

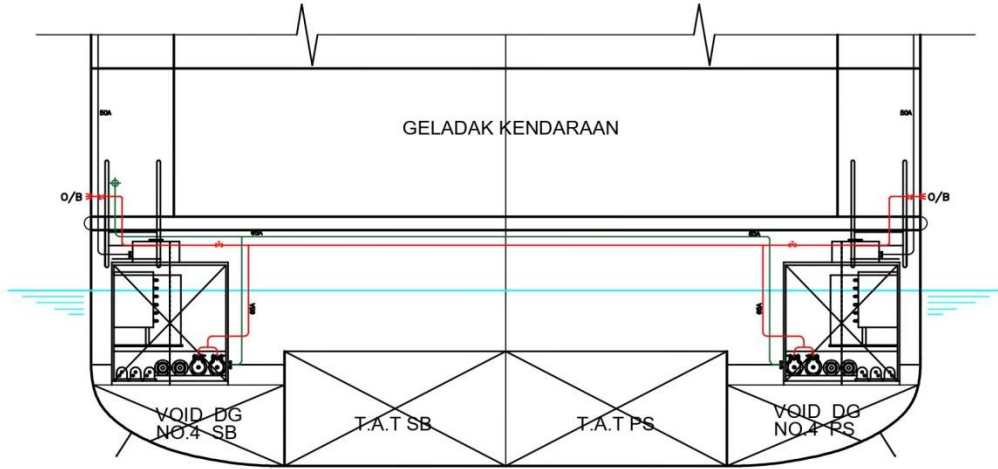
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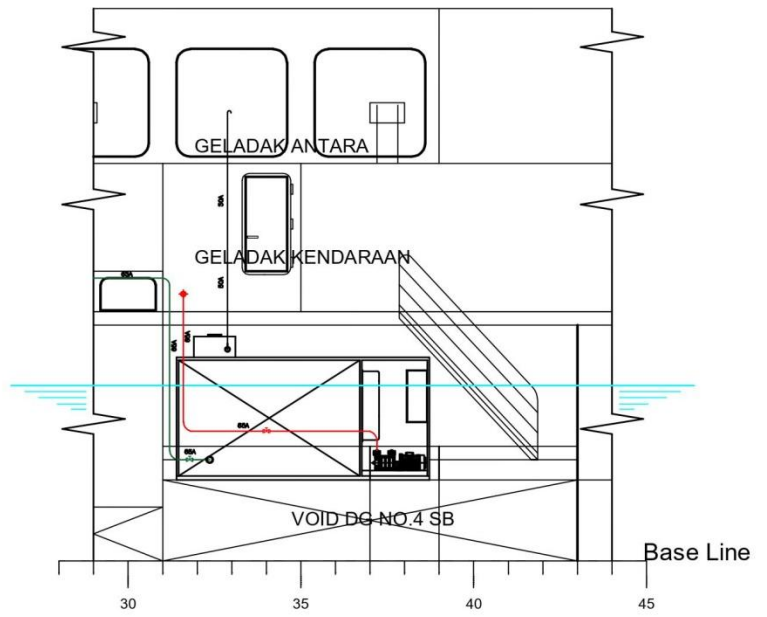
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LAMPIRAN

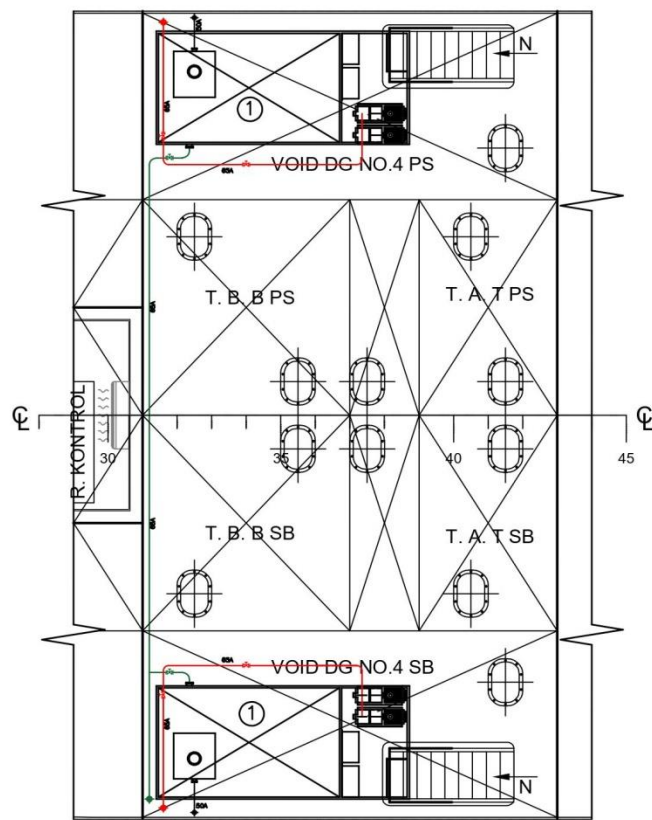
Lampiran 1. Desain Sistem Perpipaan Sewage KMP. Takabonerate



