



KHULNA SHIPYARD LIMITED

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BABE (F) - 338/V&P/2024-2025

21 NOVEMBER 2024

Dear Sir

INVITATION FOR QUOTATION OF VARIOUS TYPE VALVE AND PIPE FITTINGS.

1. Khulna Shipyard Limited (KSY) will procure “ Different Type Valve and Pipe Fittings (PART-01, PART-02 & PART-03)” as per attach specification (64 Pages), following terms & condition:
2. Please send your offer CFR Chattogram Sea Port basis within **08/12/24 (1130 Hours)** by e-mail or closed envelop.
 - a) Payment: Payment will be made through Letter of Credit. 80% of the total contract value will be paid against shipping documents and rest 20% will be paid after receiving the material at KSY and satisfactory acceptance.
 - b) Shipment: 60 days from the opening date of LC.
 - c) FOB value & Ocean freight should be shown separately.
3. 01% (One) Bid Bond/Earnest Money of the total quoted value must be submit with offer. Bid Bond may be Pay Order/Bank Guarantee in favour of KSY.
4. 05% Performance Guarantee (PG) is to be submitted before Purchase Order.
5. Certificate: Supplier must provide manufacturer certificate as regard to the genuinity of the source and items.
8. Offer Validity: 30 Days from Tender Opening Date.

Yours sincerely

Sk. Shah Moshir Rahman
OIC, Commercial Foreign
For Managing Director

TECHNICAL SPECIFICATION VARIOUS ITEMS VALVE AND PIPE FITTINGS.

PART-01

Items	Description of goods	Qty.	Unit
1	SDNR Valve (shut down non-return) Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	2	nos
2	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 16 Medium: Bilge/ Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
3	SDNR Valve (shut down non-return) Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos
4	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 16 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	2	nos
5	SDNR Valve (shut down non-return) Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: II Material: Cast Steel (Body), SS 316L (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	1	nos
6	3 Way Ball Valve Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body) , SS 316L (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
7	Strainer (Mudbox) Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Welding Steel (Body), SS 316 (Mesh) Mesh Hole Diameter: 2 mm Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos
8	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	6	nos
9	Bilge Suction Strainer Nominal Size: DN 50 Location: Bilge, Fire Fighting and Deck Wash System Type: Vertical, Flange End Class: III Material: SS (Body), SS (Trim) Mesh Hole Diameter: 6 mm Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	4	nos
10	Bilge Suction Strainer Nominal Size: DN 40 Location: Bilge, Fire Fighting and Deck Wash System Type: Vertical, Flange End Class: III Material: SS (Body), SS (Trim) Mesh Hole Diameter: 6 mm Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos
11	Butterfly Valve Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS 316L (Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos
12	Butterfly Valve Nominal Size: DN 200 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS 316L (Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
13	<p>Check Valve Nominal Size: DN 200 Location: Bilge, Fire Fighting and Deck Wash System Type: Swing Check Valve, Flange type Class: III Material: Cast Iron (Body), SS 316L (Disc), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer</p>	1	nos
14	<p>Butterfly Valve Nominal Size: DN 125 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body), SS 316L (Disc), NBR (Seal) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer</p>	1	nos
15	<p>SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Bronze (Stem & Disc), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer</p>	1	nos
16	<p>SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Fresh/ Bilge Water Standard: DIN Test Certificate from Manufacturer</p>	3	nos
17	<p>Ball Valve with Hose Connector Suitable for bilge water suction from tank Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System End Connection: Connected by Union, Thread Size: (M42*2) Class: III Material: Stainless Steel 304 (Body), SS (Trim) Pressure Rating: PN 10 Medium: Fresh/ Sea Water Standard: DIN Test Certificate from Manufacturer</p>	1	nos
18	<p>Flap Type Check Valve Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Flap Type End Connection: Flange connection Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Fresh/ Sea Water Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange</p>	1	nos

Items	Description of goods	Qty.	Unit
19	Ball Valve with Hose Connector Suitable for bilge water suction from tank Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System End Connection: Connected by Union, Thread Size: (M42*2) Class: III Material: Stainless Steel 304 (Body) , SS (Trim) Pressure Rating: PN 16 Medium: Fresh/ Sea Water Standard: DIN Test Certificate from Manufacturer	28	nos
20	Butterfly Valve Nominal Size: DN 150 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS 316L (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
21	Butterfly Valve Nominal Size: DN 80 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
22	Butterfly Valve Nominal Size: DN 65 Location: Bilge, Fire Fighting and Deck Wash System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
23	Globe Valve Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
24	Strainer (Mudbox) Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS 316L (Mesh) Mesh Hole Diameter: 6 mm Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
25	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Bilge Water Standard: DIN Product Certificate from BV	1	nos
26	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Dirty Oil Standard: DIN Test Certificate from Manufacturer	1	nos
27	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Bilge Water Standard: DIN Product Certificate from BV	1	nos
28	Butterfly Valve Nominal Size: DN 250 Location: Sea & Fresh Water- Cooling Piping System Type: Flange at Both Ends Class: II Material: Cast Steel (Body), Bronze (Disc) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	2	nos
29	Strainer (Mudbox) Nominal Size: DN 250 Location: Sea & Fresh Water- Cooling Piping System System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS 316L (Mesh) Mesh Hole Diameter: 2 mm Pressure Rating: PN 2.5 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
30	Butterfly Valve Nominal Size: DN 250 Location: Sea & Fresh Water- Cooling Piping System Type: Lug Type Class: III Material: Ductile Iron (Body) , SS 316L (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
31	Butterfly Valve Nominal Size: DN 125 Location: Sea & Fresh Water- Cooling Piping System Type: Wafer Type Class: III Material: Ductile Iron (Body) , SS 316L (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
32	Check Valve Nominal Size: DN 125 Location: Sea & Fresh Water- Cooling Piping System Type: Swing Type, Flange Connection Class: III Material: Cast Iron (Body), SS (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
33	Rubber Compensator (Flexible Connection) Nominal Size: DN 100 Location: Sea & Fresh Water- Cooling Piping System Type: Flange End Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Type Approval Certificate from ABS	4	nos
34	SDNR Valve (shut down non-return) Nominal Size: DN 100 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	2	nos
35	Elastic Hose Connection Inner Diameter: 33.4mm Location: Sea & Fresh Water- Cooling Piping System Type: Flame Resistant Length: 400mm Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Sea Water Standard: DIN (NOTE: Without BV type approval certificate)	4	nos
36	Orifice Plate Nominal Size: DN 25 Location: Sea & Fresh Water- Cooling Piping System Connection: Between Flanges Class: III Material: SS (Body) Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
37	Elastic Hose Connection Inner Diameter: 42.2mm Location: Sea & Fresh Water- Cooling Piping System Type: Flame Resistant Length: 400mm Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Sea Water Standard: DIN (NOTE: Without BV type approval certificate)	2	nos
38	Butterfly Valve Nominal Size: DN 50 Location: Sea & Fresh Water- Cooling Piping System Type: Wafer Type Class: III Material: Cast Iron (Body), SS 316L (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
39	Check Valve Nominal Size: DN 50 Location: Sea & Fresh Water- Cooling Piping System Type: Wafer Type Class: III Material: Cast Iron (Body), SS (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
40	Rubber Compensator (Flexible Connection) Nominal Size: DN 50 Location: Sea & Fresh Water- Cooling Piping System Type: Flange End Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Type Approval Certificate from ABS	4	nos
41	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	3	nos
42	SDNR Valve (shut down non-return) Nominal Size: DN 40 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS 316L (Stem & Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
43	Rubber Compensator (Flexible Connection) Nominal Size: DN 40 Location: Sea & Fresh Water- Cooling Piping System Type: Flange End Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Type Approval Certificate from ABS	2	nos
44	SDNR Valve (shut down non-return) Nominal Size: DN 32 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS 316L (Stem & Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
45	SDNR Valve (shut down non-return) Nominal Size: DN 32 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	1	nos
46	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS 316L (Stem & Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
47	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Sea & Fresh Water- Cooling Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Stem & Disc) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	1	nos
48	Elastic Hose Connection Inner Diameter: 26.7mm Location: Sea & Fresh Water- Cooling Piping System Type: Flame Resistant Length: 400mm Class: III Material: EPDM Rubber Pressure Rating: PN 10 Medium: Fresh Water Standard: DIN (NOTE: Without BV type approval certificate)	4	nos

Items	Description of goods	Qty.	Unit
49	Swing Check Valve Nominal Size: DN 20 Location: Sea & Fresh Water- Cooling Piping System End Connection: Straight, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10 Medium: Fresh Water Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange	2	nos
50	Ball Valve with Hose Connector Suitable for water suction & delivery to tank Nominal Size: DN 20 Location: Sea & Fresh Water- Cooling Piping System End Connection: Connected by Union Class: III Material: Stainless Steel 304 Pressure Rating: PN 10 Medium: Fresh Water Standard: DIN Test Certificate from Manufacturer	3	nos
51	Foot Valve (Check Valve with Suction Nozzle) Nominal Size: DN 32 Location: Drinking Water Piping System Type: Flange End Class: III Material: Brass (Body), EPDM (Seal) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer	1	nos
52	Ball Valve Nominal Size: DN 32 Location: Drinking Water Piping System End Connection: Connected by Union Class: III Material: Brass (Body), Br Chrome (Trim), PTFE (Seal) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer	1	nos
53	Filter (suitable for drinking water supply line) Nominal Size: DN 32 Location: Drinking Water Piping System End Connection: Straight, Flange End Class: III Material: SS 316L (Body), Chromium (Trim) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange	1	nos
54	Ball Valve Nominal Size: DN 25 Location: Drinking Water Piping System End Connection: Connected by Union Class: III Material: Brass (Body), Br Chrome (Trim), PTFE (Seal) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer	8	nos

Items	Description of goods	Qty.	Unit
55	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Drinking Water Piping System Type: Straight End Connection: flange Class: III Material: Stainless Steel (Body), Stainless Steel (Trim) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange	3	nos
56	SDNR Valve (shut down non-return) Nominal Size: DN 15 Location: Drinking Water Piping System Type: Straight End Connection: flange Class: III Material: Stainless Steel (Body), Stainless Steel (Trim) Pressure Rating: PN 10 Medium: Fresh Water Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange	1	nos
57	Ball Valve Nominal Size: DN 15 Location: Drinking Water Piping System End Connection: Connected by Union Class: III Material: Brass (Body), Br Chrome (Trim), PTFE (Seal) Pressure Rating: PN 10 Medium: Drinking Water Standard: DIN Test Certificate from Manufacturer	20	nos
58	Air Vent Head Nominal Size: DN 50 Location: Drinking Water Piping System Type: Fitted with Insect Screen, Auto Closing, Flange End Class: III Material: Cast Iron (Body) Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from DNV	1	nos
59	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Sewage Water Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 6 Medium: Black Water Standard: DIN Test Certificate from Manufacturer	1	nos
60	Foot Valve (check valve with suction nozzle) Nominal Size: DN 50 Location: Sewage Water Piping System Type: Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 6 Medium: Black Water Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
61	Gate Valve Nominal Size: DN 50 Location: Sewage Water Piping System Type: Straight, Flange End Class: III Material: Ductile Iron (Body) , Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Black Water Standard: DIN Test Certificate from Manufacturer	3	nos
62	Gate Valve with Mechanical Linkage (to operate the valve from main deck) Nominal Size: DN 50 Location: Sewage Water Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Black Water Standard: DIN Product Certificate from BV	1	nos
63	Check Valve Nominal Size: DN 50 Location: Sewage Water Piping System Type: Wafer Type, Flange End Class: III Material: Bronze (Body), Bronze (Trim), NBR (Seal) Pressure Rating: PN 6 Medium: Black Water Standard: DIN Test Certificate from Manufacturer	1	nos
64	Check Valve Nominal Size: DN 80 Location: Sewage Water Piping System Type: Wafer Type, Flange End Class: III Material: Bronze (Body), Bronze (Trim), NBR (Seal) Pressure Rating: PN 6 Medium: Grey Water Standard: DIN Test Certificate from Manufacturer	1	nos
65	Air Vent Head Nominal Size: DN 50 Location: Sewage Water Piping System Type: Fitted with Insect Screen, Auto Closing, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 6 Medium: Air Standard: DIN Type Approval Certificate from DNV	1	nos
66	Fuel Bunker Filter (Strainer) Nominal Size: DN 50, Y Type Strainer Location: Fuel Oil Piping System Type: Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
67	Ball Valve Nominal Size: DN 15 Location: Fuel Oil Piping System End Connection: Straight, Flange End Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer With 1 pair MS flange	1	nos
68	Ball Valve Nominal Size: DN 50 Location: Fuel Oil Piping System Type: Flange End Class: III Material: SS (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	1	nos
69	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Fuel Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	5	nos
70	SDNR Valve (shut down non-return) Nominal Size: DN 32 Location: Fuel Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	10	nos
71	Globe Valve Nominal Size: DN 25 Location: Fuel Oil Piping System Type: Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	1	nos
72	Globe Valve Nominal Size: DN 32 Location: Fuel Oil Piping System Type: Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
73	Strainer Nominal Size: DN 32 Location: Fuel Oil Piping System Type: Flange End Class: III Material: Ductile Iron (Body), SS (Mesh), NBR (Seal) Mesh Hole Diameter: 2 mm Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
74	Safety Valve Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Angle Type, Flange End, Pressure Regulatable Pressure to be set at: 3 bar Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
75	Quick Closing Valve Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Certificate Product Certificate from BV	13	nos
76	Quick Closing Valve Nominal Size: DN 50 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Certificate Product Certificate from BV	5	nos
77	Quick Closing Valve Nominal Size: DN 32 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Certificate Product Certificate from BV	2	nos
78	Quick Closing Valve Nominal Size: DN 25 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Product Certificate from BV	2	nos

