

Umbilical Pre-commissioning and Commissioning Services

Objective expertise and unmatched experience

Umbilical lines are the lifeblood of subsea developments. Delays, repair, or rework processes can be expensive and time consuming. That's why verifying the condition of the umbilical through testing and monitoring is critical to mitigating risks and costs.

Baker Hughes, Process & Pipeline Services (PPS) provides complete turnkey services for pre-commissioning and commissioning umbilical systems from load-out at the manufacturing facility, through installation, to product introduction and start up. Our objective expertise and unmatched experience ensure cleanliness and integrity while verifying that the lines conform to your predefined specifications.

Increase efficiency

The dedicated PPS team of specialists provides umbilical testing services and complete project management. The team focuses on flexibility, allowing them to quickly respond to each customer's needs.

PPS' highly trained personnel have the expertise to perform hydraulic fluid, electrical, and fiber-optic testing in strict adherence to ISO standards and operator specifications.

Our extensive record in testing umbilical systems spans each stage of development and includes testing

original component parts before assembly, factory acceptance, monitoring during transit and installation, and function testing and commissioning the system before startup.

We provide cost-effective solutions and make sure that each project is scaled and customized to your requirements.

Cut non-productive time

PPS umbilical services specialists have access to a fleet of fit-for-purpose monitoring and pumping equipment that can be quickly deployed to virtually any location worldwide. With our high-pressure pumping equipment, we can take care of all your needs:

- Flushing and fluid change-out operations
- System backup
- Specially designed seal systems to handle the most aggressive well fluids
- High-velocity flushing and flow testing to ensure cleanliness and determine tube characteristics

Ensure consistent standards

Comprehensive electrical and fiber-optic testing services include resistance testing, time-domain reflectometry (TDR) and optical

Applications

- Pre-Loadout testing
- Transpooling operations
- Post-Loadout testing
- Monitoring during lay operations
- Final testing prior to overboarding
- Post installation testing

Features and benefits

- Ensuring fluid cleanliness
- DC resistance checks for integrity of conductors
- Insulation testing to prove integrity of cable insulation
- OTDR testing to prove fiber-optic cable integrity
- Hydraulic pressure leak testing to confirm hose / tube integrity

Additional services

- FCGT
- Pigging and gauging
- Dewatering
- Pipeline conditioning
- Drying



time domain reflectometry (OTDR). Calibrated equipment linked to remote monitoring facilities enables continuous monitoring of the required parameters during umbilical transit and lay. Baker Hughes engineers develop specific procedures and engineering requirements with each customer to ensure a seamless testing regime.

This process is critical as each umbilical may be tested up to seven times in the course of the project. Applying consistent standards and equipment over multiple tests and multiple projects enables our customers to be confident in the results.

Meet your objectives

At Baker Hughes, umbilical cleaning, testing and commissioning projects are a core service. We pride ourselves on our ability to get the job done intelligently and

efficiently. If you need comprehensive services, we can provide integrated project services for umbilical lines, flow lines, pipelines, and topside commissioning.

By combining our global reach with our knowledgeable and responsive staff, we offer a prompt and comprehensive response to your needs. Our experience is combined with advanced technologies and research to deliver effective cleaning, drying, testing, and other process and pipeline solutions.

The Baker Hughes integrated services team can incorporate single-point coordination and dedicated engineering services to reduce your total costs and shorten your project timelines. With innovative, efficient technologies, we provide quality services that save you money and meet your objectives.