

# SUBSEA HYDRAULIC COUPLER METAL SEAL



PRODUCT DATASHEET

SYSTEM, PRODUCT AND SERVICE PROVIDER



SubseaDesign's hydraulic coupler are possible to pressure test to full system working pressure against the retracted coupler without the need for an additional test cap.

Due to the compact design and self-sealing abilities of both sides of the coupler, ingress from sea water is confined to a minimum.

The couplers are fully DNVGL design approved and qualified to 3000 m (10.000ft) water depth.

The connectors can be applied on subsea wellhead connectors, riser connectors, emergency disconnect packages, quick release stab plates and emergency disconnect points.

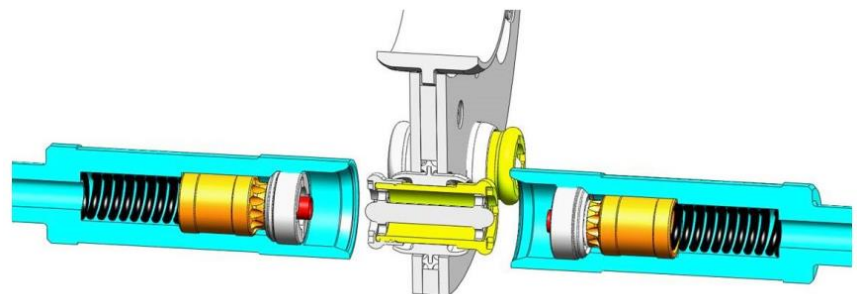
These state of art couplers tolerates high angle interconnection and allows for both front and rear loading into hubs.

## Characteristics

- Metal to metal sealing cone situated in separate seal carrier plates between 2 hubs
- Coupling halves self sealing
- Allows for 3 deg misalignment angle during connection/disconnection
- Front or rear end loaded into the hubs
- End connection to lines can be adapted to line sizes
- High CV value
- Weldable to most common used tube materials
- Poppet with check valve can easily be front loaded after flushing of lines
- Seal area near front of coupler face for easy cleaning by tool
- Design allow for lateral offset after connection
- Poppet housing prevents water ingress during connection

## Typical application

- Subsea Trees
- Tubing Hanger Penetrators
- Production Control Systems
- Drilling Control Systems
- Chemical Injection System
- Umbilicals



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## Operating condition

Re-use of seals	> 10 makes and breaks
Temperature range	-29 deg C to 141 deg C
Material class	ISO Class FF
Water depth	3000 m
Design life	30 years
Service life	30 years



## Technical data

Pressure	Working	690 bar (10 000 psi)
	Design	760 bar (11 000 psi)
	Test	1140 bar ( 16 500 psi)
Material	Coupler body	Nitronic 50
	Poppet opener	Inconel 718
	Poppet housing, spring piston, locking ring, flying poppet	25% duplex
	SD-Crown Body Seal	Titanium Gr. 5/ Ag coated
	Spring	Elgiloy / MP 35 N
	Poppet seal	PEEK
Mate/force	Typical 29 kN	Depending on tolerance through hubs
Flow properties, (by simulations)	CV value (US)	3.1
	KV	2.7
Design Standard	ISO 13629 / API 6a	