Items	Description of goods	Qty.	Unit
79	3-way Ball Valve with T-plug Nominal Size: DN 15 Location: Fuel Oil Piping System End Connection: Connected by Union Class: III Material: Cast Steel (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	8	nos
80	Check Valve Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Swing Check Valve End Connection: Connected by Union Class: III Material: Stainless Steel (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	13	nos
81	3-way Ball Valve with T-plug Nominal Size: DN 25 Location: Fuel Oil Piping System End Connection: Connected by Union Class: III Material: Cast Steel (Body) , SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
82	Ball Valve Nominal Size: DN 1/4" Location: Fuel Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
83	Ball Valve Nominal Size: DN 3/4" Location: Fuel Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	1	nos
84	Ball Valve Nominal Size: DN 1/2" Location: Fuel Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	8	nos



Items	Description of goods	Qty.	Unit
85	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Fuel Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	1	nos
86	Globe Valve Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
87	SDNR Valve (shut down non-return) Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Test Certificate from Manufacturer	2	nos
88	Ball Valve Nominal Size: DN 25 Location: Lube Oil Piping System Type: Flange End Class: II Material: SS (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Lube Oil Standard: DIN Product Certificate from BV	1	nos
89	Ball Valve with Hose Connector Nominal Size: DN 25 Location: Lube Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Lube Oil Standard: DIN Test Certificate from Manufacturer	1	nos
90	Ball Valve with Spout Nominal Size: DN 25 Location: Lube Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Lube Oil Standard: DIN Test Certificate from Manufacturer	1	nos
91	Ball Valve Nominal Size: DN 15 Location: Lube Oil Piping System End Connection: Connected by Union Class: III Material: SS (Body), SS (Trim) Pressure Rating: PN 10 Medium: Lube Oil Standard: DIN Test Certificate from Manufacturer	1	nos

Items	Description of goods	Qty.	Unit
92	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Compressed Air System Type: Straight, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	1	nos
93	Pressure Reducing Valve Nominal Size: DN 20 Location: Compressed Air System Type: Straight, Flange End, Adjustable Pressure Setting Pressure Reducing Capacity: From 16 bar to 1 bar Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	1	nos
94	Safety Valve Nominal Size: DN 15 Location: Compressed Air System Type: Flange End, Adjustable Pressure Setting Pressure Relief at: > 1 Bar or Other Setting Pressure Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Product Certificate from BV	1	nos
95	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Compressed Air System Type: Straight, Flange End Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Product Certificate from BV	2	nos
96	Solenoid Valve Nominal Size: DN 20 Location: Compressed Air System Type: Flange End, Normally Closed Type Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 16 Electrical Power: 220V, 50 Hz Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	1	nos
97	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Compressed Air System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
98	Ball Valve Nominal Size: DN 15 Location: Compressed Air System Type: Straight, Thread End Class: III Material: Stainless Steel 304 (Body) , SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	2	nos
99	Ball Valve with Hose Connector Nominal Size: DN 15 Location: Compressed Air System Type: Straight, Thread End Class: III Material: Stainless Steel 304 (Body) , SS (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Compressed Air Standard: DIN Test Certificate from Manufacturer	1	nos
100	For air vent head where fitted, wire gauze diaphragms are to be of corrosion resistant material and readily removable for cleaning and replacement. The clear area of such diaphragms is not to be less than the crosssectional area of the pipe. Air Vent Head with Flood Protection Nominal Size: DN 65 Location: Black & Grey Water Tank Air Vent Line Type: Auto Closing, Insect Screen, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Air Standard: DIN Certificate Type Approval Certificate from DNV	1	nos
101	Air Vent Head with Flood Protection Nominal Size: DN 80 Location: Fuel Oil Tank Air Vent Line Type: Auto Closing, Flame Screen, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from DNV	1	nos
102	Air Vent Head with Flood Protection Nominal Size: DN 80 Location: Fuel Oil Tank Air Vent Line Type: Auto Closing, Flame Screen, Flange End Class: III Material: Cast Iron (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from BV	1	nos
103	Globe Valve Nominal Size: DN 40 Location: Sea Chest Air Vent Line Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water/ Air Standard: DIN Product Certificate from BV	2	nos

Items	Description of goods	Qty.	Unit
104	Self-Closing Sounding Pipe Head with Test Valve Nominal Size: DN 40 Location: Fuel Oil Tank Sounding Line Type: Straight, Weighted Closing, Flange/ Thread End Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	1	nos
105	Ball Valve Nominal Size: DN 50 Location: Hydraulic Oil Tank Air Vent Line Type: Straight, Flange/ Thread End Class: III Material: Stainless Steel Pressure Rating: PN 10 Medium: Air Standard: DIN Test Certificate from Manufacturer	1	nos
106	AIR VENT HEAD (With Flood Protection) Nominal Size: DN 50 Location: Hydraulic Oil Tank Air Vent Line Type: Auto Closing, Flame Screen, Flange End Class: III, Material: Cast Iron Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from BV With 1 Pc Aluminium Flange	1	nos
107	Self-closing Sounding Valve Nominal Size: DN 40 Location: Cooling Water Tank Sounding Line Type: Straight, Thread End Weighted Closing Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	1	nos
108	Self-closing Sounding Valve Nominal Size: DN 40 Location: Cooling Water Tank Sounding Line Type: Straight, Thread End Weighted Closing Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	1	nos
109	Ball Valve Nominal Size: DN 40 Location: Lube Oil Tank Air Vent Line Type: Straight, Flange end Class: III Material: Stainless Steel Pressure Rating: PN 10 Medium: Air Standard: DIN Test Certificate from Manufacturer Additional Item: 01 Pair MS Flange	1	nos

Items	Description of goods	Qty.	Unit
110	AIR VENT HEAD (With Flood Protection) Nominal Size: DN 40 Location: Lube Oil Tank Air Vent Line Type: Auto Closing, Flame Screen, Flange End Class: III, Material: Cast Iron Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from BV With 1 Pc Aluminium Flange	1	nos
111	Self-closing Sounding Valve Nominal Size: DN 40 Location: Dirty Oil Tank Sounding Line Type: Straight, Thread End, Weighted Closing Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	1	nos
112	Self-closing Sounding Valve Nominal Size: DN 40 Location: Dirty Oil Tank Sounding Line Type: Straight, Thread End, Weighted Closing Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	21	nos
113	Self-closing Sounding Valve Nominal Size: DN 40 Location: Dirty Oil Tank Sounding Line Type: Straight, Thread End, Weighted Closing Class: III Material: Brass Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve Standard: DIN Test Certificate from Manufacturer	2	nos
114	Ball Valve Nominal Size: DN 40 Location: HVAC System Type: Straight, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	6	nos
115	Sea Water Strainer (Mud Box) Nominal Size: DN 40 Location: HVAC System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Stainless Steel (Strainer) Pressure Rating: PN 6 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
116	Ball Valve Nominal Size: DN 15 Location: HVAC System Type: Straight, Thread End Class: III Material: Stainless Steel Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos

Items	Description of goods	Qty.	Unit
117	Swing Check Valve Nominal Size: DN 40 Location: HVAC System Type: Straight, Flange End Class: III Material: Cast Steel (Body), Stainless Steel (Disc) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	1	nos
118	SDNR Valve (shut down non-return) Nominal Size: DN 40 Location: HVAC System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Bronze (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	2	nos
119	Flexible Joint Nominal Size: DN 40 Location: HVAC System Type: Straight, Flange End Class: III Material: Rubber (Body), Stainless Steel (Flange) Pressure Rating: PN 10 Medium: Sea Water Standard: DIN Test Certificate from Manufacturer	2	nos
120	SDNR Valve (shut down non-return) Nominal Size: DN 25 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water Standard: DIN Test Certificate from Manufacturer	1	nos
121	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Dirty Oil Standard: DIN Test Certificate from Manufacturer	2	nos
122	SDNR Valve (shut down non-return) Nominal Size: DN 20 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: II Material: Cast Steel (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Treated Water Standard: DIN Product Certificate from BV	1	nos
123	SDNR Valve (shut down non-return) Nominal Size: DN 65 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Bilge Water & Dirty Oil Standard: DIN	2	nos

Items	Description of goods	Qty.	Unit
	Test Certificate from Manufacturer		
124	SDNR Valve (shut down non-return) Nominal Size: DN 50 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water & Dirty Oil Standard: DIN Test Certificate from Manufacturer	2	nos
125	Gate Valve Nominal Size: DN 50 Location: Bilge and Dirty Oil Piping System Type: Straight, Flange End Class: III Material: Cast Iron (Body), Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Bilge Water & Dirty Oil Standard: DIN Test Certificate from Manufacturer	2	nos
126	Self-Closing Valve Nominal Size: DN 15 Location: Bilge and Dirty Oil Piping System Type: Straight, Thread End Class: III Material: Cast Steel (Body) , Stainless Steel (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Treated Water Standard: DIN Test Certificate from Manufacturer	1	nos
127	SDNR Valve (shut down non-return) Nominal Size: DN 65 Location: Piping System of SAR Vessel Type: Straight, Flange End Class: II Material: Cast Steel (Body), SS 316L (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	1	nos
128	SDNR Valve (shut down non-return) with Mechanical Linkage (to operate the valve from main deck) Nominal Size: DN 50 Location: Bilge, Fire Fighting and Deck Wash System Type: Straight, Flange End Class: II Material: Cast Steel (Body), SS 316L (Trim), NBR (Seal) Pressure Rating: PN 16 Medium: Sea Water Standard: DIN Product Certificate from BV	1	nos
129	Quick Closing Valve Nominal Size: DN 15 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Product Certificate from BV	1	nos
130	Quick Closing Valve Nominal Size: DN 50 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil andard: DIN Product Certificate from BV	1	nos

Items	Description of goods	Qty.	Unit
131	Quick Closing Valve Nominal Size: DN 32 Location: Fuel Oil Piping System Type: Flange End, Pneumatic Actuation, Remote Controlled Class: II Material: Cast Steel (Body), SS (Trim), NBR (Seal) Pressure Rating: PN 10 Medium: Diesel Fuel Oil Standard: DIN Product Certificate from BV	1	nos
132	Air Vent Head with Flood Protection Nominal Size: DN 50 For Dirty Oil Tank. Location: Dirty Oil Tank Air Vent Line Type: Auto Closing, Flame Screen, Flange End Class: III Material: Cast Iron Pressure Rating: PN 10 Medium: Air Standard: DIN Type Approval Certificate from DNV With 01 no. Aluminium Flange	1	nos
133	Sounding Pipe Plug Nominal Size: Suitable for DN 40 Pipe Location: Sounding Line of Fuel Oil Tanks & Chain Locker Type: Flush Type Material: Aluminium Standard: DIN Test Certificate from Manufacturer	7	nos
	BV certificate of required item of valve		

PART-02

Items	Description of goods	Qty.	Unit
1	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V001, BF V002, BF V006 Material: AIMGSi1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	6	nos
2	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V003, BF V007 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
3	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V008 Material: AIMGSi1 Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
4	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V008 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
5	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V009 Material: AIMGSi1 Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
6	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V020 Material: AIMGSi1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN	3	nos

Items	Description of goods	Qty.	Unit
	Test Certificate from Manufacturer		
7	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V021 Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
8	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V023 ~ BF V028 Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	12	nos
9	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V030 ~ BF V033 Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
10	Flange for Valve Fitting Nominal Size: DN 40 Valve No: BF V034 Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
11	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V040 Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
12	Flange for Valve Fitting Nominal Size: DN 200 Valve No: BF V041 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
13	Flange for Valve Fitting Nominal Size: DN 200 Valve No: BF V043 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
14	Flange for Valve Fitting Nominal Size: DN 125 Valve No: BF V044 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
15	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V045 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
16	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V046 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10	2	nos

Items	Description of goods	Qty.	Unit
	Standard: DIN Test Certificate from Manufacturer		
17	Flange for Valve Fitting Nominal Size: DN 150 Valve No: BF V052, BF V053 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
18	Flange for Valve Fitting Nominal Size: DN 80 Valve No: BF V055 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
19	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BF V057 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
20	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V064 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
21	Bulkhead Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V065 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
22	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V065 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
23	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V066, BF V067 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
24	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V068 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
25	Bulkhead Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V070 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
26	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BF V070 Material: Aluminium	1	nos

