



PIPELINE INSPECTION
AND ASSESSMENT

Multi-Discipline Pipeline Solutions

CONDITION
ASSESSMENT

Multi-Discipline Pipeline Solutions

Imagine a network of pipes stretching over 9 million kilometres, carrying the lifeblood of our cities and industries. This is the water infrastructure of the developed world, a silent giant worth trillions. But beneath the surface, these pipes are aging, leaking, and deteriorating.

Wholesale replacement is a daunting and costly proposition, with up to 80% of replacement and relining costs potentially wasted on perfectly good pipes. Yet, inaction is not an option. Leaks are up to 300 times cheaper to prevent than to repair, and the consequences of failing infrastructure are severe: water scarcity, environmental damage, and economic disruption.

Pipeline Inspection & Assessment (PIA) specialises in multi discipline pipeline solutions and state of the art technologies covering the water and wastewater industries. We are committed to extending the life of pipeline assets by providing innovative solutions including pipeline inspection, assessment, monitoring, maintenance, data collection and analysis. We work in partnership with our customers globally to deliver knowledge and insight to reduce risk and improve reliability and sustainability.





p-CAT™ Nexus is a non-invasive, non-destructive technology for performing pipe condition assessment. p-CAT™ Nexus can determine remaining wall thicknesses over long sections (many kilometres) of pipeline as well as detecting and locating defects such as air and gas pockets, internal blockages and restrictions, unknown connections, pipe material changes and cement matrix loss from metallic, concrete and AC pipes.

p-CAT™ Nexus works by analysing the partial reflection of a small, controlled transient signal that is injected into the pipeline. The signal is monitored and recorded by sensors that are temporarily installed on existing pipe fittings. The transient wave experiences partial reflection when it encounters any change in pipeline structure, including both known features of the system as well as other issues related to pipe deterioration.

p-CAT™ Nexus can be applied on any pressurised fluid filled pipeline carrying potable, raw or wastewater and saves on costs by locating defects within the pipeline and limiting repairs and replacements to only the sections in need of attention. To date, p-CAT™ Nexus is the most comprehensive and advanced solution for long distance pipelines.



p-CAT™ Infinity also uses the p-CAT™ unique patented and proven technique of inverse transient analysis to measure and determine the wall condition and thickness of pipelines, however there is a difference. The Detection Services approach is to provide an expansion and extension of the p-CAT™ application (suite), with the key to p-CAT™ Infinity reducing the need for sometimes complex works such as offtake isolations. This technology can be applied on different and varied system configurations and allows for a substantial reduction of time from inception and implementation through to analysis and solution. This allows for an increase in efficiency with a focus on opportunity to extend the lifecycle of the asset and maximise value.

- No risk of water contamination
- No requirement for mains shutdown
- Locating anomalies with +/- 10m precision
- No loss of invasive equipment in the pipeline
- Suitable for all metallic, concrete and AC pipes
- Extending the life of your assets and deferring replacement
- Determining remaining thicknesses of pipe wall to 0.2mm accuracy



p-CAT™ Sonic offers a revolutionary approach to pipeline condition assessment, providing accurate and reliable data without the need for disruptive excavation or service interruption. As the winner of the 2023 Water Council Tech Challenge for Pressure-Pipe-Inspection, p-CAT™ Sonic utilises cutting-edge technology to deliver the highest resolution external surveys available.

Proven on numerous systems since 2017, p-CAT™ Sonic is compatible with all standard pipeline materials, including mixed material pipes, and can operate while the pipe is filled with any single fluid. This non-invasive method allows for efficient and cost-effective inspections, minimising downtime and maximising asset lifespan. Furthermore, p-CAT™ Sonic integrates seamlessly with most existing leak detection products, enhancing data collection and providing a

comprehensive understanding of pipeline integrity. Choose p-CAT™ Sonic for a smarter, safer, and more sustainable approach to pipeline management.

- **Is completely non-invasive and non-destructive**
- **Provides high resolution sub sectional assessment down to 3 metres (10 feet)**
- **Helps find the next leak while localising existing problems**
- **Predicts remaining service life and respond to changing operating conditions**
- **Improves efficiency of capital spending**

Our Mission

To deliver intelligent, sustainable pipeline management solutions essential to the water and wastewater industries.



INFINITY



INFINITY