



# SmartBall®

## A MULTI-SENSOR INLINE INSPECTION TOOL FOR ACTIVE LEAK DETECTION, CONFIRMATION OF CONTAINMENT, AND THREAT MONITORING

Pipeline owners spend millions each year on integrity programs to ensure the safe delivery of energy resources. An effective integrity program relies on multiple tools to fully understand pipeline condition. PureHM's SmartBall complements existing inline inspection (ILI) programs, collecting data that conventional leak detection and ILI technologies cannot. This multi-sensor tool can detect pinhole leaks, confirm containment, and monitor threats – all in a single deployment.

### Why Choose SmartBall?

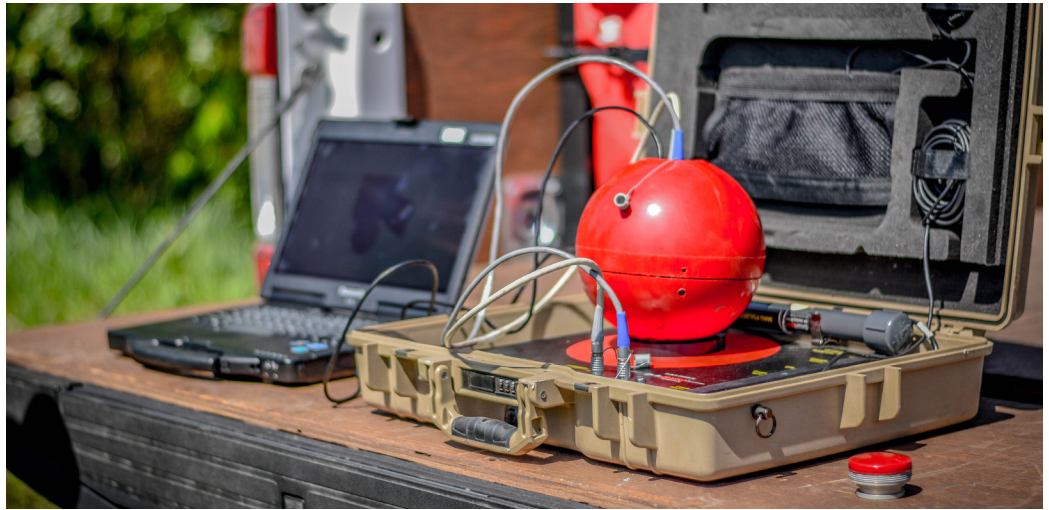
The SmartBall platform is the most sensitive leak detection technology available to the oil and gas industry. This lightweight tool can inspect pipelines 4 inches (100 mm) in diameter and larger, including those inaccessible to traditional ILI tools. The SmartBall platform provides pipeline owners with critical condition information to prevent product releases and direct repairs and maintenance.

- Locate pinhole leaks with the industry's lowest leak detection threshold
- Verify that your pipeline is leak free with minimal impact on operations
- Monitor threats for leaks while planning repairs
- Inspect both piggable and unpiggable pipelines
- Quick response and flexible project delivery options
- Collect continuous pressure and temperature profiles
- Map the entire length of a pipeline





**+44,000 MILES**  
(70,800 KM)  
of oil and gas  
pipelines inspected  
with SmartBall



## Make SmartBall Part of Your Best-in-Class Leak Detection Program



### Active Leak Detection

Pinhole leaks are often missed by conventional leak detection systems (LDS). When left undetected, these small leaks can lead to significant product loss and even catastrophic pipeline failures. SmartBall's acoustic sensor is typically orders of magnitude more sensitive than conventional LDS. The tool can find pinhole leaks with an industry-leading lower leak threshold of 0.03 gallons per minute (115 mL/min). If an active leak is suspected, SmartBall can quickly identify the exact location of the leak. PureHM can mobilize rapidly in emergency situations and deploy the lightweight SmartBall platform much faster than traditional ILI tools.



### Confirmation of Containment

Regular SmartBall surveys ensure complete confirmation of containment – beyond the detection limit of any other LDS. These proactive inspections build goodwill with stakeholders and help put you in good standing with regulators. Pipeline operators also use SmartBall in response to suspected leaks or after disruptive activities, such as construction or geotechnical events. The tool can restore confidence in a pipeline following a false positive leak alarm or when there are discrepancies in shipping and delivery volumes.



### Threat Monitoring

There are a variety of tools available to detect threats, including cracks, geometric deformations, and corrosion. However, these tools typically cannot determine if a defect is leaking. Surveying known problem areas with SmartBall quickly identifies any through-wall defects. This can help operators make informed mitigation plans and avoid unnecessary emergency repairs. When there is doubt about the need to dig, use SmartBall to monitor the area in question until a decision is made.





## How Does SmartBall Work?

The SmartBall platform is easily launched, deployed, and tracked like other ILLI tools. However, the tool can also inspect unpiggable or difficult-to-pig pipelines that are inaccessible to conventional ILLI tools. This means operators can gather critical pipeline condition data that would otherwise be unavailable.

### Leak Detection

The SmartBall platform has a sensitive acoustic sensor that identifies the sound of product released from the pipeline. Unlike conventional LDS, SmartBall can identify pinhole leaks as small as 0.03 GPM (115 mL/min).

### Pipeline Mapping

The SmartBall platform can map the entire length of a pipeline using directional changes. The tool is equipped with an inertial mapping unit (IMU) that provides operators with confirmation of alignment and a field-generated pipeline map.

### Seamless Integration

Seamlessly integrate SmartBall into existing ILLI programs. Deploy and retrieve the tool from existing pig launchers and traps or using alternative methods. Track it with PureHM's proprietary Armadillo AGMs. Pipeline operators can also inspect unpiggable or difficult-to-pig pipelines with SmartBall. The tool travels with the product flow, traversing tight bends, small diameters, and undersized valves that are inaccessible to most ILLI tools.



## TOOL CHARACTERISTICS



### Pipe Diameter

≥ 4 inches (100 mm)



### Battery Life

Up to 400 hours



### Leak Sensitivity

0.03 GPM (115 mL/min)

## OPERATING CHARACTERISTICS



### Min/Max Pressure

1 - 138 Bar  
(15 - 2,000 psi)



### Optimum Flow Range

0.5 - 6.5 ft/s  
(0.15 - 2 m/s)



### Pipeline Product

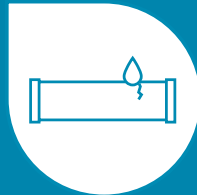
Crude oil, synthetic crude, refined products, produced water, natural gas, natural gas liquids, and diluted bitumen

## Get More from PureHM

**PureHM, a Xylem brand** provides pipeline integrity solutions that help companies safely and reliably deliver crucial energy resources. Our best-in-class technologies provide operators with actionable information needed to identify problem areas, reduce unnecessary pipeline repairs, and prolong asset life. See how PureHM can help protect your pipelines, your reputation, and your bottom line.



**ABOVE-GROUND  
INSPECTION  
SERVICES**



**LEAK DETECTION  
SERVICES**



**CORROSION  
CONTROL  
SERVICES**



**PIGGING  
SERVICES**

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