

Subsea Intervention Riser System (I.R.S.): Specifications

Maximum through bore diameter:	7-3/8" Production 2" Annulus line						
Maximum Working Pressure (MWP):	10,000psi						
Maximum Working Depth (MWD):	5,000ft (existing system with hydraulic control) 10,000ft (MUCS control; future option)						
Hydraulics Operating Pressure:	2,500 psi operational (3,000 psi max)						
Weight:	110,000 lbs (Subsea Package) 12,760 lbs (HPU)						
Footprint:	147" (l) x 124" (w) x 90" (h) (EDP) 155" (l) x 120" (w) x 160" (h) (LRP) 79" (w) (Stress Joint) 60" (dia) x 76" (h) (Spool & Tree Connector) 155" (l) x 124" (w) x 333" (h) (Complete Stack-up)						
Well Barrier Type:	1 x 7 3/8" Hydraulic cutting gate valve (LCV) 2 x 7 3/8" Spring-assist fail-safe-closed gate valves (UCV & RTV) 3 x annular 2-1/16" Failsafe-closed gate valves						
Proven Cut Capability:	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Retainer Valve:</td> <td>Slickline / Braided line / Electric line</td> </tr> <tr> <td>Upper Cutting Valve:</td> <td>Slickline / Braided line / Electric line</td> </tr> <tr> <td>Lower Cutting Valve:</td> <td>2-7/8" Coiled tubing, 2" bar (low pressure seal), Slickline / Braided line / Electric line</td> </tr> </table>	Retainer Valve:	Slickline / Braided line / Electric line	Upper Cutting Valve:	Slickline / Braided line / Electric line	Lower Cutting Valve:	2-7/8" Coiled tubing, 2" bar (low pressure seal), Slickline / Braided line / Electric line
Retainer Valve:	Slickline / Braided line / Electric line						
Upper Cutting Valve:	Slickline / Braided line / Electric line						
Lower Cutting Valve:	2-7/8" Coiled tubing, 2" bar (low pressure seal), Slickline / Braided line / Electric line						
ROV Manual Override Capability:	All 7-3/8" hydraulic gate valves (production) All 2-1/16" hydraulic gate valves (annular)						
ROV Hydraulic Override Capability:	EDP Connector Lock EDP Connector Unlock Tree Connector Lock Tree Connector Unlock Lower Cut Valve Open Lower Cut Valve Close						
Subsea Tree Interface Details:	Stinger inserts are designed to match x-mas tree internal profiles						
Subsea Tree Compatibility:	Horizontal or Vertical						



Surface Flowhead: Specifications

Maximum through bore diameter:	7-3/8" Production 3-1/16" wing
Maximum Working Pressure (MWP):	10,000psi
Hydraulics Operating Pressure:	2,500 psi operational (3,000 psi max)
Weight:	
Footprint:	64" (l) x 102" (w) x 102" (b)
Well Barrier Type:	2 x 7 3/8" Hydraulic gate valve 2 x 3 1/16" Spring-assist fail-safe-closed gate valves
Proven Cut Capability:	None (Can be incorporated if required for Slickline / Braided line / Electric line in SWAB valve on new equipment)
Manual Override:	Installed on the 3 1/16" Spring-assist fail-safe-closed gate valves Capable on all Valves
Applicable Uses:	Coiled tubing, electric line, Slickline operations Cementing operations Well abandonment's Tree change outs
Hydraulic Fluid Type:	HW540 (environmentally friendly)
Integral Swivel:	
Load rating:	300,000 lbs at 10,000psi 600,000 lbs at 0psi
Connections:	10 1/8" 4 acme 2G RH box (top & bottom) 3 1/16" 10M API 16BX hub (wings) (Can be crossed over to customer requirements)

Choke Manifold: Specifications

Maximum Working Pressure (MWP):	10,000psi
Hydraulics Operating Pressure:	2,500 psi operational (3,000 psi max)
Weight:	13000lbs
Footprint:	132" (l) x 90" (h) x 66" (b)
Barrier Type:	8 off 3 1/16" 10,000psi manual gate valves 1 Off 3 1/16" 10,000psi failsafe close gate valve 2 Off 3 1/16" 10,000psi chokes (can be man. or hyd.)
Bore:	3 1/16"
Inlets/outlets:	2 off 3 1/16" 1 Off 2" 1502 hammer union gauge outlet (upstream of chokes) 1 Off 2" 1502 hammer union gauge outlet (down stream of chokes) 2 Off 9/16" autoclave gauge outlets (upstream of chokes) 1 Off 9/16" autoclave gauge outlet (down stream of chokes)

Control panel:

Footprint:	32" (l) x 48" (h) x 32" (b)
Weight:	800lbs
Power supply:	60-150psi air

Squeeze Manifold: Specifications

Maximum Working Pressure (MWP):	10,000psi
Hydraulics Operating Pressure:	2,500 psi operational (3,000 psi max)
Weight:	12000lbs
Footprint:	108" (l) x 108" (h) x 65" (b)
Barrier Type:	9 off 3 1/16" 10,000psi manual gate valves 1 Off 3 1/16" 10,000psi failsafe close gate valve
Bore:	3 1/16"
Inlets/outlets:	5 off 3 1/16" 3 Off 2" 1502 hammer union gauge outlets