



## **Pipeline Solutions**

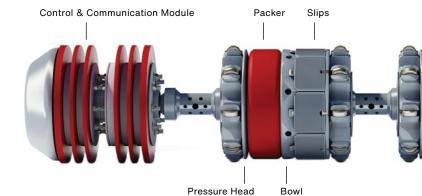
PEN

SmartPlug<sup>®</sup> isolation technology is the only system of its kind that makes it possible to hydrotest a pipeline section immediately after remedial pipe work without breaking the integrity of the isolation, saving time and money.

### ENVIRONMENTAL IMPACT

SmartPlug<sup>®</sup> isolation technology helps customers save money while protecting the environment. Intervention and repairs are completed with minimum disruption, providing these benefits:

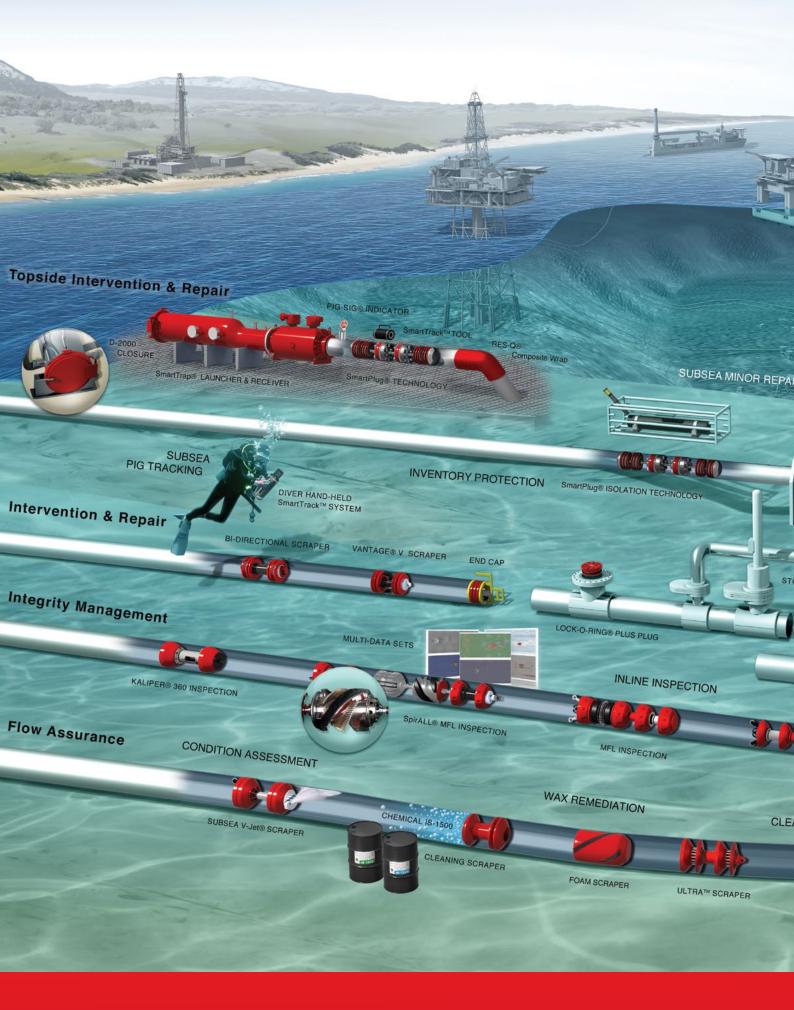
- Reduced down time during maintenance.
- Bleed down volume is eliminated or drastically reduced, avoiding release of hydrocarbons.
- No need to treat chemicals or dispose of contaminated water before re-commissioning.
- · Eliminates risk of introducing new leak paths
- Risk of accidental flooding during construction of offshore pipelines is eliminated.



