SALTIRE

INFRASTRUCTURE

INNOVATE › DELIVER › EXCEL

LIVE PIPELINE INSPECTION

COMPANY OVERVIEW

Saltire Infrastructure Pty Ltd is a specialist civil contracting company focused on delivering services to Western Australia's water service industry. Our company is headed by a team of highly experienced industry personnel who hold decades of engineering, management and operations experience within the water and waste water industry. Our team possesses a strong understanding of client requirements and we focus on building long term professional relationships and exceeding expectations within safety, quality and environment.

Our clients rely on us to:

INNOVATE

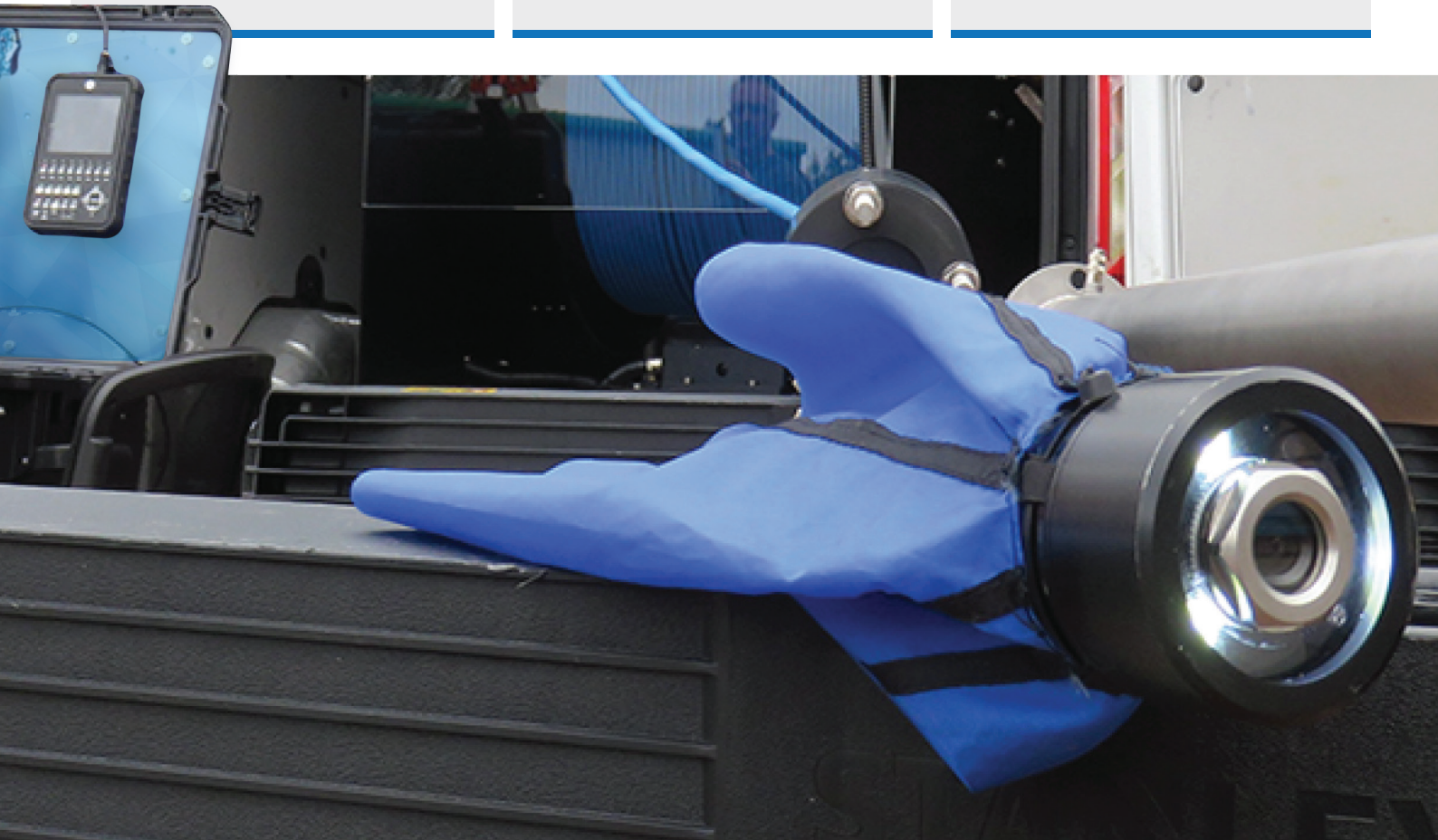
Our dedicated focus on the water services sector means we have our finger on the pulse in latest technologies and industry developments. We think outside the box to develop the best solution for each project.

