

### **ENGINEERED TO DELIVER SUPERIOR RESULTS**





WE ARE DEDICATED TO EXCEEDING YOUR EXPECTATIONS—IT'S NOT JUST OUR PROMISE; IT'S OUR STANDARD.

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## Every Day, We Give It Our Best

For more than three decades, Enduro Pipeline Services has set the standard in pipeline integrity, cleaning, and inspection. Founded in 1988 and headquartered in Tulsa, Oklahoma, we've grown into one of the industry's most trusted names—thanks to the people behind our tools and the customers who count on them.

Our story is built on two commitments: unmatched expertise and customer-first service. From the earliest designs to today's advanced cleaning pigs, tracking systems, and ILI tools, every product reflects the dedication of our long-tenured employees—many with 30+ years of experience at Enduro.

That dedication shows in how our customers rate us. In our most recent satisfaction survey:

- 94% said Enduro products consistently met or exceeded expectations
- 92% praised our turnaround times as faster than competitors
- 96% rated our customer service as responsive and reliable

When you choose Enduro, you're choosing more than a product—you're choosing a partner committed to your success, backed by history, expertise, and a proven track record of customer satisfaction.





Sizes 6" - 60"

The **DdL DW2**™ isn't just about navigation—it's a next-generation caliper tool designed to give operators precise data on the condition of their pipeline. Using advanced sensors and a high-resolution measurement system, the DW2 detects:

- **Dents** Identifying deformations that could compromise future ILI runs.
- Wrinkles & Buckles Spotting strain-related features before they become failures.
- Ovality Measuring out-of-round conditions that affect flow and tool performance.
- Movement & Strain Recording shifts that may impact long-term integrity.

This data is critical for integrity teams preparing lines for inspection or evaluating changes in their pipeline system.

#### **Integrated IMU & GIS**

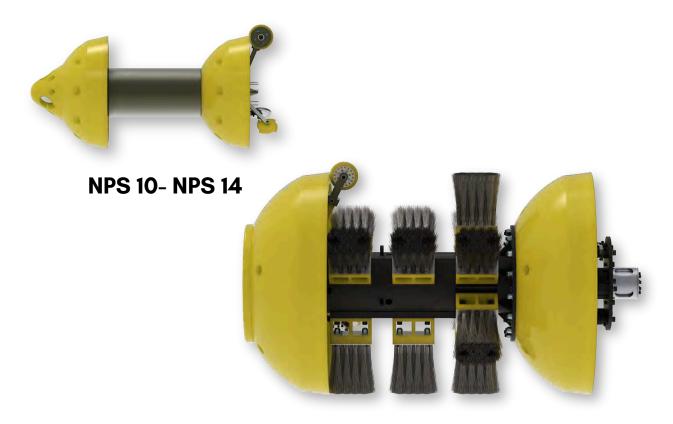
Beyond caliper data, the DdL DW2 is equipped with advanced IMU navigation and GIS integration tools. This means operators receive not only precise measurements of pipeline geometry but also:

- Accurate mapping & GPS-referenced features
- Class location & MCA/HCA determinations
- Overland spill analysis for liquids
- Spatial deliverables for seamless GIS integration

#### The Advantage of DW2

With regulatory pressures increasing under CFR 192, 195, and the Mega Rule, operators need more than raw measurements—they need actionable insights. The DW2 combines high-resolution caliper data with geospatial intelligence to deliver complete reporting for your integrity management program.

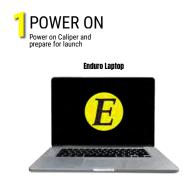
### **DdL Techless Caliper**



**NPS 16- NPS 60** 

For pipeline operators managing shorter segments (10 miles or less), Enduro's Techless Caliper is the efficient solution you've been waiting for.

Designed specifically for ease of use, this tool eliminates the need for an on-site Enduro Field Technician—saving you time, cost, and coordination. With just three simple steps outlined in our Quick Start Guide (included with every tool), operators can confidently run a caliper inspection and gather results—fast.

