



INDUSTRIAL
FLOW
SOLUTIONS™

CASE STUDY
OverWatch®

Atlanta, GA, USA
Municipal | Retrofit

Eliminating Clogged Pumps and Downtime: How the OverWatch® System Transformed a Georgia Wastewater Treatment Plant



Problem

A large municipality in Georgia faced significant issues with clogged air-operated diaphragm (AOD) pumps at its 320MGD wastewater treatment plant. The original system had three AOD pumps at each of the eight scum houses, totaling 24 pumps designed to move scum and debris off the surface of the secondary clarifiers.

However, these pumps were frequently **clogged by the scum and debris**, and during power outages, additional issues arose when the solenoid valve—responsible for controlling the water fed into the pumps—became out of sync, resulting in more **downtime**. As a result, the city spent considerable time, labor, and money on **unscheduled maintenance** at least 4 times weekly.

This ongoing maintenance eventually led to the **pumps stopping completely**, causing a buildup in the piping and the formation of a **solid layer on the clarifiers**. The plant needed a reliable pump system that could handle dirt, grit, & debris while maintaining optimal performance, even during power outages.

Solution

To address these challenges, a duplex OverWatch® system was installed to manage the scum layer for the two clarifiers. This new system **eliminated the clogging** issues, improved operational efficiency, and significantly **reduced costly maintenance** events.

The system was designed with elongated legs to **fit within the existing footprint**, and the control panel was equipped with dry contacts to enable solenoid valve operation using a mechanical timer, solving the power outage synchronization issue. Several key adjustments were made to increase the pump's efficiency, including modifying the minimum frequency to prevent deadheading, increasing ramp-up speed to avoid airlock issues, setting the pumps to operate in a linear on/off mode due to infrequent flow, and adjusting the scaling of the level sensor for accurate liquid level readings.

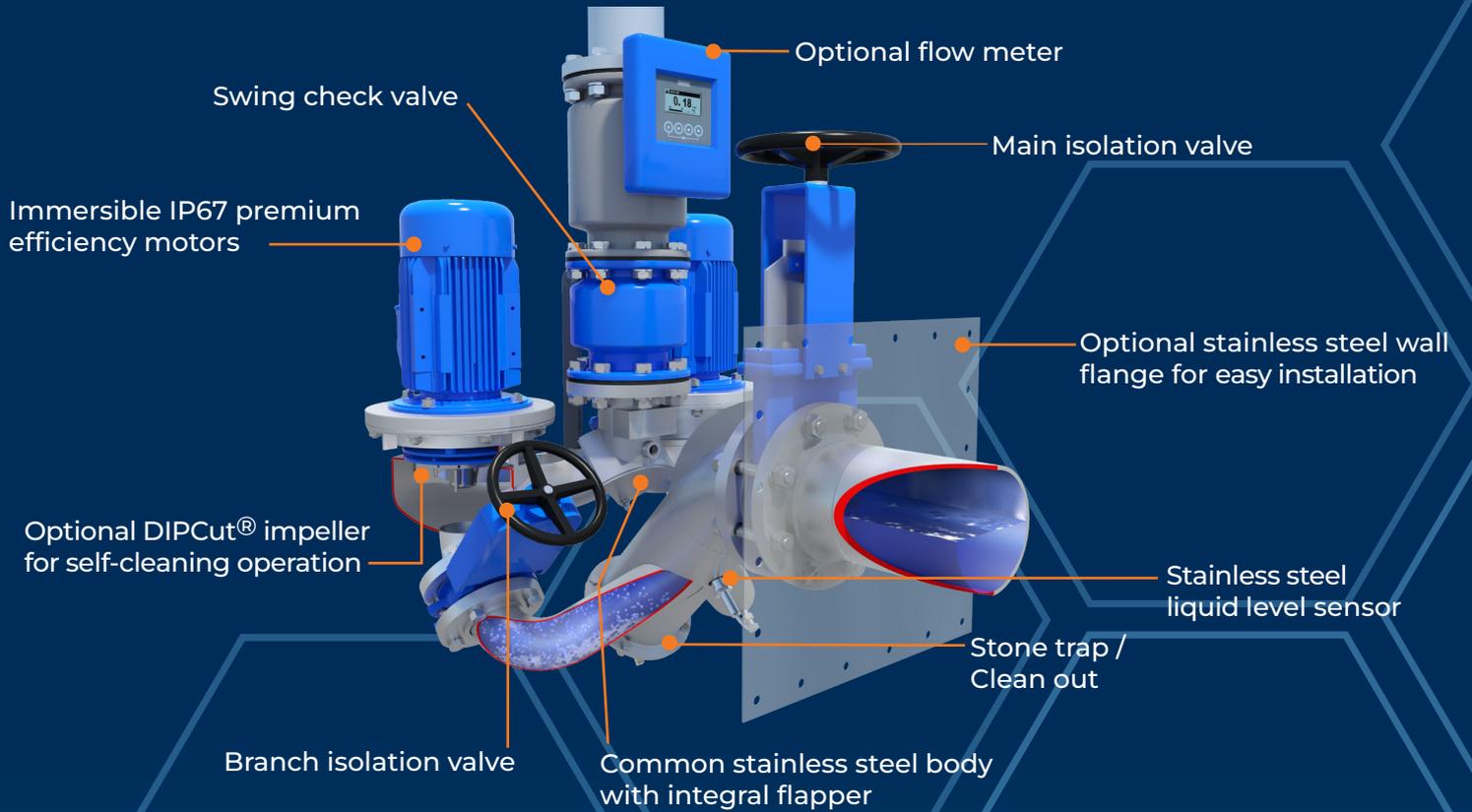
Since the installation of the OverWatch® system, there have been **zero maintenance events**, the scum layer on the secondary clarifier was eliminated, and the solenoid valve time disruption due to power outages was eliminated. Additionally, operator labor time has increased, allowing staff to focus on more critical plant processes. As a result of this success, seven additional OverWatch® systems are now being installed throughout the wastewater plant.





OverWatch®

Direct In-Line Pump System



OverWatch® Direct In-Line Pump System by Industrial Flow Solutions™ is a breakthrough technology designed to lift influent from the point of entry, eliminating the wet well. Influent is contained, eliminating odors, and reducing maintenance. The stainless-steel body is designed to withstand the effects of corrosion from harsh materials and solutions, making **OverWatch®** an ideal solution for the Municipal, Industrial, or Commercial industries.

STAINLESS STEEL IMPELLER OPTIONS



DIPCUT®

Shredding



Pumping



VORTEX



HIGH EFFICIENCY



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