

# Secc



**2" 10,000 psi**

**Hot Make Hot Break**

**EQD / QCDC**

**Technical Datasheet**



**CYGNET GROUP  
COMPANY**

## 2" 10,000 psi Hot Make Hot Break Datasheet

### DESIGN BASICS

<b>Coupling Type</b>	10,000 psi Hot Make Hot Break (HMHB) connector (dual valved)		
<b>Coupling Size</b>	2" NB (50.8 mm)		
<b>Pressure Rating</b>	10,000 psi (690 Bar)	<b>Test Pressure</b>	15,000 psi (1034 Bar)
<b>Max Operating Depth</b>	10,000 ft (3048 m)	<b>Operating Temperature</b>	-18°C to +121°C *(Others available)
<b>Flow Path</b>	Full bore <b>HIGHFLOW</b> 90° elbow		
<b>Design Code</b>	API 6A & 17D PSL 3 PR2 for Other End Connectors (OEC) – PSL 3G available on request		
<b>Material Classification</b>	API material class FF in accordance with NACE MR0175. HH class also available		
<b>Quality Assurance</b>	ISO 9001:2015 and full traceability		
<b>Certification Level</b>	EN 10204 3.1 (EN 10204 3.2 available on request)		
<b>Operational</b>	Quick connect and disconnect (QCDC) under pressure with zero leakage – Can be supplied with hydraulic override		
<b>Axial Load</b>	4kN at 0 psi and 40kN at 10,000 psi (Tensioning Arm/Lock available)		
<b>Orientation</b>	Vertical or horizontal. Provides both an EQD and Quick Connect/Disconnect QCDC		
<b>Installation</b>	Receptacle fixed connection. Stab via ROV grab rail (interface in accordance with ISO 13628-8)		
<b>Alignment Method</b>	Guide probes and guide funnels		
<b>Design Life</b>	25 years (metallic components)		
<b>Additional Options</b>	Swivel options at either end of connector. Various deployment/locking/tethering options. Gimbal/Turret high angle disconnect system. Hydraulic override.		

### PERFORMANCE

<b>Max. Bending Moment</b>	4 kNm	<b>Maximum Torque</b>	5 kNm (Infinite with Swivel)
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### BASIC WEIGHT AND DIMENSIONS

<b>Stab Dimensions</b>	550 mm (L) x 575 mm (W) x 320 mm (D)	<b>Receptacle Dimensions</b>	1190 mm (L) x 600 mm (W) x 320 mm (D)
<b>Connected Dimensions</b>	1330 mm (L) x 600 mm (W) x 435 mm (D)	<b>Connected Mass in Air</b>	245 kg
<b>Stab Mass</b>	50 kg	<b>Receptacle Mass</b>	195 kg

### CONNECTION DETAILS

<b>Inlet Connection</b>	Grayloc B20 Hub (other end connections available)
<b>Outlet Connection</b>	2 1/16 10K API Flange (other end connections available)

### 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 PSL 3	<b>Impact Testing</b>	ASTM A370
<b>Qualification Test</b>	API 6A 17D PR2 (OEC)	<b>Hardness Testing</b>	ASTM E10 / ASTM E18
<b>Ultrasonic</b>	API 6A PSL 3	<b>Magnetic Particle</b>	API 6A PSL 3
<b>Dye Penetrant</b>	API 6A PSL 3	<b>Radiography</b>	As required (Weld)
<b>Corrosion Testing</b>	ASTM G48 Method A		

### WITNESS REQUIREMENTS

<b>Customer Witness</b>	Available on request	<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.*

## FEATURES

- Passive EQD (hydraulic option available)
- Plug and play QCDC – Fully reconnectable subsea
- ROV, diver or winch operable
- Zero fluid loss during connection or disconnection
- Up to 10,000 psi working pressure
- Full bore – **HIGHFLOW** rates achievable
- Pressure balanced dual barrier sealing technology
- DNV qualified to API 6A 17D PSL3 PR2
- Future proofed against API 17G1/G2

### Quick Connect Disconnect (QCDC) and Emergency Quick Disconnect (EQD)

The Hot Make Hot Break is both an EQD and QCDC. It can be positioned subsea or topside and will break away mechanically if the vessel it is connected to loses dynamic positioning. It will disconnect under full working pressure with no fluid loss or line contamination, therefore delivering a high level of protection for personnel, equipment, and the environment.

### A fully valved, pressure balanced QCDC

The HMHB is designed to enable efficient pumping / transfer of fluids while providing a reliable safety system.

Figure 1: Disconnected HMHB Assembly

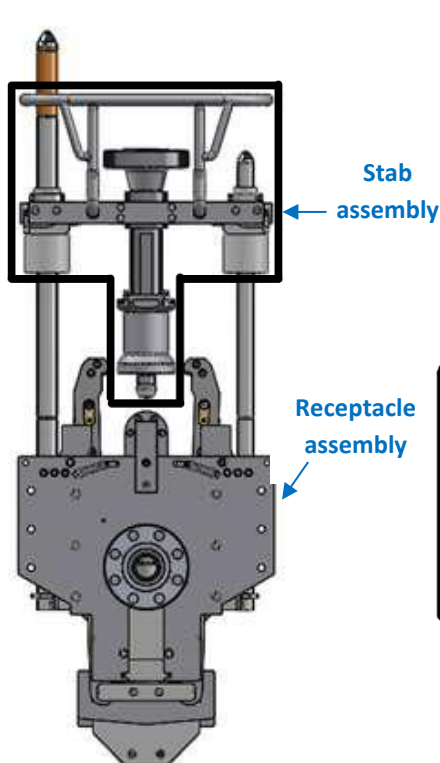


Figure 2: Connected HMHB Section View

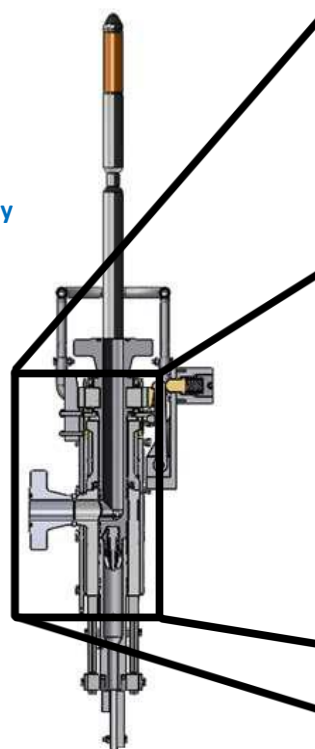


Figure 3: Connected HMHB 90° Full Bore