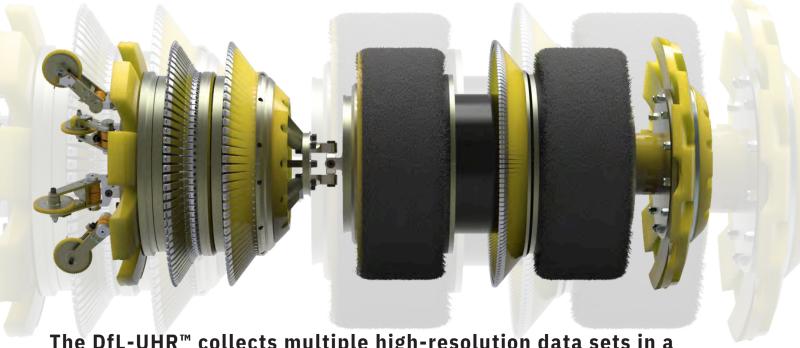






# Enduro Digitel Flux Logger (DfL-UHR™)

**Multiple Technology Tool** 



The DfL-UHR™ collects multiple high-resolution data sets in a single pass, including:

- Metal Loss (Axial MFL) Detecting corrosion and wall thickness changes.
- **Deformation** Identifying dents, wrinkles, and strain features.
- Inertial & Navigation Data Mapping pipeline movement and alignment.
- Internal/External Discrimination Differentiating where the anomaly is located.
- **Residual Field Data** Pinpointing subtle features that conventional tools may miss.

By gathering all these data sets concurrently, the DfL-UHR $^{\text{\tiny M}}$  simplifies feature recognition and accelerates analysis—allowing integrity teams to quickly classify anomalies and assess pipeline condition with confidence.

Engineered with the latest design, storage, and packaging innovations, the DfL-UHR™ offers:

- Smaller, lighter tools than most on the market
- Robust data storage capacity to handle complex surveys
- Efficient single-run surveys that reduce downtime and operational costs

With Enduro's DfL-UHR™, operators gain a clearer, more complete picture of pipeline integrity—all from one tool, in one run.

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### DYNAMIC SPEED CONTROL

**DSC - DSC 2.0** 

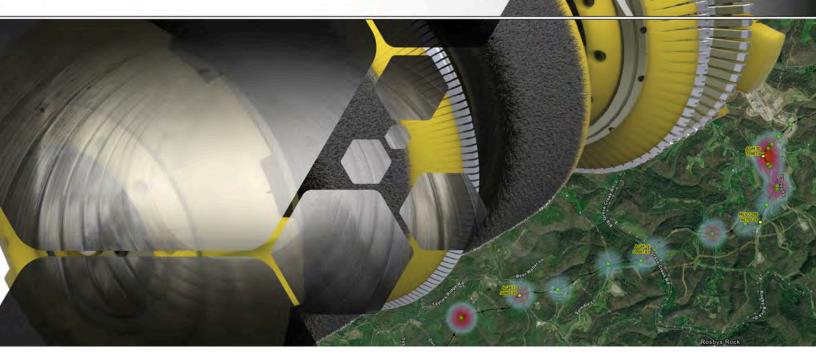
Enduro offers two different speed control units. DSC 2.0 is a stand-alone, compact solution that Our DSC seamlessly integrates with our integrates high-performance cleaning advanced cleaning, ILI, and caliper tools. This advanced speed control without sacrificing innovative system empowers operators with throughput. precise control over flow rates, resulting in enhanced efficiency and significant cost savings.

#### **Key Advantages**

- No Flow Reduction Needed Run cleaning (2-5 mph) and ILI (3-6 mph) tools at optimal speeds without cutting flow.
- Maximize ROI, Minimize Downtime Achieve accurate data, better cleaning, and fewer re-runs.
- **Smart Speed Control** Manages velocity fluctuations to protect tool performance.
- Compact. Economical. Powerful. Engineered with advanced 3D modeling and CFD design for tough conditions.
- Seamless Integration Works across Enduro's entire cleaning and ILI tool lineup.
- Built for Continuous Flow The solution when reducing flow isn't an option.



