

Loches Sud Touraine cuts pump station maintenance by 90% with Flygt Concertor®

Intelligent wastewater pumping helps reduce blockages, maintenance demands and energy use at two critical pumping stations.

The background

The Communauté de Communes Loches Sud Touraine provides drinking water and wastewater services for more than 50,000 residents in France's Indre-et-Loire department. The authority's wastewater network includes 93 treatment plants and 220 pumping stations, managed directly or through agreements with its 67 member municipalities.

Recurring blockages at some pumping stations were creating a heavy maintenance burden, requiring technician time, jetting equipment and repeated site visits. In addition to reducing these corrective interventions, Loches Sud Touraine wanted to improve energy efficiency and find pumping solutions that could perform reliably under different hydraulic conditions across its network.

The authority worked with Xylem, a long-standing supplier in the region, to study problem-prone stations and identify more reliable, energy-efficient solutions. The first priorities were Rue de Tours, the main pumping station for the municipality of Loches, and the Fourneaux pumping station in Saint-Jean-Saint-Germain. The two sites faced different operating challenges, making them strong candidates for a more adaptable approach to wastewater pumping.

The solution

Following Xylem's site studies, Loches Sud Touraine began replacing conventional pumps at the two stations with Flygt Concertor intelligent wastewater pumping systems. Two Concertor pumps were installed at Rue de Tours, in 2018 and 2022, and two were installed at Fourneaux, in 2017 and 2020.

The installations were designed to reduce clogging and maintenance while improving energy performance at each site, with the flexibility to respond to changing operating conditions and the different demands of the two sites.



Blockages at pumping stations required frequent maintenance.

Client

Communauté de Communes Loches Sud Touraine

Xylem's role

To provide intelligent Flygt Concertor wastewater pumping systems that reduce clogs, maintenance and energy use.

Results at two critical pumping stations:

- **Rue de Tours:** 90% fewer maintenance interventions and 25% energy savings.
- **Fourneaux:** Corrective maintenance reduced from monthly to once per year, with 40% energy savings.

At Rue de Tours, wastewater containing fibrous material and sand caused frequent blockages and exposed pumps to abrasive wear. Weekly corrective interventions required jetting equipment and two technicians to clear the blockages. Flygt Concertor's self-cleaning capabilities helped reduce clogging, while abrasion-resistant high-chromium Flygt Hard-Iron hydraulics helped limit wear and maintain pumping performance over time.

At Fourneaux, long force mains and significant friction losses created demanding hydraulic conditions and made the station particularly prone to clogging. Flygt Concertor gave Loches Sud Touraine the flexibility to adjust pumping performance to changing conditions, delivering efficiency improvements while the pump's automatic de-ragging reduced maintenance demands.

The results

At Rue de Tours, maintenance interventions fell from once per week to once per quarter, with quarterly visits now focused on routine system checks. The station required 90% fewer maintenance interventions and achieved 25% energy savings.

At Fourneaux, corrective maintenance fell from once per month to once per year, while energy use dropped by 40%.

The success of these installations supported a broader rollout. Loches Sud Touraine now has around 20 Flygt Concertor pumps across its territory and plans to add more, prioritizing the most critical pumping stations in its wastewater network.



Flygt Concertor helps prevent blockages and optimize energy use.

Xylem's Flygt Concertor

- Detects and clears blockages automatically using integrated pump-cleaning functions and Adaptive N® technology.
- Adjusts pump performance to changing operating conditions to reduce energy use.
- Covers a broad performance range, allowing operators to adjust duty points without changing the impeller or motor.

“Xylem's Flygt Concertor solution addresses two key challenges for an organization like ours. Its built-in intelligence adjusts power to operating needs, delivering substantial annual energy savings compared with conventional pumps. It can also clear blockages automatically by reversing direction when a clog is detected.”

Jean-Pierre Canizares, Electromechanical Technician, Loches Sud Touraine