

Drass Diving System

- The Drass 100 Series Diving System is equipped with Single Bell.
- The Base Line dive system arrangement is a single bell 18man system, 3 Diving Decompression Chambers, with port and starboard 18 man Hyperbaric Lifeboat.
- The bell is moon pool launched with cursors guidance.
- The system is rates 300msw and is supplied with 18560Nm³ gas storage kellys. Situated below deck. In the drawing below, this means to have 32 bottles of about 2.9m³ of floodable volume.
- The gas reclaim, compressors must be located below deck in a temperature-controlled environment. Environmental Control Units are normally located directly under chamber complex.
- Life support control room shall preferably be at the same level and next to the chamber area.
- For saturation system, there are the dive control panel, near the bell handling console, and for the automatic saturation control, there are, local and plc panels near chambers and an automation control console in sat room.
- Additionally, surface diving stations are provided mid ship on port and starboard sides. The surface diving system is installed in a hanger or covered area.
- Twin lock decompression chambers are installed in a mid ship positioned at the same deck level and near the surface dive facility and allow access for a stretchered casualty.

Equipment list with Weight & Dimensions

| | Length | Breadth | Height | | | No of Pcs | Cbm | Total Cbm | Weight in Kgs | Total Wt in Kgs | Remarks |
|-----------------------------------------------------------------------------|---------------|---------|--------|--|--|-----------|---------------|---------------|-----------------|------------------|---------|
| | In Meters | | | | | | | | | | |
| Diving bell x 1 : Weight 8580kg / Height 3.22m / Diameter 2.75m | 2.7 | 2.70 | 3.22 | | | 1 | 23.47 | 23.47 | 8,580.0 | 8,580.0 | |
| | 7.29 | | | | | | | | | | |
| DDC x 2 : Weight 4010kg / Length 4.36m / Diameter 2m | 4.36 | 2.00 | 2 | | | 2 | 17.44 | 34.88 | 4,010.0 | 8,020.0 | |
| | 17.44 | | | | | | | | | | |
| Main Chambers x 3 : Weight 20,000kg / Length 9.4m / Diameter 2.6m | 9.4 | 2.60 | 2.6 | | | 3 | 63.54 | 190.63 | 20,000.0 | 60,000.0 | |
| | 73.32 | | | | | | | | | | |
| Gas control panel : Weight 700kg / Length 1.65 / Width 0.9m / Height 2m | 1.65 | 0.90 | 2 | | | 1 | 2.97 | 2.97 | 700.0 | 700.0 | |
| | 1.49 | | | | | | | | | | |
| ECU x 3 : Weight 3,500kg / Length 2.47m / Width 1.37m / Height 2.m | 2.47 | 1.37 | 2 | | | 3 | 6.77 | 20.30 | 3,500.0 | 10,500.0 | |
| | 10.15 | | | | | | | | | | |
| Kelly skids x 4 : Weight 29,500kg / Length 12m / Width 2.9m / Height 1.5m | 12 | 2.90 | 1.5 | | | 4 | 52.20 | 208.80 | 29,500.0 | 118,000.0 | |
| | 139.20 | | | | | | | | | | |
| Hot water unit : Weight 1200kg / Length 2.4m / Width 1.4m / Height 1.2m | 2.4 | 1.40 | 1.2 | | | 1 | 4.03 | 4.03 | 1,200.0 | 1,200.0 | |
| | 3.36 | | | | | | | | | | |
| Hot water unit : Weight 1,200kg / Length 2.4m / Width 1.4m / Height 1.2m | 2.4 | 1.40 | 1.2 | | | 1 | 4.03 | 4.03 | 1,200.0 | 1,200.0 | |
| | 3.36 | | | | | | | | | | |
| HP Compressor x 2 : Weight 1,570kg / Length 2.6m / Width 1.6m / Height 1.6m | 2.6 | 1.60 | 1.6 | | | 2 | 6.66 | 13.31 | 1,570.0 | 3,140.0 | |
| | 8.32 | | | | | | | | | | |
| | | | | | | | 0.00 | 0.00 | | | |
| | | | | | | | 0.00 | 0.00 | | | |
| | | | | | | | 0.00 | 0.00 | | | |
| | 263.93 | | | | | 18 | 181.12 | 502.44 | 70,260.0 | 211,340.0 | |

