

Secc
Oil & Gas Ltd



ISO 13628-8 / API 17H

Hot Stab and Receptacle

Technical Data Sheet



CYGNET GROUP
COMPANY

ISO 13628-8 / API 17H HOT STAB AND RECEPTACLE DATA SHEET

DESIGN BASICS

Coupling Type	ISO 13628-8 / API 17H Type A Hot Stab and Receptacle		
Coupling Size	3/8", 1", 2", 3" and 4" (Other sizes available on request)		
Bore Size	8 mm		
Pressure Rating	5,000 to 20,000 psi (345 Bar to 1379 Bar)	Test Pressure	7,500 to 30,000 psi (517 Bar to 2068 Bar)
Max Operating Depth	3048 m (10,000 ft.)	Operating Temperature	-18°C to +66°C
Flow Path	90°		
Design Code	ISO 13628-8 (API 17H equivalent) API 6A & API 17D PSL 3 PR2 for Other End Connectors (OEC) – PSL3G available on request		
Material Classification	API material class FF, HH available in accordance with NACE MR0175		
Quality Assurance	ISO 9001:2015 and full traceability		
Certification Level	EN 10204 3.1 (EN 10204 3.2 available on request)		
Operational	Push to connect, pull to disconnect		
Breakaway Control	J-latch locking mechanism option. Pressure balanced seals ensure stab sees no separation forces		
Load to Disconnect	≈ 25kg		
Mounting	Horizontal or vertical		
Installation	Via ROV handle (interface in-line with ISO 13628-8)		
Alignment Method	Anti-jamming nose, 360° rotation alignment		
Design Life	25 years (metallic components)		
Options Available	Anti-calcareous growth seal, High strength flexible handle mechanism, Xylan / Molybdenum protective coating. Type B Hot Stabs and Receptacles also available.		

PERFORMANCE

Max. Bending Moment	1137 Nm	Maximum Torque	271 Nm
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BASIC WEIGHT AND DIMENSIONS

Stab Dimensions	20K psi Live Hot Stab D-Type 633mm x 153mm x 105mm	Receptacle Dimensions	20K psi Live Receptacle 215mm x 87.5mm x 287.5mm
Stab Weight in Air	8.74 kg	Receptacle Weight in Air	7.62 kg

CONNECTION DETAILS

Connection Methods	ROV/Diver – D, T and X-bar handle types available		
Stab Inlet Connections	Client specific	Receptacle Outlet Connections	Client specific

MATERIALS

Receptacle	S316, Nitronic 50, Nitronic 60, 32760 or 17-4 PH	Fasteners	A4 Stainless Steel
Stab	Super Duplex S32760	Non Pressure Bearing	Duplex 2205 S31803
Elastomeric Seals	HNBR, Viton (FKM) or Perfluoroelastomer (FFKM)		

TESTING REQUIREMENTS

Pressure Test	API 6A PSL3 (3G Available)	Impact Testing	ASTM A370
Qualification Test	API 6A 17D PSL 3 PR2	Hardness Testing	ASTM E10 / ASTM E18
Ultrasonic	API 6A PSL3	Magnetic Particle	API 6A PSL 3
Dye Penetrant	API 6A PSL3	Radiography	As Required
Corrosion Testing	ASTM G48 Method A		

WITNESS REQUIREMENTS

Customer Witness	Available	Third Party Witness	Available on request
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PAINTING REQUIREMENTS

Painting Specification	Norsok M501 System 7	Colour	Handle - Orange RAL2004
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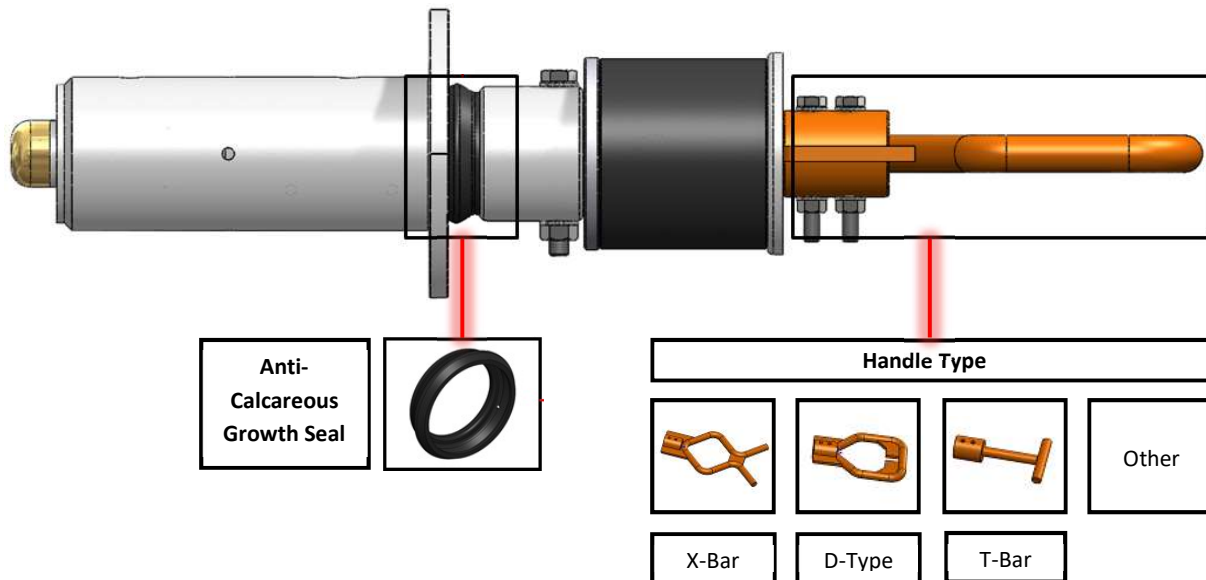
NOTES / ADDITIONAL REQUIREMENTS

