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Electronic Shear Pin Controls from Load Controls

Motor Power Controls from Load Controls can protect valuable motors and equipment from problems and damage caused from: overloads, jams and obstructions.
Often referred to as 'Electronic Shear Pins', 'Torque Limiters', or 'Shock Relays', these sensitive controls can monitor changing workloads and signal process changes and shut down motors to protect them from dangerous conditions.

- Useful for Mixers, Clarifiers, Conveyors, Material Handling Equipment
- Measure true Power for sensitivity up to 10X better than current sensors
- Multiple set points for Warning, Low Trip, High Trip
- Can measure both True Power and Power Rate of Change for application and implementation flexibility
- Rapid Response (0.025 seconds), Delay Timers can filter out nuisance trips
- Can connect to PLC, SDADA, Computers, Data Loggers

Models Optimized for the Application
There are four models with varying capabilities that align to the most common applications.

Capabilities	Electronic Shear Pin Applications	Product
High Trip	Mixers	PFR-1550
2 High Trip	Grinders, Sludge Collectors warning and shutoff	PFR-1750
Low and High Trip	Mixers, Pumps	PMP-25
Rate of Change Measurement	Conveyors, Indexing Machines, Material Handling Equipment	ROC-50

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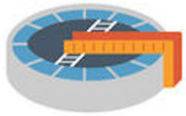
Application Note: Load Controls for Mixers and Sludge Collectors

	Measuring the power levels of mixers and sludge collectors can provide two key operational benefits: understanding changes in viscosity that could trigger downstream processes or warn of impending concerns; and acting as an 'electronic shear pin' to shut down motors when a jam condition exists. This is particularly important to motors in the common mixer configuration of a small motor that is highly geared to move large amounts of material. The ability to detect small changes in power load is critical to informed decision making that can save the lives of motors. Other approaches such as current sensors may be 10X less sensitive to small changes in workloads, making power sensors much more suited to the task.

The Electronic Shear Pin
A large Mid-Atlantic US water utility needed a solution to monitor and protect the motors that drive their sludge collector process. Sensor installation on the motors was physically unpractical, and current-sensing solutions weren't sensitive enough. The utility turned to Load Controls and installed a PFR-1750 control on each motor's supply wiring. Two trip points are set: a lower trip point for warning of increasing load; and a higher trip to power the motor off in the event of a jammed process. The results have been all positive. The motors are now protected and the process is running optimally.

For more application discussion or to request a free 30-day trial contact Load Controls at 888-600-3247 or www.loadcontrols.com