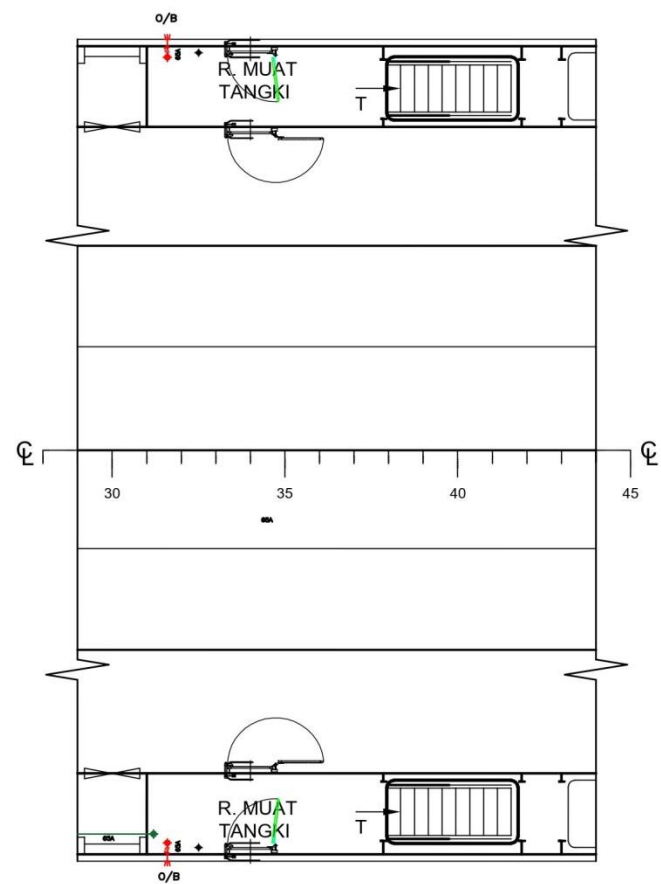
TAMPAK DEPAN



TAMPAK SAMPING



ALAS / DASAR GANDA



GELADAK KENDARAAN

