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. 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
- Offshore and onshore applications
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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:** Sweet (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 ≤ Trunkline NPS**
- **Hydraulic cylinder pressure (maximum):** 3,000 psi (206 bar)

**Material Specifications**

- **Body:** ASTM A105 or A694 F60 forging for 12 in NPS and larger; ASTM A516 Gr. 70 pressure vessel plate for 10 in NPS and smaller
- **Actuator flanges:** ASTM A105 or A694 F60 forging or ASTM A516 Gr. 70 pressure vessel plate
- **Weldolet and RTJ flange (lateral):** ASTM A105 or ASTM A694 F52 or F60
- **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 or Buna-N
- **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
- 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