

MURPHY®

INDUSTRIAL STATIONARY



SUPERIOR ENGINE PROTECTION
FOR MECHANICAL ENGINES

FW Murphy has been protecting engines and their driven equipment for over 70 years with our reliable and durable quality instruments.

Extend the life of your mechanical engine with Murphy's complete selection of monitoring and control devices developed to keep your engine running at peak performance. Proper application of engine protection devices provide equipment shutdown the instant temperature becomes critical, pressure drops, or an engine starts to runaway - which can mean the difference between major engine damage and minor maintenance.

Whether you are in construction, agriculture, power generation or any other industrial market, Murphy has the right solutions for maximum engine protection, monitoring and control.



MECHANICAL GAGES

Murphy's extensive mechanical SWICHGAGE® offerings monitor and activate alarms and/or shutdowns for many engine functions, including pressure, vacuum and temperature. Use as a visual indication and automatic shutdown switch to monitor engine temperature, engine oil pressure, pump discharge pressure, intake manifold vacuum and more.

- Combination Indicating Gage and Limit Switch
- Adjustable Set Point Switch Output for Operating Alarms or Shutdown
- Durable Case Offerings for Extreme Environments



ELECTRIC GAGES

The Electric Gage and Electric SWICHGAGE® instruments are known for their proven technology, quality, and reliability. The product line combines the ease of electric gage installation and the reliable switching of Murphy's famous SWICHGAGE® instruments. The Electric SWICHGAGE® offers visual indication to monitor and provides shutdown for many engine functions, including pressure, temperature and fuel level. Gage only and SWICHGAGE® options are available along with senders for pressure, temperature, and fuel level.

- EG Air Core Movement Design
- Adjustable Set Point Switch Output for Operating Alarms or Shutdown
- Soft, Non-Glare Dial and Pointer Illumination by "Cold Light"
- Environmentally Sealed Design For Demanding Applications



PYROMETERS

Single and dual Exhaust Pyrometers are available for monitoring exhaust temperature, a major damaging factor to all engines.

TACHOMETERS, TIME & OVERSPEED

Murphy's tachometers and overspeed devices indicate engine RPM and running time, as well as provide alarm and shutdown on overspeed and starter cranking disconnect. Time switches automatically start or stop an engine after a fixed amount of time for time-critical applications.

- Display and Monitor Engine RPM and Running Hours
- Alarm and Shutdown Features with Overspeed Set Point
- Set Run Time and Shutdown of Equipment



TATTLETALE® MAGNETIC SWITCHES & ANNUNCIATORS

TATTLETALE® annunciators and Magnetic Switches are the nerve centers that translate SWICHGAGE® contact operations into decisions and operate the alarm or shutdown device. They are the electrical load carrying devices for the alarm or shutdown device. Various circuits, time delays, and contact configurations are available to match the power source and mode of operation required for alarm only, alarm before shutdown or shutdown only. ST Series SELECTRONIC® TATTLETALE® annunciators provide audible and visual alarming for your engine and equipment remote alarm indications.

- Translate Swichgage Contact Operations into Alarm or Shutdown
- ST Series Annunciators offer Flashing LEDs to Indicate Alarm on Specific Engine Variables



LEVEL DEVICES

Our level devices help protect your engine by providing easy visual indication and monitoring of low/high oil level and coolant level. The visual indication allows operators to check on the engine fluid levels without shutting down the engine.

- Constant Oil & Coolant Level Indication
- Oil Maintainer Options
- Alarm and Shutdown Features Available



Whether you are in need of automatic start/stop or engine shutdown devices, Murphy offers a wide range of engine protection devices for your application. Our products provide premium protection for all your mechanical engine needs.

ENGINE PANELS

FW Murphy offers a wide selection of complete pre-wired warning or shutdown engine panels for magneto, distributor ignition or diesel engines – ready for installation on your equipment. These panels are easily installed in the field and afford maximum protection for stationary or mobile equipment. Various models available, providing engine RPM, hourmeter, oil level, coolant temperature, voltage, TATTLETALE® and key switch.

