



Subsea Connection Systems

Stab Plates and Quick Couplings

MCD Series Plates / DSL Series Couplings

Brochure: QCD-MCD/DSL | Feb 2017



ENGINEERING YOUR SUCCESS.

Reliability at 3000 Meters

Stab connections designed for function, engineered for life.

Parker's MCD Series Stab Plates provide maximum performance, ease of installation, long life, and a sound hydraulic connection in harsh subsea conditions.

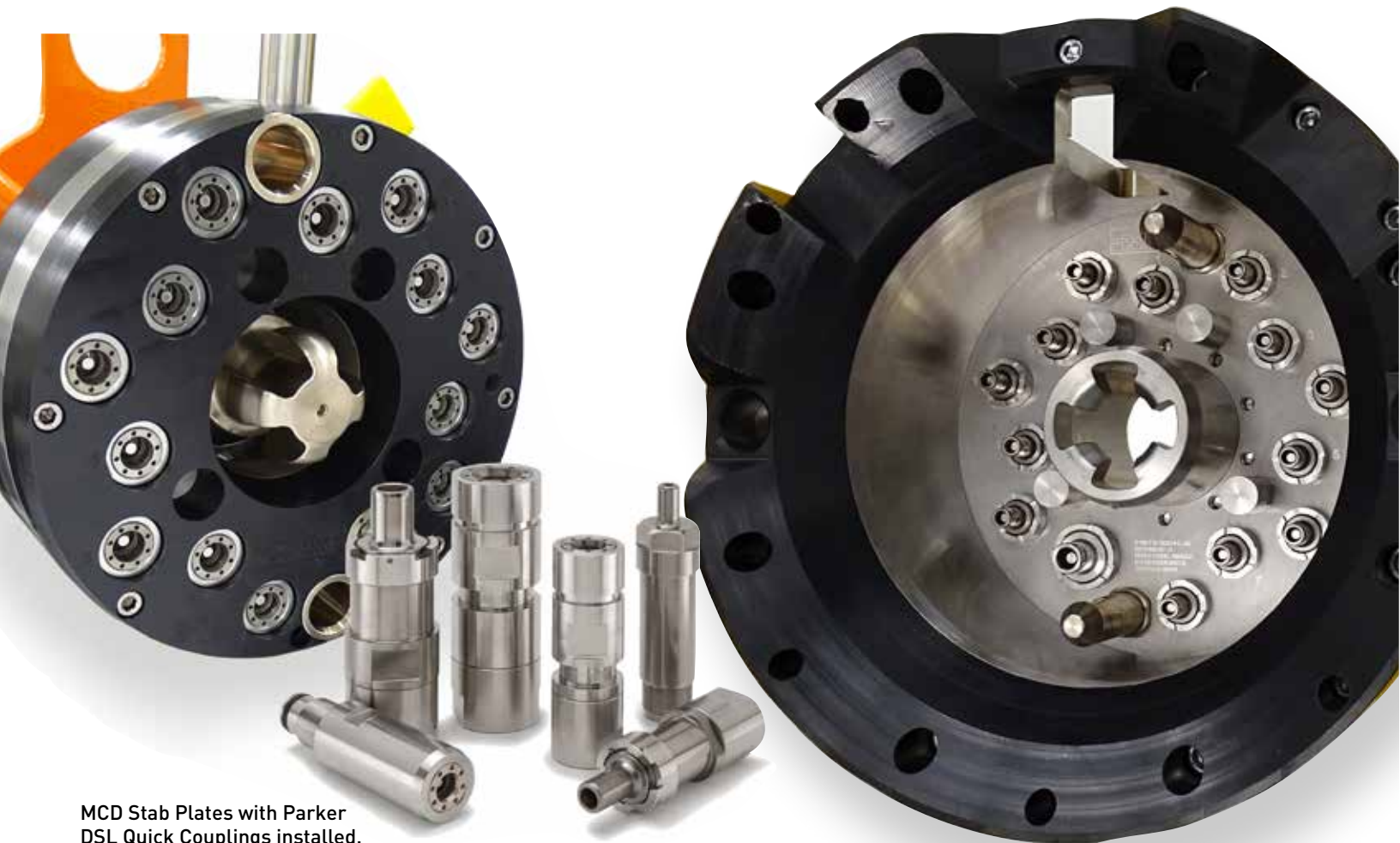
Typical applications include:

- Hydraulic flying leads (HFL)
- Christmas trees
- Subsea manifolds
- Umbilical termination assemblies (UTA)

Engineered to function under demanding conditions, MCD Series Stab Plates have been designed to handle separation loads in excess of 100,000 lbs allowing connections with all lines at 15,000 psi. A high strength locking bayonet assures the plates remain securely connected for reliable performance. With the versatility to be custom configured for each application, MCD Series Stab Plates can accommodate combinations of 1/8" to 1-1/2" quick couplings. When used with Parker's DSL Series Couplings, the MCD Series Stab Plates provide unparalleled performance and reliability.

MCD Series Stab Plates have best-in-class guiding features and are light weight for ease of handling during installation. Connection indicators are clearly visible to show the ROV pilot when a proper connection has been made. Additionally, an ROV operated secondary release is a standard feature of the MCD Series Stab Plates. A standard work class ROV equipped with a Class 4 ROV torque tool securely connects the mating plates.

Parker offers stab plates, quick couplings, termination frames and tube bundle assemblies, to provide a complete subsea hydraulic connection solution. Manufacturing strength, engineering and quality focused culture, along with global service and distribution - This is Parker.



MCD Stab Plates with Parker DSL Quick Couplings installed.

Technical Specifications

Design:

Depth	3000 meters (9842 feet)
Life	30 years
Separation Load	70,000 lbf (311 kN) at design pressure 105,000 lbf (467 kN) at proof pressure
Alignment Capability	Vertical and Lateral: +/- 75mm (3") Orientation: +/- 10 degrees Elevation: +/- 10 degrees Bearing: +/- 10 degrees
Operating Temperature	-18° C to 70° C (-0.4° F to 158° F)
Storage Temperature	-25° C to 70° C (-13° F to 158° F)
Pressures/Arrangement	15,000 psi (1034 bar) on all lines
Weight in water (without termination frame)	80 kg (176 lbs)

Materials:

Nitronic® 50HS
316L
Super Duplex
ToughMet®
Carbon Steel
Engineered Polymer

Standards:

ISO 13628 - 1 / -4 / -5 / -6 / -8
API 17 E / F / H

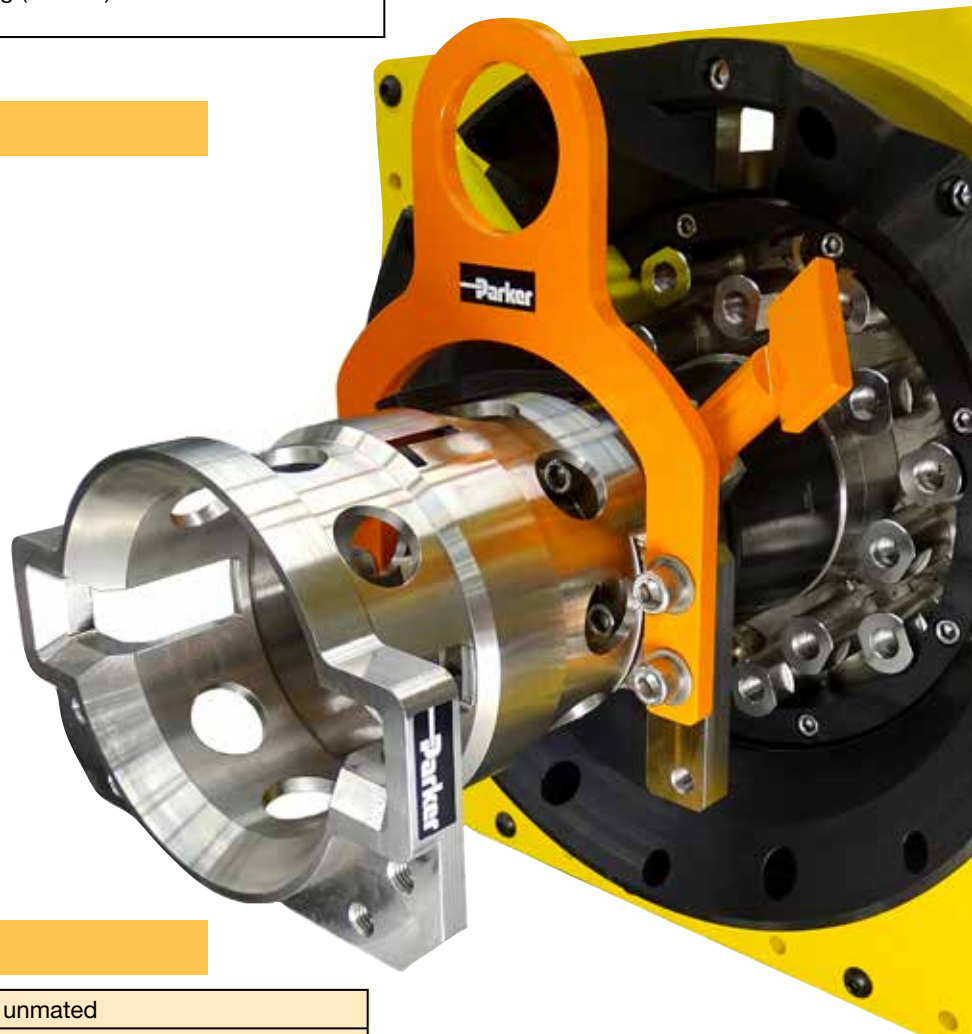
Coupling Configuration:

