



SUBMERSIBLE PUMP MONITORING
Chesterton Connect™ System
SOLVES Pump Maintenance
CHALLENGES in the
WASTEWATER INDUSTRY



Chesterton Connect™ System Detected Vibration Caused by Ragging Issues in Submersible Pumps Helping Prevent Pump Damage

Sewage treatment is a type of wastewater treatment which aims to remove contaminants from sewage to produce an effluent that is suitable to discharge to the surrounding environment or an intended reuse application, thereby preventing water pollution from raw sewage discharges.

An increasing maintenance challenge faced by the wastewater industry is the clogging of pipes and pumps in the collection systems and headworks of the sewage treatment process. One contributing factor has been the widespread use of “flushable” wipes and other non-flushable materials, causing significant ragging problems in wet wells and incurring substantial repair costs.

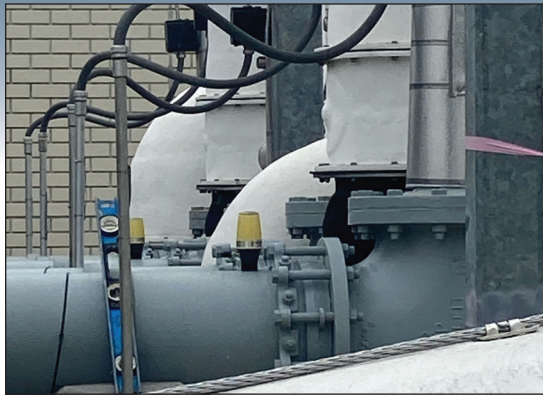
CHALLENGE

Background

A wastewater facility encountered persistent ragging issues with their wet wells, leading to suction blockages of their submersible pumps and subsequent vibration-induced damage. Repair costs ranged from \$18,000 to \$35,000 per pump, posing a significant financial burden for the facility.



Waste from non-flushable materials causes clogs and ragging problem in pipes and pumps.



Chesterton Connect Sensors on submersible pumps.



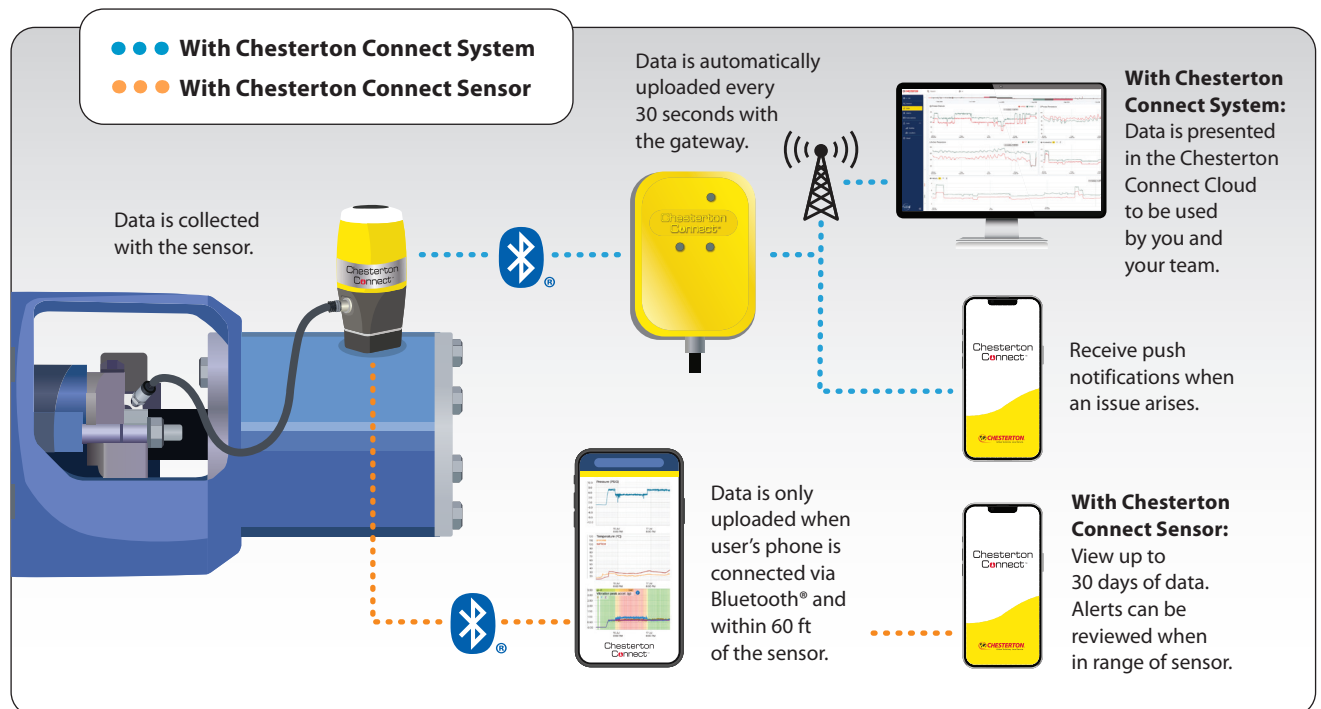
Chesterton Connect Sensor.

SOLUTION

Product

To address the maintenance challenges and help reduce costs, Chesterton, a provider of industrial solutions, collaborated with the facility personnel to install the **Chesterton Connect™ System**, including **Chesterton Connect Sensors** and a **Chesterton Connect Gateway**, on the discharge piping of the pumps. This remote monitoring system is capable of detecting excessive vibration levels, indicative of clogging, and automatically sends email and app alert notifications to plant personnel.

Chesterton Connect System Facilitates 24/7 Remote Condition Monitoring of Pumps and Rotating Equipment





RESULTS

Achieved

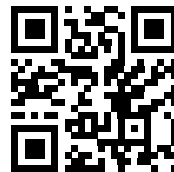
The implementation of the **Chesterton Connect™ System** brought about several positive outcomes for the wastewater facility:

- **Increased Reliability:** The monitoring system provided early warnings of escalating vibration levels as the pump suction became clogged. This allowed maintenance crews to intervene promptly, cleaning the ragging issues in the wet well and preventing severe pump damage.
- **Cost Savings:** By addressing the ragging issues before significant damage occurred, the facility avoided the need to pull and completely rebuild the pumps. This resulted in substantial cost savings, as repairs averaged between \$18,000 and \$35,000 per pump.
- **Reduced Downtime:** Swift action based on vibration alerts minimized downtime and ensured that the pumps quickly returned to normal operation. This contributed to maintaining the overall efficiency of the lift station in the wastewater facility.

Learn More

To learn more about how submersible pump monitoring can benefit your wastewater facility and improve overall performance, contact A.W. Chesterton Company today.

Together, we can enhance reliability, reduce costs, and ensure efficient wastewater treatment operations.



Chesterton ISO certificates available on chesterton.com/corporate/iso

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