

**2" 10K psi Mid Line Weak Link**

Technical Data Sheet



## 2IN 10K PSI MID LINE WEAK LINK DATA SHEET

### DESIGN BASICS

<b>Coupling Type</b>	10K psi MLWL Connector (Nominally dual valved, can be supplied with single valve or unvalved)		
<b>Coupling Size</b>	50.8mm (2.00")		
<b>Pressure Rating</b>	690 Bar (10K psi)	<b>Test Pressure</b>	1034 Bar (15K psi)
<b>Max Operating Depth</b>	3050m (10,000ft)	<b>Operating Temperature</b>	0.0°C to +60.0°C
<b>Flow Path</b>	Full bore (with 4 x 45° bends)		
<b>Design Code</b>	API 6A 17D PSL3 PR2 for Other End Connectors (OEC) – PSL3G available on request		
<b>Material Classification</b>	API material class FF, HH available in accordance with NACE MR0175		
<b>Certification Level</b>	EN 10204 3.1		
<b>Operational</b>	Passive disconnect under pressure with minimal leakage – Can be supplied with active disconnect capability		
<b>Breakout Load</b>	1 – 5 Tonne (Other options could be made available)		
<b>Mounting</b>	Vertical or horizontal		
<b>Installation</b>	Typically mounted between 2 flexible fluid conduits in order create a mid-line weak link		
<b>End Constraint</b>	Floated tension pin mechanism		
<b>Fluid Loss On Break</b>	≈ 4 litres		
<b>Design Life</b>	25 years (metallic components)		
<b>Additional Options</b>	Swivel options available at either end of connector. Various deployment/locking/tethering options available. Protection jacket.		

### PERFORMANCE

<b>Max. Bending Moment</b>	1400 Nm	<b>Maximum Torque</b>	2250 Nm
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### BASIC WEIGHT AND DIMENSIONS

<b>Connected dimensions</b>	1150mm (L) x 334mm (H) x 212mm (W)	<b>Disconnected dimensions</b>	1450mm (L) x 334mm (H) x 212mm (W)
<b>Weight in air</b>	140kg		

### CONNECTION DETAILS

<b>Inlet Connection</b>	Grayloc B20 Hub (also available: Techlok Hub, API Flange, Hammer Unions & other end connections)
<b>Outlet Connection</b>	Grayloc B20 Hub (also available: Techlok Hub, API Flange, Hammer Unions & other end connections)

### MATERIALS

<b>Body</b>	Super Duplex 32760	<b>Elastomeric Seals</b>	HNBR (FKM or FFKM available)
<b>Probes</b>	Inconel 6A718	<b>Bolting (Studs)</b>	A4 Stainless Steel
<b>Sleeves</b>	Super Duplex 32760	<b>Bolting (Nuts)</b>	A4 Stainless Steel
<b>Non Pressure Bearing</b>	Stainless Steel 316		

### TESTING REQUIREMENTS

<b>Pressure Test</b>	API 6A PSL3	<b>Impact Testing</b>	ASTM A370
<b>Qualification Test</b>	API 6A PR2 (OEC)	<b>Hardness Testing</b>	ASTME10 / ASTME18
<b>Ultrasonic</b>	API 6A PSL3	<b>Magnetic Particle</b>	API 6A PSL 3
<b>Dye Penetrant</b>	API 6A PSL3	<b>Radiography</b>	As Required (weld)
<b>Corrosion Testing</b>	ASTM G48 Method A		

