

## THE PDS1 SATURATION DIVING SYSTEM CAPABLE OF HANDLING 6 DIVERS IN SATURATION



### Current Configuration PETRODIVE (2022)

Manufactured by	Chambers Oceanics
Year of Rebuilding	2022
Standards of Design & Manufacture	All IMCA guidelines and Standard Industry Practices
Bell Volume	3.3 m <sup>3</sup>
Total System Volume	28.61 m <sup>3</sup>
Maximum Depth	200 MSW
Bell Launch and Recovery System	Hydraulic Articulated 'A' Frame with Bell Trolley
Hyperbaric Evacuation	6 Man HRC with Dedicated Davit complete with thermal balance
Max. Sat Divers	6
Lifting Certification	All Containers are DNV 2.7-1

### System Configuration:

The Saturation diving system consists of the following components:

- Dive and life support control container (20-foot DNV 2.7-1 certified offshore containers)
- Bell launch and recovery Main Skid
  - Twin Lock Deck decompression chamber
    - Main Lock: Man living Chamber
    - Entry Lock: TUP
  - Diving Bell with Cursor
  - Main Bell Winch
  - Clump Weight Winch
- Hydraulic Power Unit for the Main Skid
- Main Bell umbilical
- Main Bell umbilical hydraulically powered sheave
- Main Bell umbilical hydraulically powered chain sprocket drive
- Main Bell umbilical Basket
- 6-man Hyperbaric rescue Chamber / 4 man Living Chamber
- HRC Launch and Recovery Davit
- HRC Launch Winch assembly with the Hydraulic Power unit
- Dive machinery container
  - Regen system: 2 Nos
  - Kinergetics Hotwater Unit: 2 nos
  - Chiller Unit (1 nos)
  - 2 nos Transformers
  - Electrical distribution board
- Diver Gas Reclaim Container
  - Divex Reclaim System
  - 6 Haskel Pumps
  - Sanitary Tank
- Divers Personal Equipment
  - Bell Excursion Umbilicals
  - Divers Reclaim Helmets: 2 nos
  - Bailout Cylinders
  - KM Band masks for emergency: 2 nos
- Workshops and stores

**ADDITIONAL INFORMATION AVAILABLE UPON REQUEST**



## PLUG AND PLAY

Plugin the cables and hoses at the site immediately to start working.



## MAINTENANCE-FRIENDLY WITH EASY ACCESS

The Dive Video and Communications can be opened directly inside the container for ease of maintenance.

## Electrical Supply

Vessel to confirm uninterrupted, clean electricity supply to the system to be supplied over and above normal vessel requirements:

- Full load requirements: 405 Amps at 440VAC/ 50 Hz.
- Normal operations: 250 Amps at 440VAC/ 50 Hz.
- Vessel emergency generator to be able to supply 200 Amps at 440VAC/ 50 Hz.

## Sea Water

- Vessel to confirm dedicated sea water supply to the system that will not be interrupted if a fire situation and/or fire drills and/or isolation tests occur onboard.
- Sea water of at least 50 l/min at a positive pressure of 4 to 7 bar.

## Fresh Water

- Vessel to confirm dedicated fresh water supply to the system that will not be interrupted.
- Fresh water of at least 20 l/min at a positive pressure of 2 to 4 bar.

