GROUP

INNOVATIVE KNOW-HOW

PIPELINE PRE-COMMISSIONING//

Products & Services

ABOUT//

Online Electronics (OEL) was formed in 1996, and acquired by the IK-Group in 2015.OEL provides a wide range of locating equipment for the whole pipeline industry, from construction, through operational life to de-commissioning.

With 25 years experience, OEL is the technological market leader in pig tracking and pig detection. Using acoustic, electromagnetic, magnetic and ultrasonic technologies combined with electronics expertise, OEL can meet the demands of any given application.

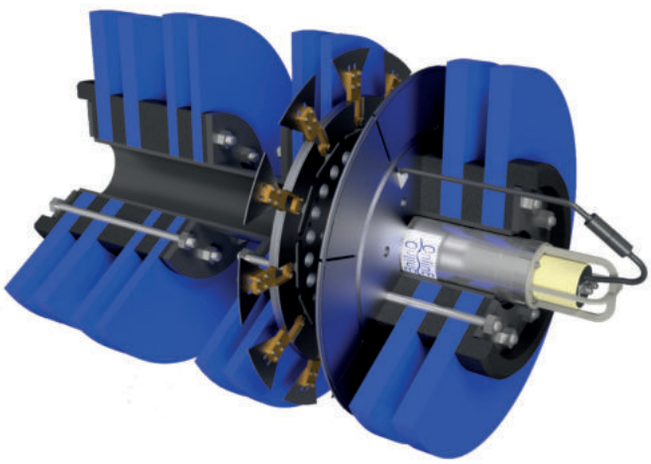
Pipeline pre-commissioning is a process consisting of a number of stages. Following on from the successful cleaning and gauging of a newly laid line, the hydrotest takes place followed by the subsequent dewatering and, potentially, drying of the line. At this stage, it is vital operators can collate the necessary data to allow them to move efficiently between these pre-commissioning stages and minimise costs.

Many pipeline systems consist of challenging internal geometry – the combination of tee pieces, wye pieces and complex subsea fittings found in manifolds & heavy wall pipe on FPSO topsides combined with the usual bends require careful pig design consideration. In addition, the appropriate pig tracking, locating and signalling methodology needs to be selected to ensure the pipeline pre-commissioning operation can be completed efficiently.

In addition to pig tracking and signalling, datalogging and testing solutions can facilitate the pipeline pre-commissioning process. These solutions include pipeline gauging data systems, pressure and temperature monitoring during the hydrotest and subsea sampling with real time data during the drying process.

DATALOGGING & TESTING//

Datalogging & testing equipment records and communicates data remotely at various stages of the pipeline recommissioning process in order to free up the support vessel to perform other tasks during subsea hydrotests.



GRID (GAUGING RUN INTEGRITY DATA)

GRID system allows the presence and position of defects along a pipeline to be identified. There is no need to recover the pig to visually inspect the gauge plate and there is the option to detect and log multiple defects.

Features and benefits:

- Events are logged by the GRID transducer and can be downloaded to a laptop
- Pingers can be configured to extend battery life
- Data can be transmitted over long distances
- Pressure Switch Activation

6000SD

The 6000 Temperature and Pressure Subsea Logger is a compact, self-contained, subsea unit which logs and displays readings from internal digital pressure and temperature sensors to ensure acceptable hydro-test results have been achieved. This can be done without the need to recover the unit with the DNV Pass/Fail display.

Features and benefits:

- Enables ROV, vessel or diver to perform associated tasks in parallel resulting in accelerated completion of work.
- Can be interfaced with an acoustic pinger, data transducer or strobe enabling remote monitoring or indication when a particular pressure, temperature or time threshold is reached.
- High visibility OLED display
- Unit and interface components can be mounted in easy to deploy cradle.
- Compact, self-contained with minimal connections and cabling resulting in easy installation.
- Capable of displaying and logging 2x pressure and temperature for approximately 100 days, complete with time and date.
- All functions can be carried out using a single control button and intuitive menu system.

