

Xylem's Flygt Exuperior[®] halves energy use at Heathrow pumping station

No maintenance call-outs since Xylem solution is installed

Xylem's sustainable wastewater pumping solution Flygt Exuperior successfully cut the energy consumption at a pumping station at Heathrow airport's cargo centre by 50 percent. The Xylem solution has also eliminated the need for maintenance call-outs to the pumping station since being installed in January 2013.

The water challenge:

Heathrow Airport Water Services Department commissioned Xylem to evaluate the wastewater pumping system in the cargo centre area of the airport which hosts heavy volumes of traffic and handles a vast amount of freight on a daily basis. The Xylem team was charged with developing and implementing a reliable and energy saving wastewater pumping solution for this pumping station which was under constant pressure to deliver day in, day out.

Ian Jolly, of Heathrow Airport's Water Services Department said, "With operations running so regularly it is critical to ensure that systems are run in the most efficient way possible. As one of the world's largest and busiest airports, with almost 70 million people travelling through our terminals during 2012, Heathrow Airport is committed to working with innovative, reliable technology to cater for this consistently high footfall of passengers."

"As a result, our running costs and maintenance call outs have noticeably decreased, saving us significant amounts of system downtime and money through the cheaper bills."

The Xylem solution:

Xylem installed a Flygt Exuperior solution including two Flygt N-technology pumps and two Flygt SmartRun™ intelligent pump controllers in the sewage wet well of the cargo area. Three complementary functions - hydraulics, motors and controls - distinguish the fully-integrated Flygt Exuperior system from traditional wastewater pumping systems. Xylem's Flygt Adaptive N-Pump was recognised as 'Most Innovative Product of 2011' by the Water Environment Federation. The Adaptive N-hydraulics improves upon the proven clog-free impeller of the original Flygt N-pump by allowing the impeller to move axially upward long enough for bulky materials or other debris to pass through even more smoothly. This significantly reduces stress on the shaft, seals and bearings during these intrusions.



Xylem's Flygt Exuperior cut energy use at Heathrow airport's cargo centre pumping station by 50 percent.

Customer: Heathrow airport Water Services Department
Challenge: to deliver an energy efficient and sustainable wastewater pumping solution in an extremely busy, pressurised environment.

Products: Flygt Exuperior[®]

Results: a sustainable, cost efficient solution that cut energy consumption by 50 percent and has eliminated the need for maintenance call outs.

Flygt Exuperior combines state-of-the-art hydraulics, premium efficiency motors, and intelligent controls for the ultimate in reliability, efficiency, and simplicity.

The two Flygt SmartRun intelligent pump controllers monitor the specific energy use of the pumps and continually adjust the pump speed to ensure that the minimum amount of energy is being used for all pump cycles without the need for a site visit and recalibration of the system.

The result:

Since being installed over the course of one day in January 2013, the Xylem solution has delivered impressive results. The pumps in the extremely busy cargo holding area have settled into running at 33-37Hz, reducing the energy consumption of the pumping station by approximately half while maintenance call-out incidents have also been eliminated.

Ian Jolly of Heathrow Airport's Water Services Department was impressed with Xylem's recommendations and the resulting installation, "We approached Xylem as we had previously worked together and their most recent installation has certainly lived up to the company's high standards."

"The adaptive hydraulics of the Flygt 'N' pumps and the SmartRun Intelligent Pump Controllers provided the pumping system in the cargo centre with a sustained level of improved efficiency. As a result, our running costs and maintenance call outs have noticeably decreased, saving us significant amounts of system downtime and money through the cheaper bills. Overall, it was certainly a job well done."



With almost 70 million people passing through Heathrow airport's terminals in 2012 the cargo centre's pumping station was under constant pressure to deliver day in, day out.



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