



Smart pigging solutions

to inspect, clean and
maintain our water
pipelines and infrastructure

AVOVE
— UTILITIES —
MOVING LIFE FORWARD



iNPIPE
PRODUCTS

Inspecting, cleaning and maintaining our water pipelines

Above iNPIPE Solutions offers cutting-edge pipeline cleaning, maintenance and inspection that ensure optimal flow and asset integrity, as well as pre-rehabilitation surveys and pipe preparation solutions. Our environmentally friendly pigging technology is a more sustainable alternative to traditional methods, reducing waste water, providing a low carbon and sustainable solution while maintaining the highest standards of pipeline cleanliness.

What is Pigging? Pigging is a technique that uses a device or tool commonly known as a “pig” to clean, prepare or internally inspect pipelines. Pigs can be driven through the pipelines using either fluid or compressed air.

Smart Pigging enhances this process by providing an efficient, environmentally friendly method for cleaning pipelines of varying sizes, from small to large diameters, using air pigging technology. In this method, compressed air is used as the propulsion medium to guide the tool, or “air pig,” through the pipeline.

Our Services

We offer full design and build services, including civil and comprehensive pipeline-pigging solutions. All pigs are designed to meet specific project needs, ensuring efficient operations and optimal pipeline performance:

- > Tailored, custom-engineered pigging solutions
- > Expert consultancy and advisory services
- > Bespoke design, manufacturing and supply of pipeline tools
- > Full project management, from planning to execution
- > Advanced pipeline cleaning and maintenance
- > Pre-water main rehab preparation
- > Detailed pipeline inspection and condition assessment
- > Visual inspection of pipeline interiors
- > Debris mapping for internal condition analysis
- > Detailed internal pipeline surveys, including pipe geometry, feature location and mapping

Our Combined Expertise



With over 40 years of experience in the pigging industry and 60 years in the UK Water sector, Above iNPIPE Solutions stands at the forefront of the water and energy pipeline industry. Our combined expertise allows us to develop innovative solutions tailored to meet the unique demands of each project, delivering sophisticated, custom-engineered pigging and civil engineering solutions.

Award-winning

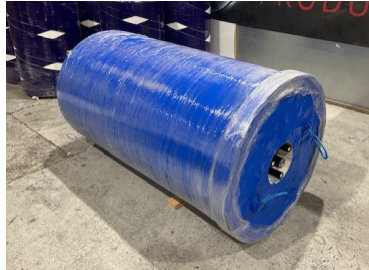
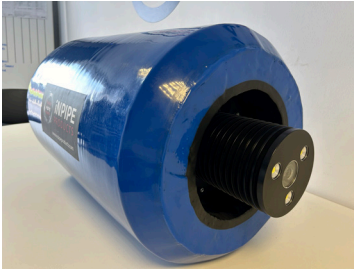
In 2024, the Above iNPIPE PRODUCTS smart-pigging technology won two prestigious national awards.

- Pipeline Industry Guild awards for the Large Diameter Pipeline Innovation
- Water Industry Awards 2024 Groundbreaker of the Year award.



Leading the way in pipeline cleaning excellence

Air Pigging Technology utilises compressed air to propel a pig through the pipeline. This method has been effectively applied in the water industry, providing an economical, safe and proven solution for pipeline surveys and maintenance. Air pigging technology can be customised for pipelines up to 3200mm in diameter and is capable of travelling hundreds of kilometres in a single run, massively reducing water waste and carbon emissions compared to more traditional methods.



Key Features of Air Pigging Technology

- > **Customisable Solutions:**
Our air pigging systems are designed to accommodate various sizes, multiple diameters and complexities, ensuring optimal performance and efficiency.
- > **Enhanced Visual Inspection:**
HDD Integrated cameras and lighting systems provide real-time visual inspection, allowing for thorough validation of pipeline cleanliness and condition.
- > **Advanced Tracking and Speed Control:** All pigs are equipped with advanced tracking capabilities to monitor their position within the pipeline. Speed control features enhance the cleaning process and ensure precise operation.
- > **Debris and Pipeline Mapping:**
PHOENIX produces a detailed internal pipeline survey providing data on pipeline deposition and condition, ensuring a comprehensive understanding of any cleaning requirements and whole life expectancy.



