

// Intervention Riser System

Cost-effective solution for riser-based subsea well access



Maximum working pressure:
Up to 15,000 psi [103 MPa]



Maximum operating depth:
10,000 ft [3,000 m]

Applications

Subsea Services Alliance developed its intervention riser system for wireline (electric line or slickline) intervention, production logging, coiled tubing operations, cementing, well stimulation, tree changeouts, and full plug and abandon operations in subsea wells.

The system streamlines well entry with wireline or coiled tubing and well control in water depths up to 10,000 ft.

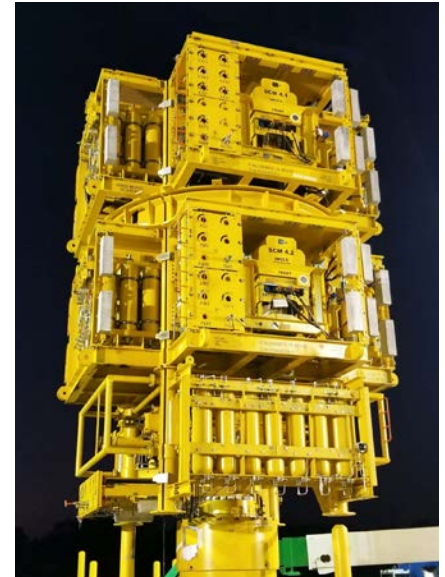
How it improves wells

The technology enables quick response to subsea well intervention requirements via a Helix Energy Solutions well

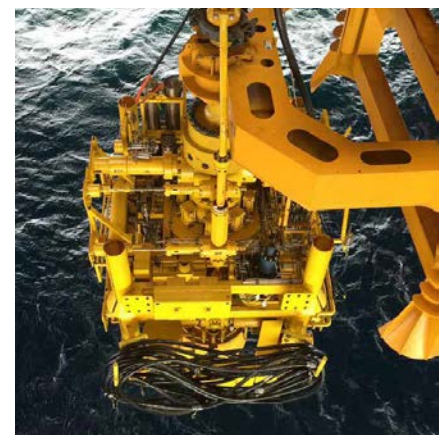
intervention vessel, which provides a cost-effective alternative to a drilling rig.

Fast deployment and the ability to interface with both vertical and horizontal subsea trees are some of the advantages of this high-pressure riser. It enables subsea well access with full circulation capability and greater speed and efficiency compared with using a BOP and marine riser.

The intervention riser system combines rapid response with maximum operational flexibility to meet the specific intervention needs of high-rate deepwater subsea wells. It can be used to address loss of production or other emergencies requiring intervention, using standard tooling and procedures. All through-tubing operations can be accommodated and multidisciplinary operations conducted in a single mobilization.



15,000-psi intervention riser system.



10,000-psi intervention riser system.

Intervention Riser System Specifications

		10,000-psi System	15,000-psi System
Intervention riser system			
Maximum bore diameter	Production	7 ³ / ₁₆ in	6 ³ / ₁₆ in
	Annulus	2 ¹ / ₁₆ in	2 ¹ / ₁₆ in
Maximum working pressure		10,000 psi	15,000 psi
Weight	Subsea package	Up to 163,800 lbm	290,000 lbm
Well barrier type		Fail-safe-closed dual shearing and sealing barriers	Fail-safe-closed dual shearing and sealing barriers
		Fail-safe-closed annulus valves to provide access between barriers and permit circulation	Fail-safe-closed annulus valves to provide access between barriers and permit circulation
Control system		Dual multiplex control system with integrated redundancy via high-integrity pressure protection system (HIPPS)	Dual multiplex control system with integrated redundancy via HIPPS
		Secondary control system that provides emergency disconnect functionality	
Temperature range		0 to 250 degF [-18 to 121 degC]	35 to 300 degF [1.7 to 149 degC]
Maximum EDP [†] disconnect angle		18°	18°

Intervention Riser System Specifications (continued)			
		10,000-psi System	15,000-psi System
Proven cut capability			
Retainer valve		Slickline, braided line, or electric line	Slickline, braided line, or electric line
Upper cutting valve		Slickline, braided line, or electric line	Slickline, braided line, or electric line
Lower cutting valve		2-in × 0.203-in, 151,000-psi yield strength coiled tubing, coiled with 5/16-in logging cable	2-in × 0.224-in, 144,500-psi yield strength coiled tubing, coiled with 0.331 cable and Draka INCOLOY® tube inside
		Slickline, braided line, or electric line	Slickline, braided line, or electric line
Safety head		2-in × 0.224-in, 144,500-psi yield strength coiled tubing, coiled with 0.331 cable and Draka INCOLOY tube inside	2-in × 0.224-in, 144,500-psi yield strength coiled tubing, coiled with 0.331 cable and Draka INCOLOY tube inside
		Slickline, braided line, or electric line	Slickline, braided line, or electric line
		NORSOK standard D-002 compliant	NORSOK standard D-002 compliant
Customer interface			
Pass-through tree function lines		Available	Available
Subsea tree interface		Stingers are designed to interface horizontal tubing hangers or internal tree cap profiles. Lower quick-makeup connector is able to interface dual-bore or monobore vertical tree hydraulic connectors.	Stingers are designed to interface horizontal tubing hangers or internal tree cap profiles. Lower flange is able to interface dual-bore or monobore vertical tree hydraulic connectors.
Surface flowhead			
Maximum throughbore diameter	Production	7 3/8 in	6 3/8 in
	Wings	5 1/8 in	4 1/16 in
Maximum working pressure		10,000 psi	15,000 psi

All specifications are subject to change without notice.

†Emergency disconnect package