SATURATION SYSTEM II COMPONENTS

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. System is of a modular design providing for multiple footprints to suite the required placement of components.

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)

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 communications

Chamber #2 (4 Man/Single Lock)

Features
- Similar configuration as Primary Living Chamber

Hyperbaric Rescue Chamber (10 Man Rescue/Single Lock)

Features
- Gantry launch system using stored energy
- 72 hours autonomous support for 10 men
- HeO2 & O2 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)

Hyperbaric Rescue Chamber con’t.
- O2 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

Bathroom Facilities
- 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 & O2 reserve cylinders
- Divex gas reclaim
- Bell gas control panel
- O2 make-up injector system
- Scott BIBs (x 2)
- Carbon dioxide scrubber
- Lung powered scrubbers (x 2)
- Thru-water communications
- Wired communications
- Battery power reserves
- Sound powered phone
- Bell heater
Dive/Saturation Control Van

**Dive Control Station**
- Bell gas control panel
- Divex reclaim booster panel
- O₂ analyzers (x 2) & CO₂ 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 Station**
- Gas distribution panel
- Chamber control panels (x 4)
- Treatment gas panel
- Analyzation panel
- O₂ analyzers (x 3) & CO₂ analyzers (x 3)
- Chamber communication systems (x 2)
- Chamber video monitoring system
- Electrical control switching panel
- 24 volt chamber power systems (x 2)

**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)
- Deck leads for electrical and gas

**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

<table>
<thead>
<tr>
<th>Component</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Living Chamber</td>
<td>9 ft 3 in</td>
<td>8 ft 4 in</td>
<td>8 ft 9 in</td>
<td>32,250 lbs</td>
</tr>
<tr>
<td>Chamber #2</td>
<td>12 ft 10 in</td>
<td>8 ft 6 in</td>
<td>8 ft 6 in</td>
<td>24,000 lbs</td>
</tr>
<tr>
<td>Hyperbaric Rescue Chamber</td>
<td>18 ft</td>
<td>10 ft</td>
<td>9 ft 5 in</td>
<td>35,000 lbs</td>
</tr>
<tr>
<td>Dive Bell</td>
<td>6 ft 6 in</td>
<td>6 ft 6 in</td>
<td>6 ft 6 in</td>
<td>10,000 lbs</td>
</tr>
<tr>
<td>LARS Winch &amp; Platform</td>
<td>15 ft</td>
<td>8 ft</td>
<td>12 ft</td>
<td>22,000 lbs</td>
</tr>
<tr>
<td>Dive/Saturation Control Van</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>13,150 lbs</td>
</tr>
<tr>
<td>Environmental Control Unit</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>13,600 lbs</td>
</tr>
<tr>
<td>Reclaim Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>10,000 lbs</td>
</tr>
<tr>
<td>Power Distribution Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>9,500 lbs</td>
</tr>
<tr>
<td>HRC Intervention Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>10,000 lbs</td>
</tr>
<tr>
<td>Tool Van</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>18,600 lbs</td>
</tr>
<tr>
<td>Welding Van</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>6,500 lbs</td>
</tr>
</tbody>
</table>

*These dimensions are guidelines for the key components of this system only.*
SATURATION SYSTEM III COMPONENTS

SAT III is a 6-man saturation diving system designed with either a two man side mate – end launch bell or a three man top mate – side launch bell. The system is certified to 1,000 fsw and is equipped with an 8-man Hyperbaric Rescue Chamber (HRC), with redundant recovery capabilities for safety, and gas reclaim system for efficient operation. The system is of a modular design providing for multiple bell launch / recovery and footprints to suite the required placement of components.

Primary Living Chamber (6 Man/Single Lock)
- Bunk beds w/ fire retardant mattresses
- Medical lock w/ pressure interlock
- Equipment lock w/ pressure interlock
- Scott BIBs w/ overboard dumps (x 7)
- HCUs with two carbon dioxide scrubbers (x 2)
- Auxiliary carbon dioxide scrubbers (x 4)
- Lung powered scrubbers (x 7)
- Wired communications
- Sound powered phone

Transfer Lock
- Side or overhead hatch for transfer into bell
- 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 (8 Man Rescue)

Features
- 72 hours autonomous support for 8 men
- HeO₂ & O₂ reserve cylinders
- Sound powered communications
- AODC emergency signage
- Battery power reserves
- Tow hitch and lifting slings