Types of Cleaning Tools / Pigs

Pigs come in various shapes and sizes, each designed for specific applications such as cleaning, inspection and maintenance. Their primary role is to keep the inside of the pipeline debris-free, remove deposits and monitor the condition of the pipeline.

> **Bespoke Foam Pigs:**

Custom-designed and manufactured to be fully trackable, incorporating advanced video technology for precise monitoring and inspection. Foam pigs are coated with polyurethane and can be fitted with brushes for different applications ranging from light cleaning to heavy scraping.

> **PHOENIX Debris Mapping:**

Specialised tool designed for measuring and visualising deposition within pipelines. It uses advanced 360° internal assessment with state-of-the-art sensor technology to produce a detailed analysis of the internal surface of the pipeline.

Our approach

We are an expert, responsible and agile partner, providing vital services and sustainable solutions to the UK's leading utility networks. Here are some of the reasons why:

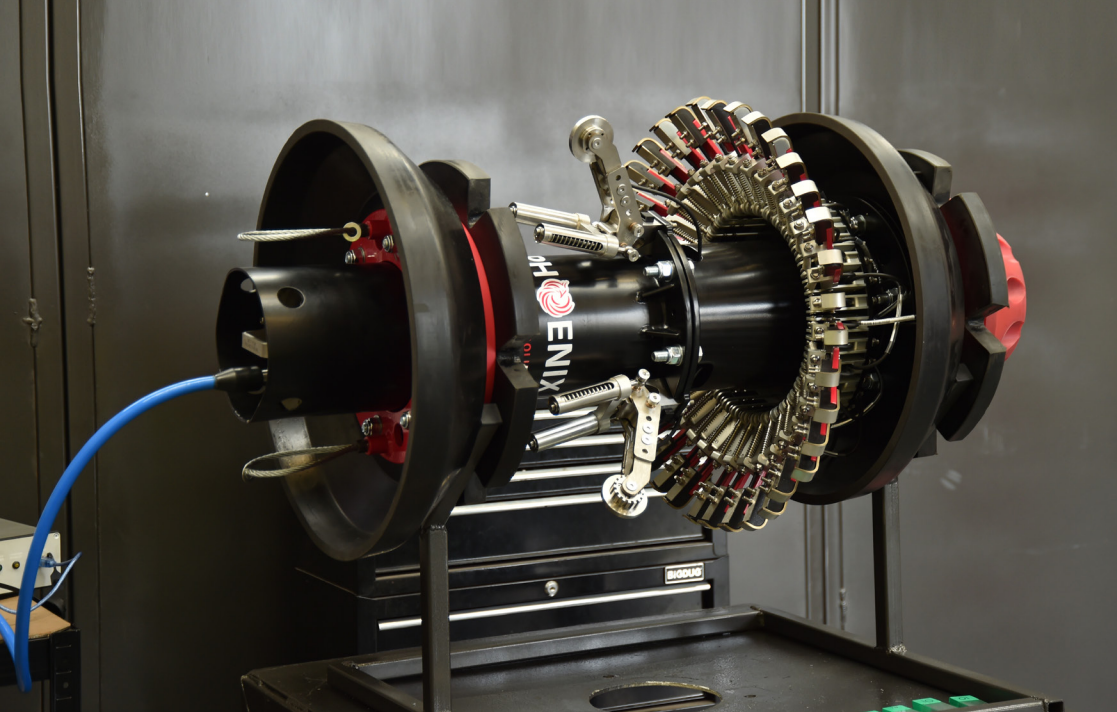
- > **We put safety first**
When you choose Above iNPIPE Solutions, you can be rest assured that your people, your property/ infrastructure and the public are in safe hands. We're proud of our impeccable safety record and have achieved the RoSPA President's Award in recognition of our robust risk control strategies.
- > **We grow expertise**
Our clients are true partners. We invest in our expertise because we recognise that our success is your success.
- > **We move life forward**
We embrace the future and we're passionate about positive change. That's why we're constantly improving the way we work and the services we provide to you.