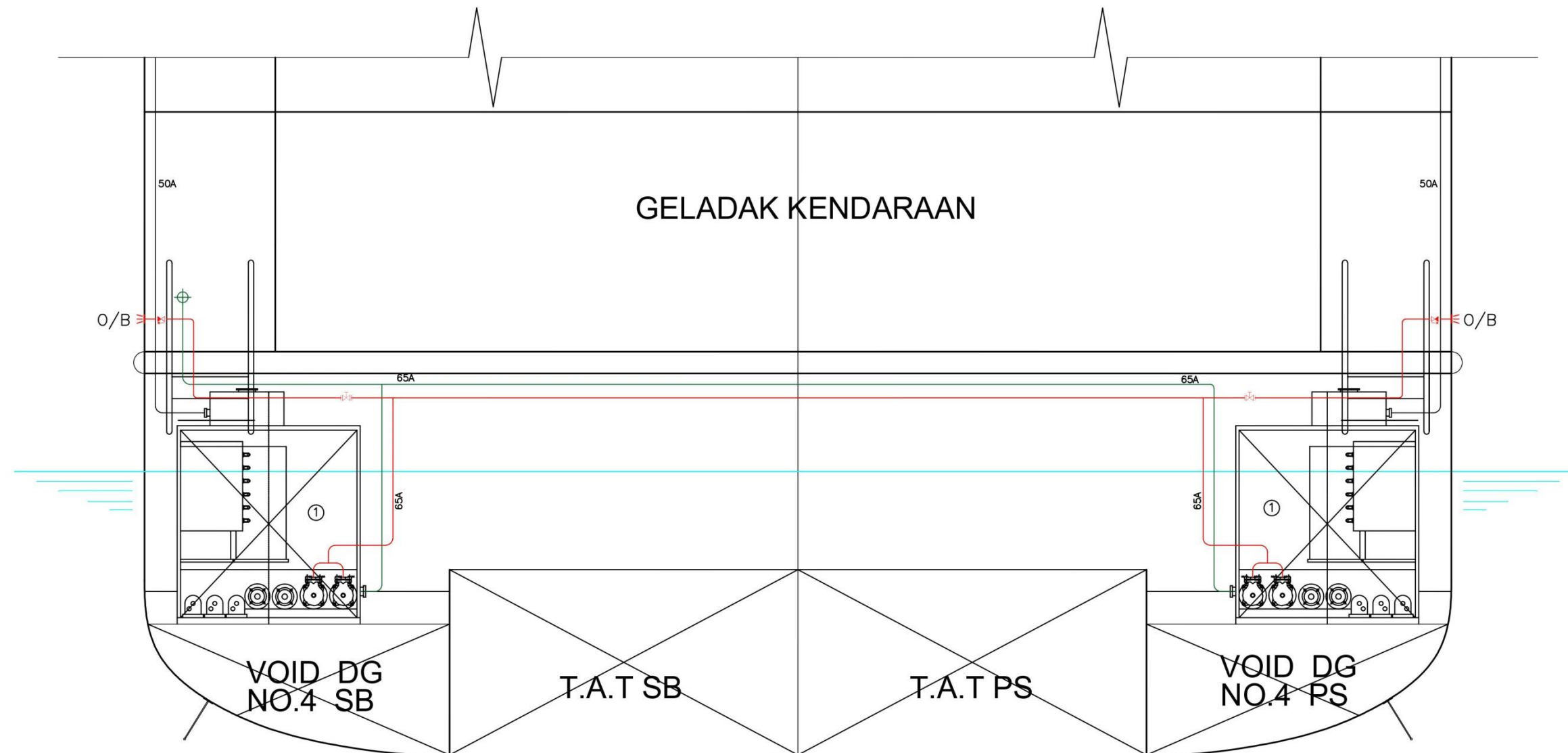
NO	SIMBOL	KETERANGAN
1		KATUP BUNDAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

