

Pipe rehabilitation cuts costs and strengthens resilience of critical infrastructure

Aquam Pipe Rehabilitation



Specialist pipeline cleaning, lining and repair systems used in situ to minimise disruption

Well maintained pipe infrastructure helps ensure networks are operating in compliance with water quality regulations by preventing leaks and protecting water quality. Failure to invest in the upkeep of networks can incur extra costs in pumping and pipe replacement and increased customer complaints.

Aquam's rehabilitation technologies help utilities maximise the life-span of their pipeline assets.





Which pipelines are suitable for cleaning and repairing?

Aquam Technologies pipe rehabilitation systems can be used on pressurised water mains, gas networks and sewerage systems, including:

- Potable / drinking water
- Firewater systems
- Heating, ventilation and air conditioning (HVAC) systems
- Greywater systems
- · Sewers and drains
- Industrial process systems
- Collection, holding and transfer (CHT) systems

Our technologies are all developed in-house and installation is by Aquam Technologies directly or through a global network of trained licensees and distributors.

CASE STUDY

Severn Trent Water

Cleaning resolves discoloration issue

Costly replacement of a section of unlined cast iron potable water main by Severn Trent Water was averted by use of the Whirlwind forced air vortex cleaning system. Water discoloration stemming from tuberculation in a short section of small-diameter pipe was quickly resolved.



CASE STUDY

Yorkshire Water

Lead pipes rapidly relined

A large-scale programme of lead pipe lining works was completed in just 14 weeks on behalf of Yorkshire Water. Aquam's Serline was installed right up to the entry point of 1,000 homes. During the work Aquam Technologies ensured customers received an alternative overland supply of water.



Aquam Technologies can revolutionise the way major infrastructure projects are delivered

Smarter technologies and tighter budgets mean it is no longer acceptable to rip out and replace pipework that could be rehabilitated. Coating and relining pipework in situ has multiple benefits including less disruption for communities, less traffic disruption, fewer vehicle manoeuvres and less waste for disposal. It also helps ensure networks are operating in compliance with water quality regulations and cost effectively.

WHIRLWIND PIPE CLEANING

Whirlwind™ uses an air vortex to force aggregate through pipes to sweep away hard tubercles, restoring mains to their original diameter. This innovative system improves water quality, colour and flow and can help prepare infrastructure for onward rehabilitation.

LEANCLEAN FLUSHING & CHLORINATION

This forced air vortex system uses water droplets to remove soft deposits such as manganese and biofilm from pipe walls, improving water quality. LeanClean™ can also be used to efficiently and effectively chlorinate pipes post-cleaning ready for commissioning.



PNEUCLEAN PIPELINE PIGGING

PneuClean™ can deliver highly effective water main cleaning, manganese removal and chlorination in lengths up to 10km.

The system uses compressed air to propel a slug of water along the pipe, as the pig-train travels, manganese and soft deposits are collected from pipe walls.

Benefits

- Reaches lengths up to 1km in a single operation
- Suitable for use on 75-300mm diameter mains
- No requirement for wastewater transport and discharge
- · Can be used on variable diameter pipes
- Significant cost benefit



Benefits

- Suitable for use on pipes up to 200mm diameter
- Reaches lengths of 2km in a single operation
- · Improves water quality, colour and flow
- No requirement for wastewater transport and discharge
- · Significant cost benefit

Benefits

- Increases pipe cleaning productivity by 60-70%
- No requirement for wastewater transport and discharge
- Suitable for use on diameters from 150-1000mm
- Improves water quality, colour and flow
- · Eliminates risk of damage to pipe and lining



NU LINE PIPELINING

A blown-in epoxy pipe-coating system for the rehabilitation of deteriorating and failing water, gas and air systems. Nu Line™ can be used to restore pipeline infrastructure across multiple systems in a multi-storey building or on a single problematic pipe.

NU DRAIN PIPELINING

Nu Drain™ cured-in-place pipe (CIPP) is a structural liner that can be installed into existing infrastructure to provide a permanent solution to deteriorating pipes. The system can be used on small-diameter sewerage and drainage in the 50-300mm (2 - 12 inch) range and is also suitable for patch repairs to larger diameters. Installed using no-dig techniques Nu Drain™ minimises streetworks and impact on communities.

SERLINE PIPELINING

Serline™ is the market leader in cleaning and lining small diameter lead service and communication pipes to prevent lead leaching. The system comprises a rapid-setting PU resin approved by the UK Drinking Water Inspectorate and is an alternative to traditional replacement methods.

Benefits

- · Remediates pipes in situ
- · Minimises impact on buildings and facilities
- Minimal disruption to occupants and wider community
- Can be used on pressurised water supply pipes
- Suitable for small diameters down to 15mm



Benefits

- Facilities operate as usual during installation
- · Lower cost than ripping-out and replacing pipes
- Project time can be reduced by months
- Transport of materials and landfill waste minimised
- Suitable for use on variable diameters and bends



Benefits

- Barrier technique improves water quality immediately
- Rapid installation in situ
- Minimal disruption to householders and building occupiers
- Pipes to multiple properties can be completed daily
- · Significant cost benefit

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