DELIVER

Our commitment to safety and professionalism, means our focus are for projects to be delivered on time, within budget, and to the highest standards of safety, quality, and environmental management.

EXCEL

Our mission is to exceed client expectations in terms of safety, presentation, engagement, and delivery. Our performance is monitored through both formal and informal feedback as part of our continuous improvement initiatives.



TECHNOLOGY OVERVIEW

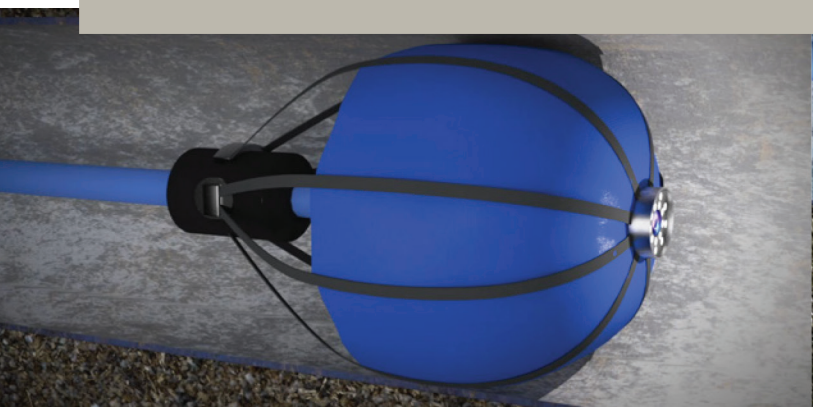
Our new technologies can accurately identify and record **leakage points** in fully operational pipelines without disruption to water supply/ stakeholders.

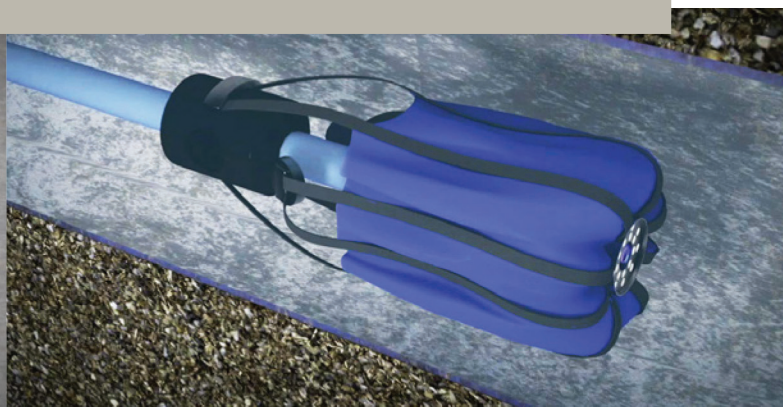
The technology also assists in commissioning works, surveying internal pipelines and identifying failure locations under pressure testing.

INSPECTION CAPABILITIES

- ***See** internal corrosion build up*
- **Hear** *water loss from pipeline leaks*
- ***Find** pipeline restrictions (debris)*
- ***Look** for unknown service connections*
- ***Locate** buried and lost assets*

CHS - Patented collapsible Hydrochute system for reduced flow rate restrictions





Discovering Hidden Leaks with the Power of Flowrider Technology

Thames Water's Secret to a Successful Pipeline Inspection. Discover more about this case study on page 7.

