

Bristol WWTW Solves Sludge Problems With Large Auger Pump

Wessex Water is one of the first water companies in the UK to resolve the problem of transferring thickened sludge with the installation of the recently launched W Range Large Auger progressing cavity pump from Mono® NOV.

Built on the coast, Wessex Water's Bristol Waste Water Treatment Works (WWTW) is the UK's sixth largest works serving a population equivalent of 800,000 from Bristol and surrounding areas. To help comply with the EU Urban Waste Water Treatment Directive, Wessex Water has a Biodrier system at Bristol to transform two thirds of the site's sludge into dry, odourless fertiliser granules.

The W Range Large Auger pump is required to transfer the remaining sludge, which has a dry solids content of 32%, to a storage bay for disposal by landfill. It is also used as an emergency standby pump in the rare occurrence of Biodrier failure.

In the past, Wessex Water had used a progressing cavity pump equipped with a bridge breaker to handle the thick sludge. However, the high solids content of the sludge had caused problems with the level sensing equipment, resulting in sludge entering the bearings and leading to pump failures, repairs and downtime.

To overcome this problem, Mono recommended its W Range Large Auger pump combined with an extended inlet hopper. This enables the pump to handle sludges with viscosities as high

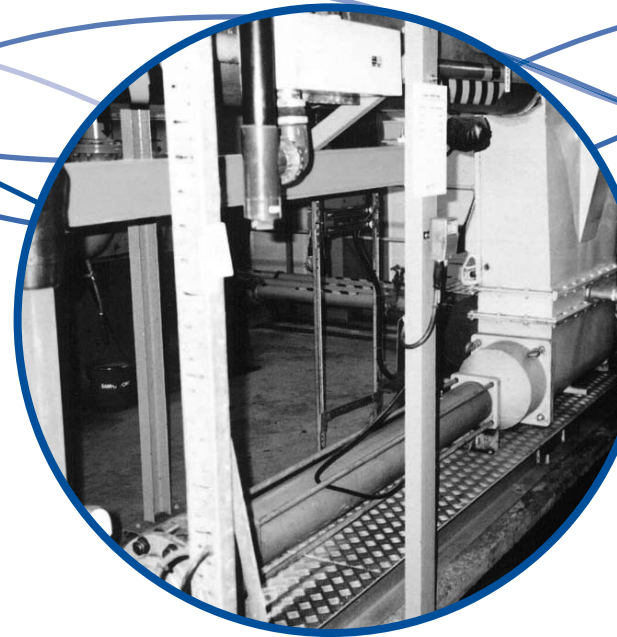
as 1,000,000 cP without the need for an additional bridge breaker.

The pump is also able to meet the site's stringent low speed specifications for the transfer of sludge, a speed of 27 rpm and pressures between 12 and 16 bar.

To minimise maintenance requirements, the Large Auger pump features flanged ball end pin joints which can be easily replaced when required, and a separate flanged throat section which enables the auger assembly unit to be quickly removed for routine maintenance.

Available as a close coupled or bare shaft pump, the W Range Large Auger pump can be supplied as a two or four stage unit, in cast iron or stainless steel. With a range of hopper sizes, it can develop pressures up to 48 bar and handle capacities up to 215m³/h.

Many of the W Range components are interchangeable with Mono's industrial pumps, which is particularly beneficial to Wessex Water as it uses both ranges on site and thus minimises spare part requirements.



Pump:	CW084HL1R4
Product:	Thickened sludge
Capacity:	4m³/h
Pressure:	12-16 bar
Pump Speed:	Maximum 134 rpm
Drive:	18.5kW motor



Mono Pumps Ltd
Martin Street, Audenshaw
Manchester, M34 5JA England
T. +44 (0)161 339 9000
E. info@mono-pumps.com
www.mono-pumps.com

Mono® NOV

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