

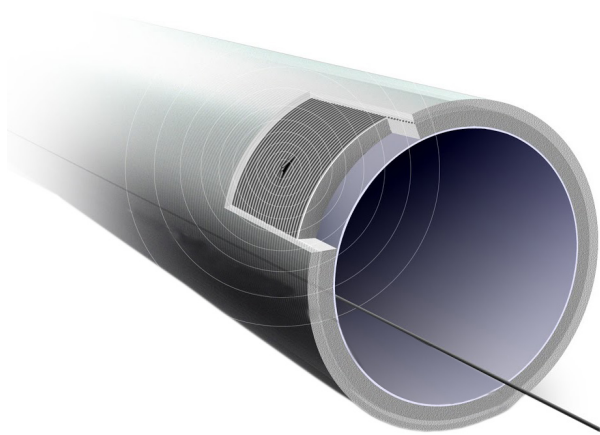
SoundPrint[®] AFO

CONTINUOUS REMOTE MONITORING PLATFORM TO PREVENT PIPELINE FAILURES

Xylem's SoundPrint[®] Acoustic Fiber Optic (AFO) monitoring system detects and locates wire breaks in Prestressed Concrete Cylinder Pipe (PCCP). With this advanced warning system and a dedicated Xylem support team, utilities can determine the condition of critical pipelines and take preventive action to avoid large-scale failures.

Why Choose SoundPrint AFO?

- Continuously monitors critical water and wastewater PCCP transmission mains
- Acquires data and alerts utilities to structural changes in near real time
- Empowers pipeline owners to mitigate risk and proactively manage their pipeline
- Enables probability of failure calculations to support long-term capital planning and asset management



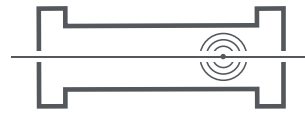
SoundPrint AFO

BY THE NUMBERS



830+

Miles of pipeline monitored



85,600

Wire breaks detected



15+

Years of experience across the globe

What You Can Expect

When PCCP water and wastewater transmission mains fail, it is often catastrophically and at great cost to utilities and surrounding communities. SoundPrint AFO is a proven solution that leverages more than 15 years of experience to reliably and continuously monitor wire breaks in PCCP, the primary indicator of degradation in this pipe type. Near-real-time data collection empowers pipeline owners to proactively manage their assets with greater confidence, reducing the risk of dangerous and expensive failures and unplanned operational expenses.



Operational Excellence

With SoundPrint AFO technology, a fiber optic cable installed inside the pipeline detects wire breaks, offering the best available information on pipe condition. This platform can be configured to monitor long stretches of pipeline for decades, providing a complete, long-term view of structural health. SoundPrint AFO is installed in either a dewatered or operational pipeline, as the platform can be deployed and commissioned around most valves, bends, and outlets.

Delivery Experience

Globally, Xylem has monitored over 830 miles (1,340 km) of pipeline and recorded more than 85,600 wire breaks from its managed roster of pipelines. Xylem offers a dedicated long-term support team with extensive SoundPrint AFO experience.

Actionable Information

Xylem analysts review acoustic data collected by the SoundPrint AFO platform and convey actionable information to clients in near real time through alerts and a secure online portal. With this information, utilities can proactively manage their pipeline and identify at-risk pipes before they fail. By averting failures, reducing reactive emergency repairs, and helping utilities target only the assets that need repair or replacement, the SoundPrint AFO platform can result in a significant return on investment.



Get More from Xylem

Before installing a SoundPrint AFO monitoring system, utilities can assess a pipeline's baseline structural condition using electromagnetic inspection solutions. Xylem offers three best-in-class technologies, the **PipeDiver**[®], **PureRobotics**[®], and **PipeWalker**[™] condition assessment platforms.

Pressure surges hasten pipe degradation, so better understanding a pipeline's true operating pressure using **transient pressure monitoring** further informs the condition of critical mains and complements SoundPrint AFO in mitigating the risk of pipe failure.

Xylem also offers **structural evaluation services**, combining wire break information with true operating pressure to create performance curves for data-driven pipeline management decisions.

Related Case Studies

Lake Huron and Elgin Area Primary Water Supply Systems, Ontario, Canada

Project highlights

- During a baseline electromagnetic inspection of the utility's critical 37-mile (60-km) transmission main, only 0.5 percent of pipes showed signs of deterioration.
- A continuous monitoring system installed in 2015 tracks pipeline deterioration over time and serves as an advanced warning system to prevent potential failures.
- The utility has proactively replaced eight pipes based on electromagnetic inspection and pipeline monitoring data.
- Each proactive repair represents a 5:1 return on investment compared to the cost of a catastrophic failure.
- Remaining useful life calculations for each pipe support long-term asset management planning.

[Read the full case study](#)

For more information on how we can help you, contact us at: puretech@xylem.com



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