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

Overview

A range of pressure balanced hot stabs designed to supply hydraulic power to subsea equipment. Secc's hot stabs are engineered to meet ISO 13628-8 standards (also referred to as API 17H). They accommodate low to medium flow requirements and are available for working pressures from 5,000 psi to 20,000 psi.

Figure 1: Hot Stab and Receptacle Possible Configurations



Anti-Calcareous Growth Seal

Secc's unique anti-calcareous growth seal ensures the stab disconnection after long periods of subsea exposure. It prevents marine growth between the stab and receptacle whilst the stab is connected.

Ports

Available in single, dual and quad port arrangements. Various inlet and outlet connections also available. The design can be tailored to the client's requirement.

Innovative Flexible Handle Technology

Secc's ISO 13628-8 Hot Stab incorporates their innovative compliant handle design which replaces a traditional wire rope handle. This enhanced feature does not incorporate any welds and therefore resolves the inherent fatigue problems experienced with a wire weld assembly. Secc guarantees an operational life cycle of 25+ years for their full range of stabs.

Flange Mounting Interface

Permits the receptacle to be panel mounted into subsea equipment.

Anti-Jamming Nose

Enables subsea connection to be made from high offset angles with no possibility of jamming. Can be replaced if damaged.

Figure 2: ISO 13628-8 Pressure Retaining Dummy Hot Stab

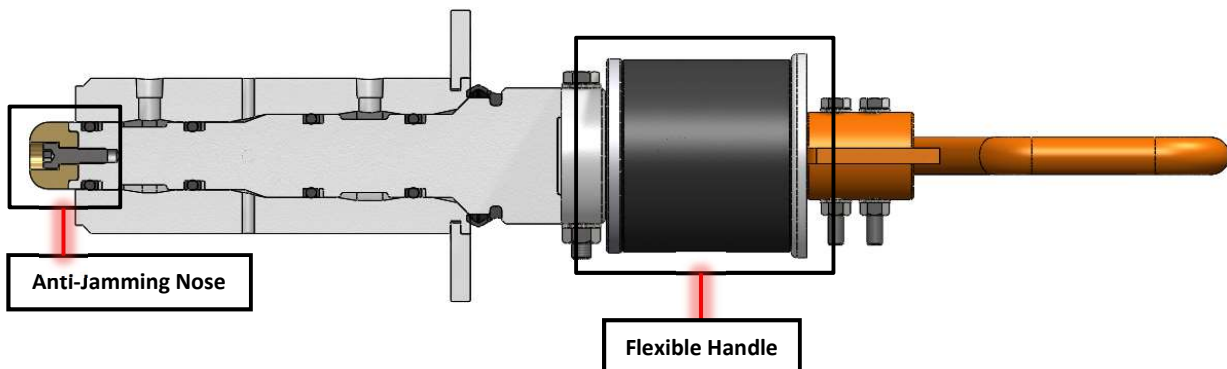




Figure 3: Dummy Hot Stab

Dummy Hot Stab (Pressure-Retaining)

Secc's dummy hot stab will seal the receptacle and hold pressure within the system for use in subsea operations or testing. Essentially a non-ported version of a live hot stab, available to the same design specifications and up to 20,000 psi working pressure.



Figure 4: Dummy Plug Stab

Dummy Plug Stab (Non Pressure-Retaining)

A plug stab is recommended to be stored in the receptacle whilst the subsea system is not in operation. It provides protection against marine growth forming within the receptacle bore. Manufactured from durable, high strength Acetal which has a low coefficient of friction to aid connection and disconnection with the live receptacle.

Workshop Hot Stab (For Testing)

Workshop hot stabs are to be utilised for topside testing where they will not be subject to the subsea environment or operated by an ROV. In this instance, a flexible ROV handle, anti-calcareous growth seal and various protection coatings are not required, thus making this a more cost-effective solution for testing purposes. Available as a live or dummy hot stab and rated up to 20,000 psi working pressure.



Figure 5: 20K psi Live Receptacle



Figure 6: 20K psi Dual Port Live Hot Stabs

Live Receptacle

The live receptacle can be manufactured from S316, Nitronic 50, Nitronic 60, 32760 or 17-4 PH. Available in sizes up to 4". Qualified for working pressures up to 20,000 psi to standard API 6A & API 17D PSL 3 PR2. Optional panel mounting flange.

Parking Receptacle

The parking receptacle is utilised for storing one dummy hot stab whilst the live hot stab is being used in the live receptacle. Can be panel mounted into subsea equipment. Manufactured in durable Acetal (other materials available). Available in any required size.