PIPA PEMBUANGAN AIR KOTOR

PIPA SUPLAY AIR LAUT

PIPA UDARA

NO	JML	PERALATAN
①	2	MESIN PENGOLAH LIMBAH OMNIPURE 6440

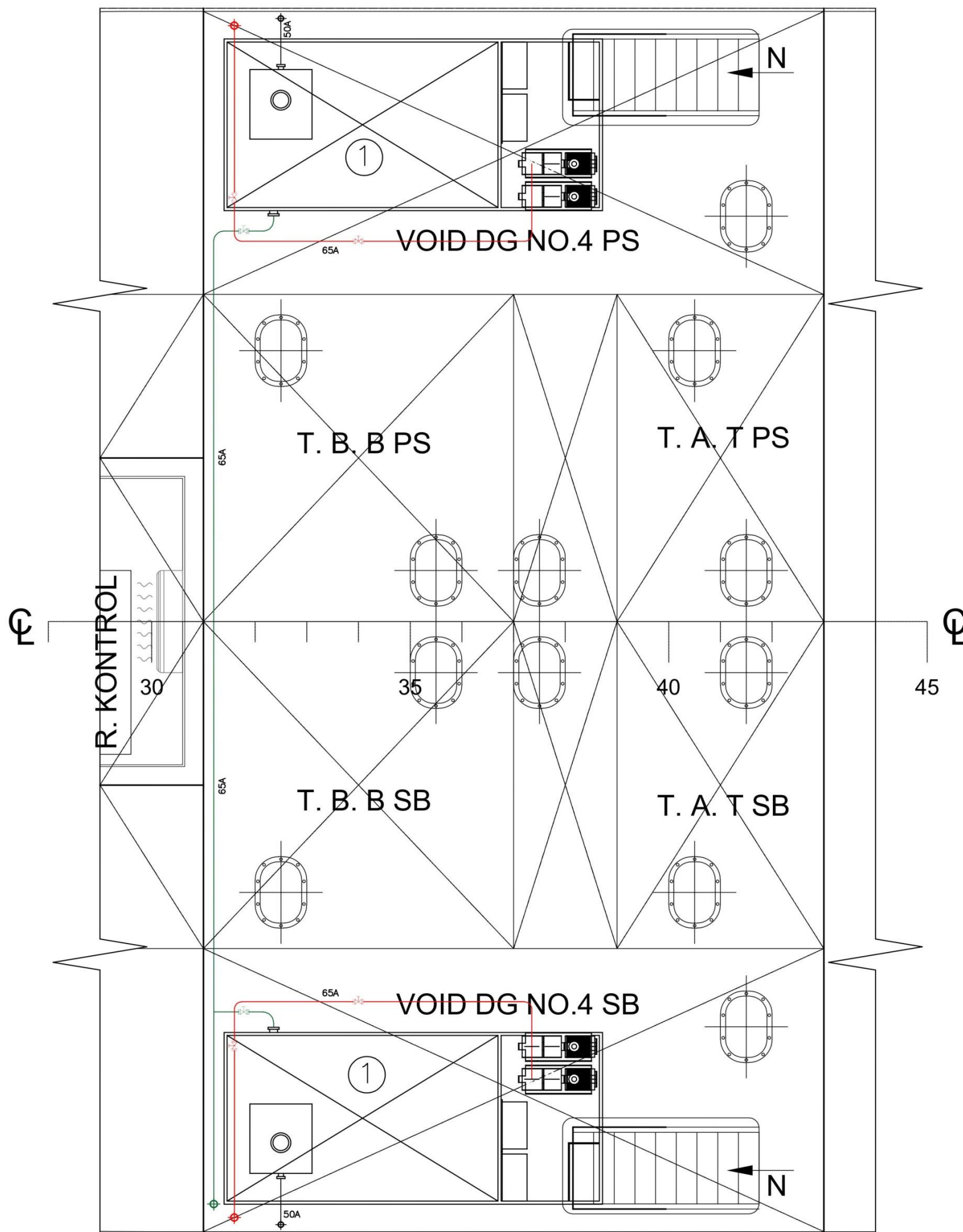


TAMPAK DEPAN

NO	SIMBOL	KETERANGAN
1		KATUP BUNJAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