Items	Description of goods	Qty.	Unit
	Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer		
27	Bulkhead Flange for Valve Fitting Nominal Size: DN 20 Valve No: BF V071 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
28	Flange for Valve Fitting Nominal Size: DN 20 Valve No: BF V071 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
29	Flange for Valve Fitting Nominal Size: DN 20 Valve No: BF V072 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
30	Flange for Valve Fitting Nominal Size: DN 250 Valve No: SCW V001, SCW V010 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
31	Flange for Valve Fitting Nominal Size: DN 250 Valve No: SCW V002, SCW V011 Material: Aluminium Type: Flat Face Flange Pressure Rating: As per Strainer Flange Standard: DIN Test Certificate from Manufacturer	4	nos
32	Flange for Valve Fitting Nominal Size: DN 250 Valve No: SCW V003, SCW V012 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
33	Flange for Valve Fitting Nominal Size: DN 125 Valve No: SCW V020, SCW V040 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
34	Flange for Valve Fitting Nominal Size: DN 125 Valve No: SCW V021, SCW V041 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
35	Flange for Valve Fitting Nominal Size: DN 100 Valve No: SCW V024, SCW V025, SCW V044, V045 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10	8	nos

Items	Description of goods	Qty.	Unit
	Standard: DIN Test Certificate from Manufacturer		
36	Flange for Valve Fitting Nominal Size: DN 100 Valve No: SCW V027, SCW V047 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
37	Flange for Valve Fitting Nominal Size: DN 100 Valve No: SCW V027, SCW V047 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
38	Flange for Valve Fitting Nominal Size: DN 25 Valve No: SCW V030, SCW V050 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
39	Flange for Valve Fitting Nominal Size: DN 50 Valve No: SCW V060, SCW V070, SCW V061, V071 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	8	nos
40	Flange for Valve Fitting Nominal Size: DN 50 Valve No: SCW V062, SCW V063, SCW V072, V073 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	8	nos
41	Flange for Valve Fitting Nominal Size: DN 50 Valve No: SCW V064, SCW V074, SCW V083 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	3	nos
42	Flange for Valve Fitting Nominal Size: DN 50 Valve No: SCW V064, SCW V074, SCW V083 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	3	nos
43	Flange for Valve Fitting Nominal Size: DN 40 Valve No: SCW V080, SCW V081, SCW V082 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	6	nos
44	Flange for Valve Fitting Nominal Size: DN 32 Valve No: SCW V090 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN	2	nos

Items	Description of goods	Qty.	Unit
	Test Certificate from Manufacturer		
45	Flange for Valve Fitting Nominal Size: DN 32 Valve No: SCW V095 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
46	Flange for Valve Fitting Nominal Size: DN 32 Valve No: SCW V095 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
47	Flange for Valve Fitting Nominal Size: DN 25 Valve No: SCW V100 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
48	Flange for Valve Fitting Nominal Size: DN 25 Valve No: SCW V105 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
49	Flange for Valve Fitting Nominal Size: DN 25 Valve No: SCW V105 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
50	Flange for Valve Fitting Nominal Size: DN 32 Valve No: DW V001 Material: Copper Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
51	Flange for Valve Fitting Nominal Size: DN 50 Valve No: DW V041 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
52	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BW V001 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	2	nos
53	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BW V002, BW V003 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	2	nos
54	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BW V004, BW V005, BW V008 Material: Aluminium Type: Flat Face Flange	6	nos

Items	Description of goods	Qty.	Unit
	Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer		
55	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BW V009 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
56	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BW V011 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	2	nos
57	Flange for Valve Fitting Nominal Size: DN 80 Valve No: GW V001 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	2	nos
58	Flange for Valve Fitting Nominal Size: DN 50 Valve No: GW V002 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	1	nos
59	Flange for Valve Fitting Nominal Size: DN 50 Valve No: FO V003, FO V005 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
60	Flange for Valve Fitting Nominal Size: DN 50 Valve No: FO V006, V008, V010, V012, V014 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	10	nos
61	Flange for Valve Fitting Nominal Size: DN 32 Valve No: FO V007, V009, V011 - - - V023, V028 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	20	nos
62	Flange for Valve Fitting Nominal Size: DN 25 Valve No: FO V018 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
63	Flange for Valve Fitting Nominal Size: DN 32 Valve No: FO V021, V026, V022, V027 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	8	nos

Items	Description of goods	Qty.	Unit
64	Flange for Valve Fitting Nominal Size: DN 15 Valve No: FO V031, FO V032 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
65	Flange for Valve Fitting Nominal Size: DN 15 Valve No: FO V048, V049, V054 -- V067, V069 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	26	nos
66	Flange for Valve Fitting Nominal Size: DN 50 Valve No: FO V050, V052, V064, V066, V068 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	10	nos
67	Flange for Valve Fitting Nominal Size: DN 32 Valve No: FO V051, FO V053 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
68	Flange for Valve Fitting Nominal Size: DN 25 Valve No: FO V060, FO V061 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
69	Flange for Valve Fitting Nominal Size: DN 25 Valve No: FO V115 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
70	Flange for Valve Fitting Nominal Size: DN 15 Valve No: FO V116, FO V117, FO V118, FO V119 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	8	nos
71	Bulkhead Flange for Valve Fitting Nominal Size: DN 25 Valve No: LO V003 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
72	Flange for Valve Fitting Nominal Size: DN 25 Valve No: LO V003 Material: Mild Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
73	Flange for Valve Fitting Nominal Size: DN 20	2	nos

Items	Description of goods	Qty.	Unit
	Valve No: CA V004 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer		
74	Flange for Valve Fitting Nominal Size: DN 20 Valve No: CA V007 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
75	Flange for Valve Fitting Nominal Size: DN 15 Valve No: CA V009 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
76	Flange for Valve Fitting Nominal Size: DN 20 Valve No: CA V010, CA V011 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
77	Flange for Valve Fitting Nominal Size: DN 20 Valve No: CA V012 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
78	Flange for Valve Fitting Nominal Size: DN 20 Valve No: CA V013, CA V014 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
79	Flange for Valve Fitting Nominal Size: DN 65 Valve Name: Air Vent Head for Grey&Black Water Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
80	Flange for Valve Fitting Nominal Size: DN 65 Valve Name: Air Vent Head for Fuel Oil Tank Material: Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
81	Flange for Valve Fitting Nominal Size: DN 80 Valve Name: Air Vent Head for Fuel Oil Tank Material: Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
82	Flange for Valve Fitting Nominal Size: DN 40	4	nos

Items	Description of goods	Qty.	Unit
	Valve Name: Globe Valve for Sea Chest Air Vent Line Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer		
83	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Self-Closing Sounding Valve Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	14	nos
84	Flange for Valve Fitting Nominal Size: DN 50 Valve Name: Ball Valve for Hydraulic Oil Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
85	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Ball Valve for Cooling Water Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
86	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Ball Valve for Bilge Water Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
87	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Ball Valve for Lube Oil Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
88	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Ball Valve for Dirty Oil Tank Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
89	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Ball Valve for Void Tanks Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	42	nos
90	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Spare Ball Valve for Tanks Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
91	Flange for Valve Fitting Nominal Size: DN 40	12	nos

Items	Description of goods	Qty.	Unit
	Valve Name: Ball Valve for HVAC System Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer		
92	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Sea Water Strainer for HVAC System Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Test Certificate from Manufacturer	2	nos
93	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Swing Check Valve for HVAC System Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
94	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: SDNR Valve for HVAC System Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
95	Flange for Valve Fitting Nominal Size: DN 40 Valve Name: Flexible Joint for HVAC System Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
96	Flange for Valve Fitting Nominal Size: DN 25 Valve No: BD V001 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	2	nos
97	Flange for Valve Fitting Nominal Size: DN 20 Valve No: BD V002, BD V004 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
98	Flange for Valve Fitting Nominal Size: DN 20 Valve No: BD V003 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
99	Flange for Valve Fitting Nominal Size: DN 65 Valve No: BD V005, BD V006 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	4	nos
100	Flange for Valve Fitting Nominal Size: DN 50	4	nos

Items	Description of goods	Qty.	Unit
	Valve No: BD V007, BD V008 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer		
101	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BD V013, BD V014 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	4	nos
102	Flange for Valve Fitting Nominal Size: DN 65 Valve Name: Spare SDNR Valve Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	2	nos
103	Bulkhead Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V063 Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
104	Flange for Valve Fitting Nominal Size: DN 50 Valve No: BF V063 Material: Steel Type: Flat Face Flange Pressure Rating: PN 16 Standard: DIN Test Certificate from Manufacturer	1	nos
105	Bulkhead Flange for Valve Fitting Nominal Size: DN 15 Valve Name: Spare Quick Closing Valve Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
106	Flange for Valve Fitting Nominal Size: DN 15 Valve Name: Spare Quick Closing Valve Material: Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
107	Bulkhead Flange for Valve Fitting Nominal Size: DN 50 Valve Name: Spare Quick Closing Valve Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
108	Flange for Valve Fitting Nominal Size: DN 50 Valve Name: Spare Quick Closing Valve Material: Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
109	Bulkhead Flange for Valve Fitting Nominal Size: DN 32 Valve Name: Spare Quick Closing	1	nos

Items	Description of goods	Qty.	Unit
	Valve Material: Aluminium Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer		
110	Flange for Valve Fitting Nominal Size: DN 32 Valve Name: Spare Quick Closing Valve Material: Steel Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN Test Certificate from Manufacturer	1	nos
111	Packing cost		
112	Estimated Freight LCL terms, By sea		

PART-03

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
1	Mild Steel (MS) Pipe		Nominal Size: DN 200 Location: Sea Chest Pipe to Suction FiFi Pump Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Approx. 6.3 mm	MTC	2
2	Aluminium Pipe	6061	Nominal Size: DN 200 Location: Sea Chest Manifold Branch Pipe Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Min. 5 mm	MTC	0.5
3	Mild Steel (MS) Pipe		Nominal Size: DN 150 Location: FiFi Pump Discharge to Fire Monitor Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	17
4	Mild Steel (MS) Pipe		Nominal Size: DN 125 Location: E/R Tank Top to Suction FiFi Pump Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	14
5	Mild Steel (MS) Pipe		Nominal Size: DN 80 Location: FiFi Pump Discharge to Hydrant Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	15
6	Mild Steel (MS) Pipe		Nominal Size: DN 65 Location: FiFi Pump Discharge to Overboard Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	4
7	ALUMINUM PIPE		Nominal Size: DN 65 Location: Overboard Discharge Pressure Rating: PN 6 Type: Seamless Class: II Thickness: Min. 5 mm	BV	1
8	Mild Steel (MS) Pipe		Nominal Size: DN 50 Location: Bilge Pump Discharge to FiFi Pump Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Min. 4 mm	MTC	42
9	Mild Steel (MS) Pipe		Nominal Size: DN 40 Location: Water Supply to Sewage Tank Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3.6 mm	MTC	3.5
10	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: Hawse Pipe Flushing Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3.2 mm	MTC	5
11	Aluminium Pipe	6061	Nominal Size: DN 150 Location: Deck & BHD Penetration Pipe Pressure	MTC	3

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Rating: PN 10 Type: Seamless Class: III Thickness: Min. 4.5 mm		
12	Aluminium Pipe	6061	Nominal Size: DN 80 Location: Deck & BHD Penetration Pipe Pressure Rating: PN 10 Type: Seamless Class: III Thickness: Min. 3 mm	MTC	2
13	Aluminium Pipe	6061	Nominal Size: DN 65 Location: Sea Chest to Bilge Pump Suction, E/R Direct Bilge Suction Line, Bilge Suction Manifold Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3 mm	MTC	26
14	Aluminium Pipe	6061	Nominal Size: DN 50 Location: Bilge Suction from Different Regions, Deck & BHD Penetration Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3 mm	MTC	68
15	Aluminium Pipe	6061	Nominal Size: DN 40 Location: Water Supply to Sewage Tank Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	1
16	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Bilge Pump Delivery to Oily Bilge Tank Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	16
17	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Overboard Discharge Pressure Rating: PN 10 Type: Seamless Class: II Thickness: Min. 5 mm	BV CERTIFICATE	1
18	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Void Tank Bilge Suction Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3 mm	MTC	48
19	Aluminium Flange	6061	Nominal Size: DN 200 Location: Sea Chest Manifold Branch Pipe Purpose: Valve/ Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	1
20	Mild Steel (MS) Flange		Nominal Size: DN 150 Location: FiFi Pump Discharge to Fire Monitor Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	12
21	Mild Steel (MS) Flange		Nominal Size: DN 125 Location: E/R Tank Top to Suction FiFi Pump Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	10
22	Mild Steel (MS) Flange		Nominal Size: DN 80 Location: FiFi Pump Discharge to Hydrant Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	12
23	Mild Steel (MS) Flange		Nominal Size: DN 65 Location: FiFi Pump Discharge to Overboard Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
24	Mild Steel (MS) Flange		Nominal Size: DN 50 Location: Fire Hydrant Pipe Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	20
25	Mild Steel (MS) Flange		Nominal Size: DN 50 Location: Bilge Pump Discharge to FiFi Pump Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	28
26	Mild Steel (MS) Flange		Nominal Size: DN 40 Location: Water Supply to Sewage Tank Purpose: Pipe Fitting	MTC	5

