



Acoustek®



Pipeline Blockage Detection Tool

Product Description & Function:

Acoustek® uses a patented technique of transmitting acoustic waves down a gas pipeline and analysing the pattern of the reflected waves to locate full or partial blockages, obstructions or leaks.

The Acoustek® device can either be installed for continuous monitoring or used on an as needed basis.

Acoustek® has been jointly developed with the support of the University of Manchester and has been used successfully in both onshore and offshore hydrocarbon applications.



Acoustek® system

Why Acoustek® is needed:

Blockages (particularly hydrate formations), obstructions or leaks in gas pipelines result in significant losses in revenue and severe disruption to operations.

Acoustek® allows immediate assessment and analysis of pipelines to accurately identify and locate any blockages or obstructions, which enables remedies to be put in place quickly.

Benefits of Acoustek®:

- Easy to deploy and relatively inexpensive.
- Locates blockages in pipelines without needing to deploy service teams.
- Continuous monitoring capability.
- Suitable for complex pipeline networks.
- Easy to integrate with existing pipeline equipment.
- Remote surveying capability.
- No requirement for additional support services such as ROV.
- Only requires installation to one end of the pipeline.
- Accurate location of blockages or obstructions to +/- 2.5m.
- Pipeline surveys completed in just a few hours.
- No disruption to gas flow or normal operations.



Data retrieval

PIPELINE ENGINEERING

"Engineered Solutions for the Pipeline Pigging and Flow Assurance Industry"





Features of Acoustek®:

- > Easy to fit and operate.
- > Portable or permanent unit.
- > Relatively small unit.
- > Real time / instant analysis.
- > ATEX Certified.
- > Can be used in pressures up to 5,000 psi.
- > Operating range of up to 10km depending on pipeline geometry.
- > Can be mobilised very quickly.



Acoustic wave injector

Application Areas:

- > As a temporary installation to detect blockages, obstructions and other features in a pipeline.
- > As a permanent installation to continuously monitor the pipeline to detect changes such as the build-up of a hydrate blockage or wax deposit.
- > Location of partially closed valves.
- > Location of stuck pigging tools and plugs.
- > Location of dents, hydrates, wax and scale.



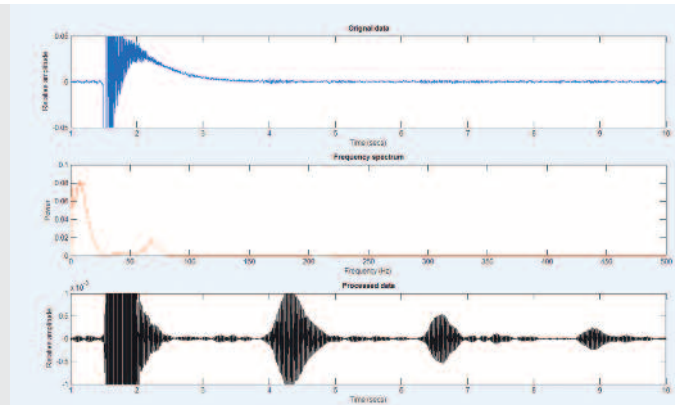
Project analysis and consultation

Acoustek® – Operation and Data Analysis:

PE has a team of service engineers who manage the operation of Acoustek® and carry out all site operations. Acoustek® service support includes:

- > Assessment of pipeline suitability for using Acoustek®
- > Set-up of Acoustek® on pipeline
- > Data retrieval and analysis
- > Full report of findings

PE provides advice on all pipeline cleaning, pipeline pigging and flow assurance activities.



Results of Acoustek® survey