

Flygt pumps reduce energy cost by 31 percent thanks to N-Technology

with zero incidents of clogging reported

The City of Bathurst in New Brunswick, Canada, was facing mounting challenges at their sewage lift station related to pumps clogging with fibrous material, which also increased energy use. By installing Flygt N-pump technology, zero incidents of clogging were reported over the first year of operation, and monthly energy costs were reduced by an average of 31 percent.

The Challenge: Fibrous Clogs

In the spring of 2012, a sewage lift station in the City of Bathurst was requiring monthly servicing to pull the pumps and remove thick fibrous clogs. Although the city's utility had a service truck with a lift, each service call required the rental of a boom truck due to the weight of the pumps undergoing maintenance.

The clogging issues worsened month by month whereby clogging increased to once per week and then finally to up to twice per week. This resulted in incredibly high labor and outside service costs to the utility. There were also issues with soft starters failing, resulting in two replacements of starters within an 18-month period. Winding tests on the utility's existing pumps showed early deterioration of the stators due to overheating.

The city was faced with a decision to make on whether to continue to service the failing pumps or look for an alternative.

The Solution: The Flygt N-Pump with TotalCare Services

Xylem proposed the Flygt N-technology N-3171 pump (435MT 25HP) to replace the existing competitor's 20 HP submersible sewage pumps that were in service for a little over a year. Advantages of Flygt N-technology pumps include clog-free pumping, an innovative self-cleaning impeller and a flexible and modular design, which ensures sustained efficiency. Flygt N-pumps are also backed by Xylem TotalCare services for secure operations.



City of Bathurst Lift Station No. 1

END USER:	City of Bathurst
POPULATION:	34,000 residents
XYLEM'S ROLE:	Supplied 2 Flygt N-technology N-3171 pumps (435MT 25HP)
END RESULT:	A 31 percent energy savings and zero incidents of clogging for the first year of operation.

“With the installation of Flygt N-pump technology, zero incidents of clogging were reported over the first year of operation.”

In discussions with the Treatment Process and Facility Services Supervisor at the City of Bathurst, Vincent Wood, Xylem was able to guarantee a minimum of 25 percent energy savings for the utility with the installation of the correct Flygt N-pump.

The City of Bathurst placed an order with Xylem in May 2012. A Flygt N-3171 pump with a six-inch pre-drilled flange port was used with the existing ANSI flange adapter and guiderail system. The first Flygt N-pump was installed in early July 2012 followed by the second two weeks afterwards.

The Results: Sustained Efficiency

With the installation of Flygt N-pump technology, zero incidents of clogging were reported over the first year of operation. The Flygt pumps have not required lifting since the installation. In addition, a lower current draw was reported for the Flygt pumps even though it has a larger horsepower motor. Furthermore, overheating of soft starters was no longer an issue.

“The pumps are performing extremely well,” says Vincent Wood, Treatment Process and Facility Services Supervisor and General Foreman at the City of Bathurst. “Since we installed the pumps in July, we haven’t been back to the station. The soft starters haven’t tripped. This is a combined sewer overflow so there is a lot of flow, especially during heavy rainfalls.”

Furthermore, The City of Bathurst was impressed with the savings on energy costs. Monthly costs were reduced by an average of 31 percent when compared to the prior years’ utility statements.



Existing pump lifted for service to remove a fibrous clog

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