

Saturation diving system unit and certified by DNV to a pressure rating of 300 metres depth, is fitted with a 3 man Diving bell and a saturation diving complex consisting of living chambers for up to 12 divers (1 x 6 man chamber plus 2 x 3 man chambers). The system, constructed to the highest international standards can be deploy the bell through a moon pool or over the side depending on the vessel installation.

The system is contained within a steel module comprising 6 separate steel structures, arranged on 2 levels of 3 containers each. On the upper level the Dive Control Room, Saturation Control Room, bell-handling machinery, bell umbilical winch, chamber environment conditioning, diving gas reclaim. The lower level holds the electrical distribution systems and ancillary machinery, 3 living chambers, together with the transfer chamber and 3 separate shower and sanitary chambers (EL). Life support systems are installed for the saturation chambers, diving bell and through the main umbilical to the divers working from the bell. The module is constructed to “Offshore” standards of structural fire protection and has integral fire detection and extinction systems installed.

All main life support, electrical, hydraulic and communications systems are arranged with dual or triple back-up equipment to ensure diver safety. Main electrical power is provided by the Vessel with the module being equipped with an internal electrical distribution system. Comprehensive electronic monitoring, communications and diver entertainment systems are installed. Machinery is installed to reclaim unused diving gases from divers in the bell and for supplying hot water to the divers working suits. Integral hydraulically operated winches for handling the bell, and separate winches for the bell umbilical and guide weight plus a “trolley” arrangement allow rapid transfer of the bell from its “locked on” position on the living chamber complex to the working position over the side or through the moon pool.

A 12 man Hyperbaric Rescue Chamber, complete with dedicated launching system, is provided for diver evacuation. The HRC and its launching system can be connected to the main living complex in a variety of positions allowing maximum flexibility and adaptability of the system layout onboard. The HRC is equipped onboard with gas to support a full complement of divers for a minimum of 72 hours.



***Technical details***

Certification	DNV (No. 8720204)
Build date 06/2009	
Depth rating	300 MSW, Temperature range –20o C to + 55o C
Number of divers	12 (Operational mode for 9 Divers)
Living chambers	1 x 6 man, 2 x 3 man
Bell	3 man, 5.4 m3 capacity, bottom mating,
Weight in air	8.850 tonnes
Cursor system, weight	1.12 tonnes (OPTIONAL)
Hyperbaric Rescue Chamber	Drass, 12 divers, Chamber Volume 6.815 m3 Length, XX m x W XX m x Draft XX m. Weight XX tonnes
Speed X knots	
Approved to XXXX amendments. DNV	
Bell winch	Drass, hydraulic , man riding winch
1 x Double Shock absorber	Hydraulically compensated
Umbilical winch	Drass, hydraulic single system
Umbilical	421 metres
Guide wire winch	Drass, hydraulic
2 x Double Shock absorber	Hydraulically compensated
Bell handling	Drass – “Trolley”.
Habitat conditioning units	4 x ECU
Divers Gas reclaim	Gasmizer/Drass
Divers gas reclaim compressors	1 x Electric gas Booster - 1 x CompAir
Divers potable water	Drass
Divers hot water	2 x Comanex. (electric)
Gas compressors	1 x CompAir (electric)
Hydraulic power packs (1)	2 x Haglunds (Electro hydraulic)
Hydraulic power pack (2)	1 x Drass (Electro hydraulic, stored power)



Electrical power requirements

Standard operation	950 Kilowatts, 440 v 60hz
	100 Kilowatts, 230 v 60hz
Emergency Mode	500 kilowatts, 440 v 60hz
Essential services	100 kilowatts, 230 v 60hz

Mother vessel services The system is arranged to be supplied with the following from the “mother vessel”

- electrical power (2 x supplies) kw:
- salt water m3:
- fire fighting water m3:
- potable water m3:

- sanitary system discharge to mother vessel.

PVHO & PV volumes

Bell	5.4 m3
3 man (DDC1)	20.4 m3
3 man (DDC2)	12 m3
6 man (DDC3)	12 m3
Wetpot (DDC1)	9 m3 (DDC1)
Wetpot (DDC2)	9 m3 (DDC2)
Wetpot (DDC3)	9 m3 (DDC3)
HRC	13 m3
DDC1 – DDC2 Trunk	0.3 m3
DDC1 – DDC3 Trunk	0.3 m3
Bell Mate Trunk	0.7 m3
HRC Escape Trunk	1 m3
Material lock	0.25 m3
Medical locks (DDC1)	0.039 m3
Medical locks (DDC2)	0.039 m3
Medical locks (DDC3)	0.039 m3
Bell food lock	0.0044 m3
HRC food lock	0.0011 m3
Waste Tank	
DDC1	0.036 m3
DDC2	0.036 m3
DDC3	0.036 m3
Fi-Fi tank (gas head)	
DDC1	0.16 m3
DDC2	0.16 m3
DDC3	0.16 m3
ECU	3 m3



System Skid and containers 13x  
 Container A 20" - SAT room  
 Container B 20" - Dive room  
 Container C 20" - Gas management room  
 Container D 20" - Electrical distribution room  
 Container E 40" - ECU  
 Container F 30" - Heater&Chiller + Gas compressor  
 Container G 30" - Divers Hot Water 1&2 + HPP1  
 Container H 20" - Reclaim room  
 DDC1 skid  
 DDC2 skid  
 DDC1 skid  
 HRC  
 Handling system  
 Weight of the system total gross 450 tonnes  
 Vessel Requirements XXX

This specification is believed to be correct but is subject to change and is given without guarantee.

