PIPA Pipeline™

The Pipeline™ – In-Pipe Cabling System

Future-Proofing Pipeline Inspection, Monitoring and Maintenance

PIPA Pipeline™ is a unique, purpose-designed in-pipe cabling system manufactured to provide permanent or semi-permanent access for the deployment of inspection, monitoring, leak detection and maintenance technologies within water pipelines.

Designed primarily for installation during the construction of new pipelines, the system can also be retrofitted into existing pipe networks, providing a practical solution for future access without the need for excavation or major network disruption.



PIPA Pipeline™ Cable

Product Overview

Manufactured from 3mm galvanised steel wire with a polypropylene protective coating, PIPA Pipeline™ is specifically designed for long-term exposure to chlorinated water and installation within potable water pipelines.

The cable is suitable for both pressurised and depressurised pipeline applications. Its uniform external profile allows specialist sealing plates and associated sealing arrangements to be installed at either end when undertaking inspections under pressure.

Once installed, the cable provides a dedicated pull-through facility for deploying a range of technologies, including:

- Acoustic leak detection equipment.
- Pipeline CCTV inspection systems.
- Pipeline monitoring and assessment equipment.
- Internal cleaning and maintenance tools.
- Specialist inspection and testing technologies.



PIPA Pipescout™ Sensor



PIPA PLUTO™ Sensor

The system can facilitate technology deployment over distances of up to 2km, allowing pipelines to be investigated following a failed hydrostatic test, suspected leak or as part of planned maintenance and routine inspection programmes.

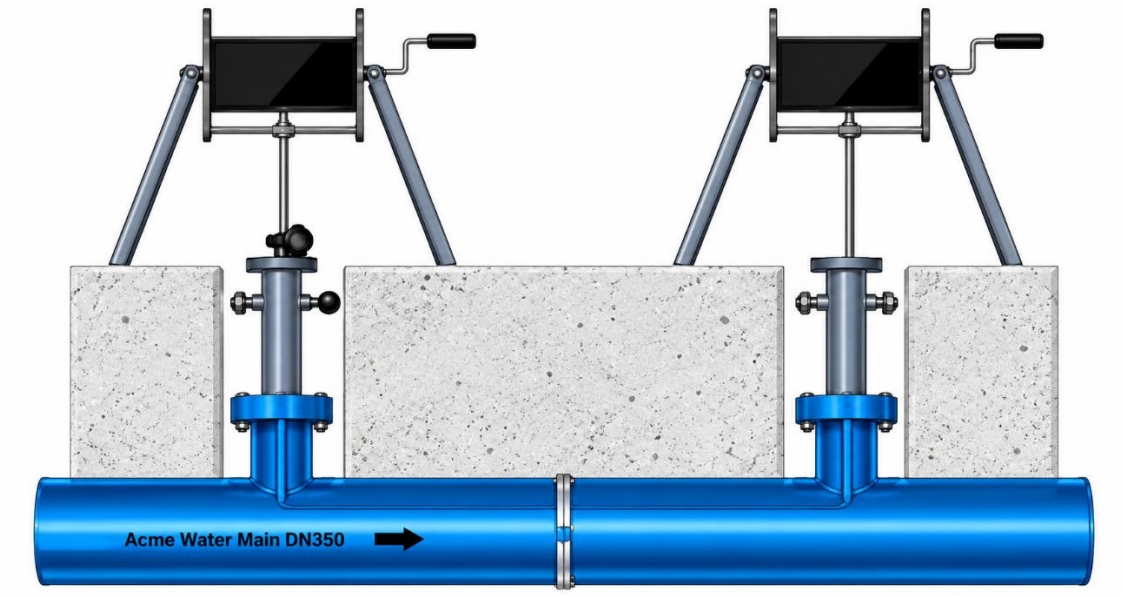
The cable can remain installed within the pipeline throughout its operational life, with a recommended replacement or rotation period of five years.

Installation – New Pipeline Construction

PIPA Pipeline™ is designed to be incorporated into the pipeline during the construction and installation process.

The cable is positioned internally, with strategic isolation points installed at predetermined locations along the pipeline. The cable is secured at either end through compression arrangements incorporated into suitable gate valves or fittings.

This provides future access points for inspection and maintenance equipment without requiring excavation or removal of the pipeline.



2km survey range

Entry Points

Entry points are installed within permanent access chambers to facilitate the installation and operation of permanent pipeline monitoring systems.

The entry point size is determined by the type of monitoring equipment and inspection requirements:

- **100mm entry point:** Typically used for acoustic leak detection systems.
- **150mm entry point:** Typically used for under-pressure CCTV inspection systems.

Each entry point is designed to provide a dedicated access point for monitoring equipment, allowing ongoing pipeline assessment without the need for repeated excavation or disruption to the network.

Retrofitting Existing Pipelines

The system can also be installed into existing operational water networks.

For retrofit applications, the cable is introduced into a live water pipeline using a controlled floating installation technique and subsequently retrieved through a secondary sealing arrangement.

