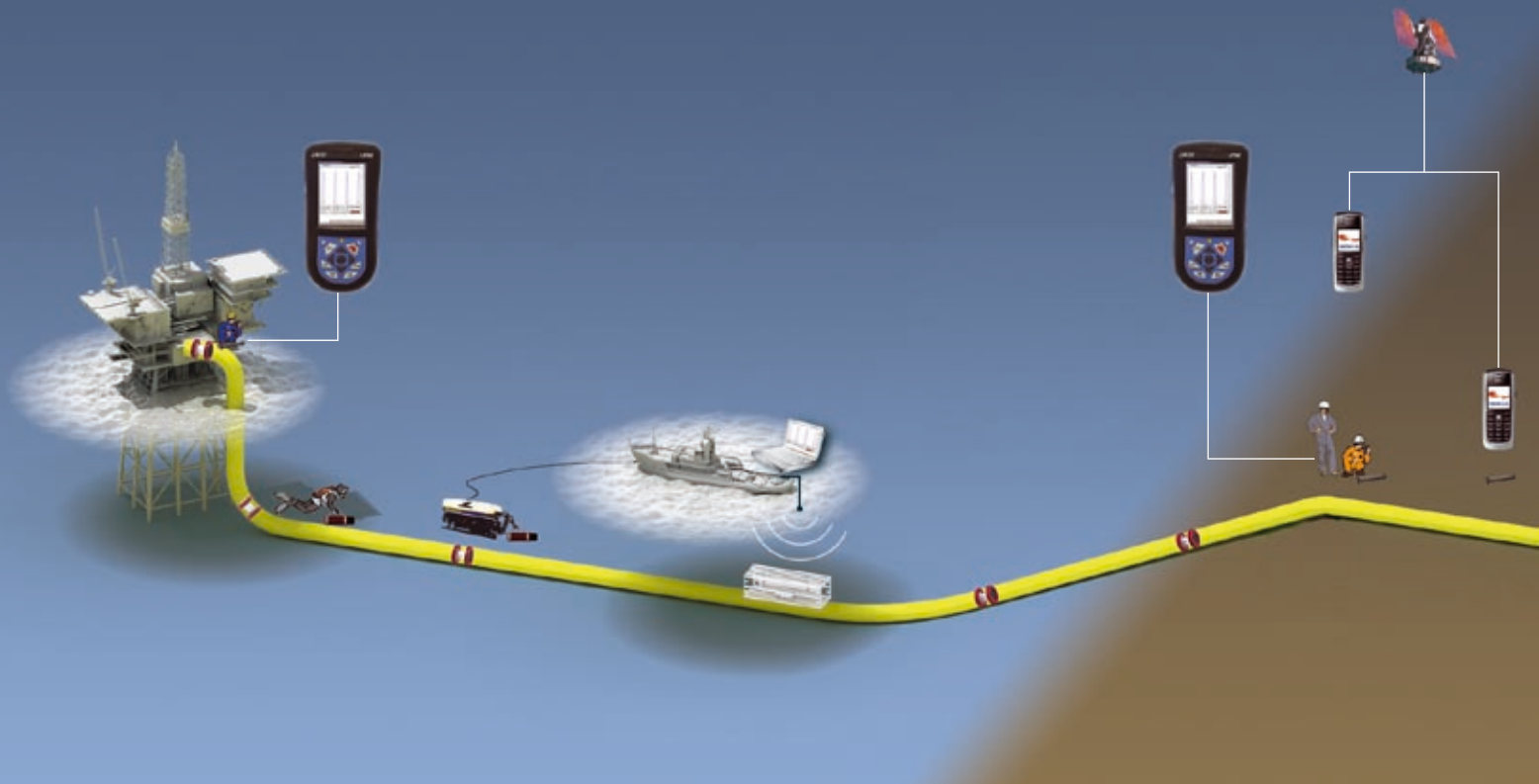




# SmartTrack™ System

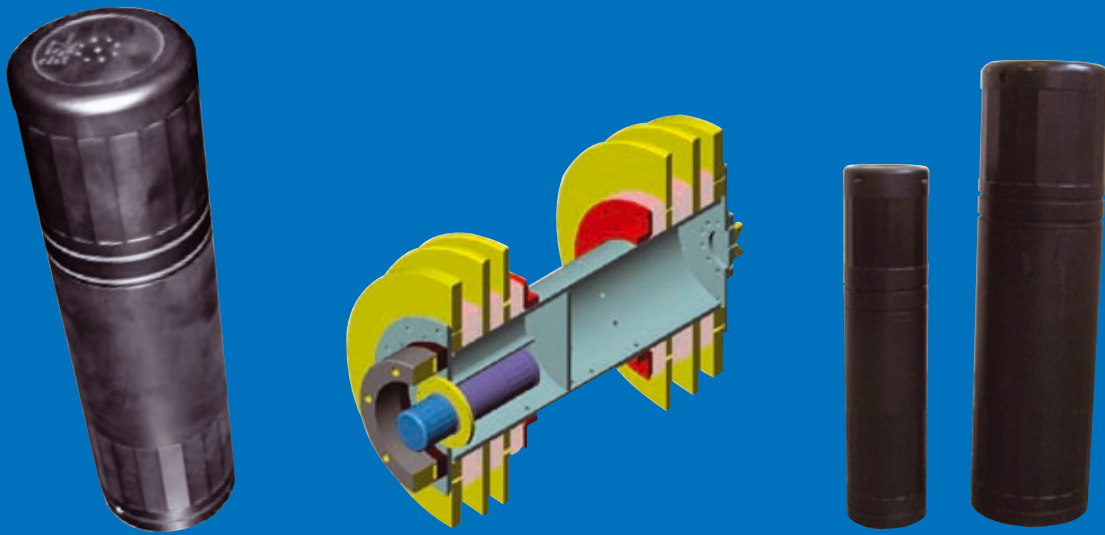
**TDW Offshore Services**

The SmartTrack™ system revolutionizes pig tracking by utilizing two-way (bi-directional), through-wall, electromagnetic communication between the transponder and receiver. Its accuracy and reliability, combined with its ability to remotely activate and deactivate the transponder make it the most flexible system on the market.



## ADVANTAGES

- Each pig is given a unique ID, so that the location of each pig in a multiple pig train can be identified
- Eliminates the need to use radioactive isotopes for offshore pig tracking and locating
- The system tracks pigs subsea, topside, and in pipelines buried onshore
- High positioning accuracy
- Monitors multiple pig tracking locations without the need to move subsea tracking systems or vessels
- Wireless communication between the subsea receiver and the platform or vessels
- Signal strength, transponder speed, and ID can be changed while the transponder is in the pipeline
- Reduces vessel, ROV and dive time
- The SmartTrack™ system can be put into dormant mode while inside the pipeline to extend the transponder battery lifetime
- Detects and identifies pigs at a distance of up to 10 meters (30 ft) from the receiver



*The SmartTrack™ transponders are available for pig body sizes from 6" and above. They are designed for pipeline pressures up to 300 bar (4350 PSI).*

### **SmartTrack™ TRANSPONDERS**

The TDW Offshore's SmartTrack™ transponders have two different operating modes (active and dormant). In active mode the transponder sends an electromagnetic signal that can be tracked. In dormant mode it saves batteries by only listening for commands from an outside transceiver.

Pigs with transponders can be loaded into launchers in dormant mode and activated at a later date. If an operation is interrupted or delayed, the transponders can be put into dormant mode until needed.

The output power of the SmartTrack™ transponder is adjustable at any time to optimize battery lifetime, pigging speed, burial depths and positioning accuracy. The same transponder can be adjusted for long life for thin walled lines or high power for deeply buried and heavy wall pipelines.

The SmartTrack™ transponder sends out a unique identification code to enable the simultaneous tracking and locating of multiple pigs.

### **SmartTrack™ REMOTE TRANSCEIVER**

The SmartTrack™ remote transceiver is used in combination with the PC to locate, track and identify pigs inside pipelines both topside and onshore. Using the PC the topside transceiver can activate, deactivate or adjust any operational parameters of the SmartTrack™ remote transceiver.

The SmartTrack™ transceiver can be placed on, or strapped to the pipeline, mounted on an ROV or held in an ROV arm. Communication takes place through cable or ROV umbilical.