NO	JML	PERALATAN
①	2	MESIN PENGOLAH LIMBAH OMNIPURE 6440

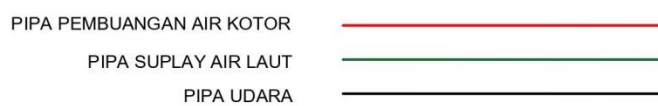
PIPA PEMBUANGAN AIR KOTOR —
 PIPA SUPLAY AIR LAUT —
 PIPA UDARA —

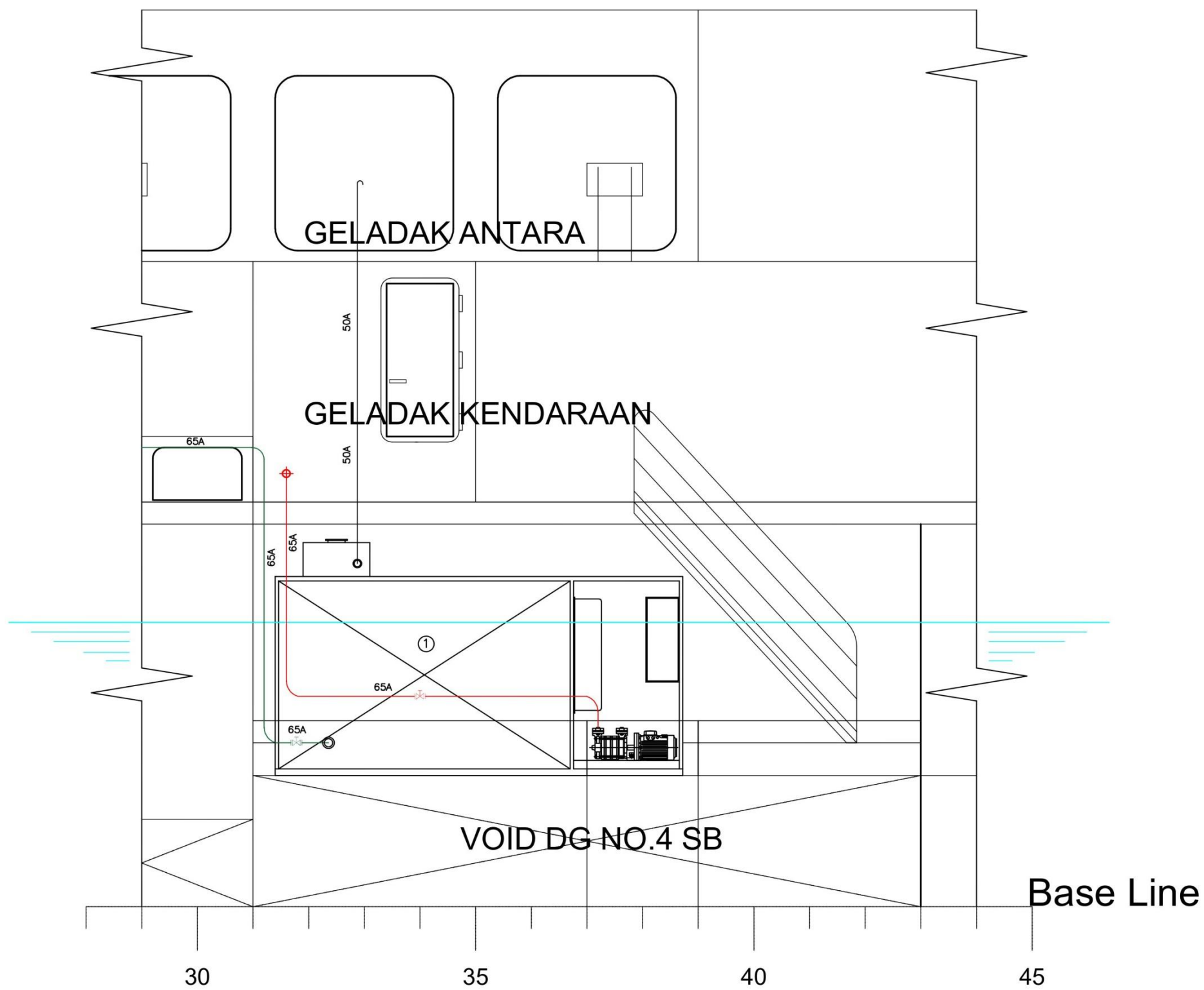


ALAS / DASAR GANDA

NO	SIMBOL	KETERANGAN
1		KATUP BUNDAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

