The Offshore industry is facing new challenges with tougher operating conditions that are significantly impacting the performance of the umbilical. Subsea umbilical systems for deep and ultra-deep offshore projects are more and more demanding regarding injection capacities, number of functionalities, power requirements and increased tie-back lengths. The most common solution for umbilicals consists in using thicker tubes which significantly impacts the cost of the umbilical; the weight, fatigue performance and installation costs.

Vallourec Umbilicals proposes a new approach offering an innovative answer for your toughest challenges: our tubes are thinner (up to -15%) and offer superior fatigue performances (over 10 times higher) than solutions available on the market today.

Vallourec Umbilicals' solution has been designed to increase the reliability and performances of your umbilical systems while ensuring the safety, flexibility and cost-effectiveness of your projects.

Your operations are safe and reliable at higher temperatures and pressure levels, with superior benefits. Vallourec Umbilicals' welded tubes open new perspectives and capabilities for ultra deep water projects.

**Benefits of Vallourec tubes for umbilicals**

- **Reduced wall thickness** up to 15%
- **Tighter bending radius** up to 17%
- **Reduced weight** up to 15%
- **Fatigue resistance** better than 4-5σ above DNV curve
- **Reduced number of orbital welds** target: 10 times less than seamless

Vallourec solutions for Subsea applications

- **Tubes for Umbilicals**
  - SHALLOW
  - DEEP
  - ULTRA-DEEP
- **Risers**
- **Flowlines**
- **Line/uni0020Pipe**
- **Welding**
- **Coating**
- **Pipe/uni0020in/uni0020Pipe**
- **Vallourec Tubes for Flying Leads**
  - **Risers**
  - **Welding**
  - **for/uni0020J-lay/uni0020&/uni0020S-lay**
  - **Bundle/uni0020Tubing Spoolbase/uni0020Fabrication**
  - **Welding**
  - **Reeling**
- **Flowlines**
- **Jumpers**
- **Bends**
- **Accessories**
- **Field/uni0020Joint/uni0020Coating**

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CMJ

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Premium Tubular Solutions
Innovative Tubes for Umbilical Applications

Over 35 years of experience in Premium welded tubular solutions

Vallourec is a world leader in premium tubular and welding solutions for Oil & Gas applications: drilling, exploration, SURF, production, hydrocarbon transporting and processing. In an endeavor to increase its presence in Subsea Vallourec has extended its offer by developing a highly innovative tubular solution for umbilical and flying lead projects.

Vallourec has 35 years experience in welded tubular solutions with its subsidiary Valtimet (now VHET, Vallourec Heat Exchanger Tubes), a leader in Titanium and Stainless steel welded tubes. Vallourec has delivered over 500 projects in nuclear, desalination, process and automotive, amongst which the whole French nuclear Parc. Through each project, Vallourec has developed a strong and unique expertise in premium welded tubes to answer the most stringent specifications of its customers.

Based on this expertise in welded tubes, Vallourec now brings a new solution to the umbilical market with Vallourec Umbilicals. A new factory was built in 2011, in France, less than a mile away from VHET. Vallourec’s state-of-art factory is exclusively dedicated to the manufacturing and supply of super duplex welded tubes for umbilical applications and is now ready to offer the highest specifications for your toughest challenges.
Superior solutions for your toughest umbilical applications

Our prime goal is to meet the challenges of Offshore projects by offering a safe, reliable and innovative solution for your static and dynamic umbilical applications.

SURF projects are developing towards deep and ultra deep waters, longer tie-backs, higher temperatures and well pressures. Vallourec Umbilicals is providing welded tubes that increase the performance and reliability of umbilical applications.

“We listen
We tailor
We deliver…”

Certified ISO 9001: v2008
Type Approval Certificate delivered by Bureau Veritas
We deliver according to main international standards:

- ASTM A789
- NORSOK M-630
- ISO 13628-5
- ISO 15614-11
- ASTM E213
- ASTM E273
- ASME section IX
- ASME B31.3
- SAE AS 4059
- EN 1418
- ASNT STN-TC-1A
- EN 473

PRODUCT ATTRIBUTES

Dimensional range
- WT from 0.85 mm to 3 mm
- ID from ¼ inch to 1½ inch

Super duplex 2507 strip
- UNS S32750 – 1.4410
- PREN ≥ 42.5

Straight or coiled tube
(for all tube dimensions)
- YSₜ₀ > 750 MPa
- UTS > 900 MPa
- Elongation ≥ 25%

Tight tube tolerances
(including seam weld)
- Nominal wall thickness
  ±5%
- Nominal outside diameter
  ±/+0.1 mm

Orbital weld tolerances
- Internal misalignment
  < 0.3 mm
- Over thickness
  (for root and cap)
  < 0.5 mm
Full inline process with real-time quality controls

State-of-the-art technology with Non-Destructive Testing

NDT
Full inline and real time controls
100% of tube length & circumference
Eddy Current - 360° Ultrasonic Testing
X-Ray control

Inhouse laboratory
Mechanical testing
Corrosion testing
Metallurgical testing
Dimensional controls
A value offer for your Umbilical tube challenges

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