### **SmartTrack™ SUBSEA COMMUNICATIONS UNIT**

The SmartTrack™ subsea communications unit is used in offshore applications where it is logistically impossible to use the cabled remote transceiver. The primary application for this system is in wireless offshore pig tracking projects that otherwise require the vessel to be moved or vessels to be added.

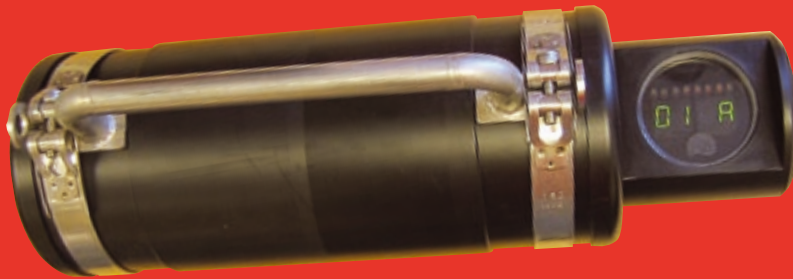
The subsea communications unit uses a bi-directional acoustic modem that is fixed to the antenna housing. A second acoustic modem is connected to a standard laptop at the surface.



*The SmartTrack™ remote transceiver.*



*The typical communication range for the subsea communication unit is 2 km (1.2 M/6560 ft)*



*The diver-held receiver functions at water depths up to 300 meters (980 ft).*

### **SmartTrack™ DIVER-HELD RECEIVER**

The diver-held receiver enables the diver to locate, track and identify pigs. The diver-held receiver is a receiver only and cannot be used to transmit signals to the transponder. Although the diver-held receiver is primarily designed for subsea use, it can also be used topside or on land.

It has a high intensity LED display that shows the SmartTrack™ transponder ID code, transponder signal strength, and the number of pigs/transponders that have passed and been identified. The system can be used in combination with an ROV camera.

### **SmartTrack™ TOPSIDE TRANSCEIVER**

The SmartTrack™ topside transceiver is used in combination with the SmartTrack™ PDA to locate, track and identify pigs inside pipelines both topside and onshore. Using the PDA, the topside transceiver can activate, deactivate or adjust any operational parameters of the SmartTrack™ transponder.

The SmartTrack™ topside transceiver communicates wirelessly with the SmartTrack™ PDA using Bluetooth® technology. The light weight and small size of the topside transceiver make it perfect for applications where you need to move freely, and it comes with a shoulder strap to make it easy to carry.

### **SmartTrack™ PDA**

TDW Offshore offers an industrial grade EEx Rated PDA preloaded with our SmartTrack™ software.

The SmartTrack™ PDA is used for monitoring pig ID and pig location. All SmartTrack™ transponder functions such as ID code, power output, on/off etc., can be set and modified through the use of the PDA in combination with the topside transceiver.

All received data is logged and saved for later analysis or downloading to another system through Bluetooth® communication or by cable. The data can be interpreted by playing back the log file in the SmartTrack™ software on the PDA or on a PC.



*The topside transceiver only weighs 2,7 kg (6 lb). It communicates via Bluetooth® to the PDA at a distance up to 10 m (30 ft).*



## **TDW Offshore Services – Smart Pipeline Solutions™**

TDW Offshore is the worldwide leader in tetherless, through-wall remote-controlled pipeline pressure isolation services. We minimise your pipeline downtime through fast-track delivery of project-specific pigging, repair and handling tools, both onshore and offshore.

TDW Offshore has a large in-house engineering department, allowing TDW Offshore to meet customer needs. TDW Offshore is certified to ISO 9001:2000 Quality Management System.

TDW Offshore Services is a subsidiary of T.D. Williamson, Inc. (TDW). TDW, the world's most recognized name in pipeline equipment and services, delivers safe integrity solutions for onshore and offshore applications. TDW's experts provide hot tapping and plugging, pipeline cleaning, geometry and MFL inspection, pigging and non-tethered plugging pig technology services for any pressurized pipeline system, anywhere in the world.

TDW Offshore offers a broad range of products and services, such as:

- **Pipeline Pressure Isolations**
- **Pipeline Pigging**
- **Pipeline Flood Prevention**
- **Pipeline Construction**
- **Pipeline Repair**



**TDW Offshore Services**

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