NO	JML	PERALATAN
①	2	MESIN PENGOLAH LIMBAH OMNIPURE 6440



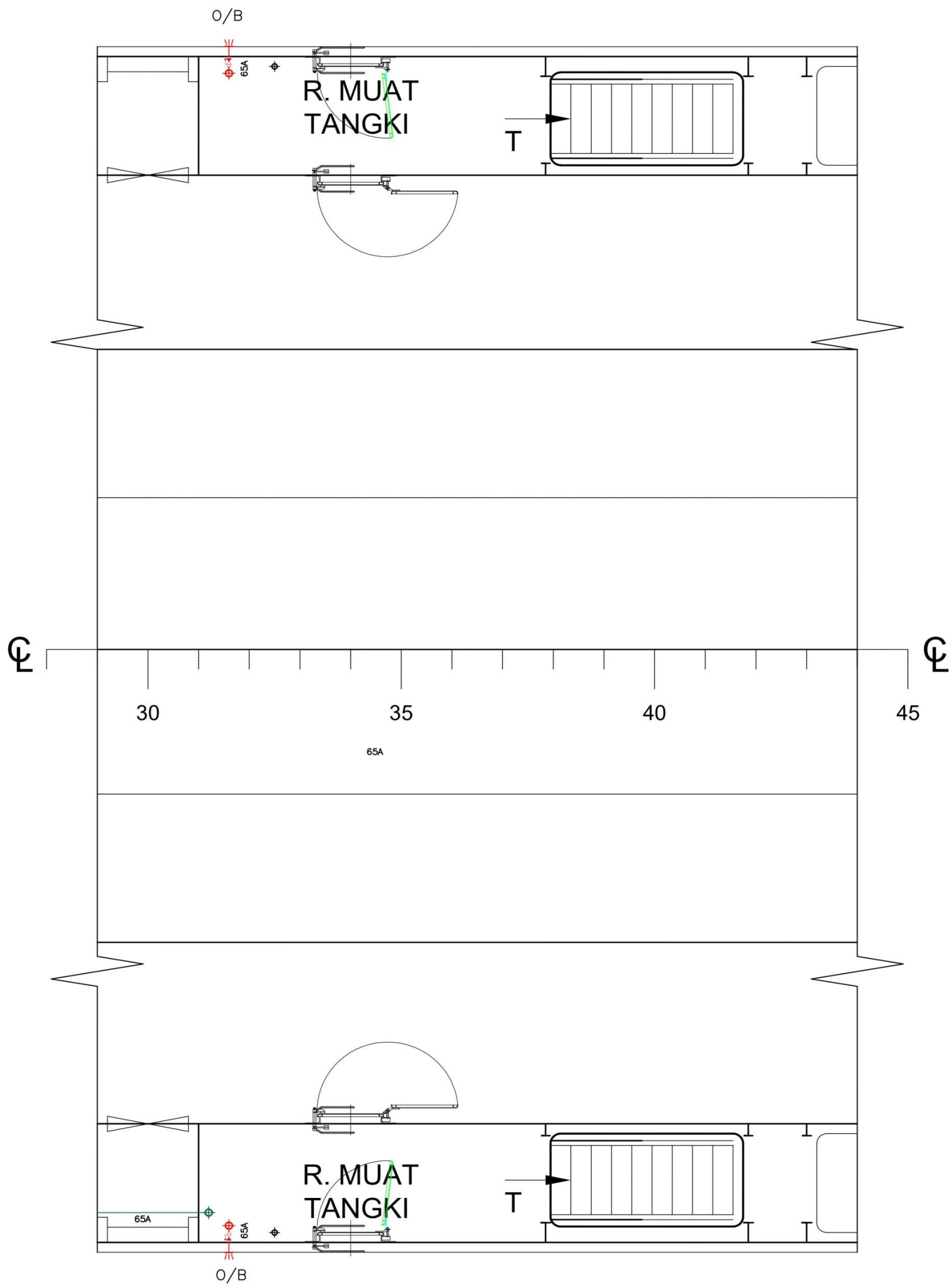


TAMPAK SAMPING

NO	SIMBOL	KETERANGAN
1		KATUP BUNDAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

NO	JML	PERALATAN
①	2	MESIN PENGOLAH LIMBAH OMNIPURE 6440

PIPA PEMBUANGAN AIR KOTOR —
 PIPA SUPLAY AIR LAUT —
 PIPA UDARA —



GELADAK KENDARAAN

NO	SIMBOL	KETERANGAN
1		KATUP BUNDAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

