

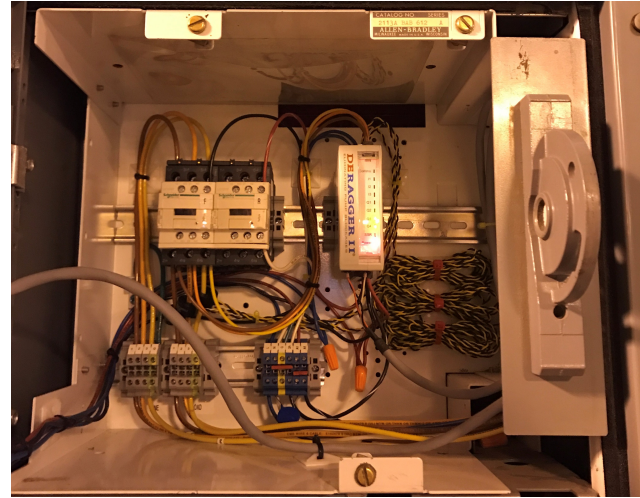


INDUSTRIAL
FLOW
SOLUTIONS™

CASE STUDY
DERAGGER®

Pasco County, FL, USA

Solving Vibration Issues on an Aeration Mixer with DERAGGER: Reducing Vibration, Current, & Energy Costs



Problem

Pasco County, Florida, recently completed an upgrade of a 4-lane Aeration Basin that serves a population of 7,800 residents. As part of the upgrade, new mixers were installed to improve the system's efficiency. However, shortly after installation, the mixers began experiencing a persistent issue: a **build-up of rags** on the mixer blades. This accumulation caused undue **mechanical stress** on critical components such as the mounts, gearbox, and bearings, leading to **increased energy consumption**.

Additionally, the resulting "wobble" of the motor and gearbox caused **significant structural damage** to the concrete base of the system. These complications, along with other operational challenges, have become ongoing concerns for the facility.

Solution

A DERAGGER® was installed on one mixer as part of a trial to address the ragging issue. During this trial period, vibration meters were attached to all mixers to assess the impact of the DERAGGER® on deflection and vibration levels.

With **Real Time Pump Protection™** the DERAGGER® successfully **prevented ragging** on the trial mixer, ensuring it operated smoothly and without obstruction.

The results were clear: DERAGGER® significantly reduced vibration, current consumption, & overall energy usage, proving its effectiveness in improving the system's performance.

Annual Energy Savings: \$47,000

Vibration Reduction: 62%

Current Reduction: 38%

Energy Cost Reduction: 38%



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.



INDUSTRIAL
FLOW
SOLUTIONS™