

# Umbilical Systems

For Oil & Gas applications

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



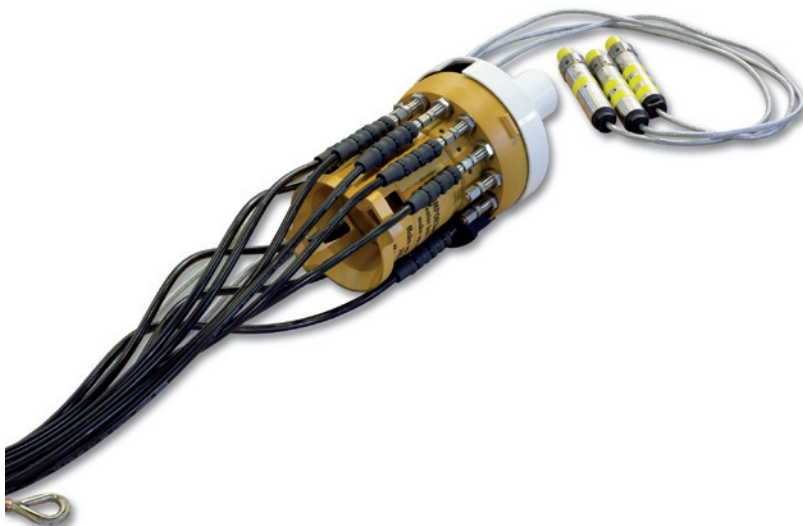
ENGINEERING YOUR SUCCESS.

# Umbilical Systems



- The expertise of Parker Hannifin spans the core motion and control technologies, with capabilities in electromechanical, hydraulic and pneumatics domains contribute to develop complete fluid control solutions.
- As a system integrator in this market, Polyflex Division uses this technological advantage to innovate in breakthrough components and complete systems for customers.

- Parker Hannifin, Polyflex division is positioned to create Individual solutions customized to the specific needs of our customers.
- Engineering design activities can be executed earlier in the project, therefore you can take advantage of better scope definition to reduce risk and cost control associated.



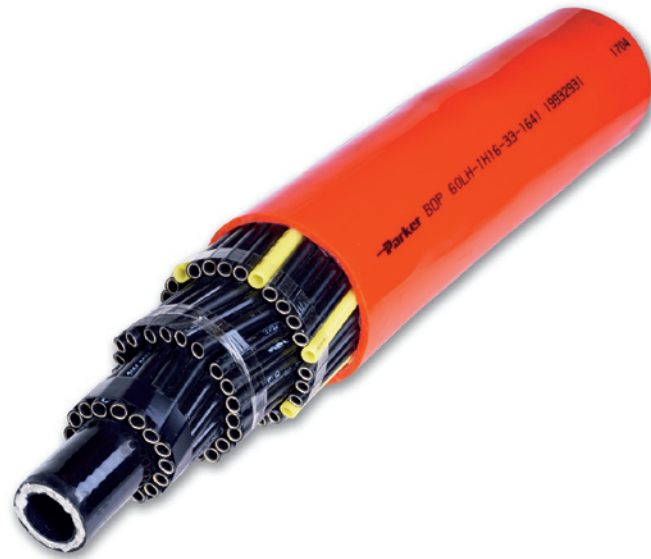
- Polyflex Division has been supplying a wide range of thermoplastic hose products to the oil and gas market for over 30 years.
- With production plants in both the USA and Europe supported by Parker's global sales and distribution network, customers can benefit from local service and the supply of quality parts wherever they are situated.

# Custom built solutions

Polyflex umbilicals are designed for the offshore industry to offer a unique combination of long life, chemical resistance, flexibility, lightweight, and rugged construction.

Customers can customize products with high resistant core tube capable to withstand aggressive fluids and gases often encountered in offshore applications.

The hose umbilicals are designed according to requirements of working pressure, this capability may be achieved by combining multiple layers of possible reinforcement material such as: aramid fibre or steel wire.



- **The aramid fibre combines strength with low weight, flexibility with excellent pressure capabilities.**
- **The added mechanical protection of steel wire improve the low volumetric expansion and results in excellent response times.**

## Applications

Umbilicals take many forms and may contain hoses of different types, sizes and pressure ratings, including high collapse resistant (HCR) lines for chemical injection.

Umbilicals can be static or dynamic or a combination of both. Lengths may vary from short, in the case of hydraulic flying leads (HFL), to the long, in the case of Workover and control umbilicals (WOCS).



Well control operations continually search engineered solutions to exercise control over (BOP) Blowout Preventers

Umbilicals and Jumper Bundles are part of the BOP hydraulic system exposed to very corrosive atmosphere and mechanical hazards.

Cover material and wire spiral reinforcement give superior resistance to stress cracking at high pressures and extremely low volumetric expansion.



Chemical injection solutions are used to improve oil recovery, clean blocked perforations, and even address crude oil flow-assurance issues

Polyflex chemical Injection umbilicals are multiline hoses with extremely low permeability and chemical resistance combined with the advantage of high working temperatures

Hydraulic control lines and chemical injection lines are available in several sizes to suit all applications.



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