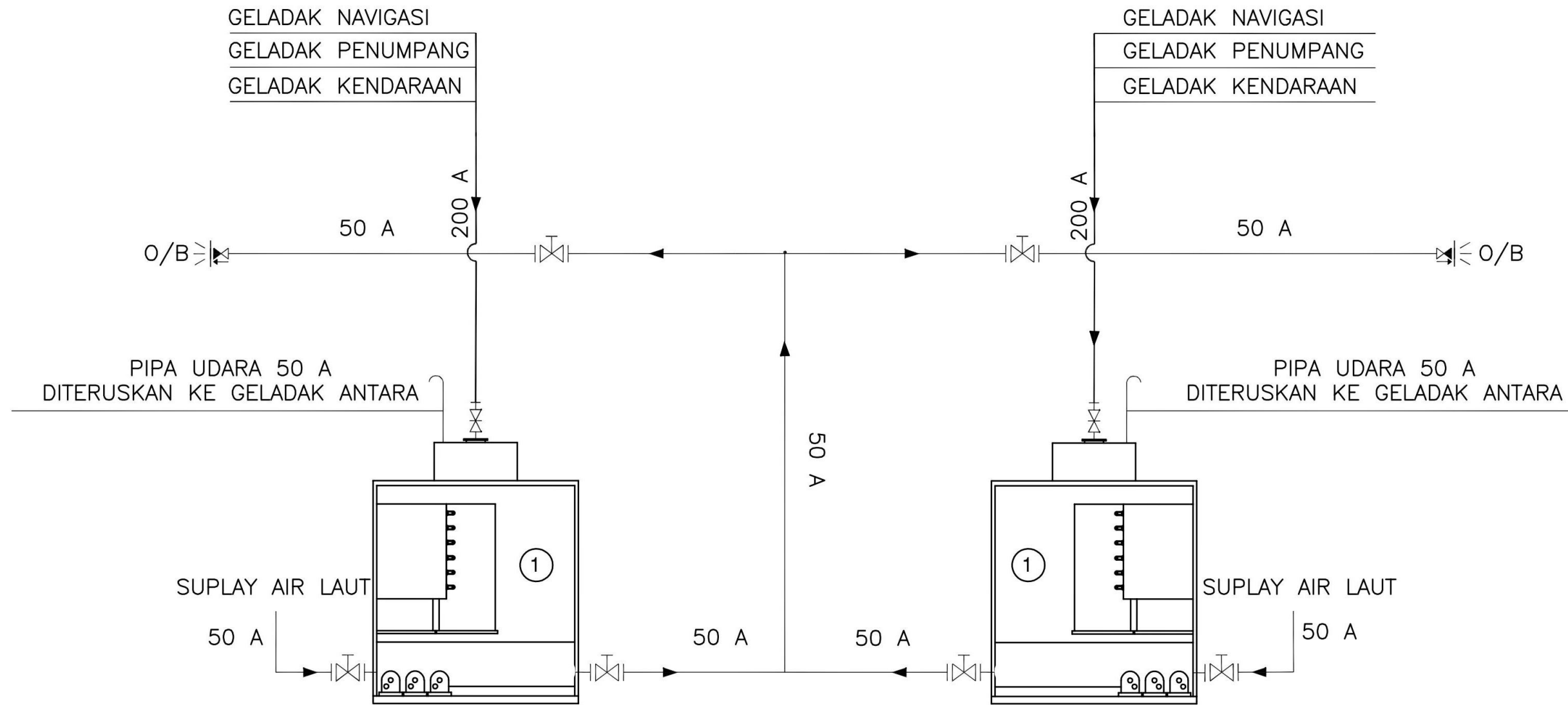
PIPA PEMBUANGAN AIR KOTOR

PIPA SUPLAY AIR LAUT

PIPA UDARA



Lampiran 6. Diagram Sistem Perpipaan Sewage KMP.Takabonerate.



NO	SIMBOL	KETERANGAN
1		KATUP BUNDAR / STOP VALVE (GLOBE)
2		KATUP BENDUNG
3		SWING CHECK VALVE

NO	JML	PERALATAN	KAPASITAS
①	2	MESIN PENGOLAH LIMBAH OMNIPURE 6440	1684,7 L / J



Marine and Offshore Sewage Treatment **OMNIPURE™** **Series 64**

4,845 to 49,950 L/d (1,280 to 13,195 gal/d)



- Type Certified to MEPC.227(64)
- Competitive footprint
- Simple operation
- Unique "Class B" solids handling option





Features

Electrolytic Oxidation with Electroflotation

- Enhanced Electrolytic batch process
- Effective treatment of black and gray waters
- No 'raw sewage' or pre filtration required
- Sealed system, No odors
- Electroflotation solids separation
- Low power consumption
- Simple interface with Customer waste collection system

Mechanical Features

- Competitive equipment footprint
- On-skid polymer mixing
- Dilution blower(s)
- Marine approved PVC piping system
- Self-contained, simple control system
- Rugged steel structure with offshore marine coating for corrosion resistance in the harshest environments
- Macerator for effective reduction in wastewater solids

Notes

- Option Centrifuge Solids Handling option for 'Class B' Solids discharge.
- Technical guidance can be offered to Customers for various field interface specifics to their waste collection system(s).
- Process chemicals used are non-hazardous
- Influent collection tanks and wet solids waste tank options available
- Type Certified by Bureau Veritas

Installation Locations

- Offshore Oil & Gas industrial platforms, rigs
- Fixed or Floating operations
- Offshore living quarters, floating hotel accommodations
- Marine vessels including OSV, PSV, Anchor Handling, Ferries, Coastal Patrol, Yacht and specialized live-aboards, among others.

