



**GLOBAL**  
Diving & Salvage, Inc.

FOR MORE INFORMATION  
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## **SATURATION SYSTEM II**

**ABS CLASSED & IMCA COMPLIANT**  
**6 MAN - 850 fsw**

Technical Specifications



**Global Diving & Salvage, Inc.**

# SATURATION SYSTEM II COMPONENTS

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Global Diving & Salvage's SAT II is a 6-man saturation diving system designed with a two man top mate – side launch bell. The system is certified to 850 fsw and is equipped with a 10-man Self-Launch Hyperbaric Rescue Chamber (HRC) for offshore applications, Bell Launch and Recovery System (LARS) with redundant recovery capabilities for safety, and gas reclaim system for efficient operation. The American Bureau of Shipping (ABS) classed and International Marine Contractor's Association (IMCA) compliant system is of a modular design providing for multiple footprints to suite the required placement of components.

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## **Primary Living Chamber (4 Man/Double Lock)**

### Main Lock

- Bunk beds w/ fire retardant mattresses
- Medical lock w/ pressure interlock
- Scott BIBs w/ overboard dumps (x 5)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubbers (x 2)
- Lung powered scrubbers (x 5)
- Wired communications

### Transfer Lock

- Overhead hatch for transfer into the bell
- Medical lock w/ pressure interlock
- Shower, toilet, washbasin
- Scott BIBs w/ overboard dumps (x 2)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubbers (x 2)
- Wired communications
- Sound powered phone

## **Hyperbaric Rescue Chamber (10 Man Rescue/Single Lock)**

- Gantry launch system using stored energy
- 72 hours autonomous support for 10 men
- HeO<sub>2</sub> & O<sub>2</sub> reserve cylinders
- Sound powered communications
- AODC emergency signage
- Battery power reserves
- EPIRB, strobe, radar reflector
- Tow bridle and lifting slings

### Living Compartment

- Medical lock w/ pressure interlock
- Bunk beds w/ fire retardant mattresses
- Jump seats & harnesses (x 10)
- O<sub>2</sub> make-up injector system
- Scott BIBs w/ overboard dumps (x 11)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubbers (x 2)
- Lung powered scrubbers (x 11)
- Wired communications

## **Hyperbaric Rescue Chamber con't.**

### Bathroom Facilities / Entrance Lock

- Shower, toilet, washbasin
- HCU with carbon dioxide scrubber
- Auxiliary carbon dioxide scrubber
- Wired communications

## **Dive Bell System (2 Man)**

### Launch System

- Primary bell hydraulic winch
- Bell clump weight hydraulic winch
- Hydraulic powered umbilical sheave
- Fibron bell umbilical (1200ft) w/ basket
- Primary HPU (60HP / 35GPM)
- Reserve HPU (30HP / 20GPM)
- Selectable air winch recovery

### Bell

- 12 hours autonomous support
- Transponder & re-location device
- Primary diver umbilical (165ft)
- Stand-by diver umbilical (175ft)
- Gas & O<sub>2</sub> reserve cylinders
- Divex gas reclaim
- Divex reclaim hats (x 2)
- Bell gas control panel
- O<sub>2</sub> make-up injector system
- Scott BIBs (x 2)
- Carbon dioxide scrubber
- Lung powered scrubbers (x 2)
- Thru-water communications
- Wired communications
- Sound powered phone
- Battery power reserves
- Bell heater
- KMB 18B band mask
- Helmet mounted color video and light

## Dive/Saturation Control Van

### Dive Control Station

- Bell gas control panel
- Divex reclaim booster panel
- O<sub>2</sub> analyzers (x 2) & CO<sub>2</sub> analyzer
- Diver communication panel
- Clear Comm communications
- Diver depth monitoring panels (x 2)
- 24 volt bell power systems (x 2)
- Video monitor systems (x 2)
- DVD & DVR video recording
- VHF & UHF Radios
- Loud hailer (150 watt)
- DP Light system

### Saturation Control

- Gas distribution panel
- Chamber control panels (x 4)
- Treatment gas panel
- Analyzation panel
- O<sub>2</sub> analyzers (x 3) & CO<sub>2</sub> analyzers (x 3)
- Chamber communication systems (x 2)
- Chamber video monitoring system
- Electrical control switching panel
- 24 volt chamber power systems (x 2)

## HRC Intervention Van

- Gas & O<sub>2</sub> reserve cylinders
- Gas distribution system
- O<sub>2</sub> make-up system
- O<sub>2</sub> and CO<sub>2</sub> analyzation system
- Depth monitoring system
- Environmental system
- Emergency umbilical for HRC
- Soda Sorb capable for diver desat

## Divers Reclaim Van

- Divex Electric Gasmizer System
- Haskell Booster Pumps (x 2)

## Environmental Control Van

- External environmental control units (x 2)
- Potable hot / cold water systems
- SAT tech workshop
- Spares locker

## Supporting Equipment

- Dive Locker
- Spares Van
- Electric immersion hot water unit (90kVA)
- Auxiliary diesel hot water unit
- Electric 5120 diving compressor
- Surface diving station
- LARS with dedicated HPU
- SL 37 surface diving hats (x 2)
- Deck leads for electrical and gas
- Rigging equipment

## Power Distribution Van

### Essential Power

- Primary: 200kw, 480v, 3 phase
- Back-up: 200kw, 480v, 3 phase
- Supports:
  - Dive/SAT Van, ECU Van
  - Main & back-up power for LARS

