Oceaneering International, Inc. can perform underwater intervention tasks at any working depth. We offer surface supplied diving to 300 ft, saturation diving to 1,000 ft, WASP Atmospheric Diving Systems (ADS) to 2,300 ft, or remotely operated vehicle (ROV) technologies to 25,000 ft. Experienced offshore personnel will first evaluate your workscope and then recommend the most effective solution for your application. When specified, the WASP Atmospheric Diving System (ADS) offers distinct advantages for intervention work, such as:

**Presence** – WASP puts the creative problem-solving abilities of veteran divers directly at the subsea worksite.

**Versatility** - A one-man submersible with unique intervention capabilities to 2,300 fsw

**WASP workscopes include:**
- Inspection, Maintenance and Repair Tasks of Platforms, Subsea Facilities, & Pipelines
- Riser & Pull Tube Installation
- Subsea Tree Installations
- Subsea Tree Intervention

**Training** - Maintaining an onsite training pool realistically prepares operators for a variety of common underwater tasks.

**Compact Size** – The WASP system is the smallest, high capacity intervention method available. The one atmosphere environment offers flexibility, efficiency, value and dexterity.
WASP ATMOSPHERIC DIVING SYSTEM

**Principle Dimensions**
- Overall Height: 84 in
- Width – Front: 42 in
- Width – Side: 32 in
- Weight with Operator: In air 2200 lbs
  In Water Neutrally Buoyant (with in-water adjustment)
- Deck Wasp Support Frame: 66 in X 70 in

**Standard Weights and Dimensions**

<table>
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<tr>
<th></th>
<th>Len.</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Hiab Sea Crane</td>
<td>8 ft</td>
<td>5 ft</td>
<td>10 ft</td>
<td>9,000 lbs</td>
</tr>
<tr>
<td>Electro/Hydraulic series 4 winch</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>23,000 lbs</td>
</tr>
<tr>
<td>WASP</td>
<td>7 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>2,000 lbs</td>
</tr>
<tr>
<td>Gas Quad O/2</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>2,400 lbs</td>
</tr>
<tr>
<td>Gas Quad Air</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>2,400 lbs</td>
</tr>
<tr>
<td>Control Van</td>
<td>16 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>11,000 lbs</td>
</tr>
<tr>
<td>Control Workshop</td>
<td>16 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>15,000 lbs</td>
</tr>
<tr>
<td>Spares Container</td>
<td>10 ft</td>
<td>8 ft</td>
<td>8 ft</td>
<td>2,400 lbs</td>
</tr>
</tbody>
</table>

**Life Support / Safety Systems**
- Oxygen re-circulation with power scrubber, with manual back-up
- Life Support Duration: Up to 72 hours

**Safety Emergency Equipment:**
- Flashing Beacon
- Oral / Nasal mask for Life Support system in event of power failure
- Tracker/ Locator Pinger
- Ballast Jettison for Emergency Ascent
- Emergency on board battery supply for 20 minutes at half power
- Lifting cable jettison facility

**Hull**
- Hull Material: Laminated glass reinforced plastic, (GPR) and aluminum
- Hemispherical dome: 360° view capability
- Lloyd’s certified Depth Rating: 2,300 ft
- Buoyancy: Compressed air variable system from neutral to + 35 lbs

**Communications (Audio Systems)**
- Wire line Through-Water
- VHF Radio Communications on surface

**Deployment Systems**
- Umbilical comprises a 22 mm diameter cable having a breaking strength of 32,000 lbs: fed from a single drum, two speed, fail-safe hydraulic winch; powered by a remote 75 hp electric-motor-driven hydraulic power pack
- Articulated Sea Crane

**Power**
- Umbilical supply is 415 V AC. This is converted and rectified at the ADS to:
  - 40 V, 60 V and 80 V for thrusters
  - 12 V, 24 V and 30 V for other services

**Propulsion**
- Four Electrical Thrusters:
  - 2 Vertical
  - 2 Horizontal
  - Foot Switch Operated

**Video Systems**
- Monochrome or CCD Color Camera
- Compatible with silicon intensified target (SIT)
- camera systems

**Limbs / Manipulators**
- Aluminum construction fully articulated, fluid-supported flexible arms with direct acting manipulators.