15k Intervention Riser System
A cost-effective alternative for HP well access
The **15ksi Intervention Riser System (IRS)** can be utilized for wireline intervention, production logging, coiled-tubing operations, well stimulation and full plug and abandonment operations.

The Helix 15k Intervention Riser System (IRS) allows the Helix Well Ops vessels to respond quickly to subsea well intervention needs as a cost-effective alternative to a drilling rig. The IRS can be used to address loss of production or other emergency intervention needs using standard tooling and procedures.

The IRS enables access to both vertical and horizontal subsea trees in water depths down to 10,000 ft. Our IRS system combines rapid response with maximum operational flexibility to meet the specific intervention needs of high rate producing deepwater subsea assets.

All required through-tubing subsea well operations can be safely serviced with the IRS, with multi-disciplinary operations being conducted in a single mobilization.

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**Experience**
Over 300 subsea wells intervened up from Helix vessels and third party MODUs. Used for all levels of intervention from wireline runs to coiled tubing operations.

**Innovation**
Three generations of riser-based well access systems, including the first 15k psi rental system available globally through the Subsea Services Alliance.

**Value**
Fast deployment and interface with any type of vertical or horizontal tree results in subsea well access with full circulation capability, faster and more efficiently than a BOP and marine riser.
**15k IRS Specifications (Subsea Services Alliance)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td><strong>Bore Diameter</strong></td>
<td>6-3/8 in HH-NL production, 2-1/16 in DD-NL annulus</td>
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<tr>
<td><strong>Working Pressure</strong></td>
<td>15,000 psi</td>
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<tr>
<td><strong>Maximum Working Depth (MWD)</strong></td>
<td>10,000 ft (3,048 m)</td>
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<tr>
<td><strong>Control System</strong></td>
<td>Multiplexed (MUX) with integrated redundancy via High-Integrity Pressure Protection System (HIPPS)</td>
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<tr>
<td><strong>Maximum EDP Disconnect Angle</strong></td>
<td>18 degrees</td>
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<tr>
<td><strong>Weight</strong></td>
<td>290,000 lb subsea package</td>
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<tr>
<td><strong>Well Barrier Type</strong></td>
<td>3 x 6-3/8 in hydraulic cutting gate valve (RTV, USV &amp; LSV), 6 x annulus 2-1/16 in failsafe-closed gate valves (AAV1, AAV2, XOV3, FIV1, EXV), 1 x 7-1/16 hydraulic cutting ram (Safety Head)</td>
</tr>
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**Proven cut capability**

- **Retainer Valve**: Slickline / braided line / electric line
- **Upper Shear Valve**: Slickline / braided line / electric line
- **Lower Shear Valve**: Coiled Tubing 2 in x .224 in Wall 144.5 ksi YS c/w .331 cable and Draka Incoloy tube inside, Slickline/Braided line / Electric Line
- **Safety Head**: Coiled Tubing 2 in x .224 in Wall 144.5 ksi YS c/w .331 cable and Draka Incoloy tube inside, Slickline/Braided line / Electric Line

**15k Surface flowhead specifications**

- **Maximum Through Bore Diameter**: 6-3/8 production
- **Maximum Working Pressure (MWP)**: 15,000 psi

**Applications**

- Coiled tubing, electric line, slickline operations
- Cementing operations
- Well abandonment
- Tree change outs
- Acid stimulations

**Client Interface**

- **Pass Through Tree Function Lines**
  - 19 Hydraulic Control lines
  - 3 x 15,000 psi lines
  - 16 x 5,000 psi lines
  - 2 Electrical Control lines

**Subsea Tree Interface**

- Stringers are designed to interface Horizontal Tubing Hangers or internal tree cap profiles. Lower flange able to interface dual bore or monobore Vertical tree hydraulic connectors.

**About the Subsea Services Alliance**

The Subsea Services Alliance combines the expertise and capabilities of Helix Energy Solutions and Schlumberger to form an advanced subsea well construction, intervention, and decommissioning portfolio: including marine support, well services, project management, and subsea well access and control.

Schlumberger technology segments provide a complete offering of intervention and completion running technologies, and are joined by OneSubsea, a Schlumberger company, for subsea production systems.

Helix contributes marine support, operational expertise, and project management capability.

Eliminating the need to use drilling rigs for support, the Alliance commands vessels that can handle well commissioning, intervention, artificial lift, and abandonment services.