

## Water & wastewater

# Clearing the blockages and sealing the leaks

A European sewage treatment works was experiencing problems with constant blockages and leaking glands. Access difficulties meant that maintenance costs were high. The installation of Vaughan Chopper Pumps achieved significant savings on labour and electricity consumption. Later, retrofitting proved to be self financing with payback within a year.

Reducing costs associated with unplanned maintenance and achieving significant savings on energy consumption were the important benefits achieved at a Severn Trent Water facility, following the installation of Vaughan Chopper Pumps, supplied by P&M Pumps.

The Sewage Treatment works at Netheridge in Gloucester had experienced problems with existing pumps which were continuously blocking and also suffered from leaking glands. The application was pumping raw sewage from 20 m below ground from wet wells to the inlet works. To complicate matters the pumps were housed in a dry well which was subsequently classified as a 'confined space' and this required operators to have breathing apparatus escape sets to meet health and safety requirements. Therefore, when contractors were called in to regularly unblock the original pumps maintenance costs escalated further, in the region of £100,000 for one year.

Initially, Severn Trent Water operated one Vaughan Chopper pump on a trial basis for an extended period to see if it would meet the challenges of the demanding application and this pump is still used as a stand-by on VSD Drive. Following the successful trial, additional pumps were installed and the process now involves a total of four Vaughan Chopper pumps operating continuously at a fixed speed. The pumps are 12 in discharge PE12U's with 90 Kw, 970 rpm motors.

Jeff Beddall, a work flow technician at Netheridge Treatment Works comments, "We have achieved significant savings on labour and electricity consumption, the problems we were experiencing of blockages and leaking glands with the original pumps have been eliminated, following the switch to Vaughan Chopper Pumps". Jeff added, "We particularly appreciate the fact that the pumps do not block, one pump has already been installed for just over three years running 24/7 and it has never blocked".

Through their experiences at numerous UK waste water treatment sites, P&M Pumps have been able to demonstrate that Vaughan Chopper Pumps can bring significant cost-savings. In most cases, retrofitting a Vaughan Chopper Pump into a problematic area improves the whole process and will be self-financing, with payback periods of less than one year, thereafter minimising the effect to the budget holders.

[www.pandmpumps.co.uk](http://www.pandmpumps.co.uk)



*The Sewage Treatment works at Netheridge in Gloucester.*