IMAGE OF DEBRIS IN VALVE IDENTIFIED AT 221.6 METRES

FLOW RIDER LITE

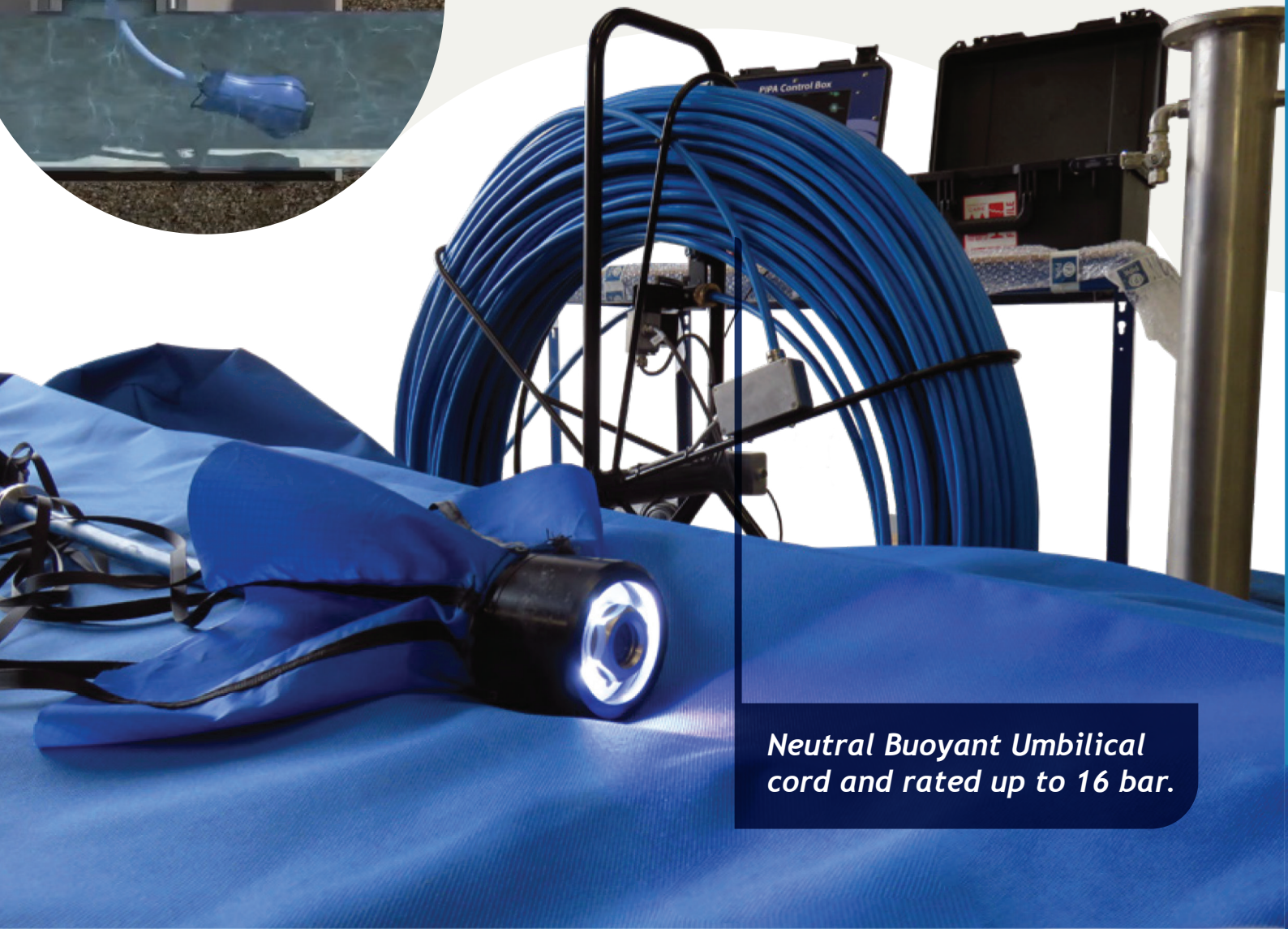
Fully pressure rated camera system, acoustic sensor with cable seal arrangement and recording station for video capture and encoder text overlay.

System as suitable for operational pipe networks, surveying pipe sizes:
From 100mm to 600mm - with a survey range of **275 metres.**

Leaks located to date on even low-pressure pipelines (0.5 Bar) and used on all depth of pipes

Access via existing air valve, or hot-tapped access via 80mm valve or larger.

Fully disinfected system, with all materials certified and safe for access into potable water networks.



Neutral Buoyant Umbilical cord and rated up to 16 bar.