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Flat Face Flange Pressure Rating: PN 6		
27	Mild Steel (MS) Flange		Nominal Size: DN 25 Location: Hawse Pipe Flushing Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	9
28	Aluminium Flange	6061	Nominal Size: DN 150 Location: Deck & BHD Penetration Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	8
29	Aluminium Flange	6061	Nominal Size: DN 80 Location: Deck & BHD Penetration Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	8
30	Aluminium Flange	6061	Nominal Size: DN 65 Location: Sea Chest to Bilge Pump Suction, E/R Direct Bilge Suction Line, Bilge Suction Manifold Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	28
31	Aluminium Flange	6061	Nominal Size: DN 50 Location: Deck & BHD Penetration Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	16
32	Aluminium Flange	6061	Nominal Size: DN 50 Location: Bilge Suction from Different Regions Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	70
33	Aluminium Flange	6061	Nominal Size: DN 40 Location: Water Supply to Sewage Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
34	Aluminium Flange	6061	Nominal Size: DN 25 Location: Bilge Pump Delivery to Oily Bilge Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	17
35	Mild Steel (MS) Elbow		Nominal Size: DN 200 Location: Sea Chest Pipe to Suction FiFi Pump Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Approx. 6.3 mm End Connection Type: Butt Weld	MTC	3
36	Mild Steel (MS) Elbow		Nominal Size: DN 150 Location: FiFi Pump Discharge to Fire Monitor Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	8
37	Mild Steel (MS) Elbow		Nominal Size: DN 125 Location: E/R Tank Top to Suction FiFi Pump Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	4
38	Mild Steel (MS) Elbow		Nominal Size: DN 80 Location: FiFi Pump Discharge to Hydrant Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	8
39	Mild Steel (MS) Elbow		Nominal Size: DN 65 Location: FiFi Pump Discharge to Overboard Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	3
40	Mild Steel (MS) Elbow		Nominal Size: DN 50 Location: Bilge Pump Discharge to FiFi Pump Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	27

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
41	Mild Steel (MS) Elbow		Nominal Size: DN 40 Location: Water Supply to Sewage Tank Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.6 mm End Connection Type: Butt Weld	MTC	3
42	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: Hawse Pipe Flushing Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.2 mm End Connection Type: Butt Weld	MTC	4
43	Aluminium Elbow	6061	Nominal Size: DN 65 Location: Sea Chest to Bilge Pump Suction, E/R Direct Bilge Suction Line, Bilge Suction Manifold Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	20
44	Aluminium Elbow	6061	Nominal Size: DN 50 Location: Bilge Suction from Different Regions Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	40
45	Aluminium Elbow	6061	Nominal Size: DN 40 Location: Water Supply to Sewage Tank Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	1
46	Aluminium Elbow	6061	Nominal Size: DN 25 Location: Bilge Pump Delivery to Oily Bilge Tank Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	15
47	Aluminium Elbow	6061	Nominal Size: DN 25 Location: Void Tank Bilge Suction Pipe Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	20
48	Mild Steel (MS) Equal Tee		Nominal Size: DN 200 Location: FiFi Pump Suction Line Type: Seamless Thickness: Approx. 6.3 mm End Connection Type: Butt Weld	MTC	1
49	Mild Steel (MS) Equal Tee		Nominal Size: DN 150 Location: FiFi Pump Discharge to Fire Monitor Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
50	Mild Steel (MS) Equal Tee		Nominal Size: DN 80 Location: FiFi Pump Discharge to Fire Hydrant Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1
51	Mild Steel (MS) Equal Tee		Nominal Size: DN 65 Location: Bilge Pump Discharge to FiFi Pump Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1
52	Mild Steel (MS) Equal Tee		Nominal Size: DN 50 Location: Bilge Pump Discharge Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	7
53	Mild Steel (MS) Equal Tee		Nominal Size: DN 25 Location: Hawse Pipe Flushing Line Type: Seamless	MTC	2

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Thickness: Min. 3.2 mm End Connection Type: Butt Weld		
54	Aluminium Equal Tee	6061	Nominal Size: DN 65 Location: Engine Room Direct Bilge Suction Type: Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	1
55	Aluminium Equal Tee	6061	Nominal Size: DN 25 Location: Bilge Suction Line (FWD Store) Type: Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	2
56	Mild Steel (MS) Reducing Tee		Nominal Size: DN 50 x 50 x 40 Location: Water Supply to Sewage Tank Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	1
57	Mild Steel (MS) Reducer		Nominal Size: DN 200 x 150 Location: Sea Chest Pipe to Suction FiFi Pump Type: Seamless Thickness: Approx. 6.3 mm End Connection Type: Butt Weld	MTC	1
58	Mild Steel (MS) Reducer		Nominal Size: DN 200 x 125 Location: ER Tank Top to Suction FiFi Pump Type: Seamless Thickness: Min. 6.3 mm End Connection Type: Butt Weld	MTC	1
59	Mild Steel (MS) Reducer		Nominal Size: DN 150 x 125 Location: FiFi Pump Delivery Line Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1
60	Mild Steel (MS) Reducer		Nominal Size: DN 150 x 80 Location: FiFi Pump Discharge to Fire Monitor Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
61	Mild Steel (MS) Reducer		Nominal Size: DN 80 x 65 Location: FiFi Pump Discharge to Overboard Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1
62	Mild Steel (MS) Reducer		Nominal Size: DN 80 x 50 Location: Fire Hydrant Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
63	Mild Steel (MS) Reducer		Nominal Size: DN 65 x 50 Location: Bilge Pump Discharge to FiFi Pump Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	3
64	Aluminium Reducer	6061	Nominal Size: DN 80 x 65 Location: Bilge Suction Line Type: Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	2
65	Aluminium Reducer	6061	Nominal Size: DN 65x25 Location: Bilge, Fire Fighting & Deckwash System Type: Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	1
66	Aluminium Reducer	6061	Nominal Size: DN 50 x 40 Location: Bilge Suction Line from Stg. Gear Room Type: Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	1
67	Mild Steel (MS) Reducer		Nominal Size: DN 50 x 25 Location: Hawse Pipe Flushing Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	1
68	Aluminium Reducer	6061	Nominal Size: DN 50 x 25 Location: Bilge Suction Through Hose Connector Type: Seamless	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Thickness: Min. 3 mm End Connection Type: Butt Weld		
69	Aluminium Pipe	6061	Nominal Size: DN 250 Location: Low Sea Chest to High Sea Chest Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 5 mm	MTC	9
70	Aluminium Pipe	6061	Nominal Size: DN 250 Location: Sea Chest to Sea Chest Valve Pressure Rating: PN 10 Type: Seamless Class: II Thickness: Approx. 10 mm	BV CERTIFICATE	1
71	Aluminium Pipe	6061	Nominal Size: DN 100 Location: Overboard Discharge (M/E Cooling Line) Pressure Rating: PN 10 Type: Seamless Class: II	BV CERTIFICATE	1.5
72	Aluminium Pipe	6061	Nominal Size: DN 50 Location: Overboard Discharge (Genset Cooling Line) Pressure Rating: PN 10 Type: Seamless Class: II	BV CERTIFICATE	3
73	Aluminium Pipe	6061	Nominal Size: DN 32 Location: Overboard Discharge (HVAC Cooling Line) Pressure Rating: PN 10 Type: Seamless Class: II	BV CERTIFICATE	1
74	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Overboard Discharge (HPU Cooling Line) Pressure Rating: PN 10 Type: Seamless Class: II	BV CERTIFICATE	1
75	Aluminium Pipe	6061	Nominal Size: DN 125 Location: Sea Chest Manifold Branch Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4 mm	MTC	1
76	Aluminium Pipe	6061	Nominal Size: DN 50 Location: Sea Chest Manifold Branch Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	1
77	Aluminium Pipe	6061	Nominal Size: DN 40 Location: Sea Chest Manifold Branch Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	1.5
78	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Sea Chest Manifold Branch Pipe Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	0.5
79	Mild Steel (MS) Pipe		Nominal Size: DN 125 Location: Sea Chest to Main Engine Cooling Line Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	9
80	Mild Steel (MS) Pipe		Nominal Size: DN 100 Location: From Main Engine to Overboard Line Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4.5 mm	MTC	8.5
81	Mild Steel (MS) Pipe		Nominal Size: DN 50 Location: Main Generator Sets Water Cooling Line Pressure Rating: PN 6 Type: Seamless Class: III	MTC	27
82	Mild Steel (MS) Pipe		Nominal Size: DN 40 Location: Harbor Generator Set Water Cooling Line Pressure Rating: PN 6 Type: Seamless	MTC	20

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Class: III		
83	Mild Steel (MS) Pipe		Nominal Size: DN 32 Location: From Main Engine to Gearbox Cooling Line Pressure Rating: PN 6 Type: Seamless Class: III	MTC	12
84	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: From Gearbox to Overboard Line, HPU Cooling Line Pressure Rating: PN 6 Type: Seamless Class: III	MTC	15
85	Mild Steel (MS) Pipe		Nominal Size: DN 20 Location: M/E Fresh Water Cooling Line Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	12
86	Aluminium Flange	6061	Nominal Size: DN 250 Location: Low Sea Chest to High Sea Chest Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN	MTC	4
87	Aluminium Flange	6061	Nominal Size: DN 125 Location: Sea Chest Manifold Branch Pipe Purpose: Valve/ Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN	MTC	2
88	Mild Steel (MS) Flange		Nominal Size: DN 125 Location: Sea Chest to Main Engine Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN	MTC	8
89	Mild Steel (MS) Flange		Nominal Size: DN 100 Location: From Main Engine to Overboard Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN	MTC	4
90	Aluminium Flange	6061	Nominal Size: DN 50 Location: Sea Chest Manifold Branch Pipe Purpose: Valve/ Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN	MTC	2
91	Mild Steel (MS) Flange		Nominal Size: DN 50 Location: Main Generator Sets Water Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	16
92	Aluminium Flange	6061	Nominal Size: DN 40 Location: Sea Chest Manifold Branch Pipe Purpose: Valve/ Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10 Standard: DIN	MTC	1
93	Aluminium Flange	6061	Nominal Size: DN 40 Location: H. Genset Cooling Line (BHD Penetration) Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
94	Mild Steel (MS) Flange		Nominal Size: DN 40 Location: Harbor Generator Set Water Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	10
95	Mild Steel (MS) Flange		Nominal Size: DN 32 Location: From Main Engine to Gearbox Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN	MTC	4
96	Mild Steel (MS) Flange		Nominal Size: DN 25 Location: From Gearbox to Overboard Line, HPU Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange	MTC	12

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Pressure Rating: PN 6 Standard: DIN		
97	Mild Steel (MS) Flange		Nominal Size: DN 20 Location: M/E Fresh Water Cooling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN	MTC	10
98	Aluminium Elbow	6061	Nominal Size: DN 250 Location: Low Sea Chest to High Sea Chest Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 5 mm End Connection Type: Butt Weld Standard: DIN	MTC	3
99	Mild Steel (MS) Elbow		Nominal Size: DN 125 Location: Sea Chest to Main Engine Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld Standard: DIN Test from Manufacturer	MTC	6
100	Mild Steel (MS) Elbow		Nominal Size: DN 100 Location: From Main Engine to Overboard Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	6
101	Mild Steel (MS) Elbow		Nominal Size: DN 50 Location: Main Generator Sets Water Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.0 mm	MTC	18
102	Mild Steel (MS) Elbow		Nominal Size: DN 40 Location: Harbor Generator Set Water Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.6 mm End Connection Type: Butt Weld	MTC	9
103	Mild Steel (MS) Elbow		Nominal Size: DN 32 Location: From Main Engine to Gearbox Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.6 mm	MTC	8
104	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: From Gearbox to Overboard Line, HPU Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.2 mm	MTC	10
105	Mild Steel (MS) Elbow		Nominal Size: DN 20 Location: M/E Fresh Water Cooling Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld Standard: DIN	MTC	5
106	Mild Steel (MS) Reducer		Nominal Size: DN 125 x 100 Location: Sea Chest to Main Engine Cooling Line Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld Standard: DIN	MTC	2
107	Mild Steel (MS) Reducer		Nominal Size: DN 50x40 Location: Harbor Genset Overboard Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld Standard: DIN Test from Manufacturer	MTC	1
108	Mild Steel (MS) Reducer		Nominal Size: DN 32 x 25 Location: From Main Engine to Gearbox Cooling Line	MTC	2

