

AVK UK'S SMART WATER AIR VALVES PREDICTS ASSET MAINTENANCE

AVK UK's digital monitoring solutions automatically alert utility providers to leakage and blockage issues on the wastewater network before they turn into catastrophic failures, leading to expensive repair bills and fines.

In this article, we examine how our ARISENSE Smart Wastewater Air Valves have helped customers prevent potentially major problems.

AVK UK Smart Wastewater assets are helping utility providers across the country to remotely monitor their network performance in near real-time – keeping them informed of operating parameters and, importantly, raising the alarm when issues occur.

Our Smart Wastewater Air Valves – ARISENSE – provide a plethora of information that is helping companies to optimise operational efficiency and avoid potential failures, such as clogging, flooding, leakage, and overflow. By flagging these issues, companies can act quickly to investigate and fix potential problems, optimising the efficiency of the network by:

- Saving resources
- Reducing water loss
- Streamlining planning and operation activities.

The smart air valves can also help prevent and provide an early warning sign of potentially catastrophic failures on the network, such as bursts, collapse due to vacuum conditions within the pipeline, or damaged equipment due to water hammer.

This technology is not only available for wastewater networks, of course, as AVK UK's Smart Water products are also widely employed on the potable water network as well. Our range of sensors – including VIDI Pressure, VIDI Flow, VIDI Temperature, VIDI Level, and VIDI Open/Close – work with all AVK UK core products, including gate valves, fittings and hydrants. They are also available with a tilt/tamper alert, so customers receive notification if their air valve has been knocked or vandalised, for example.

Real-world examples of our state-of-the-art ARISENSE Smart Wastewater Air Valves in action include:

1. An overflow warning on a valve on the edge of a residential area – which, upon investigation, was discovered to be clogged. It was cleared, cleaned and returned to full working order.



2. A wastewater air valve alert to a potential leakage incident in a park, near a children's play area. The chamber in which the air valve was located had already begun filling, before the team cleared plastic and other detritus.
3. An air valve situated in a rural location, in a private field difficult to access by vehicle, provided a remote monitoring alert to leakage and a pipeline on the verge of clogging, which was cleared and returned to operation.
4. Fat build up inside an air valve in a residential area was causing wastewater leakage. An alert was raised with the relevant utility provider, which dispatched a crew to inspect and clear the device.
5. Similarly, a wastewater pipeline in a park, near a bridge, with an AVK UK ARISENSE Smart Wastewater Air Valve sent out an automatic alert when fat build up caused a clog, preventing the valve from functioning effectively. This was cleared and returned to full working order without further issue. See image above.

All AVK UK's Smart Wastewater ARISENSE products can be set up to provide automatic alerts when issues arise, but it is vital companies act on these alerts, according to Huzaifah Ahmed Saleem, Technical Project Manager at AVK UK.

Huzaifah works closely with AVK UK's customers to assist in the full utilisation of their ARISENSE units – supporting on data collection, resolving issues and queries, and ensuring the ongoing benefits of the Smart Wastewater devices within the industry.

He said: "If it wasn't for AVK UK's Smart Wastewater assets, no one would have known these air valves were not functioning correctly, which could have led to a wide range of problems across the network.

"These are just a few examples of how our ARISENSE Smart Wastewater Air Valves have helped customers avert much bigger potential problems, by providing real-time alerts to blockages that were preventing the assets from functioning correctly.

"This could have reduced efficiency on the network, led to air entrainment that could have increased pressure to the point of bursts, water hammer issues that disrupt or damage other equipment on the line, accelerated corrosion, and leakage to

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name just a few issues.

"Even as a minimum, investigating alerts and fixing issues as quickly as possible can reduce stress on the wider infrastructure, extend asset lifespan, minimise maintenance costs, decrease water loss, reduce risk of water contamination, and cut energy consumption.

"So, we would encourage all our customers using our state-of-the-art digital monitoring assets to act on alerts as soon as they arise."

For more information on AVK UK's Smart Water and Pressure Management Solutions contact our Water Network Specialists:

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