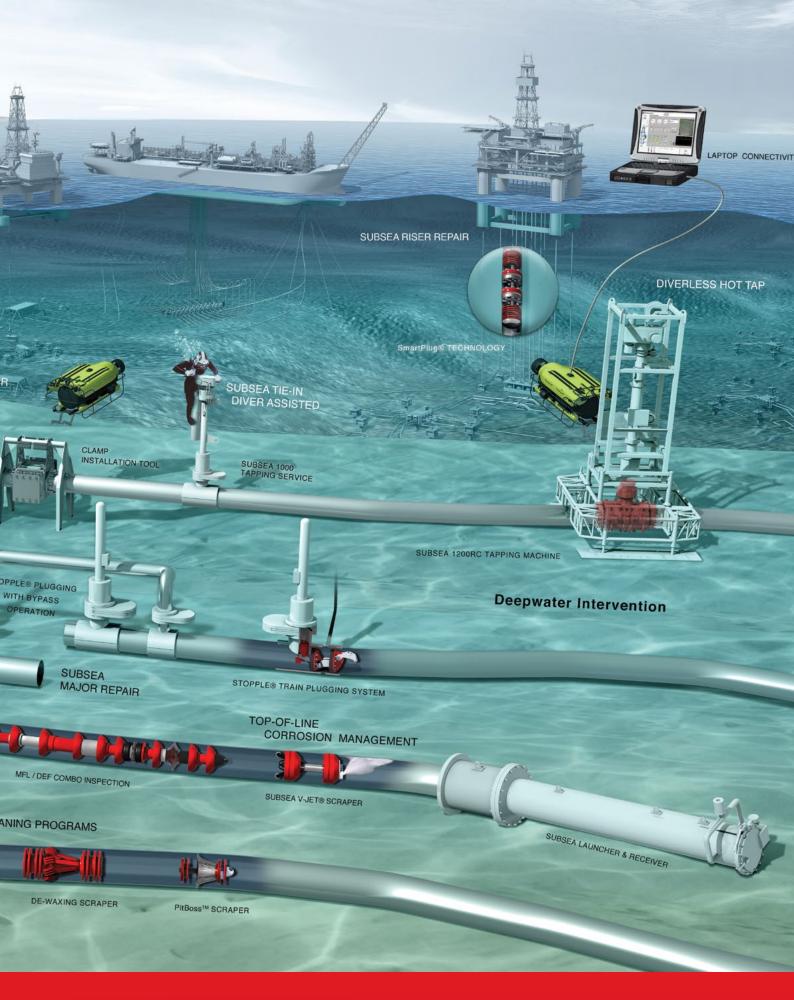


### FEATURES

- Highly Piggable: Bi-directional pigging functionality through individual articulated modules, in all pipeline diameters ranging from 8" to 48".
- Intelligent: Remotely operated and tracked through the SmartTrack<sup>™</sup> system, also enabling off-site activation and remote monitoring.
- Adaptable: Fully customized and configured to any project need.
- ATEX: Full Atex/Ex/UKEx zone 1 capability on both the SmartPlug<sup>®</sup> tool and SmartTrack<sup>™</sup> communication system.
- **Safe:** Double block isolation ensures high safety standards, confirmed with DNV certification.
- Secure: Self-locks in a fixed position using the pressure differential across the plugging modules. Includes multiple integrated contingency release mechanisms.
  - Durable: Proven in-field, long- term isolation capabilities (1000 days+).



# **OFFSHORE CAPABILITIES**





SmartPlug<sup>®</sup> isolation technology makes it possible to isolate pipelines safely at any operating pressures. This means that maintenance and repairs can be conducted quickly, without bleeding down the entire system.

### Downtime worries? Problem solved.

A pipeline under repair bleeds money with every passing hour. The solution? SmartPlug® inline isolation technology. Operated by remote through wall communication, the SmartPlug tool's "double-block and monitor" isolation capabilities ensure a safe, reliable pressure isolation.

### One system, many applications.

TDW has used SmartPlug<sup>®</sup> technology globally during hundreds of maintenance operations like these:

- Valve, riser and launcher system repair and replacement
- Pipeline section repair and replacement.
- Pressure testing and leak detection of pipeline sections.
- Isolations of live pipelines during commissioning, decommissioning, re-routing and tie-in — onshore and offshore.
- Protection of pipelines and inventory during construction and overhead lifting operations.

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♥ HEADQUARTERS ● LOCATIONS ▲ MANUFACTURING ★ REPRESENTATIVES

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