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Seamless Thickness: Min. 3.6 mm End Connection Type: Butt Weld		
109	Hose with Hose Connector		Nominal Size: Suitable for DN 20 Pipe Location: Main Engine to Cooling Water Drain Tank End Connection: With Ball Valve Through Connector Material: Rubber or Suitable for Water	MTC	1
110	Copper Pipe		Nominal Size: DN 32 Location: FW Tank to Hydrophore Pump Type: Seamless Class: III Thickness: Min. 1.5 mm Pressure Rating: PN 6	MTC	9
111	Copper Pipe		Nominal Size: DN 25 Location: Different Drinking Water Lines Type: Seamless Class: III Thickness: Min. 1.5 mm Pressure Rating: PN 6	MTC	62
112	Copper Pipe		Nominal Size: DN 20 Location: Different Drinking Water Lines Type: Seamless Class: III Thickness: Min. 1.5 mm Pressure Rating: PN 6	MTC	43
113	Copper Pipe		Nominal Size: DN 15 Location: Different Drinking Water Lines Type: Seamless Class: III Thickness: Min. 1.2 mm Pressure Rating: PN 6	MTC	50
114	Aluminium Pipe	6061	Nominal Size: DN 50 Location: FW Tank Filling & Air Vent Line Type: Seamless Class: III Thickness: Min. 5 mm Pressure Rating: PN 6	MTC	20
115	Copper Pipe		Nominal Size: DN 6 Location: Window Wiper Spray Line Type: Seamless Class: III Thickness: Min. 1 mm Pressure Rating: PN 6	MTC	3
116	Aluminium Bulkhead Flange	6061	Nominal Size: DN 32 Location: FW Tank, Bulkheads Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
117	Aluminium Flange	6061	Nominal Size: DN 32 Location: FW Tank, Bulkheads Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
118	Copper Collar		Nominal Size: DN 32 Location: FW Tank, Bulkheads Type: Flat Face Type Thickness: Approx. 4 mm End Connection Type: Brazing	MTC	4
119	Aluminium Flange	6061	Nominal Size: DN 25 Location: Different Drinking Water Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	16
120	Aluminium Flange	6061	Nominal Size: DN 25 Location: Different Drinking Water Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	12
121	Aluminium Bulkhead Flange	6061	Nominal Size: DN 25 Location: Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 10	MTC	8
122	Copper Collar		Nominal Size: DN 25 Location: Different Drinking Water Lines Type: Flat Face Type Thickness: Approx. 3 mm End Connection Type: Brazing	MTC	36
123	Aluminium Flange	6061	Nominal Size: DN 20 Location: Different Drinking Water Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	18

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
124	Aluminium Bulkhead Flange	6061	Nominal Size: DN 20 Location: Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
125	Copper Collar		Nominal Size: DN 20 Location: Different Drinking Water Lines Type: Flat Face Type Thickness: Approx. 3 mm End Connection Type: Brazing	MTC	22
126	Aluminium Flange	6061	Nominal Size: DN 15 Location: Window Wiper Spray Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
127	Copper Collar		Nominal Size: DN 15 Location: Window Wiper Spray Line Type: Flat Face Type Thickness: Approx. 4 mm End Connection Type: Brazing	MTC	4
128	Aluminium Flange	6061	Nominal Size: DN 50 Location: FW Tank Filling & Air Vent Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	13
129	Aluminium Blind Flange	6061	Nominal Size: DN 50 Location: FW Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
130	Copper Elbow		Nominal Size: DN 32 Location: FW Tank to Hydrophore Pump Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	4
131	Copper Elbow		Nominal Size: DN 25 Location: Different Drinking Water Lines Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	15
132	Copper Elbow		Nominal Size: DN 20 Location: Different Drinking Water Lines Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	10
133	Copper Elbow		Nominal Size: DN 15 Location: Different Drinking Water Lines Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 1.2 mm End Connection Type: Brazing	MTC	30
134	Aluminium Elbow	6061	Nominal Size: DN 50 Location: FW Tank Filling & Air Vent Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 5 mm End Connection Type: Welding	MTC	10
135	Copper Equal Tee		Nominal Size: DN 25 Location: FW Tank to Hydrophore Pump Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	8
136	Copper Equal Tee		Nominal Size: DN 20 Location: Drinking Water Line Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	1
137	Copper Reducing Tee		Nominal Size: DN 25 x 25 x 20 Location: Drinking Water Lines Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	4
138	Copper Reducing Tee		Nominal Size: DN 25x20x20 Location: Drinking Water Line Type: Seamless	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Thickness: Min. 1.5 mm End Connection Type: Brazing		
139	Copper Reducing Tee		Nominal Size: DN 25 x 25 x 15 Location: Window Wiper Spray, FW Flushing Line Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	7
140	Copper Reducing Tee		Nominal Size: DN 20 x 20 x 15 Location: Drinking Water Lines Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	7
141	Copper Reducer		Nominal Size: DN 32 x 25 Location: FW Tank to Hydrophore Pump Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	1
142	Copper Reducer		Nominal Size: DN 25 x 20 Location: Drinking Water Lines Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	2
143	Copper Reducer		Nominal Size: DN 20 x 15 Location: Drinking Water Lines Type: Seamless Thickness: Min. 1.5 mm End Connection Type: Brazing	MTC	8
144	Copper Pipe Nipple		Nominal Size: DN 32 Purpose: Fitting of Valves (DW V002, DW V003) Type: Outer Thread at Both End Thickness: Min. 4 mm	MTC	2
145	Copper Pipe Nipple		Nominal Size: DN 25 Purpose: Fitting of Valves (DW V004 ~ DW V034) Type: Outer Thread at Both End Thickness: Min. 4 mm	MTC	11
146	Copper Pipe Nipple		Nominal Size: DN 15 Purpose: Fitting of Valves (DW V013 ~ DW V033) Type: Outer Thread at Both End Thickness: Min. 3 mm	MTC	29
147	Copper Pipe Nipple		Nominal Size: DN 25 Purpose: Fitting of Pipes Type: Outer Thread at Both End Thickness: Min. 4 mm	MTC	15
148	Copper Socket		Nominal Size: DN 25 Purpose: Fitting of Pipes Type: Inner Thread Thickness: Min. 4 mm	MTC	30
149	Copper Pipe Nipple		Nominal Size: DN 20 Purpose: Fitting of Pipes Type: Outer Thread at Both End Thickness: Min. 3 mm	MTC	9
150	Copper Socket		Nominal Size: DN 20 Purpose: Fitting of Pipes Type: Inner Thread Thickness: Min. 3 mm	MTC	18
151	Copper Pipe Nipple		Nominal Size: DN 15 Purpose: Fitting of Pipes, Sanitary Items Type: Outer Thread at Both End Thickness: Min. 3 mm	MTC	24
152	Copper Socket		Nominal Size: DN 15 Purpose: Fitting of Pipes, Sanitary Items, Hose Connector Type: Inner Thread Thickness: Min. 3 mm	MTC	48
153	Hose Connector		Nominal Size: DN 15 Purpose: Flushing of Main Fire Fighting Pump Material: Copper/ Stainless Steel Pressure Rating: PN 6	MTC	2
154	Flexible Hose		Nominal Size: DN 15 Purpose: Flushing of Main Fire Fighting Pump Material: Rubber Length: 2 meter Pressure Rating: PN 6 Certificate Type Approval Certificate from BV	BV CERTIFICATE	1
155	Aluminium Pipe	6082	Nominal Size: DN 65 Location: Grey Water Line Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 3.0 mm Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	18
156	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Different Grey & Black Water Lines	MTC	54

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6 Standard: DIN Certificate		
157	Aluminium Pipe	6082	Nominal Size: DN 40 Location: Different Grey & Black Water Lines Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	20
158	Aluminium Pipe	6082	Nominal Size: DN 32 Location: Grey & Black Water Tanks Flushing Line Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	6
159	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Overboard Discharge Line Material Grade: 6082 Type: Seamless Class: II Thickness: Min. 5.0 mm Pressure Rating: PN 6 Standard: DIN Certificate Raw Material Certificate from BV Product Certificate from BV	BV CERTIFICATE	1
160	Aluminium Flange	6061	Nominal Size: DN 65 Location: Grey Water Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	10
161	Aluminium Flange	6061	Nominal Size: DN 50 Location: Different Grey & Black Water Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	32
162	Aluminium Flange	6061	Nominal Size: DN 40 Location: Different Grey & Black Water Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6 Standard: DIN Certificate Test Certificate from Manufacturer	MTC	12
163	Aluminium Elbow	6082	Nominal Size: DN 65 Location: Grey Water Line Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	10
164	Aluminium Elbow	6082	Nominal Size: DN 50 Location: Different Grey & Black Water Lines Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	36
165	Aluminium Elbow	6082	Nominal Size: DN 50 Location: Grey Water Line Air Vent Material Grade: 6082 Bend Angle: 180 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	1
166	Aluminium Elbow	6082	Nominal Size: DN 40 Location: Different Grey & Black Water Lines Material Grade: 6082 Bend Angle: 90 degree	MTC	20

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer		
167	Aluminium Elbow	6082	Nominal Size: DN 32 Location: Grey & Black Water Tanks Flushing Line Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN		8
168	Aluminium Equal Tee	6082	Nominal Size: DN 65 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	1
169	Aluminium Equal Tee	6082	Nominal Size: DN 50 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	4
170	Aluminium Equal Tee	6082	Nominal Size: DN 40 Location: Black Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	1
171	Aluminium Equal Tee	6082	Nominal Size: DN 32 Location: Grey & Black Water Tanks Flushing Line Material Grade: 6082 Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	1
172	Aluminium Reducing Tee	6082	Nominal Size: DN 65 x 65 x 50 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	3
173	Aluminium Reducing Tee	6082	Nominal Size: DN 65 x 65 x 40 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate	MTC	2
174	Aluminium Reducing Tee	6082	Nominal Size: DN 50 x 50 x 40 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	3
175	Aluminium Reducer	6082	Nominal Size: DN 80 x 65 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	2
176	Aluminium Reducer	6082	Nominal Size: DN 65 x 50 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld Standard: DIN Certificate Test Certificate from Manufacturer	MTC	3
177	Aluminium Reducer	6082	Nominal Size: DN 50 x 40 Location: Grey Water Line Material Grade: 6082 Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld Standard: DIN Certificate	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Test Certificate from Manufacturer		
178	Mild Steel (MS) Pipe		Nominal Size: DN 80 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 4.5 mm Pressure Rating: PN 6	MTC	20
179	Mild Steel (MS) Pipe		Nominal Size: DN 65 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 4.5 mm Pressure Rating: PN 6	MTC	40
180	Mild Steel (MS) Pipe		Nominal Size: DN 50 Location: Fuel Oil Tank Bunker Line Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.3 mm Pressure Rating: PN 6	BV CERTIFICATE	60
181	Mild Steel (MS) Pipe		Nominal Size: DN 32 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.3 mm Pressure Rating: PN 6	MTC	42
182	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: Fuel Oil Delivery Lines Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.0 mm Pressure Rating: PN 6	MTC	36
183	Mild Steel (MS) Pipe		Nominal Size: DN 20 Location: Between Duplex Filter & Main Engine Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.0 mm Pressure Rating: PN 6	MTC	6
184	Mild Steel (MS) Pipe		Nominal Size: DN 15 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.0 mm Pressure Rating: PN 6	MTC	216
185	Aluminium Pipe	6082	Nominal Size: DN 80 Location: Tank & Bulkhead Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 3.0 mm Pressure Rating: PN 6	MTC	3
186	Aluminium Pipe	6082	Nominal Size: DN 65 Location: Tank & Bulkhead Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 3.0 mm Pressure Rating: PN 6	MTC	4
187	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Tank & Bulkhead Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6	MTC	2
188	Aluminium Pipe	6082	Nominal Size: DN 15 Location: Tank & Bulkhead Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.0 mm Pressure Rating: PN 6	MTC	5
189	Mild Steel (MS) Flange		Nominal Size: DN 80 Location: FO Tank Vent & Overflow Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	18
190	Mild Steel (MS) Flange		Nominal Size: DN 65 Location: FO Tank Vent & Overflow Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	22
191	Mild Steel (MS) Flange		Nominal Size: DN 50 Location: Fuel Oil Tank Bunker Line Purpose:	MTC	44

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6		
192	Mild Steel (MS) Flange		Nominal Size: DN 32 Location: Miscellaneous Fuel Oil Pipe Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	28
193	Mild Steel (MS) Flange		Nominal Size: DN 25 Location: Fuel Oil Delivery Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	24
194	Mild Steel (MS) Flange		Nominal Size: DN 15 Location: Miscellaneous Fuel Oil Pipe Lines Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	140
195	Aluminium Flange	6061	Nominal Size: DN 80 Location: Tank & Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	12
196	Aluminium Flange	6061	Nominal Size: DN 65 Location: Tank & Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	18
197	Aluminium Flange	6061	Nominal Size: DN 50 Location: Tank & Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	8
198	Aluminium Flange	6061	Nominal Size: DN 15 Location: Tank & Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	20
199	Mild Steel (MS) Blind Flange		Nominal Size: DN 50 Location: Fuel Oil Tank Bunker Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
200	Mild Steel (MS) Elbow		Nominal Size: DN 80 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	11
201	Mild Steel (MS) Elbow		Nominal Size: DN 65 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm	MTC	10
202	Mild Steel (MS) Elbow		Nominal Size: DN 50 Location: Fuel Oil Tank Bunker Line Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	23
203	Mild Steel (MS) Elbow		Nominal Size: DN 32 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	30
204	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: Fuel Oil Delivery Lines Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm	MTC	20

