



INDUSTRIAL  
FLOW  
SOLUTIONS™

CASE STUDY  
DERAGGER®  
LAKE WORTH, FL, USA

## From Clogs to Continuous Operation: Enhancing Pump Performance in Lake Worth with DERAGGER®



### Problem

The City of Lake Worth, with a population of 37,000 residents, faced significant operational challenges due to a 400HP (300kW) pump. This pump was plagued by frequent clogging issues, occurring approximately once a day. The constant clogging disrupted the pump's functionality and resulted in persistent vibrations within the building. In addition to being a nuisance, these vibrations posed a potential safety hazard to the building's structure and the personnel working nearby.

The frequent need to address these clogs diverted valuable operator time away from other critical tasks, which impacted overall efficiency and productivity. Furthermore, the manual removal of clogs introduced safety risks for employees, mainly due to the physical strain of lifting and handling equipment.

Additionally, the problem was intensified by the daily accumulation of rags and debris, which worsened maintenance challenges and increased the likelihood of mechanical failures. It also extended periods of downtime, further disrupting operations.

In June 2014, the City of Lake Worth implemented DERAGGER® to address the ongoing pump clogging issues.

### Solution

With the implementation of DERAGGER®, the reduction in downtime has significantly **increased productivity and efficiency** in the wastewater treatment process.

This advanced solution utilizes **Real Time Pump Protection™**, a technology designed to detect rags and other debris before they aggregate into more extensive blockages. Upon detecting a potential obstruction, the system automatically reverses the impeller blades' direction, clearing any detected blockages without requiring manual intervention. This effectively prevents pump shutdowns and ensures the continuous operation of the wastewater treatment process.

Since the installation of DERAGGER®, there has been **no pump ragging**, and the system maintains a clean and efficient pump performance. Additionally, there has been a notable **reduction in electrical consumption**, with the current drawn by the pump decreasing from 425 amps to 410 amps. This highlights the efficiency of the DERAGGER® system and contributes to cost savings and **reduced operational strain** on the equipment.

The DERAGGER® solution has successfully mitigated the issues related to pump clogs and vibrations, enhancing both the safety and efficiency of the wastewater treatment process.

**“It is working great for us, and we have not had any ragging issues on that pump since it was installed...”**

- David Laperna, Lift Station Supervisor  
City of Lake Worth, FL



# DERAGGER®



**DERAGGERLite™**  
Anti-ragging device  
Prevents pump clogs



**DERAGGER+™**  
Real Time Pump Protection™



**PowerMonitor™**  
Power analyzer &  
data logger

MONITOR			
SCADA Ready		●	●
Data Logging <i>(20 years at 5s intervals)</i>		●	●
Derived Flow		●	
PROTECT			
Anti-ragging	●	●	
Motor Saver	●	●	●
Dry Run Protection		●	●
CONTROL			
0 - 1000+ HP	●	●	●
VFD Compatible	●	●	●
Wet Well Clean		●	
Odor Control		●	
PRO Compatible		●	●

The DERAGGER® is a leading product in the municipal industry, designed to eliminate ragging and clogging issues in pump stations. It offers real-time detection of early rags and clogs, providing intelligent data monitoring and analytics tailored to specific applications.

Key features include:

- Real-time monitoring of dynamic torque waveform to prevent pump clogging.
- High-resolution power analyzer for remote insight into pump station operations.
- Cost savings in time and maintenance through streamlined applications.
- Modular approach ensures compatibility without redesigning control panels.



Controls up to 16 pumps  
10" - 32" IP65 anti-scratch screen

**DERAGGERPro™**  
Paired with DERAGGER+™  
or PowerMonitor™, simplifies pump  
station controlling and spreads  
intelligence across three devices  
for system redundancy.



**ADVANCED KEYPAD**  
TCP/Ethernet Connectivity, built-in LTE  
available, LORA radio, start/stop function.



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