### WITNESS REQUIREMENTS

<b>Customer Witness</b>	Available	<b>Third Party Witness</b>	Available at additional cost
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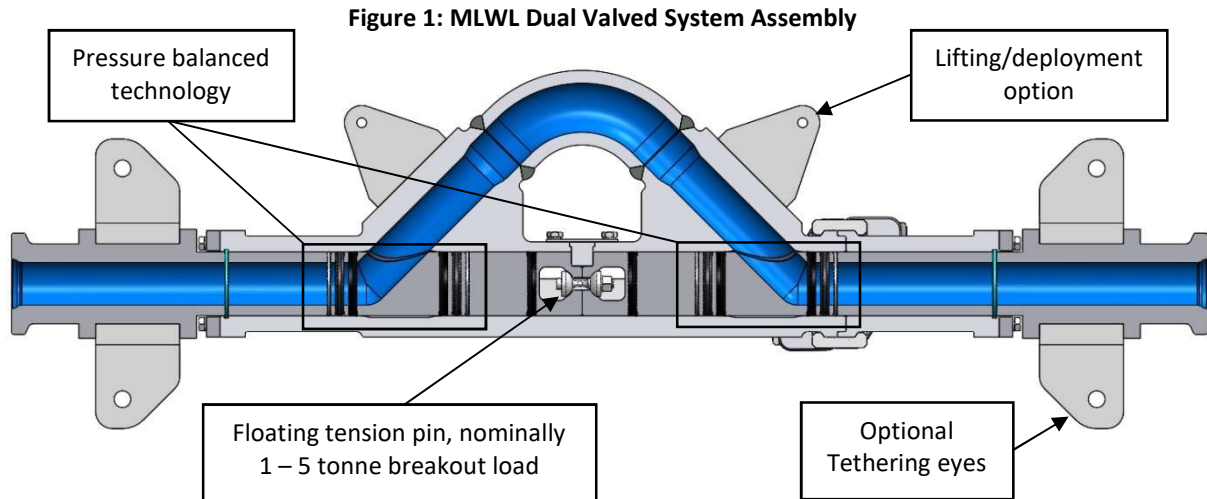
### PAINTING REQUIREMENTS

<b>Painting Specification</b>	None	<b>Colour</b>	N/A
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### NOTES / ADDITIONAL REQUIREMENTS

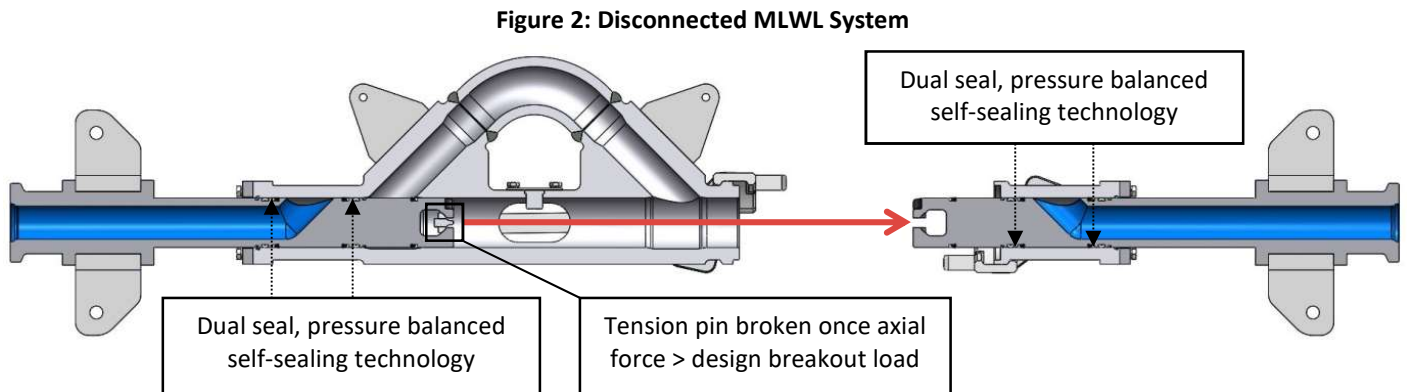
*These figures are based on known and estimated data. Secc reserves the right to change specifications without notice*

The Mid Line Weak Link is a full-bore, pressure-balanced connector, positioned midway along the fluid conduit. It is designed to break away in an emergency, automatically sealing the bore. This system prevents fluid loss to the marine environment. It also protects personnel and equipment from an uncontrolled disconnect and the impact of dangerous loads.



Secc's MLWL employs a floated tension pin mounted outside of the flow path. Floating the tension pin protects it from bending and torsional loads generated during operation. Being outside of the flow path protects the pin from forces generated from flow or pressure fluctuations.

The MLWL emergency quick disconnect is designed to break only when an external axial pull is applied. The tension pin can be accurately matched to a desired break load. The fatigue free design eliminates uncontrolled actuation and premature disconnection.



Secc's new protection jacket offers complete safeguarding of the connector during installation, operation and recovery; whilst also allowing for unrestricted access to end-connections, lifting points, and inspection of the tension pin mechanism without removal.