

The AVK team works with Irish Water and contractors to specify, install and commission PRVs in Waterford

Ireland has long been referred to as the Emerald Isle. Its abundant rainfall – some parts of the west of Ireland average about 225 'wet days' per annum – and temperate extremes – not too cold and not too hot – have created a green and lush countryside.

The high rainfall has meant Ireland has rarely had water supply issues despite traditionally high leakage rates on supply pipelines, however, recent water shortages in Dublin and other areas have moved leakage reduction higher up the political agenda.

AVK's offered solution was based on long established experience in pressure management. AVK understand the pressures that water companies are under to reduce not only water leakage, but, more recently, consumption too and have been liaising with these com-

panies to produce innovative solutions.

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Stephen Greer, AVK Business Manager in Ireland, in conjunction with key distributor, Proflo, has recently worked with Irish Water and its approved contractors to specify, supply and commission Pressure Reducing Valves (PRVs) in Waterford. The focus of the works were around Rathgormack and Clonanav in the north of the County.

Updated specifications suggest that the PRV controls – the brains or 'system pilot' – are to be housed in a roadside kiosk with hydraulic control pipework running from the kiosk through pre-installed

ducting to the PRV. AVK adapted the design of its Series 859 PRV to accommodate this requirement. The advantage of the kiosk is that the PRV settings can be changed above ground without having to access the valve chamber, meaning that operatives benefit from safer working conditions and there is no disruption to traffic flows.

PRV pilots can be controlled mechanically, as at Rathgormack, or remotely using electronic control systems such as SCADA. AVK's acquisition of Italian valves specialist ACMO has broadened AVK's SMART network offer and greatly enhanced AVK Group's ability to develop automatic valve control systems.

Fundamental to the success of the scheme was the training provided by AVK's Technical Sales Manager, David Hurley: 'In total there were



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The benefits of using PRV

A PRV automatically reduces a higher upstream pressure to a lower downstream pressure – regardless of changes in flow rate or upstream pressure. In addition to reducing water loss through leakages PRVs also:

- Minimise the risk of water hammer and pipe bursts
- Minimise traffic disruption
- Minimise the risk of contamination
- Minimise disruption to consumers
- Generate savings for water companies

around fifteen engineers and fitters on the training course. These included representatives from Irish Water as well as the two approved contractors working on the project. In Ireland, whilst the assets are installed and owned by Irish Water, the maintenance is undertaken by the local authority – in this case, Waterford City and County Council – who also attended the training.'

Hurley also has a significant involvement in the PRV specification process and in the final commissioning of the PRVs.

According to Greer, the project went well, although the Irish weather lived up to its Emerald billing:

'This was our first PRV project for Irish Water and we are hoping that its success will yield further opportunities for AVK engagement in the network drive against leakage.

Not unusually for Ireland the work was completed in gale conditions with heavy rainfall filling the valve chambers, so we were thankful of

the pumps at hand to manage the adverse weather.'

For AVK UK's Head of UK Group Marketing, Kieran Fitzpatrick, the Irish Water project is a success driven by AVK's leadership in the water sector:

'Strategic acquisitions by the AVK Group mean we are able to offer the most comprehensive range of valves and fittings into the UK and Ireland water markets. Just as importantly, we have invested in experience and expertise to build an unrivalled service offering for our clients; from initial enquiry and specification through supply to commissioning and ongoing technical support.'

Further information:
You can find out more about the key features of AVK's Series 859 PRV at:
<https://www.avkuk.co.uk/en-gb/water-supply/avk-control-valves>

The AVK Valves YouTube channel features educational and practical videos on different aspects of its control valves including:
How do pressure reducing valves from AVK function?



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Maintenance of the main valve of an AVK control valve
Benefits and features of the AVK control valve

References and footnotes:
1 – Alexandra Engineering Journal Vol 6, Issue 4, Dec 17, pp601-617. Nourhan Samir et al.

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