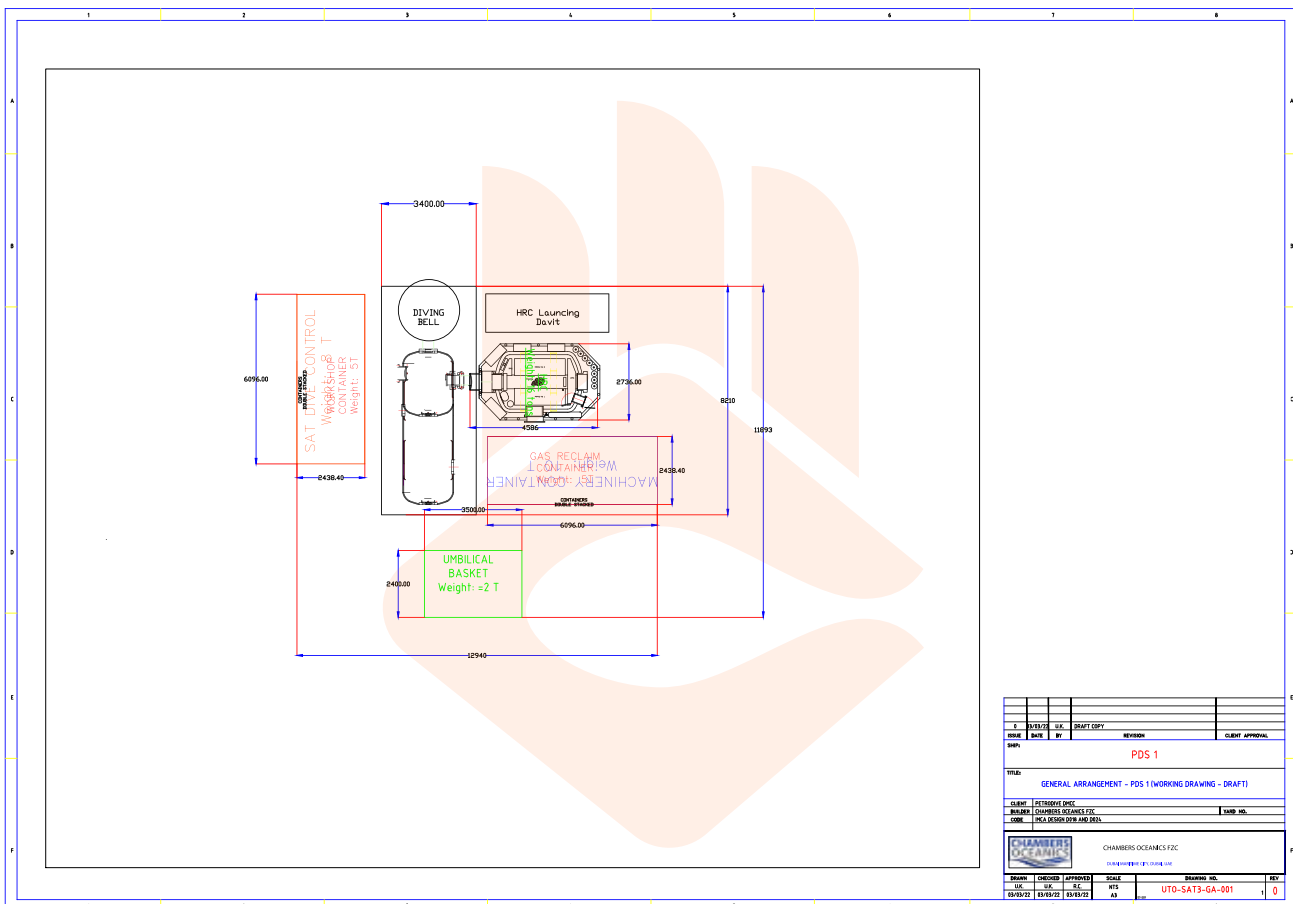
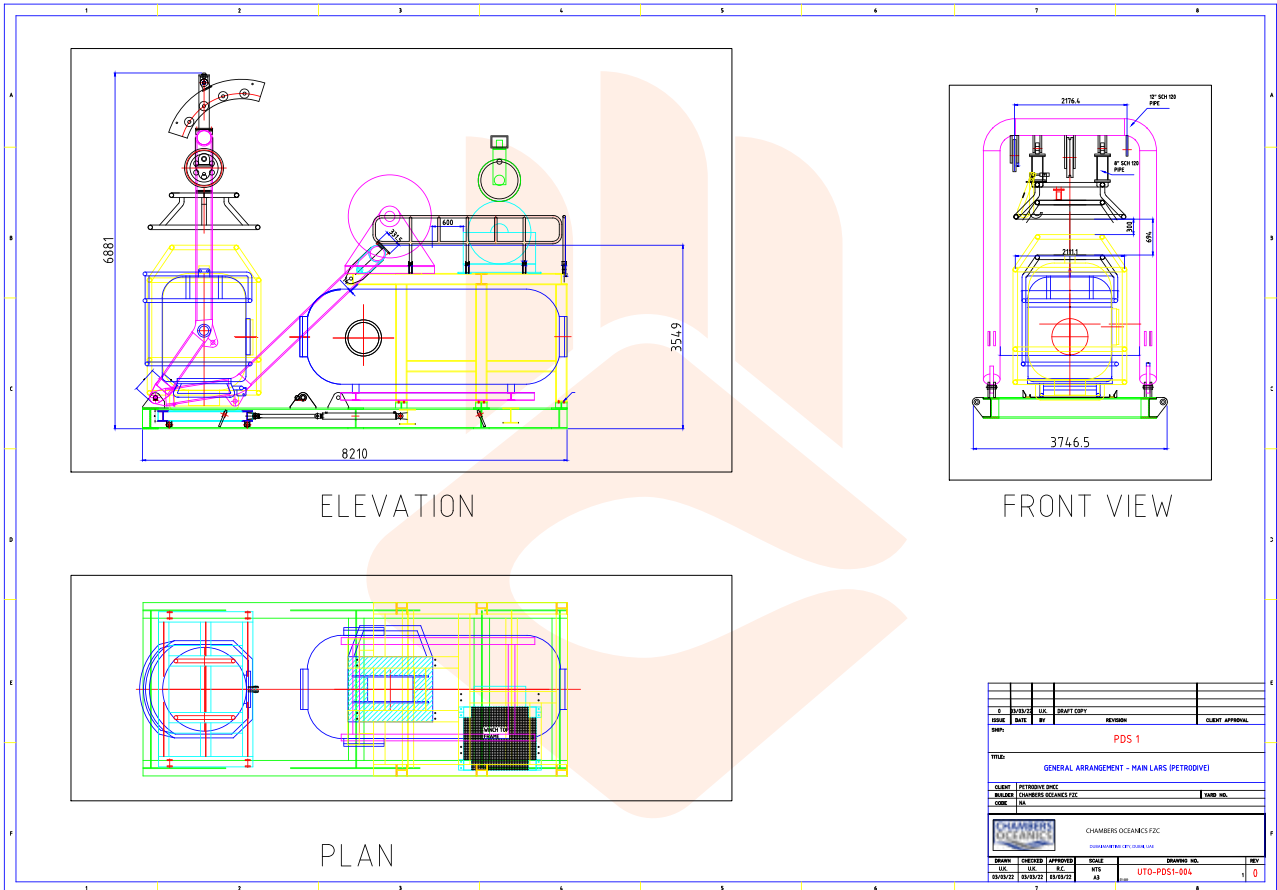
## Accommodation and Communications

