

HYDRAULIC AND CHEMICAL COUPLERS

PRODUCT GROUP
SUBSEA DISTRIBUTION

PRODUCT DESCRIPTION

Our High Flow Couplers enable hydraulic and chemical lines to be mated subsea, quickly and efficiently.

Optimized for high flow and high pressure, the design includes a self-sealing feature with a low separation force, making the equipment not only suitable for all applications, but providing a safe, reliable and easy to operate interface that prevents leaking poppets at low pressure.

This compact, space saving design is modular, which enables a standardisation of components. This approach allows a reduction in manufacturing costs and accelerated production, enabling a quicker, more competitive supply route.

We have incorporated a flexible seal solution within the seal cartridge on the female "flying" coupler. Should damage occur during mating/de-mating the modular seal is easily replaced. The design enables a large misalignment between male and female couplers.

The fully welded housing minimises leak point, providing a robust, safe and reliable connection.



RANGE

Coupler Size	1/4"	3/8"	1/2"	3/4"	1"
Coupler CV Value	0.82	2.11	3.40	6.45	9.50
Separation Force	8.2 kN	15.6 kN	25.9 kN	42.2 kN	59.2 kN
Mass of Coupler (Male/ Female)	0.3/0.4 kg	0.4/0.5 kg	0.5/0.6 kg	0.8/1.0 kg	1.0/1.2 kg

DESIGN VERIFICATION

Design Codes

ISO 10423 (API 6A) // ISO 13628-4 (API 17D) // ASME VIII Div.2



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OPERATING ENVELOPE

Working pressure (WP)	15 000 psi (1 035 bar)
Proof Test Pressure (PTP)	1.5 x Design Pressure
Number of Full Pressure Cycles	10000



MATERIALS OF CONSTRUCTION

Part	Trade Name	UNS number
Coupler main material	Nitronic® 50 HS	UNS S20910
Coupler weld tails	Nitronic® 50 HS	UNS S20910
	316 / 316L	UNS S31600 / UNS S31603
	Super Duplex	UNS S32750
Other materials are available upon request		

ADDITIONAL INFORMATION

HISC Precautions

Nitronic® 50, UNS S20910 is listed in ISO15156/3 / NACE MR-0175 Part 3, table A2 with an environmental limit on H₂S of 15 psi partial pressure. 660C is the maximum application temperature for the alloy due to chloride stress corrosion cracking. There is no limitation on chloride concentration below the temperature limit.

Nitronic® 50 is an austenitic stainless steel and does not exhibit sensitivity to hydrogen embrittlement.

Tripple Barrier Dynamic Seals

The Couplers are fitted with three dynamically activated seals. Our standard offer utilizes a spring energized metal seal as the primary seal, and high-end elastomer seals as secondary and seawater barriers. The sealing solutions are developed in cooperation with a renowned seal supplier and utilizes standard materials for seals for the various applications.

Customer specific testing/verification of seals can be performed on short notice if required.

