

WASTE WATER: WELSH WATER

Watson-Marlow Bredel provide a low cost sludge pumping solution at Welsh Water's Greenfield STW

Value for life



“Taking into account the initial investment and installation costs, together with power consumption over the 30 year period, the cost of pumping comes to under 10 pence per cubic metre of sludge pumped.”

A progressing cavity pump has been replaced with a Watson-Marlow Bredel SPX80 hose pump at Welsh Water's (Hyder Utilities) Greenfield STW. The SPX80 has proved to be a highly cost-effective investment, with a projected cost of under 10 pence per cubic metre of sludge pumped.

THE CHALLENGE

Welsh Water required a cost-effective pumping solution to primary tank de-sludging at Greenfield Sewage Treatment Works, in Wales.

Value for life

THE SOLUTION

The SPX80 hose pump is fitted with a 3kW fixed speed drive, and is timer-controlled, pumping 5% sludge from circular primary tanks. Suction occurs through 5 metres of 100mm diameter pipe, and a further 15m of 150mm diameter pipe with a slight lift. Discharge to a thickener takes place through 100m of 100mm diameter pipe, with a 5 metre vertical rise.

Other 65mm bore Watson-Marlow Bredel pumps then transfer the sludge from the thickener to sludge screens, and thence to the digester.

THE OUTCOME

Since installation, spares supplied to date have comprised just two hose replacements, at a cost of £2,490. With no component in contact with the pumped sludge, this figure can be extrapolated over the expected pump lifetime of 30 years, to give an estimated spares cost of £9,338.

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For further information on Watson-Marlow Bredel pumps in the Water and Waste industry, please request copies of application and technical data sheets.

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