### Nonessential Power

- 100kw, 480v, 3 phase
- Supports:
  - Tooling, welding, deck lighting

## System Requirements

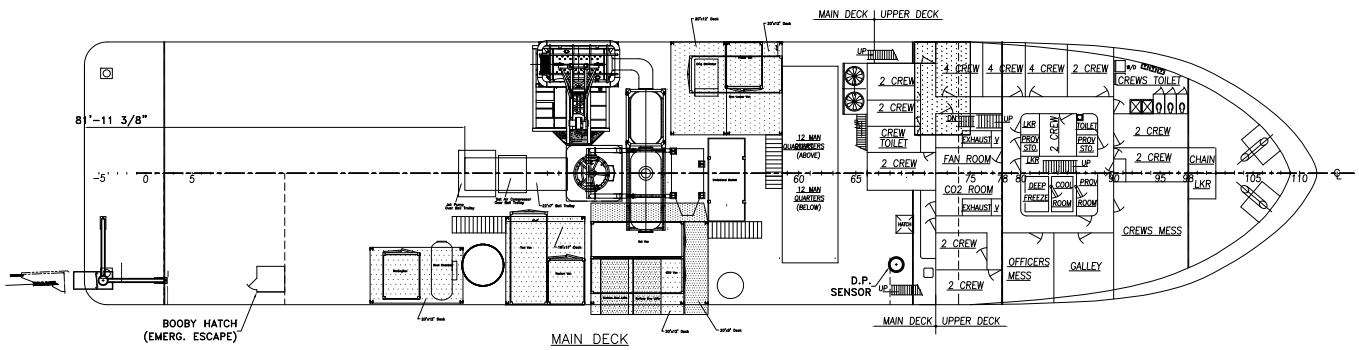
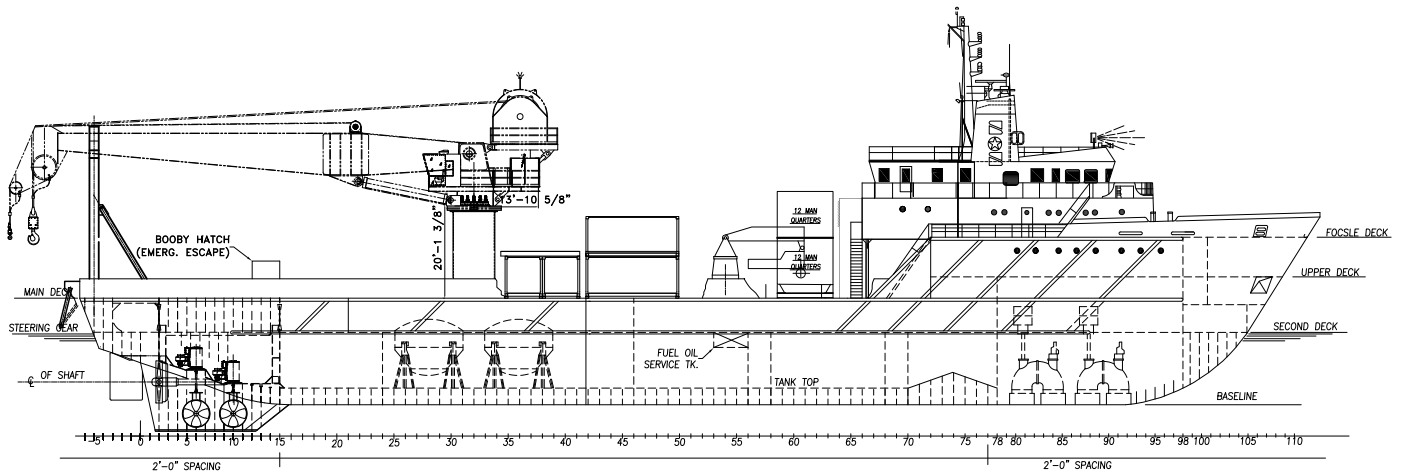
- Electric Power: 250kw, 480v, 60Hz
- Auxiliary Generator: 200kw
- Compressed Air: 400CFM, 90 psi
- Seawater: 25GPM
- Freshwater: 3GPM



## SATURATION SYSTEM II DIMENSIONS

Component	Length	Width	Height	Weight
Primary Living Chamber	16 ft	6 ft 6 in	6 ft 6 in	32,250 lbs
Hyperbaric Rescue Chamber	18 ft	8 ft 6 in	8 ft	35,000 lbs
Dive Bell	6 ft 6 in	6 ft 6 in	6 ft 6 in	10,000 lbs
LARS Winch & Platform	15 ft	8 ft	12 ft	22,000 lbs
Dive/Saturation Control Van	20 ft	8 ft	8 ft	13,150 lbs
Environmental Control Unit	20 ft	8 ft	8 ft	13,600 lbs
Reclaim Van	10 ft	8 ft	8 ft	10,000 lbs
Power Distribution Van	10 ft	8 ft	8 ft	9,500 lbs
HRC Intervention Van	10 ft	8 ft	8 ft	10,000 lbs
Tool Van	20 ft	8 ft	8 ft	18,600 lbs
Welding Van	20 ft	8 ft	8 ft	6,500 lbs

\* These dimensions are guidelines for the key components of this system only. w



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