Maintenance

- Periodic cleaning of electrolytic cell
- Simple, routine filling of treatment process chemicals
- No sample testing, process adjustment or manual waste solids cleaning required.

Solids Handling
 Sanitary removal of solids, in conjunction with ease of disposal, has always been the driving force behind the solids handling concepts employed with our technologies. The added benefit of utilizing one of the De Nora Water Technologies' solids handling system options is that the product removed from these systems meets a Class 'B' sludge rating which makes disposal logistics of the solids more acceptable in the offshore production environment.



Models	6405	6408	6413	6417	6424	6430	6440*	6450*
Daily Treatment	4,845 L/day	8,042 L/day	13,149 L/day	17,206 L/day	24,145 L/day	30,470 L/day	40,431 L/day	49,950 L/day
	1,280 Gal/day	2,124 Gal/day	3,474 Gal/day	4,545 Gal/day	6,378 Gal/day	8,049 Gal/day	10,681 Gal/day	13,195 Gal/day
Weights (Dry)	454 kg 1000 lbs	612 kg 1350 lbs	742 kg 1635 lbs	869 kg 1915 lbs	998 kg 2200 lbs	1413 kg 3115 lbs	1477 kg 3250 lbs	1523 kg 3350 lbs
Weights (Wet)	568 kg 1215 lbs	840 kg 1851 lbs	1120 kg 2469 lbs	1852 kg 4084 lbs	2322 kg 5119 lbs	3115 kg 6868 lbs	3729 kg 8204 lbs	4366 kg 9605 lbs
Dims L x W x H (mm)	2134 x 940 x 2001	2235 x 1016 x 2210	2337 x 1092 x 2134	2438 x 1092 x 2388	2591 x 1270 x 2413	3658 x 1575 x 2667	3658 x 1676 x 2159	3658 x 1727 x 2261
Dims L x W x H (in)	84 x 37 x 79	88 x 40 x 87	92 x 43 x 84	96 x 43 x 94	102 x 50 x 95	144 x 62 x 105	144 x 66 x 85	144 x 68 x 89
Utility Requirements								
Plant Air 4.9-10.5 kg/cm ² (80-150 psig)	3.4 M ³ /Hr 2 (CFM)							
Seawater Feed Rate(min) 2.8-8.4 kg/cm ² (40-120 psig)	37.8 LPM 10 GPM	75.5 LPM 20 GPM	75.5 LPM 20 GPM	75.5 LPM 20 GPM	151 LPM 40 GPM	208 LPM 55 GPM	246 LPM 65 GPM	378 LPM 100 GPM
Process Water Feed Rate (min) 2.8-8.4 kg/cm ² (40-120 psig)	3.78 LPM 1 GPM (should be potable or non-potable service water)							
Sewage Transfer Rate(min) 2.8-8.4 kg/cm ² (40-120 psig)	37.8 LPM 10 GPM	75.7 LPM 20 GPM	113.5 LPM 30 GPM	75.5 LPM 20 GPM	151 LPM 40 GPM	208 LPM 55 GPM	246 LPM 65 GPM	378 LPM 100 GPM

* Denotes units with dual Macerators and dual electrolytic cells.



OMNIPURE™ SERIES 64 Marine and Offshore Sewage Treatment

Technical data

Materials

- A36 Carbon Steel, acrylic polyurethane finish
- PVC Sch. 80 Piping, valves and fittings
- Control Panel enclosure; Painted carbon Steel, NEMA 4 / IP56

Operating conditions

- Temperature: 7°C-45°C
- Ambient relative humidity: 95% max
- Seawater supply water temperature: 6°C-29°C
- Influent Sewage feed, various per model.

Power connection

- Voltage: 380-480 VAC, 3 Ph
- Frequency: 50/60Hz
- Voltage fluctuations: shall not exceed +/-10% of nominal supply voltage

Area Classification

- General Purpose (non-hazardous)
- Hazardous area configurations available, consult factory

Sound pressure level

< 85dB(A) at 1 m

Warranty

1 year



info.dnwt@denora.com

www.denora.com

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