

Secc



2" 15,000 psi MidLine Weak Link Technical Datasheet

 **CYGNET GROUP
COMPANY**

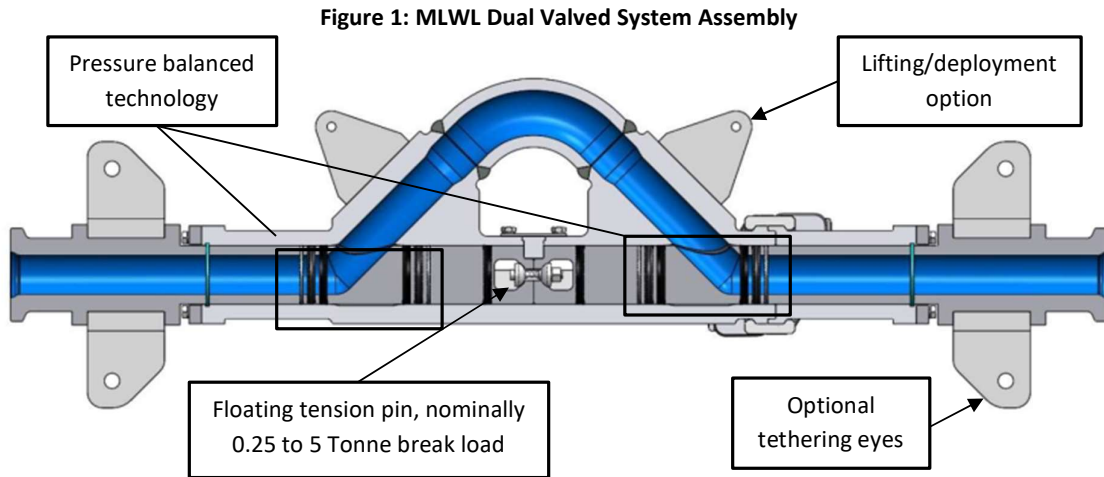
2" 15,000 psi MidLine Weak Link Datasheet

DESIGN BASICS			
Coupling Type	15,000 psi MLWL Connector (Valved)		
Coupling Size	2" NB (47 mm)		
Pressure Rating	15,000 psi (1034 Bar)	Test Pressure	22,500 psi (1551 Bar)
Max Operating Depth	10,000 ft (3048 m)	Operating Temperature	0.0°C to +60.0°C
Flow Path	Full bore HIGHFLOW 90° elbow		
Design Code	API 6A & API 17D PSL 3 PR2 for Other End Connectors (OEC) – PSL 3G available on request		
Material Classification	API material class FF in accordance with NACE MR0175. HH class also available		
Quality Assurance	ISO 9001:2015 and full traceability		
Certification Level	EN 10204 3.1 (EN 10204 3.2 available on request)		
Operational	Passive		
Break Load	0.25 to 5 Tonne. Other options available		
Orientation	Horizontal or vertical		
Installation	Typically mounted between 2 flexible fluid conduits to create a mid-line weak link		
End Constraint	Floating tension pin assembly		
Spill Volume	≈ 4 litres		
Design Life	25 years (metallic components)		
Additional Options	Swivel options at either end of connector. Various deployment/locking/tethering options. Protection jacket and override actuator. Transit Protection System		
PERFORMANCE			
Max. Bending Moment	1.4 kNm *	Maximum Torque	2.25 kNm
BASIC WEIGHT AND DIMENSIONS			
Connected Dimensions	1150 mm (L) x 224 mm (W) x 339 mm (D)	Disconnected Dimensions	1450 mm (L) x 224 mm (W) x 339 mm (D)
Weight in Air	167 kg		
CONNECTION DETAILS			
Inlet Connection	Grayloc B20 Hub (also available: Techlok Hub, API Flange, Hammer Unions & other end connections)		
Outlet Connection	Grayloc B20 Hub (also available: Techlok Hub, API Flange, Hammer Unions & other end connections)		
MATERIALS			
Body	Super Duplex 32760	Elastomeric Seals	HNBR (FKM or FFKM available)
Probes	Inconel 6A718	Bolting (Studs)	A4 Stainless Steel
Sleeves	Super Duplex 32760	Bolting (Nuts)	A4 Stainless Steel
Non-Pressure Bearing	Stainless Steel 316		
TESTING REQUIREMENTS			
Pressure Test	API 6A PSL 3	Impact Testing	ASTM A370
Qualification Test	API 6A PR2 (OEC)	Hardness Testing	ASTM E10 / ASTM E18
Ultrasonic	API 6A PSL 3	Magnetic Particle	API 6A PSL 3
Dye Penetrant	API 6A PSL 3	Radiography	As required (weld)
Corrosion Testing	ASTM G48 Method A		
WITNESS REQUIREMENTS			
Customer Witness	Available on request	Third Party Witness	Available at additional cost
PAINTING REQUIREMENTS			
Painting Specification	None	Colour	N/A
NOTES / ADDITIONAL REQUIREMENTS			

*Bending moment calculated with MLWL in a fixed constraint

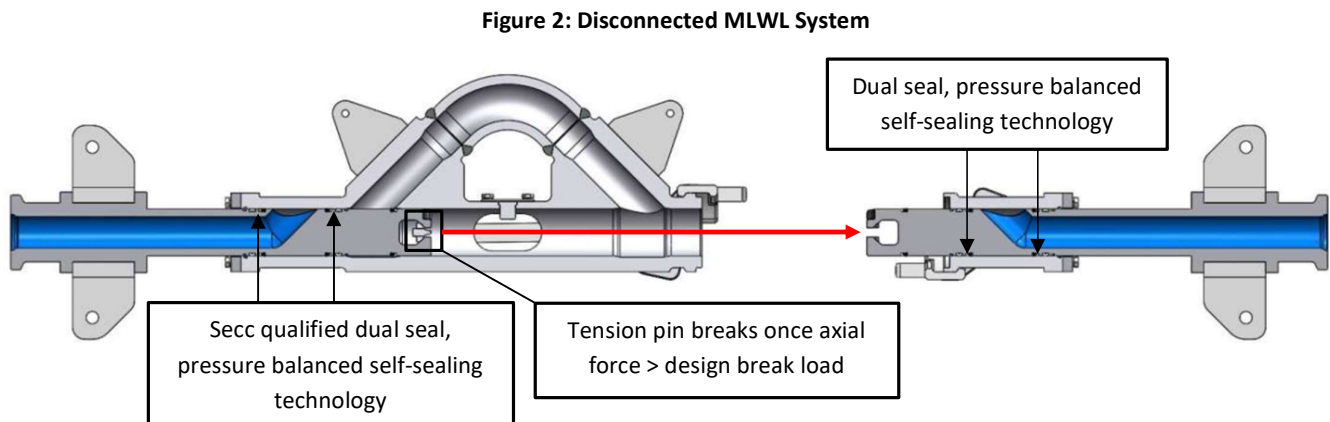
These figures are based on known and estimated data. Secc reserves the right to change specifications without notice.

The MidLine 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 MLWL employs a floating 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 protection jacket offers complete safeguarding of the MLWL during installation, operation and recovery; whilst also allowing for unrestricted access to end-connections, lifting points, and inspection of the tension pin assembly without removal.