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
205	Mild Steel (MS) Elbow		Nominal Size: DN 20 Location: Between Duplex Filter & Main Engine Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	4
206	Mild Steel (MS) Elbow		Nominal Size: DN 15 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	85
207	Mild Steel (MS) Equal Tee		Nominal Size: DN 80 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1
208	Mild Steel (MS) Equal Tee		Nominal Size: DN 65 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
209	Mild Steel (MS) Equal Tee		Nominal Size: DN 50 Location: Fuel Oil Tank Bunker Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	2
210	Mild Steel (MS) Equal Tee		Nominal Size: DN 32 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	3
211	Mild Steel (MS) Equal Tee		Nominal Size: DN 15 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	6
212	Mild Steel (MS) Reducing Tee		Nominal Size: DN 50 x 50 x 32 Location: Fuel Oil Tank Bunker Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	5
213	Mild Steel (MS) Reducing Tee		Nominal Size: DN 32 x 32 x 25 Location: Miscellaneous Fuel Oil Pipe Lines Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	2
214	Mild Steel (MS) Reducer		Nominal Size: DN 80 x 65 Location: FO Tank Vent & Overflow Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
215	Mild Steel (MS) Reducer		Nominal Size: DN 50 x 32 Location: Fuel Oil Tank Bunker Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.3 mm End Connection Type: Butt Weld	MTC	2
216	Mild Steel (MS) Reducer		Nominal Size: DN 25 x 20 Location: Fuel Oil Delivery Lines Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	2
217	Mild Steel (MS) Pipe		Nominal Size: DN 40 Location: Lube Oil Tank Air Vent Line Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2.3 mm	MTC	3
218	Mild Steel (MS) Pipe		Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Material Grade: ST 37-4	MTC	2

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Seamless Class: III Thickness: Min. 2.3 mm		
219	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	2
220	Mild Steel (MS) Pipe		Nominal Size: DN 15 Location: Drip Tray to Dirty Oil Tank Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	4
221	Aluminium Pipe	6061	Nominal Size: DN 40 Location: Tank Fitting Pipe for Lube Tank Air Vent Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	0.5
222	Aluminium Pipe	6061	Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6	MTC	2
223	Aluminium Pipe	6061	Nominal Size: DN 15 Location: Drip Tray to Dirty Oil Tank Type: Seamless Class: III Thickness: Min. 2.0 mm Pressure Rating: PN 6	MTC	1
224	Mild Steel (MS) Flange		Nominal Size: DN 40 Location: Lube Oil Tank Air Vent Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
225	Aluminium Flange	6061	Nominal Size: DN 40 Location: Lube Oil Tank Air Vent Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
226	Mild Steel (MS) Flange		Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
227	Aluminium Flange	6061	Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	3
228	Aluminium Blind Flange	6061	Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
229	Mild Steel (MS) Flange		Nominal Size: DN 15 Location: Drip Tray to Dirty Oil Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
230	Aluminium Flange	6061	Nominal Size: DN 15 Location: Drip Tray to Dirty Oil Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
231	Mild Steel (MS) Elbow		Nominal Size: DN 32 Location: Lube Oil Tank Filling Line Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.3 mm	MTC	2
232	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2 mm	MTC	5
233	Mild Steel (MS) Elbow		Nominal Size: DN 15 Location: Drip Tray to Dirty Oil Tank Material Grade: ST 37-4 Bend Angle: 90 degree Type: Short Radius,	MTC	3

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Seamless Thickness: Min. 2 mm		
234	Aluminium Elbow	6061	Nominal Size: DN 25 Location: Lube Oil Tank Inside Pipe Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	1
235	Aluminium Reducer	6061	Nominal Size: DN 32 x 25 Location: Lube Oil Tank Inside Pipe Line Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	1
236	Mild Steel (MS) Equal Tee		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Material Grade: ST 37-4 Type: Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	1
237	Hose Connector		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Material: Stainless Steel	MTC	1
238	Lubricating Oil Hose		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Type: Oil Resistant Length: 10 meter Material: NBR	BV CERTIFICATE	1
239	Hose Outlet (Dispensing Nozzle with Liter Display)		Nominal Size: DN 25 Location: Lube Oil Tank Delivery Line Material: Stainless Steel	MTC	1
240	Aluminium Pipe	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Pressure Rating: PN 16 Type: Seamless Class: III Thickness: Min. 2.0 mm	MTC	48
241	Aluminium Pipe	6061	Nominal Size: DN 20 Location: Sea Chest Compressed Air Line Pressure Rating: PN 16 Type: Seamless Class: II Thickness: Min. 4.0 mm	BV CERTIFICATE	2
242	Aluminium Pipe	6061	Nominal Size: DN 15 Location: Compressed Air Circulation Line Pressure Rating: PN 16 Type: Seamless Class: III Thickness: Min. 2.0 mm	MTC	9
243	Aluminium Flange	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	10
244	Aluminium Flange	6061	Nominal Size: DN 15 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	4
245	Aluminium Pipe Nipple	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Outer Thread at Both End, Seamless Thickness: Approx. 3.0 mm	MTC	10
246	Aluminium Socket	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Inner Thread, Seamless Thickness: Approx. 3.0 mm	MTC	20
247	Aluminium Pipe Nipple	6061	Nominal Size: DN 15 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Outer Thread at Both End, Seamless Thickness: Approx. 3.0 mm	MTC	2
248	Aluminium Socket	6061	Nominal Size: DN 15 Location: Compressed Air Circulation Line Purpose: Pipe Fitting Type: Inner Thread, Seamless Thickness:	MTC	4

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Approx. 3.0 mm		
249	Aluminium Elbow	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	26
250	Aluminium Elbow	6061	Nominal Size: DN 15 Location: Compressed Air Circulation Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	10
251	Aluminium Equal Tee	6061	Nominal Size: DN 20 Location: Compressed Air Circulation Line Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	3
252	Aluminium Reducing Tee	6061	Nominal Size: DN 20 x 20 x 15 Location: Compressed Air Circulation Line Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	4
253	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Air Vent Line of Hydraulic Oil & Dirty Oil Tanks Material Grade: 6082 Type: Seamless Class: III	MTC	9
254	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Scupper Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 5.0 mm	MTC	20
255	Aluminium Pipe	6082	Nominal Size: DN 40 Location: Air Vent Line of Bilge Water Tank Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 5.0 mm	MTC	6
256	Aluminium Pipe	6082	Nominal Size: DN 40 Location: Sounding Line for All Tanks, Air Vent Line of Sea Chests (Above Main Deck) Material Grade: 6082 Type: Seamless Class: III	MTC	70
257	Aluminium Pipe	6082	Nominal Size: DN 40 Location: Air Vent Line of Lube Oil Tank & Sea Chests (Below Main Deck) Material Grade: 6082 Type: Seamless Class: III	MTC	18
258	Aluminium Pipe	6082	Nominal Size: DN 25 Location: Air Vent Line of Cooling Water Tank Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	6
259	Aluminium Pipe	6082	Nominal Size: DN 20 Location: Fuel Oil & Lube Oil Tanks Drain Line Material Grade: 6082 Type: Seamless Class: II Thickness: Min. 2 mm	BV CERTIFICATE	3
260	Mild Steel (MS) Pipe		Nominal Size: DN 80 Location: Ventilation Line of Fuel Tanks Material Grade: ST 37-4 Type: Seamless Class: III Thickness: Min. 7.1 mm	MTC	8
261	Aluminium Pipe	6082	Nominal Size: DN 80 Location: Deck Penetration of Vent. Line for Fuel Tanks Material Grade: 6082 Type: Seamless Class: III	MTC	1
262	Aluminium Pipe	6082	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water Tanks (Below Main Deck) Material Grade: 6082 Type: Seamless Class: III	MTC	12
263	Aluminium Pipe	6082	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water Tanks (Above Main Deck) Material Grade: 6082 Type: Seamless Class: III	MTC	8

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
264	Aluminium Pipe	6082	Nominal Size: DN 32 Location: Air Vent Line of Void Tanks Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	36
265	Aluminium Pipe	6082	Nominal Size: DN 40 Location: Air Vent Line of Sea Chests Material Grade: 6082 Type: Seamless Class: II Thickness: Min. 5.0 mm	BV CERTIFICATE	2
266	Aluminium Pipe	6082	Nominal Size: DN 20 Location: Filling Line of Cooling Water Tank Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.0 mm	MTC	6
267	Aluminium Flange	6061	Nominal Size: DN 50 Location: Air Vent Line of Hydraulic Oil & Dirty Oil Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	6
268	Aluminium Flange	6061	Nominal Size: DN 40 Location: Air Vent Line of Bilge Water Tank & Sea Chests Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	14
269	Aluminium Flange	6061	Nominal Size: DN 25 Location: Air Vent & Filling Line of Cooling Water Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	5
270	Aluminium Blind Flange	6061	Nominal Size: DN 25 Location: Filling Line of Cooling Water Tank Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	1
271	Aluminium Flange	6061	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	14
272	Aluminium Flange	6061	Nominal Size: DN 32 Location: Air Vent Line of Void Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	25
273	Aluminium Blind Flange	6061	Nominal Size: DN 32 Location: Air Vent Line of Void Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	25
274	Mild Steel (MS) Flange		Nominal Size: DN 80 Location: Ventilation Line of Fuel Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
275	Aluminium Flange	6061	Nominal Size: DN 80 Location: Deck Penetration of Vent. Line for Fuel Tanks Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
276	Aluminium Flange	6061	Nominal Size: DN 40 Location: Chain Locker Sounding Line, Lube Oil Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
277	Aluminium Blind Flange	6061	Nominal Size: DN 40 Location: Chain Locker Sounding Line, Lube Oil Tank Filling Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2
278	Aluminium Elbow	6061	Nominal Size: DN 50 Location: Air Vent Line of Dirty Oil Tank Bend Angle: 180 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			End Connection Type: Butt Weld		
279	Aluminium Elbow	6061	Nominal Size: DN 50 Location: Scupper Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 5.0 mm End Connection Type: Butt Weld	MTC	15
280	Aluminium Elbow	6061	Nominal Size: DN 40 Location: Air Vent Line of Bilge Water Tank Bend Angle: 180 degree Type: Short Radius, Seamless Thickness: Min. 5.0 mm End Connection Type: Butt Weld	MTC	1
281	Aluminium Elbow	6061	Nominal Size: DN 40 Location: Air Vent Line of Sea Chests (Above Main Deck) Bend Angle: 180 degree Type: Short Radius, Seamless Thickness: Min. 3.0 mm	MTC	2
282	Aluminium Elbow	6061	Nominal Size: DN 40 Location: Air Vent Line of Sea Chests (Below Main Deck) Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm	MTC	10
283	Aluminium Elbow	6061	Nominal Size: DN 25 Location: Air Vent Line of Cooling Water Tank Bend Angle: 180 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	1
284	Aluminium Elbow	6061	Nominal Size: DN 25 Location: Air Vent Line of Cooling Water Tank Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	3
285	Aluminium Elbow	6061	Nominal Size: DN 20 Location: Fuel Oil & Lube Oil Tanks Drain Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	4
286	Aluminium Elbow	6061	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water Tanks (Above Main Deck) Bend Angle: 90 degree Type: Short Radius, Seamless	MTC	3
287	Aluminium Elbow	6061	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water Tanks (Below Main Deck) Bend Angle: 90 degree Type: Short Radius, Seamless	MTC	6
288	Aluminium Elbow	6061	Nominal Size: DN 32 Location: Air Vent Line of Void Tanks Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	20
289	Aluminium Elbow	6061	Nominal Size: DN 20 Location: Filling Line of Cooling Water Tank Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	2
290	Mild Steel (MS) Elbow		Nominal Size: DN 80 Location: Ventilation Line of Fuel Tanks Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 7.1 mm End Connection Type: Butt Weld	MTC	4
291	Aluminium Equal Tee	6061	Nominal Size: DN 65 Location: Air Vent Line for Black & Grey Water	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Tanks Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm		
292	Aluminium Equal Tee	6082	Nominal Size: DN 40 Location: Chain Locker Sounding Line Material Grade: 6082 Type: Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld	MTC	1
293	Aluminium Reducer	6061	Nominal Size: DN 25 x 20 Location: Filling Line of Cooling Water Tank Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	1
294	Sounding Pipe Plug		Size: Suitable for DN 40 Pipe Location: Chain Locker Sounding Pipe Type: Deck Flush Type Material: Aluminium (Body), Bronze (Plug) Thickness: BV Standard	MTC	1
295	Aluminium Reducer	6061	Nominal Size: DN 40 x 32 Location: Filling Line of Lube Oil Tank Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	1
296	Aluminium Pipe	6061	Nominal Size: DN 40 Location: AC Cooling Water Line Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 2.5 mm	MTC	42
297	Aluminium Pipe	6061	Nominal Size: DN 40 Location: Overboard Discharge Pressure Rating: PN 6 Type: Seamless Class: II Thickness: Min. 5 mm	BV CERTIFICATE	1
298	Aluminium Flange	6061	Nominal Size: DN 40 Location: AC Cooling Water Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	36
299	Aluminium Elbow	6061	Nominal Size: DN 40 Location: AC Cooling Water Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min 2.5 mm End Connection Type: Butt Weld	MTC	22
300	Aluminium Equal Tee	6061	Nominal Size: DN 40 Location: AC Cooling Water Line Type: Seamless Thickness: Min 2.5 mm End Connection Type: Butt Weld	MTC	2
301	Aluminium Pipe	6082	Nominal Size: DN 65 Location: From Tanks to Transfer Pumps Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 3 mm Pressure Rating: PN 6	MTC	18
302	Aluminium Pipe	6082	Nominal Size: DN 50 Location: Transfer Pump to Shore Connection Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6	MTC	18
303	Aluminium Pipe	6082	Nominal Size: DN 25 Location: Oily Bilge Tank to Oily Water Separator Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2 mm	MTC	6
304	Aluminium Pipe	6082	Nominal Size: DN 20 Location: OWS to Oily Bilge & Dirty Oil Tank, OWS to Overboard Discharge Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2 mm Pressure Rating: PN 6	MTC	18
305	Aluminium Pipe	6082	Nominal Size: DN 20 Location: Overboard Discharge Pipe Material Grade: 6082	BV CERTIFICATE	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Seamless Class: II Thickness: Min. 3.5 mm Pressure Rating: PN 10		
306	Aluminium Flange	6061	Nominal Size: DN 65 Location: From Tanks to Transfer Pumps Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	12
307	Aluminium Flange	6061	Nominal Size: DN 50 Location: Transfer Pump to Shore Connection Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	16
308	Aluminium Flange	6061	Nominal Size: DN 25 Location: Oily Bilge Tank to Oily Water Separator Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
309	Aluminium Flange	6061	Nominal Size: DN 20 Location: OWS to Oily Bilge & Dirty Oil Tank, OWS to Overboard Discharge Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	12
310	Shore Connection Flange		Nominal Size: DN 50 Purpose: Shore Connection for the Discharge of Bilge Water & Dirty Oil Material: Aluminium Type: As per MARPOL Pressure Rating: As per MARPOL Thickness: 20 mm	MTC	2
311	Aluminium Blind Flange	6061	Nominal Size: DN 50 Location: Shore Connection Line Flange Type: As per Shore Connection Flange Pressure Rating: As per Shore Connection Flange	MTC	2
312	Aluminium Elbow	6082	Nominal Size: DN 65 Location: From Tanks to Transfer Pumps Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	10
313	Aluminium Elbow	6082	Nominal Size: DN 50 Location: Transfer Pump to Shore Connection Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	10
314	Aluminium Elbow	6082	Nominal Size: DN 25 Location: Oily Bilge Tank to Oily Water Separator Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	5
315	Aluminium Elbow	6082	Nominal Size: DN 20 Location: OWS to Tank & Overboard Discharge Material Grade: 6082 Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	13
316	Aluminium Reducing Tee	6082	Nominal Size: DN 20 x 15 Location: Sampling Point Material Grade: 6082 Type: Seamless Thickness: Min. 2 mm End Connection Type: Butt Weld	MTC	1
317	Aluminium Pipe	6082	Nominal Size: DN 15 Location: Sampling Point Material Grade: 6082 Type: Seamless Thickness: Min. 2 mm Pressure Rating: PN 6	MTC	1
318	Aluminium Pipe	6082	Outer Diameter: 35 mm Purpose: Hand Rail, Railing, Ladder, Hand Rail (of Stair) Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	210
319	Aluminium Pipe	6082	Outer Diameter: 30 mm Purpose: Hand Rail, Railing Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	102
320	Aluminium Pipe	6082	Outer Diameter: 40 mm Purpose: Railing, Hand Rail (of Stair) Material	MTC	27