14 way: (13) 1/2" - (1) 1"

Other configurations available

Testing:

Hydrostatic Proof Pressure - Mated and unmated
Connect - All lines and combination of lines under pressure
Alignment
Secondary Release Mechanism
Mechanism Endurance



Low Separation Force Subsea Quick Couplings

DSL Series



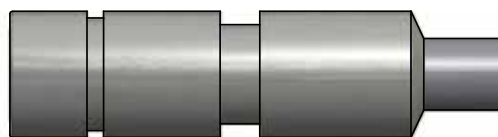
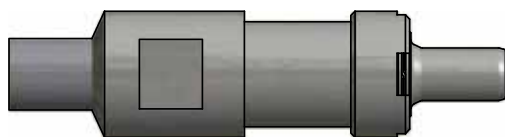
DSL Series couplings are designed for low separation force while under pressure. Durable PEEK or optional metal seals provide confidence for connection and disconnection at full pressure and depths down to 3000 meters.

Features:

- Sizes 1/4" - 1 1/2"
- Up to 15,000 psi (1034 bar)
- Poppet valves
- Redundant sealing
- Metal or PEEK primary seal, PEEK secondary seal
- Parker Nitrile O-rings standard
- Body material: Nitronic® 50HS
- Internal component materials: Nitronic® 50HS, 316 SST, ToughMET® AT110. Springs are Inconel® X-750 or Elgiloy®

Options:

- Various O-ring materials
- Guide sleeve
- Vented valving
- Welded assembly or 2-piece threaded version
- Various end configurations: Autoclave, Weld prep, tube stub (others available upon request)
- Rear plate mounting



Size	Working Pressure (psi/bar)	Rated Working Depth (ft/m)	Cv per Coupling Half	Separation Force (lb/1000 psi & N/100 bar)	Water Ingress per Connect (ml)	Poppet Crack Pressure (psi/bar)	Length* (in/mm)	Min. Plate Bore Diameter* (in/mm)
1/4"	15,000/1034	10,000/3050	1.5	142/915	2.9	200/13.8	Male: 3.6/91	0.875/22.23
							Female: 3.6/91	
1/2"	15,000/1034	10,000/3050	3.5	307/1981	5.7	200/13.8	Male: 5.0/127	1.250/31.75
							Female: 5.0/127	
1"	15,000/1034	10,000/3050	9.0	691/4459	12.1	200/13.8	Male: 5.8/147	1.800/45.72
							Female: 5.8/147	
1 1/2"	10,000/689	10,000/3050	19.1	1267/564	38.2	200/13.8	Male: 7.0/178	2.550/64.77
							Female: 7.0/178	

Data given is representative of the coupling series. Individual couplings may vary based on specific configuration of fittings/optional features.

* Minimum bore diameter and length are reference. May change for a specific plate configuration.

