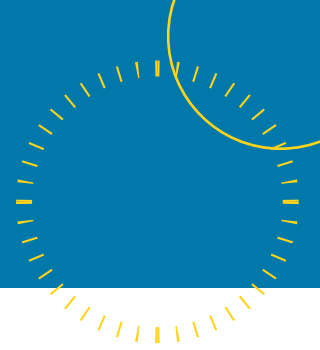


INTERVENTOR™

SUBSEA SERVICE INTERVENTION LINE



With the current industry focus on increasing production efficiency, maximising economic recovery and reducing overall costs, Hydrasun has developed a load bearing flexible hose solution for subsea applications.

The Hydrasun Interventor™ solution delivers significant operational, technical and cost efficiency advantages over traditional methods of surface to subsea fluid delivery. Applications include well intervention, pipeline commissioning and emergency response.

Our focus on the development of Interventor™ means that we can deliver real added value to our customers in the following areas:

Operational efficiency, reliability & safety

- Load bearing and lightweight leading to comparative ease, speed and safety of deployment through the flexible not having to be clamped to a tensile member
- Reduced equipment requirements thus supporting operational risk mitigation
- Superior fatigue resistance compared to other flexible conduit systems enabling high utilisation during campaigns and longer service life
- No metallic components in flexible so no corrosion issues

Cost Reduction

- Competitive product cost
- Small minimum bend radius and lightweight leads to wider choice of vessels of opportunity to select from
- Reduced equipment spread and associated deck space
- Reduced crane capacity requirements
- "Non-specialist" crew required for operation

Delivery

- Available in short lead times



Additional technical details can be found overleaf.

INTERVENTOR™

SUBSEA SERVICE INTERVENTION LINE

Description

Lightweight, flexible service intervention line with load carrying capability, generally in accordance with ISO 13628-5/API 17E.

Size

- Inside Diameter: 2" (50.5mm)
- Outside Diameter: 3.15" (80mm)

Pressure Ratings

- Working Pressure: 5000psi
- Test Pressure: 7500psi

Bend Radius

- Storage - 635mm (25")
- Operational - 956mm (38")

Construction

- Core Liner: PA11
- Reinforcement: Aramid fibre
- Outer Sheath: Polyurethane
- Available in up to 750m lengths

Temperatures

- Service Temperature Range: -40°C to 72°C

Weight

- 3.29kg/m (2.21lb/ft) in air unfilled
- 5.38kg/m (3.62lb/ft) in air filled with seawater
- -1.88kg/m (-1.26lb/ft) in seawater unfilled
- 0.20/kg/m (0.13lb/ft) in seawater filled with seawater

Load Bearing Performance

- Minimum failure load @ zero internal pressure - 56kN (12,590lbs)
- Minimum failure load @ Working Pressure - 101kN (22,706lbs)

End Terminations

- To suit client requirements:
 - API and NORSOK flanges, hubs, duoseal couplings, hammer lug unions, etc.
- Materials – 316SS or super duplex

End Termination Accessories

- End caps, plugs and flange protectors to suit

Complementary Interventor™ System Options

Hydrasun can offer an extensive range of associated products & services to support our Interventor™ flexible line development. These include the following:

- *Hose Section Joiner* – cardanic flexible joint to maintain bend radius at hose joints
- *Breakaway Couplings*
- *Bend Support Products* – bend stiffeners & bend restrictors with flanged connections
- *Other Accessories* – containment grips.
- *Reeler Systems* – to suit storage, transit and operational needs of the customer including storage cradles, lifting beams and deployment reels
- *Re-certification Service* – including Interventor™ inspection and re-test, cardanic joint and breakaway coupling inspection and test

