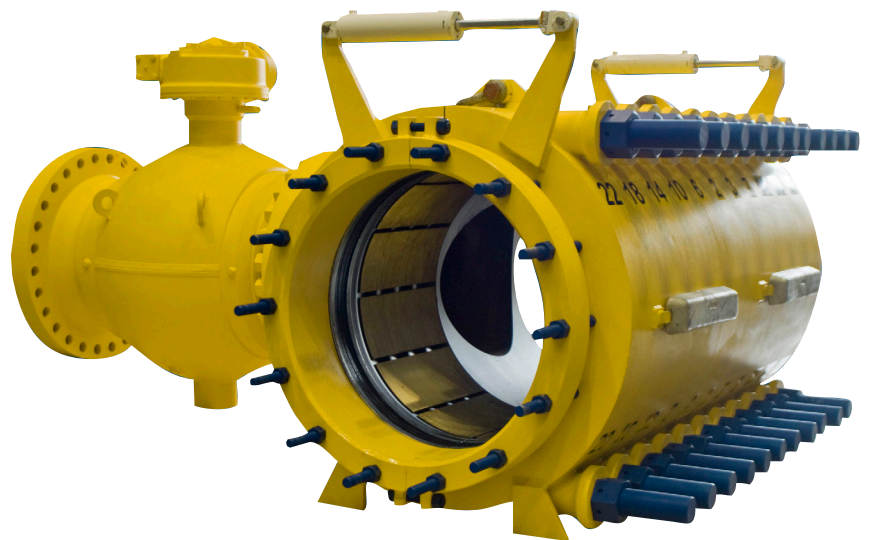


# Smart Tap

## Mechanical hot tap fitting

Our Smart Tap is a split, mechanical hot tap fitting that provides a flanged branch for hot tapping an existing subsea pipeline and tying-in a new lateral pipeline. The fitting effectively eliminates requirements for costly pipeline shut downs and expensive hyperbaric welding.



### FEATURES

**Fully mechanical and easy-to-install design**

**Lightweight and compact design**

**Subsea and topside applications**

# Smart Tap

## Mechanical hot tap fitting

After tapping, the Smart Tap provides permanent, high quality sealing integrity and structural reinforcement for the design life of the existing pipeline.

### Design Parameters

NPS: any API Specification 5L pipe and wall thickness

Service: Standard (i.e. crude oil, natural gas, hydrocarbons, water, or chemical injection, etc.) and sour (i.e. hydrogen sulfide, carbon dioxide, etc.)

Design pressure rating: up to ANSI Class 2500

Design temperature range: 25°F to 250°F / -4°C to 121°C

Design life: 25 years

Lateral NPS  $\leq$  Trunkline NPS

Lateral RTJ Flange  $\leq$  Design Pressure Rating

Hydraulic cylinder pressure (maximum): 2,500 psi (172 bar)

### Material Specifications

Body: ASTM A105 forging for 12 in NPS and larger; ASTM A516 Gr. 70 pressure vessel plate for 10 in NPS and smaller

Actuator flanges: ASTM A105 forging or ASTM A516 Gr. 70 pressure vessel plate

Weldolet and RTJ flange (lateral): ASTM A105 or ASTM A694 F52

Tension bowl and grips: AISI 4140 (i.e. ASTM A-519 Gr. 4140, Heat Treat to 34-40 Rc, NQ&T)

Compression rings and structural attachments: ASTM A36 or ASTM A516 Gr. 70

Seal extrusion guards (12 in NPS and larger): 316 stainless steel

Elastomeric circumferential and longitudinal seals: Viton® B, 70/80 durometer

Studs and nuts: ASTM A193 Gr. B7 and ASTM A194 Gr. 2H, respectively, all Xylan coated (i.e. PTFE, dark blue)

Anode(s): Galvalum® III

External coating: Carboline® 890 epoxy paint system, safety yellow color

### Applicable Design Codes, Standards, and Specifications (latest editions)

Smart Tap Drawings, Bill of Materials (Controlled Copies) and Vendor Supplied Material Test Reports

OIE ISO 9001:2015 Quality Assurance - Quality Control Procedures & PCRS Operating Procedures

ASME Boiler Pressure Vessel Code, Section V Nondestructive Examination, Section VIII, Division 1 and 2 & Section IX Welding and Brazing Qualifications

ASME B16.5, Pipe Flanges and Flanged Fittings

ASME B31.4, Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids

ASME B31.8, Gas Transmission and Distribution Systems

ASME B18.2.1, Square and Hex Bolts and Screws Inch Series

API 6H, Specification on End Closures, Connectors and Swivels

API 5L, Specification for Line Pipe

MSS SP-44, Steel Pipeline Flanges

NACE MR0175, Sulfide Stress Cracking Resistant Metallic Materials for Oilfield Equipment

DNV Recommended Practice RP B401, Cathodic Protection Design

Code of Federal Regulations, Title 49, Parts 192 and 195

### Certifications

ISO 9001:2015 - World Certification Services Ltd. - Accredited by UKAS Quality Management

EN 10204 Section 3.1B (DIN 50049), Inspection Documents for the Delivery of Metallic Products