About Above - work with us to move life forward

Above is a leading infrastructure services and engineering company that moves life forward with cutting-edge and sustainable infrastructure solutions. We believe our work can improve people's lives, boost the economy and breathe new life into communities. If you share our vision, let's grow together.

- > More than 60 years of experience in the utility industry
- > We thrive on transparency, accountability and safety
- > We treat customers as true partners, working together to build expertise and grow
- > We're constantly looking for new ways to add value and unlock opportunities for you





INPIPE PRODUCTS™ - A Global Leader in Pipeline Solutions

For over 40 years, **INPIPE PRODUCTS™** has been a trusted world leader in the design, manufacture, supply and hire/rental of pipeline pigging, maintenance, isolation and testing products.

We offer a flexible approach tailored to meet specific client requirements, encompassing design, manufacturing, testing and operational support to deliver full turnkey solutions.

Our commitment to innovation and quality is unmatched. Continuous investment in research and development has led to the creation and patenting of several pioneering pipeline products, many of which are now industry standards.

At **INPIPE PRODUCTS™**, we pride ourselves on delivering products and services of the highest quality—without exception.



Using innovative smart pig technology to clean the Vyrnwy Aqueduct

Built in 1892, the Vyrnwy Aqueduct runs from Lake Vyrnwy through to Merseyside, delivering clean water to the North West.

The Vyrnwy Aqueduct Modernisation Programme (VAMP) involves the refurbishment of three parallel pipelines, referred to as Lines 1 and 2 (cast iron pipes) and Line 3 (steel pipe). Each line is 42 inches (over 1 metre) in diameter and has a combined distance of 139km in length.

Our approach

Through our innovative approach to the cleaning and relining of these large-scale pipes, we were chosen as the contractor for modernising the Vyrnwy Aqueduct pipelines in phase 1 of the works between Malpas and Tarporley.

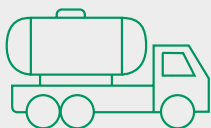
For Lines 1 and 2, which are cast iron, we inserted a new, slighter smaller, diameter plastic pipe inside the old main, creating a brand-new pipe within the host main. This process is called slip-lining. For Line 3, which is made of steel, the client originally proposed using a traditional method of high-pressure jet washing. However, our team of expert designers reviewed the project and recommended a different approach called air pigging. This was particularly groundbreaking because air pigging had never been used before to clean this size and length of water pipeline.

The air pigging system utilises an air-propelled barrel-like device, known as a 'pig' through the 1-metre diameter pipes to remove any sediment that has built up from the natural minerals in the water. These pigs are traditionally propelled by water, but our method uses air instead. Video inspection technologies via camera pigs allow us to validate the pipeline's cleanliness and track progress.

The client saw the potential in using the innovative technology, so we partnered with iNPIPE PRODUCTS™ to design and manufacture bespoke air pigs to clean and monitor Line 3, substantially reducing the project's carbon footprint and saving tonnes of water and time.

We have received industry-wide recognition for our innovative and sustainable methods of cleaning steel pipes with United Utilities adopting this as best practice. In 2024, the Above iNPIPE PRODUCTS smart-pigging technology won two prestigious national awards, the Pipeline Industry Guild awards for the Large Diameter Pipeline Innovation and the Water Industry Awards 2024 Groundbreaker of the Year award.





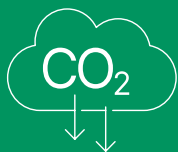
Saved 1,104 tanker journeys
and reduced environmental impact



Saved 15 million litres of water compared
to using the traditional high-pressure
jet washing



In addition to **sustainably cleaning the pipelines**
with air rather than water, our use of video analysis
ensured **optimum investigation to provide cleaner,
wholesome water for customers**



**Saved 118.2 tonnes
of CO₂** across the
whole project

**Reduced the number of
excavations**, launch and
reception pits required
from 37 to 12



Saved weeks of work by reducing the time to clean
the pipes from weeks to days, e.g. one section of
2,542m of pipe was completed in just 4 days instead
of weeks, reducing costs, improving efficiencies
and minimising disruption



Get in touch >

Above INPIPE Solutions brings together unmatched expertise and innovative approaches, delivering tailored support to meet the unique demands of every project. Our team of experts are here to answer any questions or discuss your project requirements.



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