Technip Umbilicals

Customized umbilical systems for the global offshore oil and gas market
Technip at a glance

Technip is a world leader in project management, engineering and construction for the oil and gas industry.

With a global footprint, our talents constantly offer the most innovative technologies and best solutions to our clients to optimize their investments and meet the world’s energy challenges.

Our mission is to deliver safe, sustainable and quality projects across the world.

We operate in three main businesses:

**Subsea**
In subsea hydrocarbon field development, Technip’s activities include the design, manufacture and installation of rigid and flexible subsea pipelines and umbilicals. Thanks to our portfolio of technologies, industrial and operational assets on all continents and a state-of-the-art fleet, we offer a unique vertically integrated model in the industry.

**Offshore**
In the Offshore business, our activities include engineering, procurement, construction (EPC) and installation of fixed and floating platforms.
We use a complete range of technological solutions to answer the challenges faced by our clients. We are leveraging our expertise in full-range of offshore facilities, as well as our strong know-how with added-value process skills and proprietary platform design.

**Onshore**
In the Onshore business, we deliver to our clients all the experience we have acquired for almost 60 years, combined with a large technology solutions portfolio. We are working on onshore facilities that the energy sector needs, in particular for oil and gas industry players. Technip is one of the global leader for the refining business and petrochemical units. We also reinforced our position on project management consultancy (PMC) activities, by leveraging our expertise in the management of complex projects.
Technip Umbilicals develops, engineers and manufactures customized subsea production systems

- A worldwide leader, with over 30 years’ experience in subsea capabilities
- Strategically located manufacturing plants in the UK, USA, Angola and Malaysia, providing global solutions for the umbilical market with responsive local services
- The geographic positioning provides the unique ability to design and supply customized umbilical products using flexible shared assets and technologies
Effective QHS&E management is a key element to safe and efficient operations and to continuously improving performance and capabilities.

QHS&E common goals are:
- To maintain a safe, healthy and injury free workplace
- To achieve quality in the performance of all functions
- To have respect for, and avoidance of damage to the environment

QHS&E common culture is:
- Safe working systems which anticipate hazards and reduce risks
- Compliance with applicable laws, industry standards and clients’ requirements
- Working as a team and in partnership with clients and suppliers

The Technip Group Pulse program positively impacts HSE climate change to improve, identify and address key HSE leadership issues.

Benefits of Pulse:
- HSE reference company
- Exceptional safety performance
- People act safely
- Driven by perceptions
- Changing perceptions improves performance

Certifications
- ISO 9001:2000
- ISO 14001:2004
- OHSAS 18001:1999

Accreditations*
- RoSPA Gold Award (2001, 2006)
- Chevron Agbami IIF Award (2006)
- Queen’s Award for Enterprise: International Trade 2008
- Shell Perdido INJURY FREE AWARD (2009)
- NOF Company of the year (2011)
- Subsea UK Company of the Year (2012)
- Investors in People Gold (2014)

* Certifications and accreditations vary by legal entity

Technip Umbilicals operates following Technip’s worldwide QHS&E standards
Our people and values

Talented people dedicated to delivering value and first-class customer experience

- We have a team of passionate, experienced and dedicated individuals
- Client focus is our number one priority
- *Take it further* is our approach to business, partnerships and aspirations. It is about excelling in what we do, succeeding together and exceeding expectations
- Our mission is to deliver safe and successful energy projects across the world whilst maintaining our asset and technology focus

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Our values are operational. They ensure past, present and future success that will take Technip Umbilicals forward:

- They inspire our people
- The industry believes in them
- Our clients experience them
- Our brand reflects them
Umbilicals provide the critical link between remote subsea wells and fixed or floating production systems.

Subsea solutions for every environment:
- Vertical integration
- In-house technologies
- Worldwide leadership
- First-class manufacturing assets
- Pioneering solutions
- Extensive track record
- Cost effective solutions
- Available from America, Europe, Africa and Asia
Subsea products and services

Products

- **Umbilicals**
  - Steel tube umbilicals
  - Thermoplastic hose umbilicals
  - Power and communication systems
  - Hybrid umbilicals

- **Subsea products and services (SPS)**
  - Jumpers
  - Flying leads
  - Stab Plates

- **Umbilical Hardware**
  - Topside terminations
  - Subsea termination and distribution
  - Mud mats and support structures

Steel tube umbilicals

- Long distance
- Deep water
- High pressures

Thermoplastic hose umbilicals

- Highly dynamic
- Short lead
- Cost effective

Electrical cables

- Subsea pumping and processing
- Aluminum cable for dynamic and deepwater application
- Multiple circuits for MPP umbilicals

