



EXPECT...LASTING INNOVATIONS

PREDICTIVE SMART AIR VALVE DETECTS ISSUES BEFORE THEY OCCUR.

Wessex Water has trialled an AVK UK wastewater smart air valve on its network near Weston-super-Mare. An alert triggered by the air valve ensured Wessex Water was able to respond quickly to flooding in the valve chamber which eliminated the possibility of sewage entering the adjacent water courses.



The River Banwell flows into the Bristol Channel at Woodspring Bay, a few miles north of Weston-super-Mare.

A sewer runs close to the River Banwell, not far from its estuary. An air valve on the sewer is located well away from minor roads and is accessed via over a mile of muddy trackway. The proximity of the air valve to the river and estuary means that any leakage, if undetected, has the potential to develop into a major incident. These factors made it an ideal location for Wessex Water to trial an AVK UK smart air valve.

David Hurley leads AVK UK's SMART Water programme and set up the trial:

'The site of the sewer air valve alongside the River Banwell was proposed by Wessex Water as the location for the trial.

Installation of the air valve was straightforward. As with many assets situated in chambers below ground, communications were more challenging and locating the antenna within the chamber provided only an intermittent signal. This hurdle was overcome by affixing the antenna to the outside of the chamber; at 5cm high and located under a hedge it is very discreet.'



For further details on AVK Smart Water Solutions please contact:

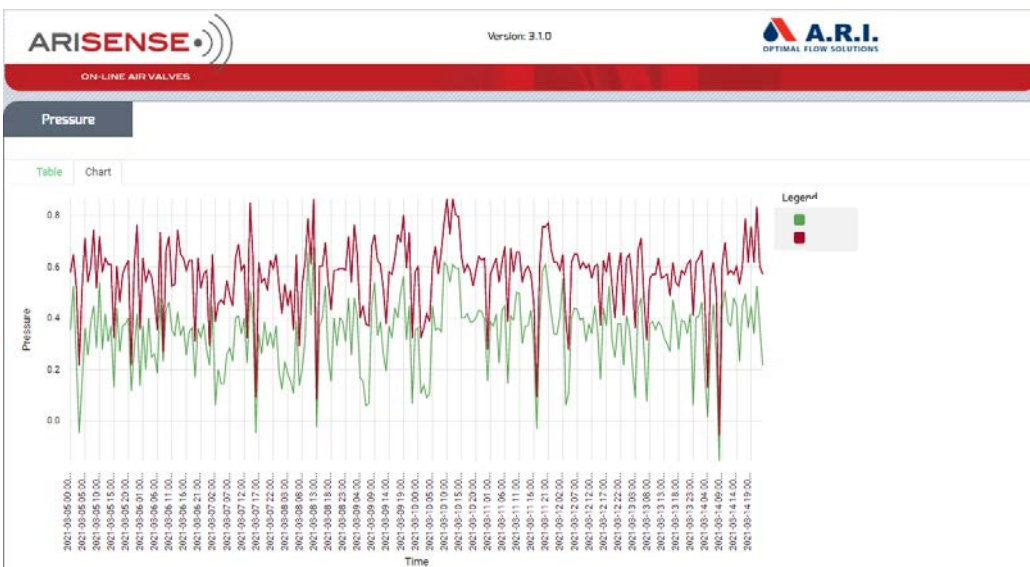
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EXPECT...QUALITY IN EVERY STEP



The installation took place in a day and was regularly checked over a period of two months. At 6.20am on the morning of 14th December, Ashley Pratt (Wessex Water) and three colleagues received an alert via text and email from the air valve indicating that there was water in the chamber:

'The information provided by the alerts clearly indicated that something was wrong. I dispatched a member of the Wessex Water wastewater air valve maintenance team to site, and it was discovered that the chamber had flooded due to water ingress through a duct. This had been exacerbated by high ground water levels. The duct was subsequently sealed and no further issues have been reported.'

The AVK UK smart valve installed at Banwell incorporates a non-slam feature to prevent surge. An air valve's typical location is at high points on the network where pressure is naturally low. Consequently, due to sensitive location of the Banwell smart air valve, a light float was specified to ensure the valve seals at very low pressures: 0.05bar head.

According to Hurley, pressure calculations, particularly on sewer applications, can sometimes lead to an incorrect valve being specified: 'Wastewater air valves are typically around 500mm tall and are installed at the high point of the sewer pipeline. Pressures, however, are often calculated at the level of the pipe rather than the top of the air valve, and this can lead to non-sealing and subsequent 'weeping'.'

'I would like to thank Ashley Pratt, Lee Weller and Sam Westlake from Wessex Water, with their assistance in making this trial a success.'

If you would like to know more about AVK Smart Water products contact David Hurley – AVK Smart Water Business Development Manager



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