



WES helps Wessex Water reduce costs and improve reliability through equipment standardisation

First of seventeen new modular chemical dosing systems installed at the water company's Chilcompton site, as standardised systems reduce maintenance and costs.

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Like many similar organisations, Wessex Water operates a diverse range of assets, built at different times and serving communities that range from urban centres of Bristol, Bath and Bournemouth to small villages in the Mendips. As part of ongoing efforts to reduce maintenance and operating costs, the company has recently embarked on efforts to standardise the equipment types it uses across its operations.





That project took an important step forward this year, with the installation of the first of a new range of modular chemical dosing systems at the company's wastewater treatment site at Chilcompton in Somerset. The system was designed, manufactured and installed by chemical dosing specialist WES, which worked in close collaboration with Wessex Water and its engineering partners to develop and refine the unit.

The new design will be produced in two sizes – 5,000 and 10,000 litres – and will be used for the storage and application of coagulant chemicals such as ferric sulphate and ferric chloride. The installation at Chilcompton is of the larger DS10,000 type, and 17 more units are scheduled to be rolled out to other Wessex Water sites over the next year.

The new units feature a two-part enclosure comprising a lower chemically resistant bund fixed to a galvanized steel frame, and an upper GRP kiosk that provides security and weatherproofing to IP54. Chemicals are held in two rotationally moulded LLDPE tanks specially designed for these high Specific Gravity chemicals. The kiosk incorporates a fill point and a dosing cabinet with two dosing pumps serving a single outgoing dosing line. Five lockable doors provide access for maintenance and inspection.

All components in the system have been designed for compatibility with these corrosive chemicals, which meant avoiding the use of stainless steel wherever possible, for example. The modular design allows the customer to select from 12 standard configurations, including the two tank sizes and between one and four dosing pumps, fulfilling duty and/or standby roles.

“Moving from bespoke to standard designs has the potential to provide significant long-term benefits for our customer,” explains WES project manager Richard Ellington. “It will reduce engineering costs and simplify equipment maintenance and support. In this first installation, we spent a lot of time on the details, such as the precise routing of pipes and cables, so Wessex Water has a robust design they can confidently roll out at scale over the coming years.”