### **Geospatial Data Solutions**



**Dashboards** 



Web Applications



Spatial Analysis



Enduro's GIS solutions offer a powerful tool for businesses looking to elevate their projects and make informed decisions. Through cloud-based software, Enduro offers GIS and mapping solutions that allow users to create and share interactive maps, connecting people, locations, and data.

- AGM DATA
- Asset Management
- Bend Strain Analysis
- Cathodic Protection
- Dig Data
- HCA/MCA/Class Data

- KMZ Data
- Lease Data
- Multi Vendor Runs
- Pipeline Movement
- Previous Run Data
- Run Comparison

- Regulatory Data
- ROW Data
- Site Location Data
- Web Applications
- Web Mapping

## Cleaning Pigs - Built Your Way, Delivered Fast

When it comes to cleaning pigs, one size rarely fits all. That's why at Enduro, we specialize in building custom pigs designed to tackle your specific pipeline challenges. Backed by our dedicated Cleaning Pig Division and decades of industry expertise, our manufacturing team can deliver the exact configuration you need with the fastest turnaround times in the industry.

Whether it's removing heavy debris, controlling wax build-up, or preparing a line for inspection, our cleaning pigs are engineered for performance, durability, and results. From standard models to fully customized designs, every pig is built with the same commitment.



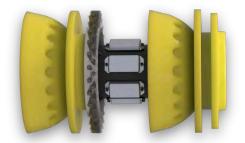
When you choose Enduro, you're not just getting a pig—you're getting a tool that's been crafted, tested, and supported by people who care as much about your project's success as you do.

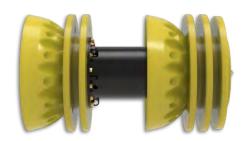
#### **PIG TYPES**

Fast availability with configurable options, backed by expert support.

ADVANTAGE	GAUGE PLATE
STS	PIG LINK
BI-DIRECTIONAL	URECAST
CUSTOM BUILDS	UREFLEX
DUAL DIAMETER AND MULTIPLE DIAMETER	FOAM

# Advantage Cleaning and Batching Pigs Sizes 4" - 60"





Enduro's **Advantage Pigs** are steel-bodied and ruggedly built to perform across a wide range of pipeline applications.

- Advantage Cup Pigs (ADV-2CC, ADV-3CC, ADV-4CC): Ideal batching pigs for condensation removal, purging, and light cleaning.
- Combination Cup & Disc Pigs (ADV-3D-2CC, ADV-5D-2CC): Designed for batching, paraffin removal, and clearing common pipeline debris.

For tougher cleaning applications, **brushes**, **magnets**, **or blades** can be added to increase effectiveness. Advantage Pigs are engineered to traverse **pipe reductions of up to 25%** and can be easily fitted with a transmitter when pig tracking is critical.

#### STS Cleaning Pigs Various sizes and configuration available Sizes 4" - 48"





Enduro's **STS** (**Smooth Transition Support**) and **Advantage** pigs are rugged, steel-bodied tools built for demanding cleaning and batching applications.

- **STS Cup Design:** Provides support similar to scraper cups, with a chamfered leading edge for smoother transitions through wall changes and fittings.
- **Configurable Cleaning Elements:** Add wrap-around or spring-loaded brushes, blades, and magnets to boost performance in tough-to-clean pipelines.
- Line Tolerance: Engineered to traverse pipe reductions up to 25%.
- Tracking-Ready: Easily fitted with a transmitter when pig location is critical.

# **Bi-Directional Cleaning Pigs Sizes 2" - 60"**





Enduro's **Bi-Directional Pigs** are versatile tools, most often used as **fill and displacement pigs** during hydrostatic testing, but also capable of **unidirectional service** when required.

