INDUSTRIAL FLOW SOLUTIONS™

# CASE STUDY
# DERAGGER®

South Jordan, UT, USA
Annual Cost Savings: **$9000**

## Eliminating Pump Lifting Saves South Jordan Pump Station Over $9,000 in the First Year

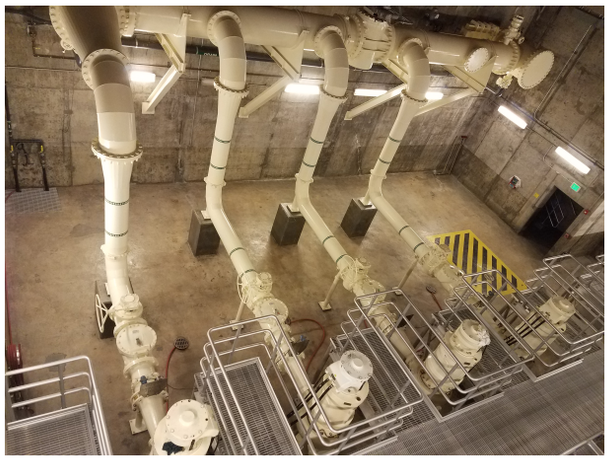
### Problem

At the Water Reclamation Facility in the Jordan Basin (South Jordan Pump Station) area of Utah, ragging was a recurring issue, occurring at least once per week. Serving a population of 200,000 and processing 30 million gallons per day (MGD), the facility's four 125HP pumps were **frequently clogged** by rags, causing audible cavitation noises and **accelerating wear and tear,** ultimately increasing the need for repairs.

The maintenance team spent five to six hours **manually de-ragging** the pumps weekly, leading to **hazardous working conditions**. Workers were regularly exposed to raw sewage and sharp objects, posing **significant safety risks**. As a result, operational efficiency was further compromised by **increased downtime**, and **maintenance costs** continued to rise due to the frequent interventions required to address the ragging problem.

**"Before implementing DERAGGER®, we were pulling pump inspection plates and cleaning by hand biweekly, if not weekly. But after installation of DERAGGER®, we now go two or three months without having to clean by hand."**

- Kelly Petersen, Jordan Basin WRF



### Solution

In 2016, the South Jordan Pump Station installed four DERAGGER® systems with keypads to address the ongoing ragging issue. By leveraging **Real Time Pump Protection™**, the DERAGGER® systems detect the presence of rags and initiate an automatic cleaning cycle to clear the first rag, preventing any potential pump clogs.

Since the installation, there has been **zero ragging**, and pumps no longer require manual lifting or cleaning. This improvement has not only **enhanced operational efficiency** but also resulted in **significant maintenance and energy savings** for the pump station.

With the DERAGGER® systems in place, the facility has saved an estimated three staff hours per month—equating to 312 hours annually and approximately **$9,360 in cost savings per year.**

These reductions in both labor and maintenance efforts have greatly **streamlined operations** and lowered the overall costs associated with pump maintenance.

# DERAGGER®

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

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

**PowerMonitor™**
**Power analyzer & data logger**

| | DERAGGERLite™ | DERAGGER+™ | PowerMonitor™ |
|---|---|---|---|
| **MONITOR** | | | |
| SCADA Ready | | ● | ● |
| Data Logging *(20 years at 5s intervals)* | | ● | ● |
| 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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104 John W Murphy Drive, New Haven, CT 06513 | Tel: (860) 631-3618 | sales@flowsolutions.com | www.flowsolutions.com