double Nuts	15A	Galv. Steel		10	Pcs.	0.3	0.3	
10	Equal Leg Angle	L 40x40x5.0	SS400		12	m.			
<b>FRESH WATER SYSTEM</b>									
1	Pipe Seamless, BW	15A Sch40	STPG370	JIS G3454	15.00	m	1.31	19.65	
2	Flange Socket Welded	15A JIS5K	SS 400	JIS B2220	4	Pcs.			
3	Socket Weld Elbow 90Deg.	15A (1/2)	PG370	JIS	5	Pcs.			
4	Socket Weld Elbow 45Deg.	15A (1/2)	PG370	JIS	3	Pcs.			
5	Socket weld coupling	15A (1/2)	Brass	JIS	6	Pcs.			
6	Pipe nipple both end threaded	15A (1/2) 150mm	Brass	JIS	4	Pcs.			
7	Gasket, JIS5K, Thk 3mm	15A	CNAF	JIS 5K	4	Pcs.			
8	Machine bolt with single nut	M 12 x 40	Galvanized Steel, Grade 10.9		16	Pcs.			
9	U-Bolt with Double Nuts	15A	Galv. Steel		10	Pcs.	0.3	0.3	
10	Equal Leg Angle	L 40 x 40 x 5.0	SS400	JIS	8	m.	4.47	35.76	
<b>ESTIMATED MATERIAL FOR FPT</b>									
1	Flange SOFF	125A JIS5K	SS 400	JIS B2220	2	Pcs.	3.2	6.4	For F.P.W.B.T
2	Blind Flange	125A JIS5K	SS 400	JIS B2220	2	Pcs.	5.16	10.32	For F.P.W.B.T
3	Gasket, JIS5K, Thk 3mm	125A	CNAF	JIS 5K	10	Pcs.			For F.P.W.B.T
4	Machine bolt with single nut	M 16 x 60	Galvanized Steel, Grade 10.9		16	Pcs.			For F.P.W.B.T
<b>SPARE MATERIAL (To have primer coating)</b>									
1	Equal Leg Angle	L 50 x 50 x 6.0	CS		12	m.			For Grating
2	Equal Leg Angle	L 100 x 100 x 8	CS		12	m.			For Carling
3	Socket weld coupling	G1/2, PN10	CS		4	Pcs.			YV1, MV3,MV2
4	Pipe Seamless, BW	15A Sch40	STPG370	JIS G3454	2.00	m	1.31	2.62	
5	G1/2 Plug With Male Thread	CS			3	Pcs.			
6	G1/4 Plug With Male Thread	CS			2	Pcs.			
<b>EQUIPMENT INSTALLATION BOLT</b>									
1	Machine Bolt with Double nut	M20x75	Galvanized Steel, Grade 10.9		6	Pcs.			Filter
2	Machine Bolt with Double nut	M16x55	Galvanized Steel, Grade 10.9		6	Pcs.			BackFlush Pump
3	Machine Bolt with Double nut	M12x55	Galvanized Steel, Grade 10.9		15	Pcs.			Power Cabinet
4	Machine Bolt with Double nut	M10x50	Galvanized Steel, Grade 10.9		6	Pcs.			Control Unit
5	Machine Bolt with Double nut	M10x40	Galvanized Steel, Grade 10.9		6	Pcs.			Remote Control Unit
6	Machine Bolt with Double nut	M8x50	Galvanized Steel, Grade 10.9		6	Pcs.			Pressure Control Box
7	Washer	M20			6	Pcs.			
8	Washer	M16			6	Pcs.			
9	Washer	M12			15	Pcs.			
10	Washer	M10			10	Pcs.			
11	Washer	M8			6	Pcs.			

Notes:

1) For final treatment of pipe and pipe fittings, refer individual piping spool fabrication drawings.

2) MTO estimated based on the current 3D model.

3) Class III pipes and its fittings to be procured as applicable.

4) For the fabrication/ procurement of threadolets, pads etc. Yard piping practice shall be followed.

5) 20% margin considered for Bolts & nuts and Gaskets,Client to confirm before purchase