This provides an opportunity to introduce future inspection capability into existing infrastructure without taking the pipeline out of service.

Pressurised Inspection and Cable Replacement

Where inspection or monitoring technology needs to be deployed under pressure, the cable is passed through a suitable pressure-sealing arrangement and connected to a specialist cable deployment device.

A secondary replacement cable is attached to the deployment arrangement and pulled into the pipeline alongside the required inspection technology.

This process allows the existing cable to be replaced, or alternatively retrieved and reinstalled, depending on the operational requirements.

The relevant isolation valves or fittings are opened to facilitate the controlled pull-through operation. Following completion of the inspection or survey, the pipeline access points are isolated and returned to their required operational configuration.

All deployment procedures must be undertaken using suitably rated equipment and approved pressure-control arrangements.

Future-Proofing Critical Infrastructure

PIPA Pipeline™ offers water companies, contractors and infrastructure operators a proactive approach to managing high-risk pipelines and critical assets.

By incorporating an internal access cable, pipeline owners can significantly improve their ability to investigate, monitor and maintain important sections of their network throughout their operational life.

Strategic installation is particularly recommended for pipelines and conduits located near:

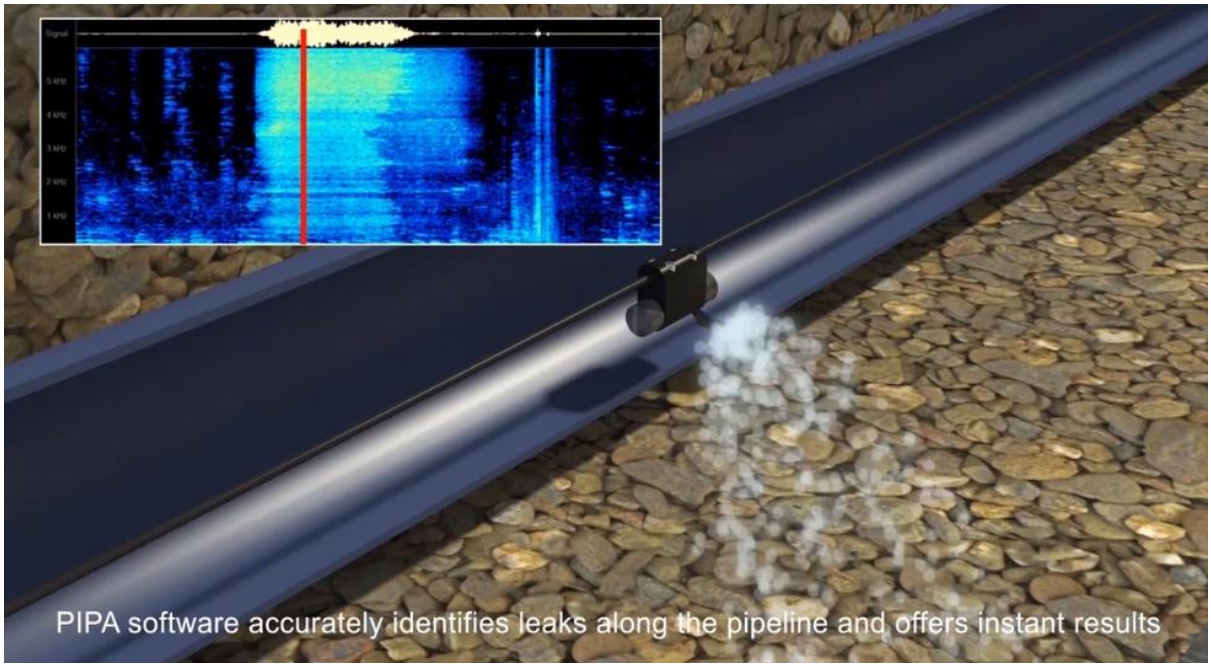
- River crossings and major watercourse crossings.
- Railway lines and associated infrastructure.
- Major highways and transport corridors.
- Difficult-to-access or environmentally sensitive locations.
- Critical water supply infrastructure.

Install today. Inspect tomorrow. Protect your network for the future.

Technical Data

Specification	Details
Product	PIPA Pipeline™
Supply format	2km cable drum
Cable outside diameter	3mm
Core material	2.5mm galvanised steel wire
Protective coating	0.25mm polypropylene
Water compatibility	Designed for potable water applications
Chlorine resistance	Designed for long-term exposure to chlorinated water
Compliance	MIC compliant product
Application	Pressurised and depressurised pipelines
Maximum deployment distance	Up to 2km
Recommended replacement period	5 years
Installation	New pipeline construction or retrofit
Traceability	Cable can be traced to assist with locating non-metallic pipelines

PIPA Pipeline™ – A smarter way to access, inspect and maintain critical pipeline infrastructure.



The Pipeline™ product is DWI MIC approved and supplied in 2km drum lengths (longer lengths available for order)