| Equipment Description | Qty |
|------------------------------------------|-----|
| Passive Gas Rack | 1 |
| LP Volume tank-1 | 1 |
| LP Volume tank-2 | 1 |
| LP Compressor | 1 |
| Gas HP Compressor 1 | 1 |
| Gas HP Compressor 1 Filter Pack | 1 |
| Gas HP Compressor 2 | 1 |
| Gas HP Compressor 2 Filter Pack | 1 |
| Air HP Filter Pack-1 | 1 |
| Air HP Compressor -1 | 1 |
| Air HP Filter Pack-2 | 1 |
| Air HP Compressor -2 | 1 |
| Central Waste Tank | 1 |
| Gas Management & Distribution Panel | 1 |
| Bottles Gas Storag He/O2 Skid-1 | 1 |
| Bottles Gas Storag He/O2 Skid-2 | 1 |
| Bottles Gas Storag He/O2 Skid-3 | 1 |
| Gas Storage Mix+Air System | 1 |
| Bottles Gas Storag He/O2+Air Skid | 1 |
| Heater Skid for ECU | 1 |
| Chiller 1 for ECU | 1 |
| Chiller 2 for ECU | 1 |
| Chamber Heater gravity tank | 1 |
| Chamber Chiller gravity tank | 1 |
| Heaters Pump Skid | 1 |
| Chillers Pump Skid | 1 |
| ECU1 | 1 |
| ECU2 | 1 |
| ECU3 | 1 |
| ECU4 | 1 |
| Chambers Gas Recovery Filter Unit | 1 |
| Chambers Gas Recovery Bag | 1 |
| Waste tank 1 | 1 |
| Waste tank 2 | 1 |
| Waste tank 3 | 1 |
| Gas Mixer | 1 |
| Gas Mixer Tank | 1 |
| Food Lock DDC1 | 1 |
| Food Lock DDC2 | 1 |
| Food Lock DDC3 | 1 |
| Connection Trunk 1 (DDC-1-DDC2) | 1 |
| Connection Trunk 1 Clamps (DDC-1-DDC2)-1 | 1 |
| Connection Trunk 1 Clamps (DDC-1-DDC2)-2 | 1 |
| Connection Trunk 2 (DDC2-DDC3) | 1 |
| Connection Trunk 2 Clamps (DDC2-DDC3)-1 | 1 |
| Connection Trunk 2 Clamps (DDC2-DDC3)-2 | 1 |
| Material Locks | 1 |
| Material Locks Clamps | 1 |
| Bell Mate Spool | 1 |
| Bell Mate Spool Clamps | 1 |

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| Twin Lock 6 Man side Hyperbaric Chamber DDC 1 | 1 |
| Twin Lock 6 Man side Hyperbaric Chamber DDC2 + Manhole | 1 |
| Hand Pump skid Chamber DDC2 | 1 |
| Twin Lock 6 Man side Hyperbaric Chamber DDC3 (Escape trunk side) DMAC | 1 |
| Hand Pump skid Chamber DDC3 | 1 |
| Fire Fighting Tank 1 | 1 |
| Fire Fighting Tank 2 | 1 |
| Fire Fighting Tank 3 | 1 |
| Escape Trunk STBD | 1 |
| Escape Trunk Clamps STBD | 1 |
| Sanitary Water Unit | 1 |
| Swapping Junction Box | 1 |
| Multicontrol Panel | 1 |
| Fi-Fi Pressurization Panel | 1 |
| Emergency bell Handling Control Console | 1 |
| Diver heater Magma Unit remote control Unit | 1 |
| Air Dive Patch Panel | 1 |
| Air Dive Patch Panel | 1 |
| Master Panel | 1 |
| Chambers Gas Pressure reduction Panel | 1 |
| Oxygen Supply Panel - Deck Panel | 1 |
| Therapeutic Gas Panel | 1 |
| O2 Booster Pump | 1 |
| Gas Transfer & Filling Panel | 1 |
| Bell on board Gas Charge Panel | 1 |
| Bell Handling Control Station | 1 |
| Bell wire double shock absorber system | 1 |
| Bell wire double shock absorber | 1 |
| Bell wire double shock absorber system Accumulator | 1 |
| Guide wire double shock absorber system | 1 |
| Guide wire double shock absorber | 1 |
| Guide wire double shock absorber system Accumulator | 1 |
| Gas Reclaim Compressor Unit | 1 |
| Diver Gas Reclaim Gas Bag | 1 |
| Diver Gas Reclaim Regeneration Unit | 1 |
| Diver Gas Reclaim Control Panel | 1 |
| Hydraulic Power Pack Main | 1 |
| Hydraulic Power Pack Back-up | 1 |
| Fixed Umbilical sheaves | 1 |
| Tilting Umbilical sheaves | 1 |
| Bel Central wire sheave | 1 |
| Bel Vertical wire sheave | 1 |
| Bel Horizontal wire sheave 1 | 1 |
| Bell Horizontal wire shave 2 | 1 |
| Guide wire Sheave 4 | 1 |
| Guide wire Sheave 5 | 1 |
| Guide wire Sheave 6 | 1 |
| Guide wire Sheave 7 | 1 |
| Diver Hot Water Magma Unit-1 (SAT60) | 1 |
| Diver Hot Water Magma Unit-2 (LITE) | 1 |
| Emergency Diver Hot Water Magma Boiler (600P) | 1 |

