Waste Water

Application Data No. 209 06/14

PROGRESSING CAVITY PUMPS CHOSEN FOR NEW £300 MILLION WASTEWATER FACILITY

NOV Mono has provided ten progressing cavity pumps which are installed at the heart of a new £300M wastewater treatment works in Sussex. The Southern Water plant in Peacehaven features a number of different Mono[™] pumps, including EZstrip[™] cake pumps, LF injection pumps and Widethroat pumps.

The new Peacehaven plant uses 11 kilometers of newly constructed tunnels to bring sewage flows into two new pumping stations and transfer the treated sewage to a new outfall which has been constructed in nearby Friar's Bay. "That creates a significant need for reliable and effective pumping solutions that will keep the plant operating efficiently at all times," says Mono Account Manager Mike Burton.

Mono worked with two of the sewage processing equipment providers involved in the project, the Andritz Group and Saxlund International, to offer the most efficient pumping solutions. "For Andritz, who supplied the plant's centrifuge equipment, we provided a variety of pumps which are now being used for different duties," continues Mike. "These include transferring imported sludge cake, dosing dewatered sludge cake and barrier layer injection where lubricant is added to the pipework to ensure that the sewage moves smoothly through the system. Each of these is a key application in its own right, so reliable operation is absolutely crucial."

Mono provided a similarly diverse package of pumps for Saxlund International who supplied the drying and digester process equipment for the plant, "These are now being used for cake blending, drier feed, cake transfer and polymer dosing applications," adds Mike.

"This project certainly demonstrates Mono's ability to provide a comprehensive package of pumps for large scale projects such as this one. The specific pumping requirements at the plant vary quite significantly from duty to duty, ranging from sludge transfer through to lubrication and dosing, yet the extensive range of products that we offer meant that we were able to meet all those requirements with ease."

"The EZstrip technology on the Mono pumps allows them to be maintained in place and that certainly offers attractive savings in terms of maintenance times and costs, " adds Matt Drew, Sales Manager for Saxlund. "Having such a wide variety of pumps supplied by a single manufacturer was also an attractive proposition as it helped ensure compatibility between various parts of the process."

The completed Peacehaven waste water treatment works is covered by an 18,000m² grass roof – the largest green roof of its kind in the UK and handles the 95 million litres of wastewater which is generated each day by towns of Peacehaven, Brighton and Hove, Telscombe, Saltdean, Woodingdean and Rottingdean.

Equipment:	2 x CW122 Widethroat pump 2 x W18DC EZstrip cake pump 2 x W18F Widethroat pump 4 x SLF204 Dosing pump
Product:	60% co-settled/40% imported sludge Digested/mixed sludge
Pressure:	5 - 20 bar
Pump Speeds:	85 - 960 rpm



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