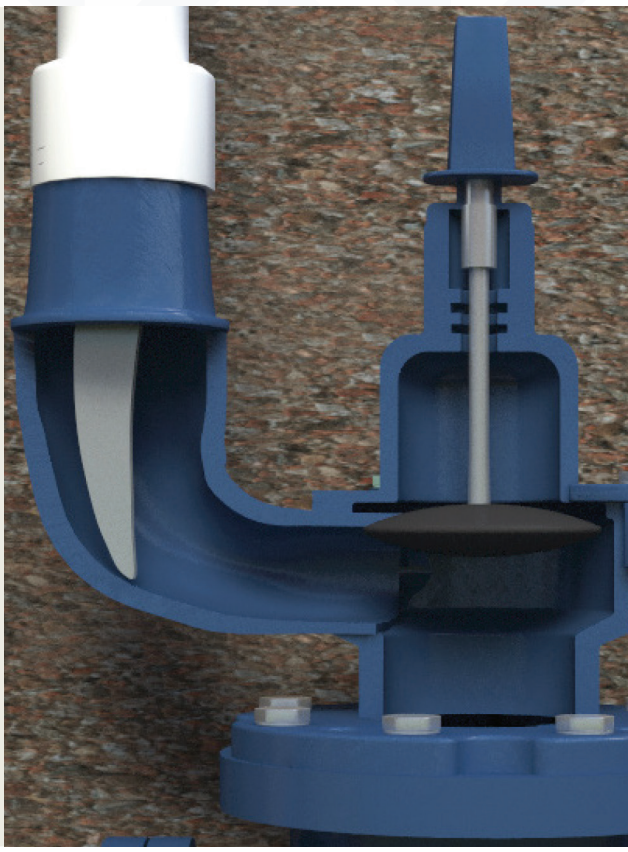
HYDRANT CAMERA SYSTEM

The compact system is mobile to be fitted into a van or light truck, allowing close access to pipe-lines for deployment.

The design can navigate multiple bends due to compact sensor design.

Requires a positive flow of 0.2m/s to operate. This can be achieved in all pipelines through flushing / or opening of a hydrant or scour valve should no pre-existing flow exist.

Chlorinated launch pod ensures no contamina-tion of the existing infrastructure through launching of survey equipment, making it safe for potable water use.



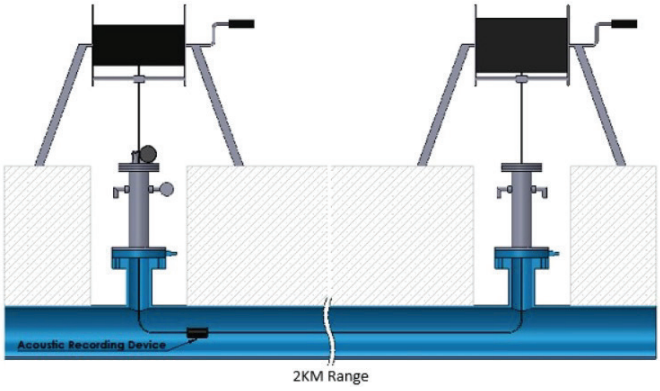
HYDROSTATIC PIPE LEAKAGE

The Pipe-pod Hydrostatic system is a failsafe for all new pipe installation projects.

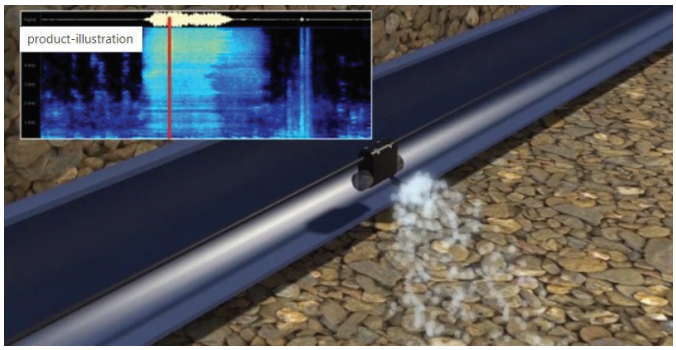
In the event of a failed hydrostatic test, the Pipe-Pod System can efficiently survey the pipeline under pressure, without excavation to detect any leaks/anomalies within the pipeline under pressure.

Alternatively, the cable can be installed using a tethered swab approach post pipe installation.

The system is designed for pulling through a hydrophone capsule and recording acoustic patterns within a fully pressurised pipe at 16 bar test pressure.



The system also records accurate distance data for leak identification to be located along the buried pipe.



CASE STUDY - THAMES WATER

Thames Water utilised this innovative equipment to undertake a live inspection on a cast iron cement lined 24 inch (600mm) pipeline

The pipeline was originally installed in 1927 and has an operating pressure of 8 bar (800kPA).