- Cabin accommodation and victualing for full dive team
- Telephone connection
- Email/Internet connection to Sat Control
- Hard-wire communications between bridge and Dive Control
- DP traffic light and Alarm connection

## SERVICE REQUIRED

<b>Electrical power system</b>	:	<b>440V, 50 Hz</b>
<b>Primary Supply</b>	:	<b>250 kVA</b>
<b>Emergency supply</b>	:	<b>150 kVA</b>
<b>Seawater</b>	:	<b>50 lpm at 7 bar</b>
<b>Fresh Water</b>	:	<b>20 lpm at 4 bar</b>

## TECHNICAL SPECIFICATIONS – PDS1



## COMPONENTS WEIGHTS AND DIMENSIONS

SR No.	Description	Dimensions (lXbXh) (m)	Weight (Te)
1.	Twin Lock Chamber with A Frame	8.3 X 3.4 X 4.1	33
2.	Diving Bell	3 X 3 X 4	4.3
3.	Bell Winch	2 X 2 X 2.2	3
4.	Clump Weight WINCH	1.7 X 1.7 X 1.6	3.2
5.	Clump Weight	2.1 x 1 x 1.6	1.5
6.	Bell Winch HPU	1.9 X 2.2 X 2.3	2.5
7.	Main Bell Umbilical with basket	3.8 x 2.4 x 2.15	2
8.	Sat / Dive Control	6 x 2.44 x 2.6	11 (approx.)
9.	Machinery container	6 x 2.44 x 2.6	14 (approx.)
10.	Reclaim Container	6 x 2.44 x 2.6	8 (approx.)
11.	Stores	6 x 2.44 x 2.6	8 (approx.)
12.	HRC deployment winch	1.6 X 1.9 X 2.7	3
13.	HRC A-Frame HPU	1.7x1.4x2.2	3
14.	HRC deployment frame base; arms & rams	Various	15
15.	HRC Chamber	5.9 x 2.9 x 3.3	15
16.	Life Support Package	3.1 x 2.44 x 2.6	6

