Saturation System IV
Technical Specifications
Six person, 1,000 fsw
COMPONENTS

Global’s SAT IV is a six-person saturation diving system designed with a three-person top mate – side launch bell. This system features a modular design and flexible configuration options; minimizing the footprint of the required components makes it a versatile solution for areas with limited space. The system is certified to 1,000 fsw and is equipped with an eight-person self-launch Hyperbaric Rescue Chamber (HRC) for offshore applications, Bell Launch and Recovery System (LARS) with redundant recovery capabilities for safety, and a gas reclaim system for efficient operation.

Primary Living Chamber (six person, single lock)

Main Lock
- Bunk beds with fire retardant mattresses
- Medical lock with pressure interlock
- Scott BIBs with overboard dumps (x 7)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubbers (x 2)
- Lung powered scrubbers (x 5)

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

Hyperbaric Rescue Chamber (eight-person rescue)

Features
- Automatic tilt over board launch system
- 72 hours autonomous support for 8 men
- HeO\textsubscript{2} and O\textsubscript{2} reserve cylinders
- Sound powered communications
- AODC emergency signage
- Battery power reserves
- EPIRB, strobe, radar reflector
- Tow bridle and lifting slings

Living Compartment
- Medical lock with pressure interlock
- Bunk beds with fire retardant mattresses
- Jump seats and harnesses (x 8)
- O\textsubscript{2} make-up injector system
- Scott BIBs with overboard dumps (x 9)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubbers (x 2)
- Lung powered scrubbers (x 9)

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 (three person)

Launch System
- Primary bell hydraulic winch
- Bell clump weight hydraulic winch
- Hydraulic powered umbilical sheave
- Fibron bell umbilical (1,200 ft) with basket
- Primary HPU (150hp / 64gpm)
- Reserve HPU (150hp / 64gpm)

Bell
- 12 hours autonomous support
- Transponder and re-location device
- Primary diver umbilical (165 ft)
- Stand-by diver umbilical (175 ft)
- Gas and O\textsubscript{2} reserve cylinders
- Divex gas reclaim
- Divex reclaim hats (x 2)
- Bell gas control panel
- O\textsubscript{2} make-up injector system
- Scott BIBs (x 3)
- Carbon dioxide scrubber (x 2)
- Lung powered scrubbers (x 2)
- Thru-water communications
- Wired communications
- Sound powered phone
- Battery power reserves
- Bell heater
- Kirby Morgan KM18B band mask (x 2)
- Helmet mounted color video and light
Dive/Saturation Control Van

Dive Control Station
- Bell gas control panel
- Divex reclaim booster panel
- \(O_2\) analyzers (x 2) and \(CO_2\) analyzer
- Diver communication panel
- Clear Comm communications
- Diver depth monitoring panels (x 2)
- 24 volt bell power systems (x 2)
- Video monitor systems
- DVD and DVR video recording (x 3)
- VHF and UHF Radios
- Loud hailer (150 watt)
- DP Light system

Saturation Control Station
- Gas distribution panel
- Chamber control panels (x 4)
- Treatment gas panel
- Analyzation panel
- \(O_2\) analyzers (x 3) and \(CO_2\) analyzers (x 3)
- Chamber communication systems (x 2)
- Chamber video monitoring system
- Electrical control switching panel
- 24 volt chamber power systems (x 2)

Environmental Control Van
- External environmental control units (x 2)
- Potable hot / cold water systems
- SAT tech workshop with spares locker

HRC Intervention Van
- Gas and \(O_2\) reserve cylinders
- Gas distribution system
- \(O_2\) make-up system
- \(O_2\) and \(CO_2\) analyzation system
- Depth monitoring system
- Environmental system
- Emergency umbilical for HRC
- Sodasorb capable for diver desat

Reclaim Van
- Divex electric gasmizer reclaim system
- Haskell booster pumps (x 2)

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
- Optional SLS re-breather hats & backpacks

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: 350kw, 480v, 60Hz
- Auxiliary Generator: 200kw
- Compressed Air: 400cfm, 90 psi
- Seawater: 75gpm
- Freshwater: 3gpm
SYSTEM DIMENSIONS

Component | Length | Width | Height | Weight
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Primary Living Chamber | 22 ft 2 in | 10 ft | 9 ft 10 in | 43,800 lbs
Transfer Lock | 8 ft 6 in | 10 ft | 9 ft 10 in | 21,900 lbs
Hyperbaric Rescue Chamber | 18 ft 3 in | 9 ft 10 in | 11 ft 6 in | 19,540 lbs
Dive Bell System | 9 ft 6 in | 6 ft 6 in | 11 ft 6 in | 18,848 lbs
LARS Winch and Platform | 22 ft | 10 ft | 11 ft | 59,000 lbs
Dive/Saturation Control Van | 20 ft | 8 ft | 8 ft | 12,500 lbs
Environmental Control Unit | 20 ft | 8 ft | 8 ft | 13,500 lbs
Diver Reclaim Van | 10 ft | 8 ft | 8 ft | 9,300 lbs
Power Distribution Van | 10 ft | 8 ft | 8 ft | 6,000 lbs
System Reclaim Van | 20 ft | 8 ft | 8 ft | 8,000 lbs
Tool/Spares Van | 20 ft | 8 ft | 8 ft | 15,000 lbs

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