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| Distribution Board -1 | 1 |
| Distribution Board -2 | 1 |
| UPSs Installed inside Diving Control Panel | 7 |
| Guide wire 22 mm | 1 |
| Bell wire 36 mm | 1 |
| Main Umbilical | 1 |
| Umbilical Winch | 1 |
| Bell Trolley System And Assembly | 1 |
| Bell Winch | 1 |
| Bell Cursor | 1 |
| Anchor Weight | 1 |
| Guide Wire Winch | 1 |
| Bell Control Console Video Module & Communication Panel | 1 |
| 3 Man Diving Bell | 1 |
| HLB Gas Charging Panel/Bail Out Charging Panel PORT | 1 |
| HLB Termination Panel PORT | 1 |
| Air Dive Chamber SX | 1 |
| Air Dive Chamber - Fi-Fi System | 1 |
| Air Dive Chamber DX | 1 |
| Air Dive Chamber - Fi-Fi System | 1 |
| 2 Diver Panel+Video Module -1 | 1 |
| 2 Diver Panel+Video Module -2 | 1 |
| Air Dive Lars | 2 |
| Gas Reclaim Volume tank | 1 |
| HLB Lifeboat STBD type (destro) | 1 |
| HLB Davit STBD type (destro) | 1 |
| HLB Davit STBD Accessories (destro) | 1 |
| HLB Spool & Clamping | 1 |
| Diving System+Air Dive System Installation Material | Set |
| Set of Critical Spares + 2 years Spare Parts | Set |
| ILIS Software | 1 |
| AUTOMATION FOR AUTOMATIC CONTROL | 1 |
| DDc's Automatic Control Console | 1 |
| DDC-1 SATURATION MANUAL GAS CONTROL PANEL | 1 |
| DDC-1 PLC CONTROL PANEL | 1 |
| DDC-1 ELECTRICAL CONTROL PANEL | 1 |
| DDC-1 ANALIZER CONTROL PANEL | 1 |
| DDC-2 SATURATION MANUAL GASCONTROL PANEL | 1 |
| DDC-2 PLC CONTROL PANEL | 1 |
| DDC-2 ELECTRICAL CONTROL PANEL | 1 |
| DDC-2 ANALIZER CONTROL PANEL | 1 |
| DDC-3 SATURATION MANUAL CONTROL PANEL | 1 |
| DDC-3 PLC CONTROL PANEL | 1 |
| DDC-3 ELECTRICAL CONTROL PANEL | 1 |
| DDC-3 ANALIZER CONTROL PANEL | 1 |
| ESCAPE TRUNK AND HLB SATURATION MANUAL CONTROL PANEL Port | 1 |
| ESCAPE TRUNK AND HLB SATURATION MANUAL CONTROL PANE Stbd | 1 |
| HLB Lifeboat PORT | 1 |
| HLB Davit PORT | 1 |
| HLB Davit PORT Accessories | 1 |
| HLB Spool & Clamping PORT | 1 |

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|-----------------------------------------------------|---|
| HLB Gas Charging Panel/Bail Out Charging Panel STBD | 1 |
| HLB Termination Panel STBD | 1 |
| Escape Trunk PORT | 1 |
| Hand Pump skid Chamber DDC1 | 1 |
| Escape Trunk Clamps PORT | 1 |
| Air Dive Lars | 2 |
| Installation material for second HLB | 1 |