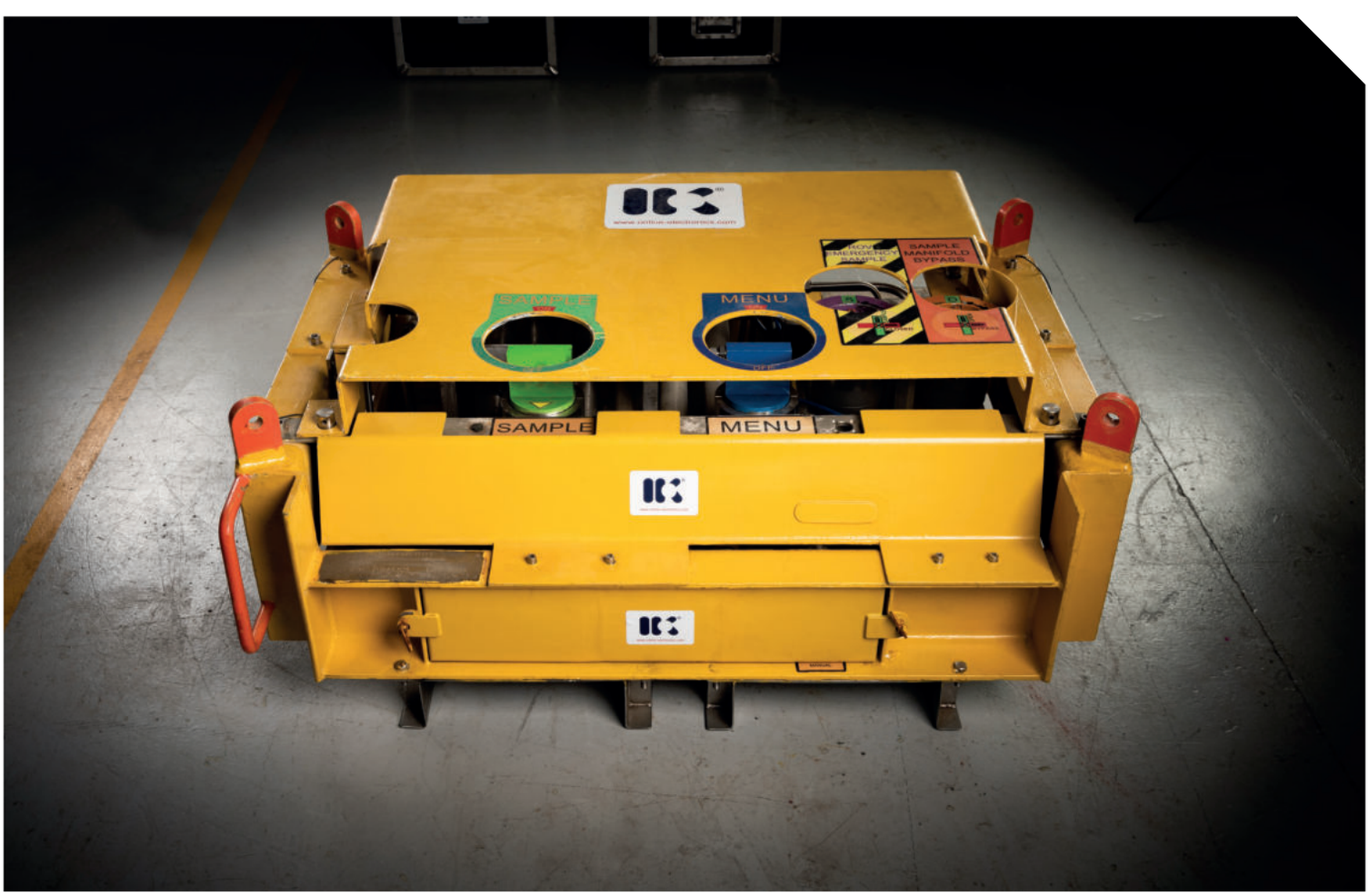
MEG ARTS ®

MEG ARTS® is a system with a proven track record in providing highly reliable information on the composition of MEG and other chemicals received subsea during pipeline conditioning operations. It is specifically designed for pre-commissioning of pipelines where lines require chemical conditioning in preparation for transportation of gas.

The flowing MEG is analysed for conformity with project purity, dryness or hydrate suppression requirements. Values of density, pressure and temperature are logged and displayed on a high visibility OLED display. Up to 7 samples are captured for recovery to surface to confirm composition.

Features and benefits:

- Pipeline conditioning assured through real time data, logged data and physical sampling.
- Graphical summary of pipeline conditioning operation from downloaded data.
- Automatic sampling eliminates the need for vessel at, or transit to, receipt location resulting in significant savings in vessel time and costs.
- Optional ROV sampling allows for multiple samples from a single switch meaning the ROV does not need to relocate to different valves.
- Samples can be captured from specified train positions with ROV sampling.
- Removal of industry reliance on theoretical calculations



MAGNETIC NON-INTRUSIVE SIGNALLERS//

Signallers confirm successful launch and receipt of magnetic pigs and pig passage confirmation at strategic points along the pipeline. Non-intrusive signallers can be installed quickly and easily to the pipeline. All signallers provide local indication of pig passage via a graphical display and high brightness LEDs.

4001D MAGSIG®

The 4001D MAGSIG ®is suitable for pipelines of any size. It is both ATEX and IECEx certified. The 4001D MAGSIG® quickly and accurately detects, signals and logs the passage of magnetic pigs at critical points along a pipeline, both onshore and offshore.

4000SD SUBSEA

The 4000SD non-intrusive signaller is a compact, self-contained, magnetic pig signaller which is suitable for harsh subsea applications and has an operating depth of 3,000m.

FEATURES AND BENEFITS OF ALL SIGNALLERS:

- Up to 99 logged events
- Graphical display and high brightness LED
- Events can be viewed locally and reviewed later
- Single control button and intuitive menu system
- Quick and easy set up
- Versatile
- Time and cost savings

ELECTROMAGNETIC PIG LOCATING//

The EM transmitter and receiver system enables quick and accurate locating of a stuck pipeline pig in a topside or subsea pipeline and with any pipeline medium.

