

Flygt Concertor™ eliminates constant sewage spills at Sultan Qaboos University station

Xylem's new system solves Omani university's constant clogging issues

Operators of a wastewater pumping station at Sultan Qaboos University in Oman were facing serious clogging issues, having to frequently lift the station's pump and manually remove waste solids and grease build-up. Furthermore, as the station couldn't handle the flow during peak hours, it was not unusual to have overflows that would reach the adjacent roads.

In an effort to solve these issues, the university agreed to install and trial Flygt Concertor a new wastewater pumping system with integrated intelligence designed to ensure clean wet wells, clog-free operation and drastically reduce unplanned vacuum cleaning call-outs.

The trial was planned to last for four months, but after the first number of weeks the difference in performance and efficiency was remarkable. Flygt Concertor not only kept the pump and sump continuously clean but it also completely eliminated the common sewage spills during peak flows.

Clogging issues at Sultan Qaboos University, Oman

Sultan Qaboos University, located in the Muscat region of Oman, houses approximately 16,000 students. Both the student and staff population has steadily increased during the last number of years and the University's administration is focused on finding efficient and sustainable solutions for all their services.

In September 2015, the operators of a pump station located at one of the student residences agreed to install and trial Xylem's new wastewater pumping system, Flygt Concertor, in an effort to solve serious clogging issues as well as frequent overflows caused by peak flows.

The positive results were clear as early as during the first week of the trial. Before installing Flygt Concertor, operators had to frequently lift the pump up to remove waste solids caught in the impeller. With Xylem's new wastewater pumping system, the pump clogging was completely eliminated.

Furthermore, the cleaning of the sump, which previously required the services of a sewage vacuum truck to manually remove accumulated grease and sediment, dramatically improved.

"We had to call the vacuum truck once a month and have them manually remove sediment and grease. This is now a thing of the past - with Flygt Concertor this hasn't been a problem and we have saved both time and money," said Ramesh Rathinavel, Senior Mechanical Engineer at Sultan Qaboos University.

Customer: Sultan Qaboos University

Challenge: To eliminate regular sewage spills by delivering clog-free pumping and improve pump and sump cleaning

System: Flygt Concertor, the world's first wastewater pumping system with integrated intelligence

Results: Clog-free pumping: no need to lift the pump and clean the impeller | Clean sump at all times: zero calls to vacuum truck during trial period | No extra investment in larger control cabinets was required



Flygt Concertor™



Sultan Qaboos University

As Xylem's wastewater pumping system with integrated intelligence automatically adapts to pumping conditions to deliver optimal pumping performance, overflows in the vicinity of the pump station have also been eliminated.

"The Flygt pumping system is managing the peak flow without any problem and has eliminated the flooding issues," said Mr. Ramesh.

Compact and energy efficient wastewater pumping system

On top of the benefits delivered by Flygt Concertor's pump and sump cleaning functions, the system's compact design allowed it to easily fit into the existing station at Sultan Qaboos University. Concertor's system design results in compact control cabinets as traditional components (motor protection, starters, variable frequency drives and climate control equipment, etc.) are either not required or built into the pump. This reduces the size of the control cabinet and at the same time enables more monitoring functionalities.

Mr. Ramesh continued, "Overall our experience with Flygt Concertor has been very positive - the pumping system has been operating trouble free since it was installed. We no longer have to contend with clogging, break-downs or overflows. On top of that our energy bill has decreased."



Operators of a pump station located at one of the student residences of the Sultan Qaboos University, install Flygt Concertor.

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