Living Compartment
- Medical lock w/ pressure interlock
- Bunk beds w/ fire retardant mattresses
- Jump seats & harnesses (x 8)
- O₂ make-up injector system
- Scott BIBs w/ overboard dumps (x 9)
- HCU with two carbon dioxide scrubbers
- Auxiliary carbon dioxide scrubber
- Lung powered scrubbers (x 9)
- Wired communication

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 Components
- Primary bell hydraulic winch
- Bell clump weight hydraulic winch
- Hydraulic powered umbilical sheave
- Bell umbilical (1,000ft) w/ basket
- Dual HPU (50hp each)

Bell
- 12 hours autonomous support
- Primary diver umbilical (165ft)
- Stand-by diver umbilical (175ft)
- Gas & O₂ reserve cylinders
- Divex gas reclaim system
- Bell gas control panel
- O₂ make-up injector system
- Scott BIBs (x 2)
- Carbon dioxide scrubbers (x 2)
- Lung powered scrubbers (x 2)
- Thru-water communications
- Wired communications
- Sound powered phone
- Battery power reserves
- Bell heater

Divers Reclaim Van
- Divex electric gasmizer system
- Haskell booster pumps (x 2)
Dive/Saturation Control Van

Dive Control Station
- Bell gas control panel
- Divex reclaim booster panel
- O₂ analyzers (x 2) & CO₂ analyzer
- Diver communication panel
- Diver depth monitoring panel
- 24 volt bell power systems (x 2)
- Video monitor systems (x 2)
- DVD & DVR video recording
- VHF & UHF Radios
- Loud hailer (150 watt)

Saturation Control Station
- Gas distribution panel
- Chamber control panels (x 4)
- Treatment gas panel
- Analyzation panel
- O₂ analyzers (x 3) & CO₂ analyzers (x 3)
- Chamber communication systems (x 2)
- Chamber video monitoring system
- Electrical control switching panel
- 24 volt chamber power systems (x 2)

Power Distribution Van

Essential Power
- Primary: 200kw, 480v, 3 phase
- Supports:
  - Dive/SAT Van, ECU Van
  - LARS HPU
  - 5120 dive compressor, CAT pump
  - Raw water system

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

System Requirements
- Electric Power: 350kw, 480v, 60Hz
- Compressed Air: 120cfm, 110psi
- Seawater: 75gpm
- Freshwater: 3gpm
  - Back-up: 200kw, 480v, 3 phase

System Gas Reclaim
Scrubs and reprocess system gas to usable chamber gas for medlocks, equipment lock, bell trunk, etc.

Supporting Equipment
- Dive Locker
- Spares Van
  - Electric immersion hot water unit (90kva)
- Deck leads for electrical and gas
### SATURATION SYSTEM III DIMENSIONS

<table>
<thead>
<tr>
<th>Component</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Living Chamber</td>
<td>25 ft</td>
<td>9 ft 10 in</td>
<td>9 ft 10 in</td>
<td>56,000 lbs</td>
</tr>
<tr>
<td>Transfer Lock</td>
<td>7 ft 5 in</td>
<td>8 ft 6 in</td>
<td>9 ft 1 in</td>
<td>14,000 lbs</td>
</tr>
<tr>
<td>Hyperbaric Rescue Chamber</td>
<td>15 ft</td>
<td>9 ft 8 in</td>
<td>9 ft</td>
<td>17,000 lbs</td>
</tr>
<tr>
<td>Dive Bell</td>
<td>9 ft</td>
<td>8 ft</td>
<td>11 ft 6 in</td>
<td>14,000 lbs</td>
</tr>
<tr>
<td>LARS Winch &amp; Platform</td>
<td>11 ft</td>
<td>7 ft 6 in</td>
<td>7 ft</td>
<td>20,000 lbs</td>
</tr>
<tr>
<td>Dive/Saturation Control Van</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>13,000 lbs</td>
</tr>
<tr>
<td>Environmental Control Unit</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>13,600 lbs</td>
</tr>
<tr>
<td>Diver Reclaim Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>6,500 lbs</td>
</tr>
<tr>
<td>Power Distribution Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>7,000 lbs</td>
</tr>
<tr>
<td>System Reclaim Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>9,000 lbs</td>
</tr>
<tr>
<td>Tool Van</td>
<td>20 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>16,500 lbs</td>
</tr>
<tr>
<td>Gas Transfer Van</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>9,500 lbs</td>
</tr>
<tr>
<td>Electric Diver Hot Water Unit</td>
<td>5 ft 5 in</td>
<td>4 ft 6 in</td>
<td>6 ft 3 in</td>
<td>2,000 lbs</td>
</tr>
</tbody>
</table>

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