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Grade: 6082 Type: Seamless Class: III Thickness: 3 mm		
321	Aluminium Pipe	6082	Outer Diameter: 40 mm Purpose: Ladder Material Grade: 6082 Type: Seamless Class: III Thickness: 5 mm	MTC	6
322	Aluminium Pipe	6082	Outer Diameter: 40 mm Purpose: Shoe Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: 4 mm	MTC	6
323	Aluminium Pipe	6082	Outer Diameter: 50 mm Purpose: Railing Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	60
324	Aluminium Pipe	6082	Outer Diameter: 70 mm Purpose: Shoe Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: 8 mm	MTC	12
325	Aluminium Pipe	6082	Outer Diameter: 60 mm Purpose: Shoe Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: 4 mm	MTC	6
326	Aluminium Pipe	6082	Outer Diameter: 35 mm Purpose: Ladder Material Grade: 6082 Type: Seamless Class: III Thickness: 5 mm	MTC	6
327	Aluminium Elbow	6082	Outer Diameter: 35 mm Purpose: Hand Rail Material Grade: 6082 Bend Angle: 90 degree Type: Long Radius, Seamless Thickness: 3 mm End Connection Type: Butt Weld	MTC	110
328	Aluminium Elbow	6082	Outer Diameter: 30 mm Purpose: Hand Rail Material Grade: 6082 Bend Angle: 90 degree Type: Long Radius, Seamless Thickness: 3 mm End Connection Type: Butt Weld	MTC	44
329	Aluminium Pipe	6082	Outer Diameter: 20 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	1
330	Aluminium Pipe	6082	Outer Diameter: 35 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	18
331	Aluminium Pipe	6082	Outer Diameter: 50 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 3 mm	MTC	30
332	Aluminium Pipe	6082	Outer Diameter: 60 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 4 mm	MTC	9
333	Aluminium Pipe	6082	Outer Diameter: 60 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 8 mm	MTC	6
334	Aluminium Pipe	6082	Outer Diameter: 80 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 5 mm	MTC	1
335	Aluminium Pipe	6082	Outer Diameter: 100 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 6 mm	MTC	2
336	Aluminium Pipe	6082	Outer Diameter: 180 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 5 mm	MTC	14
337	Aluminium Pipe	6082	Outer Diameter: 200 mm Purpose: Mast Material Grade: 6082 Type: Seamless Class: III Thickness: 5 mm	MTC	1
338	Aluminium Elbow	6082	Outer Diameter: 60 mm Purpose: Mast Material Grade: 6082 Bend Angle: 90 degree Type: Long Radius, Seamless Thickness: 3 mm End Connection Type: Butt Weld	MTC	6
339	Aluminium Pipe	6082	Outer Diameter: 60 mm Purpose: Structural Pipe for Superstructure Material Grade: 6082 Type: Seamless Class: II Thickness: 5 mm	BV CERTIFICATE	18
340	Aluminium Pipe	6082	Outer Diameter: 127 mm Purpose: Structural Pipe Material Grade: 6082 Type: Seamless Class: II Thickness: 9 mm	BV CERTIFICATE	12
341	Aluminium Pipe	6082	Outer Diameter: 220 mm Purpose: Hawse Pipe Material Grade: 6082 Type: Seamless Class: II Thickness: 10 mm	BV CERTIFICATE	4
342	Aluminium Pipe	6082	Outer Diameter: 230 mm Purpose: Bollard Pipe Material Grade: 6082 Type: Seamless	BV CERTIFICATE	3

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Class: II Thickness: 10 mm		
343	Aluminium Pipe	6082	Outer Diameter: 150 mm Purpose: Bollard Pipe Material Grade: 6082 Type: Seamless Class: II Thickness: 10 mm	BV CERTIFICATE	14
344	Aluminium Pipe	6082	Outer Diameter: 100 mm Purpose: Bollard Pipe Material Grade: 6082 Type: Seamless Class: II Thickness: 10 mm	BV CERTIFICATE	9
345	Aluminium Pipe	6082	Outer Diameter: 220 mm Purpose: Fender Material Grade: 6082 Type: Seamless Class: II Thickness: 10 mm	BV CERTIFICATE	56
346	Aluminium Pipe	6082	Outer Diameter: 200 mm Purpose: Fender Material Grade: 6082 Type: Seamless Class: II Thickness: 10 mm	BV CERTIFICATE	9
347	Aluminium Pipe	6061	Nominal Size: DN 100 Location: Thruster, Store & CO2 Room Air Inlet & Outlet Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 4 mm	MTC	24
348	Aluminium Pipe	6061	Nominal Size: DN 80 Location: Galley, WC & HVAC Room Air Outlet Line Pressure Rating: PN 6 Type: Seamless Class: III Thickness: Min. 3 mm	MTC	20
349	Aluminium Flange	6061	Nominal Size: DN 100 Location: Thruster Room Air Inlet & Outlet Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	28
350	Aluminium Flange	6061	Nominal Size: DN 80 Location: Galley, WC & HVAC Room Air Outlet Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	14
351	Aluminium Flange	6061	Nominal Size: DN 80 Location: Air Vent Head Purpose: Valve Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	3
352	Aluminium Elbow	6061	Nominal Size: DN 100 Location: Thruster, Store & CO2 Room Air Inlet & Outlet Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	12
353	Aluminium Elbow	6061	Nominal Size: DN 80 Location: Galley, WC & HVAC Room Air Outlet Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3 mm	MTC	12
354	Aluminium Equal Tee	6061	Nominal Size: DN 80 Location: WC Air Outlet Line Type: Seamless Thickness: Min. 3 mm End Connection Type: Butt Weld	MTC	1
355	Aluminium Reducer	6061	Nominal Size: DN 100 x 80 Location: Galley, WC Air Outlet Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	3
356	Aluminium Reducer	6061	Nominal Size: DN 150 x 100 Location: Thruster Room Air Inlet & Outlet Line Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	2
357	Aluminium Reducer	6061	Nominal Size: DN 125 x 100 Location: Store and CO2 Room Air Inlet & Outlet Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	3
358	Aluminium Reducer	6061	Nominal Size: DN 150 x 80 Location: Galley Air Outlet Line Type: Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	1

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
359	Aluminium Reducer	6061	Nominal Size: DN 125 x 80 Location: HVAC & WC Air Outlet Line Type: Seamless Thickness: Min. 4 mm End Connection Type: Butt Weld	MTC	2
360	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: CO2 Discharge Line Inside CO2 Room Material Grade: STPG 370 or Similar Type: Seamless Class: III Thickness: Min. 4.0 mm	MTC	2
361	Mild Steel (MS) Pipe		Nominal Size: DN 25 Location: CO2 Discharge Line Inside Engine Room Material Grade: STPG 370 or Similar Type: Seamless Class: III	MTC	19
362	Mild Steel (MS) Pipe		Nominal Size: DN 20 Location: Compressed Air Blow Line Material Grade: STPG 370 or Similar Type: Seamless Class: III Thickness: Min. 3.5 mm	MTC	6
363	Mild Steel (MS) Pipe		Nominal Size: DN 20 Location: CO2 Discharge Line Inside Engine Room Material Grade: STPG 370 or Similar Type: Seamless Class: III Thickness: Min. 3.0 mm	MTC	24
364	High Pressure Stainless Steel Tube		Outer Diameter: 6 mm Location: Pneumatic Pilot Line Type: Seamless Class: III Thickness: 1.0 mm Pressure Rating: PN 50	MTC	6
365	Copper Pipe		Nominal Size: DN 20 Location: Leakage Pipe Line Type: Seamless Class: III Thickness: Min. 3.5 mm	MTC	6
366	Aluminium Pipe	6061	Nominal Size: DN 25 Location: Deck Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.0 mm	MTC	1
367	Aluminium Pipe	6061	Nominal Size: DN 20 Location: Deck & Bulkhead Penetration Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.0 mm	MTC	1
368	Mild Steel (MS) Flange		Nominal Size: DN 25 Location: CO2 Discharge Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	10
369	Mild Steel (MS) Flange		Nominal Size: DN 20 Location: CO2 Discharge & Compressed Air Blow Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	14
370	Aluminium Flange	6061	Nominal Size: DN 25 Location: Deck Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	2
371	Aluminium Flange	6061	Nominal Size: DN 20 Location: Deck & Bulkhead Penetration Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 16	MTC	5
372	Copper Collar		Nominal Size: DN 20 Location: Leakage Pipe Line Purpose: Pipe Fitting Type: Seamless Thickness: Min. 3.5 mm	MTC	3
373	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: CO2 Discharge Line Inside CO2 Room Bend Angle: 90 degree Material Grade: STPG 370 or Similar Type: Short Radius, Seamless Thickness: Min. 4.0 mm End Connection Type: Butt Weld	MTC	1
374	Mild Steel (MS) Elbow		Nominal Size: DN 25 Location: CO2 Discharge Line Inside Engine Room	MTC	5

