



INDUSTRIAL  
FLOW  
SOLUTIONS™

CASE STUDY  
DERAGGER®  
MOUNT JULIET, TN, USA

21% ENERGY SAVINGS

## Eliminating Pump Ragging and Reducing Energy Costs: in Mount Juliet, TN



### Problem

The city of Mount Juliet, TN, located in the Nashville Metro area, faced a recurring issue with one of its duplex lift stations, which experienced **weekly pump clogs**. These frequent blockages required staff to manually reset the pumps, a time-consuming and **labor-intensive** process that posed significant safety risks. Employees were **exposed to hazardous conditions**, including raw sewage and sharp objects.

In addition to the safety concerns, the municipality was unaware that the station was consuming excessive electricity due to the inefficient operation of the pumps. The pumps would often operate under suboptimal conditions, consuming more power than necessary before shutting down. This resulted in **unnecessary energy costs** and increased wear on the equipment, leading to more **frequent breakdowns & maintenance downtime**.

As a result, the city needed a solution to address operational inefficiencies and safety risks, ensuring reliable performance without compromising staff safety or adding to the municipality's energy expenses.

### Solution

The municipality decided to install a DERAGGER® on the pumps that were frequently affected by ragging, and the results were immediate and dramatic. Within a short period, **ragging was eliminated** entirely, achieving a **100% blockage reduction**. Before the installation, the station experienced clogging issues weekly, but since the DERAGGER® was installed, the station has not encountered a single ragging incident. This significant improvement ensured the pumps operated smoothly and dramatically reduced the need for manual intervention, **saving time and resources**.

In addition to eliminating ragging, the municipality observed a marked decrease in the current draw of the pumps. The current draw dropped from around 18 amps to approximately 13 amps, which substantially **reduced energy usage**. This decrease in power consumption resulted in a 21% reduction in overall energy use, leading to lower electricity costs and providing a **long-term cost-saving** benefit for the municipality. These improvements enhanced the station's operational efficiency and contributed to a more sustainable and cost-effective solution.



# 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.



### DERAGGERPro™

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

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



### ADVANCED KEYPAD

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



INDUSTRIAL  
FLOW  
SOLUTIONS™