Services

- **Engineering and design**
- **Offshore testing and installation services**
- **Predictive engineering capabilities**

  - Umbilical installation
  - Regular monitoring and maintenance
  - Large range of tests

For more information on products or services please visit our website: www.technip.com
Research and Development

- At Technip Umbilicals we are committed to expanding the limits of what is possible through research and innovation, based on the needs of our clients to successfully deliver their projects.
- Through a combination of test services, research and development, and new product development, we are able to research materials, develop higher performing components and introduce new technologies, utilizing our risk-based qualification program to ensure products are ready to deliver high performance and reliability.
- Our dedicated team of experienced engineers and extensive prototype testing facilities are fundamental to developing future umbilical solutions, ensuring our clients are receiving the most modern umbilical systems possible.

Engineering

- By using a combination of industry standard analysis techniques combined with in-house software tools, we are able to predict the behaviors and performance of our products, maximizing problem free solutions for clients.
- Our engineering team’s integrated approach is key to delivering an optimum solution first time, as operating, installation and reliability challenges, along with increasing product complexity, continue to escalate. The team can readily produce engineered solutions to meet client design requirements, producing turnkey engineering solutions from concept development through to final installation, commissioning and in-service studies.
- Our cutting-edge technologies, proven engineering processes and multi-disciplined team provide a fully integrated engineering solution to meet the unique challenges of individual client requirements.
Commitment to delivery

Project execution

- A core offering at Technip Umbilicals is project execution. We integrate product with processes by establishing an experienced team to oversee each project throughout its life cycle.
- Our processes consider all elements needed to ensure that the project execution is seamless. A common project management model is operated at all of our facilities ensuring the highest standards of safety, quality and delivery on all projects. Our experience of focusing on quality, scheduling and interface management provides our clients with the confidence and flexibility to fulfill every project.
- Our thorough processes and systems help us to exceed client expectations at every opportunity and guarantee products are delivered safely, to quality, on time and to budget.

Manufacturing

- Safety of our people is of the highest importance. Through the Technip Pulse program, we ensure people are not put at risk.
- Quality is managed through our Quartz program which encompasses; quality, operations performance, business excellence, knowledge management and subcontractor management. Continuous monitoring and measurement of operational performance throughout manufacturing highlights areas for continuous improvements. The business excellence encompasses two facets; the lean program targets cost and schedule through reducing waste and our Six Sigma program focuses on reducing critical process variation. Together they ensure our manufacturing process is first-class, resulting in exceptional umbilical systems and exceeded client expectations.
- As the industry develops into new frontiers, we continually invest in asset capability to create constant benefits for all of our clients. Our outstanding global facilities ensure all projects can be accommodated with the manufacturing of umbilicals, flying leads, termination hardware, and other subsea products. With unrivalled manufacturing experience and a solid investment program, Technip Umbilicals is well placed at the forefront of the industry.
Continued investment leads to ever-increasing capabilities, the industry’s best people and ideas, and the world’s most modern umbilical manufacturing facilities

- In 2014, Technip Umbilicals opened the world’s most capable steel tube umbilical assembly plant in Newcastle upon Tyne. This investment follows the 2012 completion of our dedicated Research and Development facility. Located on the River Tyne with deep-water access to the global market.

- Technip Umbilicals significantly invests in people, now employing over 1,000 personnel, including a large number of recognized industry experts.

- We constantly encourage training and development to ensure our workers can provide the best services for our clients, whilst always staying at the forefront of the industry.

- Technip Umbilicals Inc. benefits from many upgraded assets including carousels, assembly machinery, reel storage and quayside. Located adjacent to Houston’s shipping canal.

- Our Angoflex facility has undergone recent investments, including two new large carousels, upgraded operational capacity, load-out route and upgraded helix machine. Located on the west African coast with deep-water access.

- Our newest entity, Asiaflex Products, has a large site, new assembly machine and a deep-water jetty. Located on the Malaysian coast with easy access to Asia Pacific and Australia.
To date, our business has manufactured and installed more than 5,000 km of umbilicals worldwide.

At Technip Umbilicals we like to set world records, including:

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<thead>
<tr>
<th>Record</th>
<th>Client</th>
<th>Project</th>
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<tbody>
<tr>
<td>Deepest umbilical - 2,946m</td>
<td>Shell</td>
<td>Perdido</td>
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<tr>
<td>First high temperature umbilical</td>
<td>Total</td>
<td>Moho Bilondo gas lift</td>
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<td>Largest diameter and heaviest weight per meter</td>
<td>BP</td>
<td>Skarv</td>
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<td>Longest continuous length subsea power cable</td>
<td>Burullus</td>
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<td>Harsh environment, dynamic power cable</td>
<td>BP</td>
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