- Steel-Bodied Design: Available in sizes 2"-60", with replaceable components in 4-disc or 6-disc configurations.
- **Tracking & Options:** Enduro transmitters can be installed in sizes 4" and larger (special body required for smaller sizes). Optional gauging plates, magnetics, and wrap-around brushes (3" and up) further enhance performance.
- **Urethane Option:** Enduro also offers Bi-Directional UreFlex Pigs (sizes 2"–12") in a 6-disc configuration, with brush options available in 6"–12" sizes. Enduro tracking equipment can be installed in sizes 6" and larger.
- **Pipeline Tolerance**: Both steel-bodied and UreFlex pigs are designed to traverse pipe reductions of up to 25% safely.

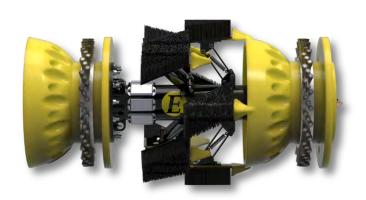




#### Custom Cleaning Pigs Sizes 4" - 60"

Enduro's **ADV-Custom Pigs** are heavy-duty tools built for demanding cleaning applications.

- **Durable Cup Design:** Provides **extended wear life,** strong sealing, and effective scraping action.
- Configurable Options: Can be equipped with brushes, blades, gauging plates, and magnets for enhanced cleaning performance.
- Tailored Solutions: Designed in a wide range of configurations to meet each clients specific pipeline needs.



With their rugged construction and customizable features, ADV-Custom Pigs deliver reliable performance in even the toughest cleaning environments.

#### **Dual Diameter and Mulitple Diameter Pigs**

Custom designs available for almost any size



Enduro has developed a slotted cup and disc configuration specifically for pigging dual-diameter and multiple-diameter pipelines.

- **Constant Seal:** Specially designed cups and discs minimize bypass while maintaining a consistent seal through diameter changes.
- **Custom Engineering:** Pigs can be manufactured to accommodate brushes and magnets for enhanced cleaning performance.
- Wide Range: Designed for pipelines as small as 3" × 4" and as large as 36" × 48", with the capability to navigate 1.5D bends.

Engineered for flexibility and performance, Enduro's slotted cup and disc pigs provide reliable solutions for complex pipeline systems.



#### Gauge Plate Pigs Sizes 3" - 60"

When verifying pipeline passage or detecting anomalies is critical, Enduro provides **custom-manufactured** gauging pigs.



- Passage Verification: Identify restrictions, transitions, and varying bend radii.
- Damage Assessment: Plates can be segmented into quadrants to help determine the extent and location of circumferential damage.
- Custom Configurations: Gauging plates can be designed into any steel-bodied pig configuration to suit your specific pipeline requirements.

Engineered for accuracy and reliability, Enduro's gauging pigs provide operators with clear insight into pipeline conditions before inspection or cleaning runs.

#### **Pig Link Cleaning Pigs**

Custom designs available for almost any size

Enduro's **Pig Link Cleaning Pigs** are designed for maximum **flexibility and versatility**, featuring polyurethane links that enable a wide range of **configurations** using cups, discs, and body links. If you can conceive it, Enduro can build it with Pig Links.

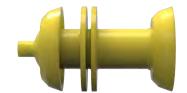
- Flexible Design: Polyurethane links enable the pig to navigate bend radii as small as 1.5D.
- Configurable Options: Adaptable with cups, discs, brushes, and other cleaning components.
- Proven Applications:
  - Nitrogen purges
  - Line cleaning and scraping
  - o Batching
  - o Hydrostatic fill and displacement
  - Custom designs for unique requirements

Built for demanding conditions, Pig Link Cleaning Pigs offer operators a dependable solution for cleaning, batching, and testing pipelines of varying complexities.



## UreCast Cleaning, Batching and Displacement Pigs Various sizes available







The **Enduro UreCast™** pig is a patented innovation in pigging, combining the **durability of a steel-bodied pig** with the **convenience of a foam pig.** This hybrid design streamlines pig selection and operation, delivering consistent and reliable results.

