OCEANEERING®

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HiPerFlex Hoses

Raising the bar in reliability and efficiency

Our industry-leading high pressure thermoplastic hose portfolio meets customer requirements for flexible, highly collapse resistant solutions with larger bore sizes capable of operating at 10,000 psi.

As hydrocarbon reserves are increasingly being discovered and developed at high well pressures in deep water, HiPerFlex hoses are the necessary conduits for control and injection applications.

Our hoses deliver cost savings, are highly flexible for ease of handling and installation, and feature an optimized lightweight construction.

FEATURES

Lower cost to alternative solutions

Increased reliability and flow rate

Pressure rated to 10k psi with bore sizes up to 2 inches

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HiPerFlex Hoses

Oceaneering has invested in machinery, processes, design technology, and associated qualification test equipment required to deliver the HiPerFlex hoses to the market. Our cutting-edge hoses provide increased control and reliability to meet the high pressure requirements of deepwater applications including:

- Chemical injection: hydrates, corrosion, scale inhibition, etc.
- Control capabilities: subsea valve actuation
- Venting and service functions: large bore and high pressure combinations

HiPerFlex Hoses offer the industry's first 10k psi thermoplastic solution and provide the customer with cost-efficient solutions and additional options when completing operations. The hoses can be included in hydraulic flying leads, jumpers, control/integrated service umbilicals, or can function as dedicated single annulus or service lines. Advantages of using the hoses are substantial.

- Functionality at higher pressures, overcoming a previously existing 7.5k psi barrier
- Our simple, proven system concepts increase reliability and control through elimination of multiple-line requirements and/or subsea pressure intensification
- Ability to eliminate the requirement for multiple small-bore lines or high pressure drops when using smaller bore 10k psi rated lines
- Provides a flexible solution advantageous for manufacturing, stowage, handling, and installation (lower installation loads, lower ROV demands, less rigid for ease of making connections)
- Optimized weight with positive implications for storage, transport, handling, installation, and operation

Designation	HiPerFlex 8	HiPerFlex 16	HiPerFlex 20	HiPerFlex Ultra 32
Part Number	8P10 HCR	16P10 HCR	20P10 HCR	32P10 HCR
Nominal bore	½ in	1 in	1.25 in	2 in
DWP	10k psi	10k psi	10k psi	10k psi
Minimum burst ratio	4:1	3:1	3:1	3:1
Nominal burst	46k psi	32.5k psi	36k psi	30k psi
Minimum collapse performance rating (completely vacated)	9,843 ft / 3,000 m	8,202 ft / 2,500 m or 9,843 ft / 3,000 m options		
Volumetric expansion at design working pressure (DWP)	26%	21.5%	26.4%	23%* (estimated)
Impulse test	@1.33 x working pressure @ 131°F / 55°C for min. of 200,000 cycles	@1.05 x working pressure @ 131°F / 55°C for min. of 200,000 cycles	@1.05 x working pressure @ 131°F / 55°C for min. of 200,000 cycles	@1.05 x working pressure @ 131°F / 55°C for min. of 50,000 cycles *
Slimline outer diameter	1.14 in / 29 mm	1.96 in / 49.8 mm	2.45 in / 62.3 mm	3.35 in / 85 mm
MBR	14.37 in / 365 mm	25.08 in / 637 mm	31.50 in / 800 mm	49 in / 1,250 mm
Carcass	Flexible interlock in 316L stainless steel (other material options available)			
Core tube	Nylon 11 TLO (fluoropolymer and low permeation liner options available)			
Reinforcement (Kevlar®)	Two layers	Two layers	Three layers	Four layers
Outer jacket polymer	High-performance yellow PermaLiner			
Pressure compensation	Layers vented for pressure balance in deep water			
End fitting interface options	Oceaneering® Grayloc® connector, Autoclave, API RTJ flange, Hammer union, others (maintainable, removable, and replaceable offshore)			
End fitting material options	316L stainless steel, duplex, super duplex, Monel 400, Inconel 625			

*Currently under validation