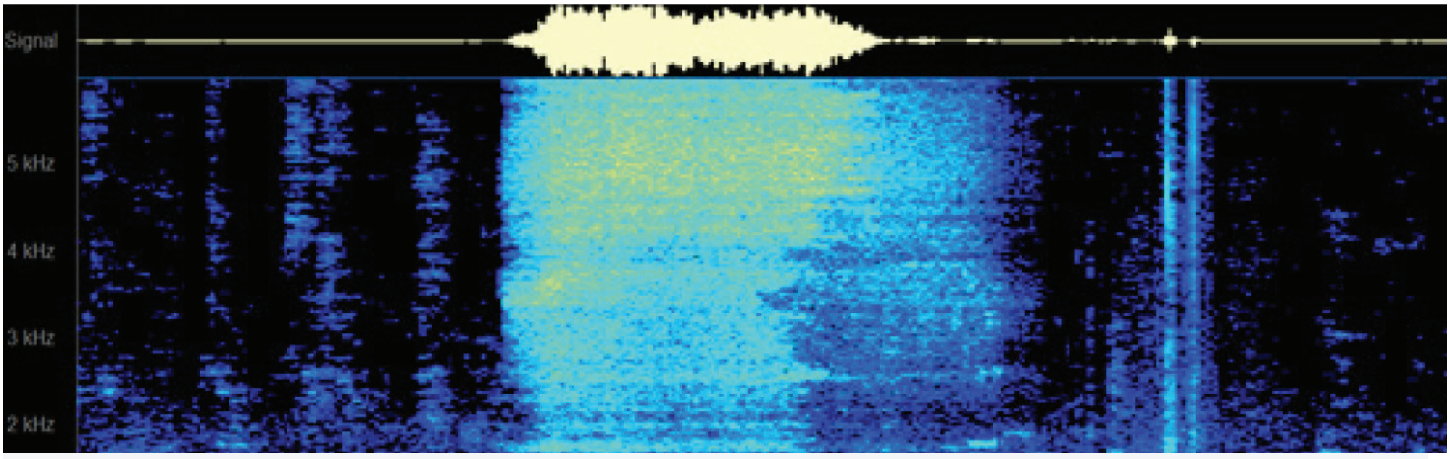
The reason for survey was for known, but undetected water loss.

A CCTV and acoustic survey was undertaken utilising the Flowrider technology.

TUBERCULATION ON PIPE WALL IDENTIFIED AT 31.7 METRES

CLOSE UP IMAGE OF WELD AT 232 METRES

Client can remotely access real-time inspection data/footage.



LEAK IDENTIFIED AND VALIDATED USING THE SOFTWARE

Images, Live video feed and **analogue sound** were recorded to provide a fully substantial report of the condition of the pipeline.

LEAK INDENTIFIED AT 236 METRES

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Saltire Infrastructure's technologies focus on water network continuity. Our equipment such as our S-Gate valve system, hot-tapping and line-stopping technology allows us to by-pass the existing network to facilitate repairs and maintenance without disruption.

Our team can also undertake all the repair work for you.

HOT TAPPING

Saltire Infrastructure utilises high-pressure rated Hot Tapping (or under pressure tapping) equipment for the fast and safe installation of new branch connections and bypass mains, with the current capability to install DN25-DN400 offtakes.

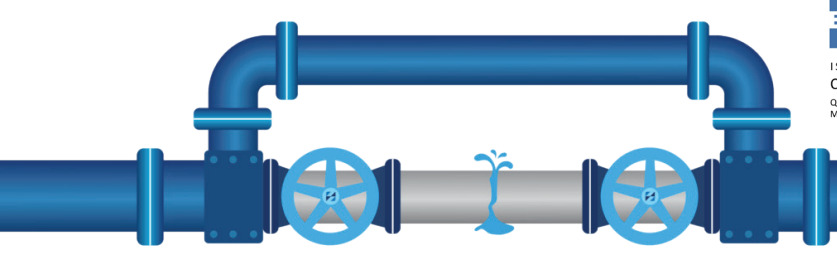
FLOW STOPPING

Line Stopping allows works to be undertaken on water mains without interruption to customer supply. Deploying a stopper and bypass system, the rig set-up allows for sections of pipelines to be made dry (or gasless) allowing safe repair or replacement of the existing network.

S-GATE VALVE

S-gate Valve System is a WSAA approved live insertion valve system, designed to be used on live under pressure pipelines, providing mechanical isolation on the network to operators' requirements and a future asset on the pipeline network to be used time and time again.

Speak to one of our team members about how we can solve your problems today.



ECAAS ISO 9001 CERTIFIED QUALITY MANAGEMENT

ECAAS ISO 14001 CERTIFIED ENVIRONMENTAL MANAGEMENT

ECAAS ISO 45001 CERTIFIED SAFETY MANAGEMENT

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