



ENDURO
PIPELINE SERVICES, INC.

Pipeline Pigging Guide

Types. Process. Best Practices.

Built in Tulsa. Proven in the field. Enduro Pipeline Services delivers pipeline pigging tools, tracking equipment, and inspection solutions backed by over 38 years of real-world experience.



Pipeline pigging is widely used across oil, gas, water, and industrial pipeline systems to maintain flow efficiency and prepare for inline inspection.



What is Pipeline Pigging?

Pipeline pigging is the process of sending a device (called a pig) through a pipeline to clean, inspect, separate products, or remove debris. It plays a critical role in maintaining pipeline efficiency, flow assurance, and overall integrity.

How Pipeline Pigging Works

A pig is inserted into the pipeline through a launcher and pushed through the line using product flow or gas pressure. As it travels, it performs tasks such as cleaning buildup, separating products, or collecting inspection data before being received at the end of the pipeline.

Pipeline Pig Launching and Receiving

Pipeline pigging operations rely on controlled launching and receiving systems designed to safely insert and remove pigs from the pipeline.

Pig Launching Process

1. Insert the pig into the launcher
2. Seal and pressurize the launcher
3. Equalize pressure with the pipeline
4. Open the valve to launch the pig into the line

Pig Receiving Process

1. Pig enters the receiver barrel
2. Flow is isolated
3. Pressure is safely reduced
4. Receiver is opened and pig is removed

Proper pressure control, valve sequencing, and safe depressurization are critical for both operational safety and performance.

Types of Pipeline Pigs

1. Cleaning pigs – remove debris, scale, and buildup
2. Batching pigs – separate different products in the line
3. Foam pigs – used for light cleaning, drying, or dewatering
4. Urethane pigs – durable options for routine operations
5. Intelligent pigs (ILI tools) – collect data to detect corrosion, dents, and anomalies



Common Pipeline Pigging Challenges

Even well-planned pigging operations can run into issues. Some of the most common challenges include:

Stalled pigs

Caused by debris buildup, incorrect pig selection, or insufficient pressure.

Poor cleaning performance

Results from using the wrong pig type or insufficient run frequency.

Inconsistent pig speed

Flow variations can cause pigs to move too fast or too slow, impacting cleaning and inspection results.

Inspection data issues (ILI runs)

Debris or liquid buildup can interfere with sensors, reducing data quality.

How to Avoid These Issues

- Select the right pig for pipeline conditions
- Ensure proper cleaning before inspection
- Monitor pressure and flow rates during runs
- Use tracking equipment to confirm pig location

Pipeline Pigging Equipment Used

Successful pigging operations rely on the right equipment, including:

- Cleaning pigs** designed for specific debris and pipeline conditions
- Pig tracking equipment** to monitor location during runs
- Launchers and receivers** for safe operation
- Inspection tools (ILI)** for data collection and integrity assessment

Enduro provides all of these solutions—built to perform in real-world conditions.



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Why Pigging Matters Before Inline Inspection (ILI)

Cleaning the pipeline before inline inspection is essential for accurate data. Debris and buildup can interfere with inspection sensors, reducing data quality and increasing the risk of costly re-runs. A properly cleaned pipeline ensures better tool performance and more reliable results.

Work With a Team That Gets It Done

Enduro Pipeline Services works directly with operators to design pigging programs that actually perform in the field. From custom-built pigs to tracking equipment and inspection support, we help you get the job done right the first time.

Get a Quote: www.enduropls.com/quick-quotepage Call: 800-752-1628