- **Dual-Function Design:** Unique cup and disc combination ensures optimum sealing and scraping performance.
- **Optional Enhancements:** Can be fitted with a brush kit for tougher cleaning applications.
- Maintenance-Free: Entirely constructed of 85 durometer Shore A urethane (other hardness options available for special applications).
- **Durable Urethane Formulation:** Enduro's UreCast™ and UreFlex™ urethanes are engineered for maximum abrasion resistance and long service life.
- **Versatile Applications:** Built to handle cleaning, batching, purging, and surveillance tracking.

With its rugged construction, simplified operation, and proven performance, the UreCast™ sets a new standard for reliable and economical pigging.

# ven performance, the UreCast™ sets a new

#### Foam Pigs Sizes 2" - 60"









Silicon Carbide Grain

Scrub Brush

Criss-Cross Coated

Bare Swal

Enduro's **Foam Pigs** are available in a wide variety of sizes and configurations, making them a versatile choice for numerous pipeline applications.

- Size Range: Offered in diameters from 2" to 60", suitable for both steel and plastic pipelines.
- Density Options: Available in light, medium, and heavy-density foam to match application needs.
- **Custom Features:** Can be manufactured with **transmitter cavities, ropes, and tow cables** for added versatility.

With their adaptability and cost-effectiveness, Enduro Foam Pigs provide a reliable solution for cleaning, batching, and general maintenance across a wide range of pipelines.

### **Enduro Pig Popper**®

#### Manual Visual alert, Electric alert, Electrical/Manual Visual alert

Enduro's patented Pig Popper® has been a trusted pig signal in the oil and gas industry for decades. Proudly made

in the USA, it provides reliable, 360° visibility to alert operators of pig passage.

- **Proven Design:** High-contrast indicator with manual reset and long-standing industry reliability.
- **Nighttime Operations:** Available in a **lighted version** with a high-power strobe for low-light conditions.
- **Omni-Directional Trigger:** Simplifies installation and avoids malfunctions common with bi-directional signals.
- Pressure Compensated: Automatically adjusts to changes in operating pressures without spring replacement or adjustment.
- **SCADA Integration:** Offered in electrical or **manual/electrical versions**, easily tied into SCADA systems.
- Flexible Installation: Extension system supports subgrade installation up to 18' deep.
- **Compatible:** Designed to fit most existing **2" pig signal fittings** for easy replacements.

Looking for a non-intrusive option? Check out Enduro's **N.I.P.S.™** unit.

#### **Enduro Pig Popper® Cable Extension**



Pig Popper Cable Extension







#### Pig Locating and Tracking Equipment







Wireless Geophone



Non-Intrusive Pig Sensor

Enduro offers a comprehensive range of **pig tracking solutions** designed to give operators confidence in knowing the location of their pigs at all times. Options include the **Standard Geophone**, **Wireless Geophone**, and **Non-Intrusive Pig Sensor Unit**.

- **Standard & Wireless Geophones:** Detect pig movement by amplifying the sound of pigs as they pass through the pipeline. Units can be placed on the ground or attached to exposed piping, such as valve settings and vent pipes.
- **Non-Intrusive Pig Sensor Unit:** Detects changes in the magnetic field as a pig passes below the unit. Each sensor uses a **rare-earth magnet** base to attach directly to the pipe. Lightweight, portable, and cost-effective, this unit is designed to become your **go-to tracking tool.**

With multiple options available, Enduro's tracking equipment ensures reliable, efficient, and flexible pig location for any operation.



RX-102 Tracking Receiver

Enduro's **RX-102 Tracking Receiver** is a complete 22 Hz and Acoustic tracking solution featuring a built-in geophone amplifier.

Purchase all tracking 24/7 at shopenduropls.com



#### **Transmitters**



ET531X100



380-12-AT-111



380-12-SSC-110

Pig tracking services & AGM site documentation

- Pre-run site visits
- Consultation/Recommendations
- AGM site selection
- Survey location documentation
- GPS survey of AGM locations\*
- Pig Tracking and AGM placement
- Dig site staking and documentation



To learn more about any of our products or services please visit our website <u>enduropls.com</u> or contact one of our representatives.

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