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Bend Angle: 90 degree Material Grade: STPG 370 or Similar Type: Short Radius, Seamless Thickness: Min. 3.2 mm End Connection Type: Butt Weld		
375	Mild Steel (MS) Elbow		Nominal Size: DN 20 Location: Compressed Air Blow Line Bend Angle: 90 degree Material Grade: STPG 370 or Similar Type: Short Radius, Seamless Thickness: Min. 3.5 mm End Connection Type: Butt Weld	MTC	5
376	Mild Steel (MS) Elbow		Nominal Size: DN 20 Location: CO2 Discharge Line Inside Engine Room Bend Angle: 90 degree Material Grade: STPG 370 or Similar Type: Short Radius, Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld	MTC	9
377	Copper Elbow		Nominal Size: DN 20 Location: Leakage Pipe Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.5 mm End Connection Type: Butt Weld	MTC	2
378	Mild Steel (MS) Equal Tee		Nominal Size: DN 25 Location: CO2 Discharge Line Inside CO2 Room Type: Seamless Thickness: Min. 4.0 mm End Connection Type: Butt Weld	MTC	1
379	Mild Steel (MS) Equal Tee		Nominal Size: DN 25 Location: CO2 Discharge Line Inside Engine Room Type: Seamless Thickness: Min. 3.2 mm End Connection Type: Butt Weld	MTC	2
380	Mild Steel (MS) Reducing Tee		Nominal Size: DN 25 x 25 x 20 Location: Different Lines of CO2 System Inside CO2 Room Type: Seamless Thickness: Min. 4.0 mm End Connection Type: Butt Weld	MTC	5
381	Mild Steel (MS) Reducing Tee		Nominal Size: DN 25 x 25 x 20 Location: CO2 Discharge Line Inside Engine Room Type: Seamless Thickness: Min. 3.2 mm End Connection Type: Butt Weld	MTC	1
382	Copper Equal Tee		Nominal Size: DN 20 Location: Leakage Pipe Line Type: Seamless Thickness: Min. 3.5 mm End Connection Type: Butt Weld	MTC	3
383	Aluminium Equal Tee	6061	Nominal Size: DN 20 Location: Compressed Air Blow Line Type: Seamless Thickness: Min. 2.0 mm End Connection Type: Butt Weld	MTC	1
384	Mild Steel (MS) Pipe		Outer Diameter: 22 mm Location: Helm Pump Outputs Steel Grade: 360 HA Type: Seamless Class: III Thickness: 2.0 mm 2391/C ST35	MTC	4
385	Mild Steel (MS) Pipe		Outer Diameter: 18 mm Location: Power Pack Pipelines Steel Grade: 360 HA Type: Seamless Class: III Thickness: 1.5 mm 2391/C ST35	MTC	12
386	Mild Steel (MS) Pipe		Outer Diameter: 18 mm Location: Overflow Pipe Steel Grade: 360 HA Type: Seamless Class: III Thickness: 1.5 mm 2391/C ST35	MTC	6
387	2-Wire Flexible Hose		Inner Diameter: 12 mm Application: Marine Steering Gear System Material: Oil-resistant Synthetic Rubber Grade: Dinamic SN2 Length: 1000 mm Min. Working Pressure: 165 bar Certificate Type Approval/ Product Certificate from BV	BV CERTIFICATE	6

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
388	Mild Steel (MS) Elbow		Outer Diameter: 22 mm Location: Helm Pump Outputs Steel Grade: 360 HA Bend Angle: 90 degree Bend Radius: > 66 mm Type: Seamless Class: III Thickness: 2.0 mm End Connection Type: Ferrule Connection 2391/C ST35	MTC	10
389	Mild Steel (MS) Elbow		Outer Diameter: 18 mm Location: Power Pack Pipelines, Overflow Pipe Steel Grade: 360 HA Bend Angle: 90 degree Bend Radius: > 54 mm Type: Seamless Class: III Thickness: 1.5 mm End Connection Type: Ferrule Connection 2391/C ST35	MTC	36
390	Ferrule Pipe Connector (complete set)		Size: Suitable for 22 mm Outer Diameter Pipe Location: Helm Pump Outputs Material: Stainless Steel	MTC	4
391	Ferrule Pipe Connector (complete set)		Size: Suitable for 18 mm Outer Diameter Pipe Location: Power Pack Pipelines & Overflow Pipe Material: Stainless Steel	MTC	12
392	Mild Steel (MS) Pipe		Outer Diameter: 76.1 mm Location: Steering Gear Connecting Link Min. Yield Strength: 355 N/mm ² Type: Seamless Class: III Thickness: Min. 5.0 mm	MTC	3
393	Aluminium Pipe	6061	Nominal Size: DN 450 Location: M/E Exhaust Pipe Connected to Hull Material Grade: 6082 Type: Seamless Class: II Thickness: Approx. 8.0 mm Pressure Rating: PN 6	BV CERTIFICATE	2
394	Aluminium Pipe	6061	Nominal Size: DN 150 Location: M/G Exhaust Pipe Connected to Hull Material Grade: 6082 Type: Seamless Class: II Thickness: Approx. 7.0 mm Pressure Rating: PN 6	BV CERTIFICATE	2
395	Aluminium Pipe	6061	Nominal Size: DN 65 Location: H/G Exhaust Pipe Connected to Hull Material Grade: 6082 Type: Seamless Class: II Thickness: Approx. 5.0 mm Pressure Rating: PN 6	BV CERTIFICATE	1
396	Aluminium Pipe	6061	Nominal Size: DN 450 Location: M/E Exhaust Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 5.5 mm Pressure Rating: PN 6	MTC	18
397	Aluminium Pipe	6061	Nominal Size: DN 250 Location: M/E Exhaust Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 5.0 mm Pressure Rating: PN 6	MTC	4
398	Aluminium Pipe	6061	Nominal Size: DN 150 Location: M/G Exhaust Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 4.5 mm Pressure Rating: PN 6	MTC	16
399	Aluminium Pipe	6061	Nominal Size: DN 65 Location: H/G Exhaust Pipe Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 3.0 mm Pressure Rating: PN 6	MTC	9
400	Aluminium Pipe	6061	Nominal Size: DN 32 Location: Silencer Drain Line Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 2.5 mm Pressure Rating: PN 6	MTC	8
401	Aluminium Flange	6061	Nominal Size: DN 450 Location: M/E Exhaust Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	8
402	Aluminium Flange	6061	Nominal Size: DN 250 Location: M/E Exhaust Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	2

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
403	Aluminium Flange	6061	Nominal Size: DN 150 Location: M/G Exhaust Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	12
404	Aluminium Flange	6061	Nominal Size: DN 65 Location: H/G Exhaust Pipe Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
405	Aluminium Flange	6061	Nominal Size: DN 32 Location: Silencer Drain Line Purpose: Pipe Fitting Type: Flat Face Flange Pressure Rating: PN 6	MTC	4
406	Aluminium Elbow	6061	Nominal Size: DN 450 Location: M/E Exhaust Pipe Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 5.5 mm End Connection Type: Butt Weld	MTC	4
407	Aluminium Elbow	6061	Nominal Size: DN 150 Location: M/G Exhaust Pipe Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 4.5 mm End Connection Type: Butt Weld	MTC	4
408	Aluminium Elbow	6061	Nominal Size: DN 65 Location: H/G Exhaust Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 3.0 mm End Connection Type: Butt Weld	MTC	4
409	Aluminium Elbow	6061	Nominal Size: DN 32 Location: Silencer Drain Line Bend Angle: 90 degree Type: Short Radius, Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	4
410	Aluminium Reducer	6061	Nominal Size: DN 450 x 250 Location: M/E Exhaust Pipe Type: Seamless Thickness: Min. 5.5 mm End Connection Type: Butt Weld	MTC	2
411	All Metal Pendulum Mount		Purpose: Exhaust Pipe Support Description: Double acting, resilient element, cushion in stainless steel wire. Other parts in painted aluminium. Accepts both static and dynamic tension forces. Maximum Excitation: ± 0.3 mm Amplification Factor: < 8 Load Range in daN (\approx kg): 100 – 800 Extension Rod Dia: M 16 Extension Rod Length: 330 mm	MTC	60
412	Aluminium Flange	6061	Location: M/E Exhaust Outlet Purpose: Pipe Fitting Outer Diameter: 370 mm Inner Diameter: 235mm Pitch Circle Diameter: 345 mm Hole Diameter: 10 mm Number of Hole: 8 nos. Type: Flat Face Flange	MTC	2
413	Aluminium Flange	6061	Location: Silencer Outlet Purpose: Pipe Fitting Outer Diameter: 595 mm Inner Diameter: 460 mm Pitch Circle Diameter: 550 mm Hole Diameter: 20 mm Number of Hole: 16 nos. Type: Flat Face Flange	MTC	4
414	Shore Connection Flange		Nominal Size: DN 50 Purpose: Shore Connection for Discharge of Black & Grey Water Material: Aluminium Type: As per MARPOL Pressure Rating: As per MARPOL Flange Thickness: 16 mm	MTC	1
415	Aluminium Blind Flange	6061	Nominal Size: DN 50 Location: Shore Connection Line Flange Type: As per Shore Connection Flange Pressure Rating: As per Shore Connection Flange	MTC	1
416	Aluminium P-Trap with Drain	6061	Nominal Size: DN 50 Location: Shower & Galley Sink Drain Line Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	4
417	Aluminium P-Trap with Drain	6061	Nominal Size: DN 40 Location: Basin Drain Line Type: Seamless Thickness: Min. 2.5 mm End Connection Type: Butt Weld	MTC	6

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
418	Ball Valve with Hose Coupling		Geka coupling with ball valve is preferable. Nominal Size: DN 40 Location: Void Tanks Type: Straight, Flange/ Thread End Class: III Material: Stainless Steel Pressure Rating: PN 10 Suitable for access of sounding probe inside the valve	MTC	2
419	Flange for Valve Fitting		Nominal Size: DN 40 Valve Name: Ball Valve with Hose Coupling Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10	MTC	4
420	Draw-Off Cock Valve		Nominal Size: DN 20 Location: Fuel Oil Day Tanks, Lube Oil Tank Type: Straight, Flange End, Self-Closing Class: II Material: Cast Steel Pressure Rating: PN 16 Medium: Fuel Oil, Lube Oil	BV CERTIFICATE	3
421	Flange for Valve Fitting		Nominal Size: DN 20 Valve Name: Draw-Off Cock Valve Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 16	MTC	6
422	Aluminium Pipe	6061	Outer Diameter: 230 mm Location: Cover Pipe for Forward Fuel Tank Material Grade: 6082 Type: Seamless Class: III Thickness: Min. 10.0 mm	MTC	2.5
423	Exhaust Compensator (Bellows)		Nominal Size: DN 450 Location: Main Engine Exhaust Line Type: Multi-Ply Type, Flexible, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10	MTC	4
424	Flange for Valve Fitting		Nominal Size: DN 450 Valve Name: Exhaust Compensator (Bellows) Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10	MTC	8
425	Exhaust Compensator (Bellows)		Nominal Size: DN 250 Location: Main Engine Exhaust Line Type: Multi-Ply Type, Flexible, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10	MTC	2
426	Flange for Valve Fitting		Nominal Size: DN 250 Valve Name: Exhaust Compensator (Bellows) Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10	MTC	4
427	Exhaust Compensator (Bellows)		Nominal Size: DN 150 Location: Main Generator Exhaust Line Type: Multi-Ply Type, Flexible, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10	MTC	4
428	Flange for Valve Fitting		Nominal Size: DN 150 Valve Name: Exhaust Compensator (Bellows) Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10	MTC	8
429	Exhaust Compensator (Bellows)		Nominal Size: DN 65 Location: Harbor Generator Exhaust Line Type: Multi-Ply Type, Flexible, Flange End Class: III Material: Stainless Steel Pressure Rating: PN 10	MTC	1
430	Flange for Valve Fitting		Nominal Size: DN 65 Valve Name: Exhaust Compensator (Bellows) Material: AIMGSI1 Type: Flat Face Flange Pressure Rating: PN 10	MTC	2
431	Ball Valve		Nominal Size: DN 32 Location: Silencer Drain Line Type: Straight, Inner Thread Type Class: III Material: Stainless Steel Pressure Rating: PN 10	MTC	2
432	Aluminium Pipe Nipple	6061	Nominal Size: DN 32 Location: Silencer Drain Line Purpose: Valve Fitting Type: Outer Thread at Both End (similar type thread of above ball valve) Material Grade: 6082 Thickness: Approx. 3.2 mm	MTC	2
433	Aluminium Pipe Nipple	6061	Nominal Size: DN 15 Location: Compressed Air System Purpose: Valve Fitting	MTC	3

SL	Products	MATERIAL	Item Name & Description	Certificate	Quantity (METER)
			Type: Outer Thread at Both End Material Grade: 6082 Thickness: Approx. 3.0 mm		
434	Aluminium Pipe Nipple	6061	Nominal Size: DN 15 Location: HVAC System Purpose: Valve Fitting Type: Outer Thread at Both End Material Grade: 6082 Thickness: Approx. 3.0 mm	MTC	2
435	Aluminium Pipe Nipple	6061	Nominal Size: DN 15 Location: Bilge and Dirty Oil Piping System Purpose: Valve Fitting Type: Outer Thread at Both End Material Grade: 6082 Thickness: Approx. 3.0 mm	MTC	1