

Flygt Concertor eradicates wastewater pump blockages for Yorkshire Water.

Enhancing operational reliability and sustainability through intelligent wastewater pumping technology.

Yorkshire Water collects, treats and distributes approximately 1.26 billion litres of water as well as recycling and safely disposing of 1 billion litres of wastewater back into the environment every day. The organisation delivers this service to the 5 million people across its 4600-square mile area.

The challenge

Yorkshire Water covers one of the largest areas in England and one of the key challenges of its network of wastewater pumping stations was pump blockages. These issues require reactive, timeconsuming visits from its operations and maintenance team, which incur significant costs in fuel, time, resources and disruption to local residents.

Yorkshire Water's Dynamic Maintenance Team identified that they required an easily deployable solution that delivered tangible benefits across the network.

A particularly problematic site, requiring 2-3 reactive visits a week due to pump blockages, was chosen for an initial trial.

"The Burnsall site had long been problematic for us. Working with Xylem has enabled us to eradicate those problems and make our network much efficient."

Nev Barugh, Asset Technical Support Engineer, Yorkshire Water

The solution

Xylem reviewed the Burnsall Car Park site and having considered Yorkshire Water's specific requirements, the Flygt Concertor N pump was selected due to its excellent clog resilience and pump cleaning.



Flygt Concertor trial pumps being delivered to Yorkshire Water's Burnsall car park site.

Client

Yorkshire Water

Xylem's role

Identify and resolve persistent pump blockages, supplying and installing Flygt Concertor pumps with built-in intelligence

Project results

Flygt Concertor pumps have eliminated blockages, cut reactive maintenance by 51%, saved over 800 site visits, and reduced energy use by up to 29%.

The results

Two Concertor pumps (N6020.091s 2.4kW 80mm) were installed at Burnsall Car Park, the problem site. Since the installation in January 2019 there have been zero blockages recorded, meaning that reactive visits to site for this issue were completely avoided. Having proven the pump's clog resistant credentials, Yorkshire Water Dynamic Maintenance team decided to roll out the Flygt Concertor Pump across its most challenging pumping stations. The simple connectivity of the Flygt Concertor Pump into existing networks has meant that in less than a year Xylem has delivered solutions to over 150 dual and triple pumping stations with a further 211 on plan for Yorkshire Water.

As a result of the widespread installations, Yorkshire Water has experienced positive results in the problem stations where the Flygt Concertors were fitted:

Cost savings secured

- Total efficiency of the Flygt Concertor N has reduced the ownership costs including a 93% reduction in previously required inspections.

Pollution reduction

- Due to the improved blockage resistance.
- 51% estimated reduction in reactive callouts to completed sites.

Energy use reduction

- Improvement in hydraulic efficiency compared to legacy pump. has contributed up to a 29% reduction in power consumption.

Emissions/carbon reduction

- Removal of reactive journeys to and from site for call outs.
- Over 800 cumulative visits to site avoided on completed sites.

“Products like the Flygt Concertor Pump can provide customers with tangible benefits that offer significant benefits to their organisation.”

Jason Robinson, Key Account Manager to
Yorkshire Water at Xylem



Flygt Concertor at Yorkshire Water's Burnsall car park site.

Flygt Concertor is a fully integrated pumping system that offers a unique synergy between software functions and state-of-the-art hardware to provide energy efficient, clog-free pumping with adaptive pump performance.