ELECTROMAGNETIC TRANSMITTERS

Electromagnetic transmitters allow for precise validation of a stuck pig's location and as a contingency method of confirming launch and receipt of pipeline pigs.

OEL can provide a wide range of ATEX certified EM transmitters designed to work in potentially explosive environments such as FPSOs and platforms and other locations where equipment must be protected from creating ignition or explosion.

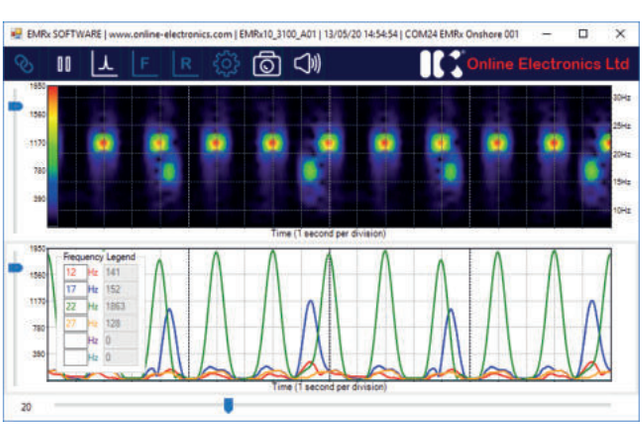
ELECTROMAGNETIC RECEIVERS

OEL's range of EMRx receiver systems allow for quick and exact tracking and locating of pigs fitted with electromagnetic transmitters. The location of a stuck pig can easily be identified with onshore, ATEX and subsea options.

Detection through very heavy walled receivers/launchers, pipeline bundles or Pipe-in-Pipe is possible.

ELECTROMAGNETIC RECEIVER APPLICATIONS

OEL's range of intuitive and easy to use EMRx Applications can be used in conjunction with EMRx units and provide a graphical display of the signal being received, further facilitating the process of pig locating and tracking.



The applications also provide additional functionality such as tracking logs, marker placement and the ability to set EMRx parameters such as the colour coded LEDs displaying the received signal.

Features and Benefits

- Range of units suit all line sizes
- Specialist operators are not required resulting in less costs than other tracking & location options
- The transmitter can be adapted to become the pig body by fitting pig flanges, increasing the signal considerably.
- Transmitter and receiver parameters can be modified by the user without the need to return to manufacturer.

ACOUSTIC PIG LOCATING//

Our acoustic pinger and receiver systems enable quick and accurate detection of a stalled pipeline pig from a support vessel, resulting in significant savings in vessel, equipment and personnel costs.

ACOUSTIC PINGERS

OEL's Pingers come in various sizes with stainless steel bodies. The pingers are of high specification and are used for subsea marking and location operations. Pingers have a saltwater activation, therefore can be left in the launcher and will activate when the saltwater contacts are exposed to any conducting fluid.

Features and benefits:

- Capable of sending acoustic transmissions up to 2km
- Multiple frequencies which allow for easy pinger differentiation
- The pingers have multiple use, and can be used as an ROV beacon, within a pig and as an acoustic alarm
- The pingers have a battery life from 6-300 days and can operate in temperatures of -2c to +54c
- Ping rates, acoustic power and pulse lengths can be altered to extend battery life allowing for specific project requirements to be met

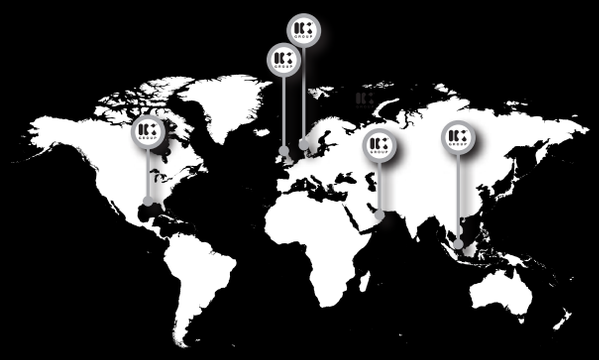
ACOUSTIC RECEIVERS

OEL's acoustic receiver systems allow for quick and accurate tracking and locating of pigs fitted with subsea acoustic pingers acoustic pingers The location of a stuck pig can be identified using diver and ROV held hydrophone solutions including the option to relay the received acoustic signal to the surface via the ROV'S umbilical.

AUDIOSCOPE SOFTWARE

OEL's Audioscope provides a comprehensive visual depiction of signals received by an Acoustic Receiver. This is particularly advantageous when the signal consists of a coded transmission for example when utilising Online GRID system. The snapshot function allows easy integration into any technical report.

IK GROUP



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INNOVATIVE KNOW-HOW

BRILLIANT ENGINEERING IS THE DNA OF THE IK-GROUP//

We make your operations run safely and profitably. Onshore and Offshore, Topside and Subsea. With the clever use of proven technology, we have solved some of our industry's most complex challenges.

Proud to be associated with:

magnetjqs registered

ISO 9001:2015 Quality Management

online-electronics.com