

Secc

Oil & Gas Ltd

2" 10K psi Mid Line Weak Link

Technical Data Sheet



 **CYGNET GROUP**
COMPANY

2" 10K psi Mid Line Weak Link Data

DESIGN BASICS

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

PERFORMANCE

Max. Bending Moment	1400 Nm	Maximum Torque	2250 Nm
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BASIC WEIGHT AND DIMENSIONS

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

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

WITNESS REQUIREMENTS

Customer Witness	Available	Third Party Witness	Available at additional cost
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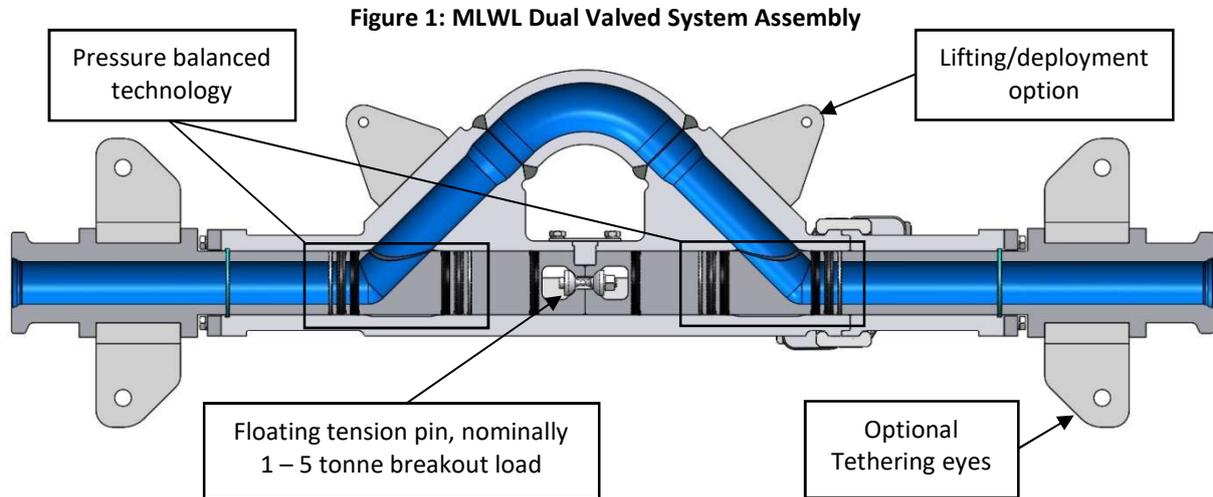
PAINTING REQUIREMENTS

Painting Specification	None	Colour	N/A
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NOTES / ADDITIONAL REQUIREMENTS

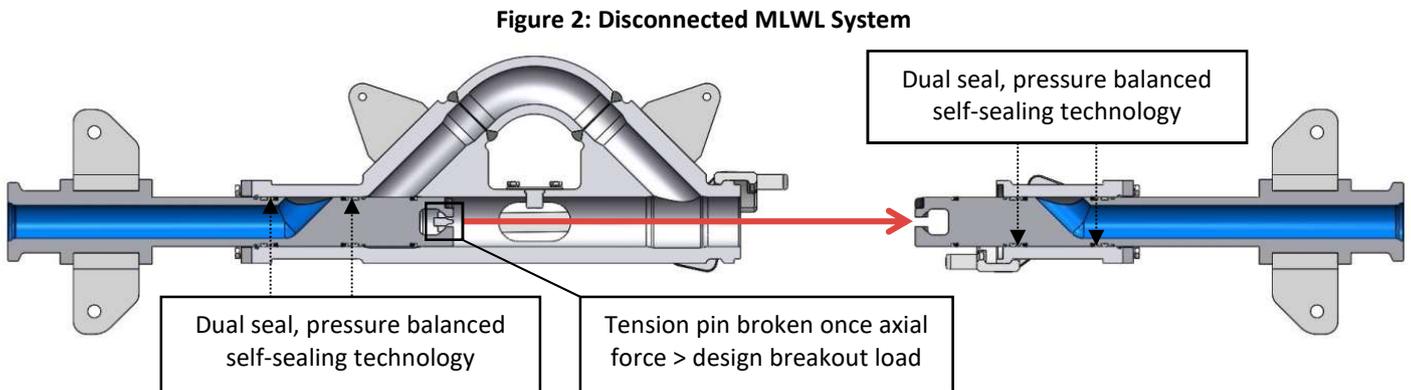
These figures are based on known and estimated data. Secc reserves the right to change specifications without notice

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.