

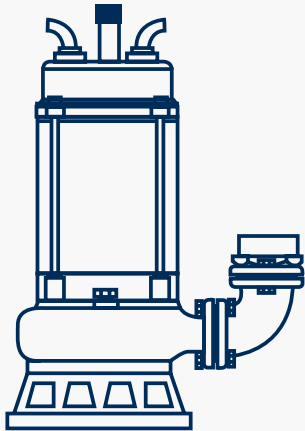


DERAGGER®

MONITOR | PROTECT | CONTROL



INDUSTRIAL
FLOW
SOLUTIONS™



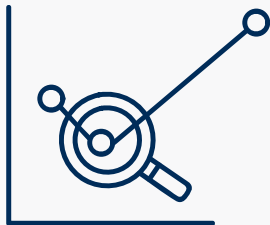
MONITOR

Dynamic Torque
Monitoring™



PROTECT

Real Time Pump
Protection™



CONTROL

Ragging Intervention

MONITOR PROTECT CONTROL

DERAGGER® intelligent pump control technology uses **Dynamic Torque Monitoring™** to answer the universal problem of ragged wastewater pumps.

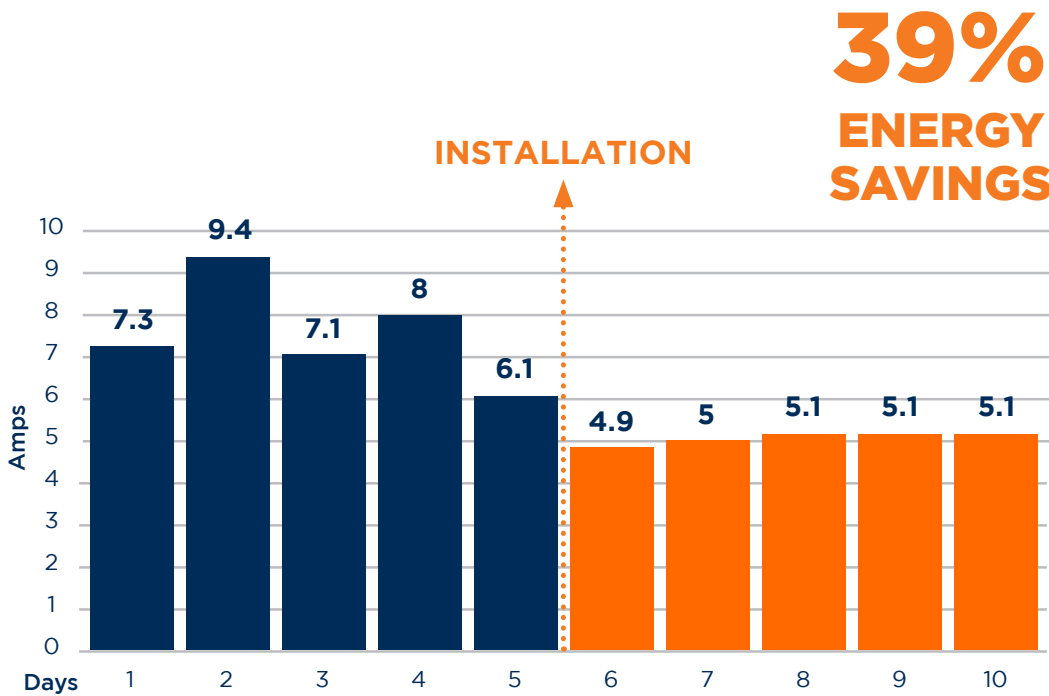
By enabling **Real Time Pump Protection™** **DERAGGER** can slow, stop, and clean your pump the instant any obstruction impedes operation. The **DERAGGER** also monitors the power supplied to your system, protecting your motor from damaging conditions.

With the **DERAGGERPro™**, you can control up to sixteen pumps with a built-in high-resolution touchscreen. In addition to anti-ragging protection, the **DERAGGER** includes a complete software lineup capable of logging up to twenty years of data and offering cloud connectivity, with which you'll finally be able to unlock your data to assist with making **data-driven decisions**.

Finally, through intelligent machine learning and an open platform, the **DERAGGER** can provide condition monitoring by perceiving any outlying incidents in your regular operation—even precisely interpreting the fault source sooner than external sensors.

This technology can be applied to pumps, blowers, mixers, or any rotating equipment—and **across all motor starter types**. Energy savings and increased efficiency are easily achieved using **DERAGGER's** intelligent pump & equipment controlling and optimization tools.

IMPROVES PUMP PERFORMANCE AND SAVES MONEY



Scan Below
to read the case studies



ZERO
Ragging events
Greensboro, NC



312 HOURS
of labor saved per year
Jordan Basin, Utah



\$100k
maintenance &
energy cost savings
over 8 months
City of Palestine, TX

AVAILABLE APPLICATIONS

ELIMINATE ANCILLARY EQUIPMENT



Odor Control & Wet Well Clean

- Time operation of the pump to prevent stagnation and eliminate debris and FOG



Condition Monitoring

- Uses historical averages to determine any deviations



Derived Flow

- Calculates flow by pairing level input with known tank dimensions



Float Switch Backup

- Provides functionality of multiple floats with a single float and a timed operation

EXTEND PUMP LIFE



Datalogger

- Stores up to 20 years of high-resolution data



Motor Protection

- Under / Over voltage
- Frequency deviation
- Under / Over imbalanced current
- Phase loss



Dry Run Protection

- Triggers alarm or suspends pump at point of air entry



Anti-Ragging

- Uses Real Time Pump Protection™ to clear the first rag and prevent a clogged pump

PLATFORM ARCHITECTURE

From local control to full cloud-based integration, **DERAGGER®** technology provides the flexibility to implement a scalable solution, compatible with all pump, impeller, and starter types.



DERAGGER Lite™



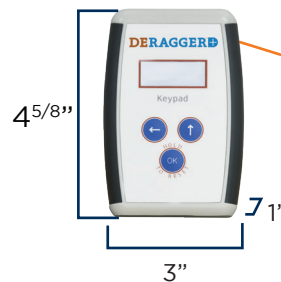
DERAGGER+™

RETROFIT CAPABILITIES

Companion Panels offer a convenient, cost-effective, retrofit alternative to modifying existing control panels. Factory pre-wired and tested panels allow you to easily add deragging and/or monitoring capabilities to existing pump stations.

The compact **Keypad** is door-mounted for easy access.

When space is available, **DERAGGER®** modules **Rail Mount** into an existing control panel.





DERAGGER Lite™

Anti-ragging device
prevents pump clogs



DERAGGER+™

Real Time Pump Protection™



PowerMonitor™

Power analyzer &
data logger

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 | | ● | ● |



DERAGGER Pro™

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



KEYPAD

With real-time data user interface
With the **DERAGGER+™** Keypad, the SD card stores up to 20 years of high resolution performance data.



ADVANCED KEYPAD

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

PowerMonitor™

MONITOR | PROTECT | CONTROL

The compact **PowerMonitor™** allows you to add real-time protection and monitoring powered by intelligent machine learning to any piece of rotating equipment. Everything from clean water pumps to conveyor belts can utilize the built-in capabilities of complete motor protection, data logging, connectivity, and condition monitoring. Optional Remote Input Output (RIO) device available for additional connectivity protocols and inputs/outputs.



INDUSTRIAL
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