- Pre-Assembled for Simple Installation
- Closed-loop Circuitry Ensures Proper Operation at All Times
- Mechanical and Electric Gage SWICHGAGE® options



ENGINE CONTROLS

FW Murphy Engine Controllers offer a wide range of capabilities. Our simple auto-start controllers are designed to fit any engine driven application requiring a simple and robust automatic start and stop sequence. Pumps, Compressors, Grinders, Power Units and Generators are just few of the industrial applications for our controllers.

More advanced Engine Controllers, such as our EMS PRO, provide auto start/stop features with several throttling options. The auto start/stop options – Single Contact, Floats, Momentary, Transducer and Clock – are available at the touch of a button. Many performance-enhancing features are available through an operator interface that is easy to learn and use.

- Durable Design for Rugged Environments
- Single Controller Mechanical and Electronic Engine Applications
- Robust Automatic Start and Stop Sequence
- Multiple Auto Start & Throttling Combinations
- Sleep Mode for Standby Applications
- Diagnostics, Date & Time Stamp Last 10 Shutdowns
- Operator Friendly Interface



ENGINE SHUTDOWN

Engine shutdowns require quick reaction, and Murphy's engine shutdown devices deliver fast, accurate response for your mechanical engine shutdowns.

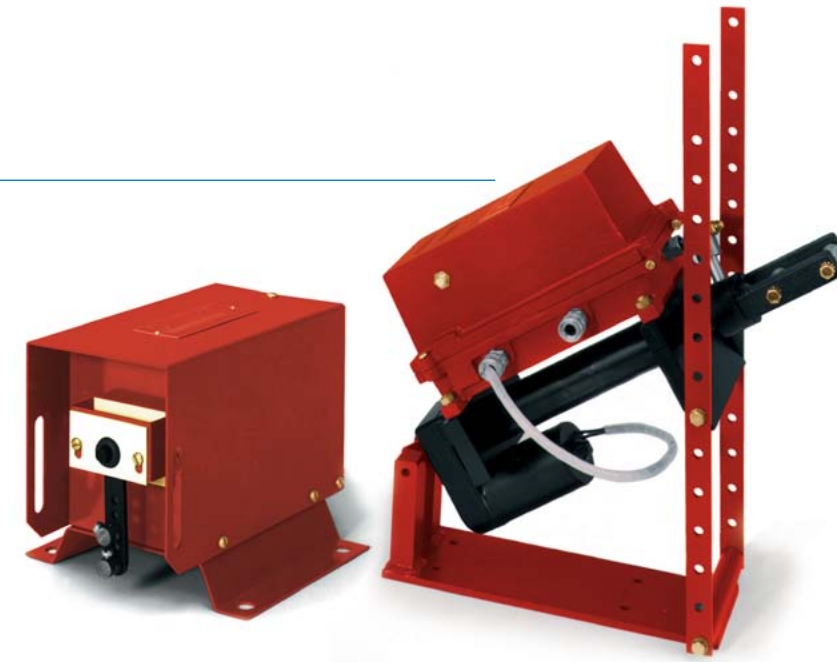
- SWICHGAGE® Signal Triggers Alarm and/or Shutdown Through Shutdown Devices
- Diesel Shutoff Valves Provide Quick Response Stops by Restricting Fuel Flow to the Engine
- Push/Pull DC Solenoids Provide Single Unit Versatility for Engine Applications, Such as Shutdown



ENGINE THROTTLE AND CLUTCH OPERATOR

Our Automatic Throttle is a completely reliable, heavy-duty device developed to automatically control engine speed to meet system demand. When combined with the appropriate Murphy SWICHGAGE®, near constant pressure, level and load can be maintained.

Clutch Operators are electrically controlled, driven with actuators for automatic operation of two-position lever action equipment. They have a wide variety of applications, such as disengage over-center clutches on engines opening and closing of pipeline valves, engagement and disengagement of pumps, fixture positioning in automated process control and more.



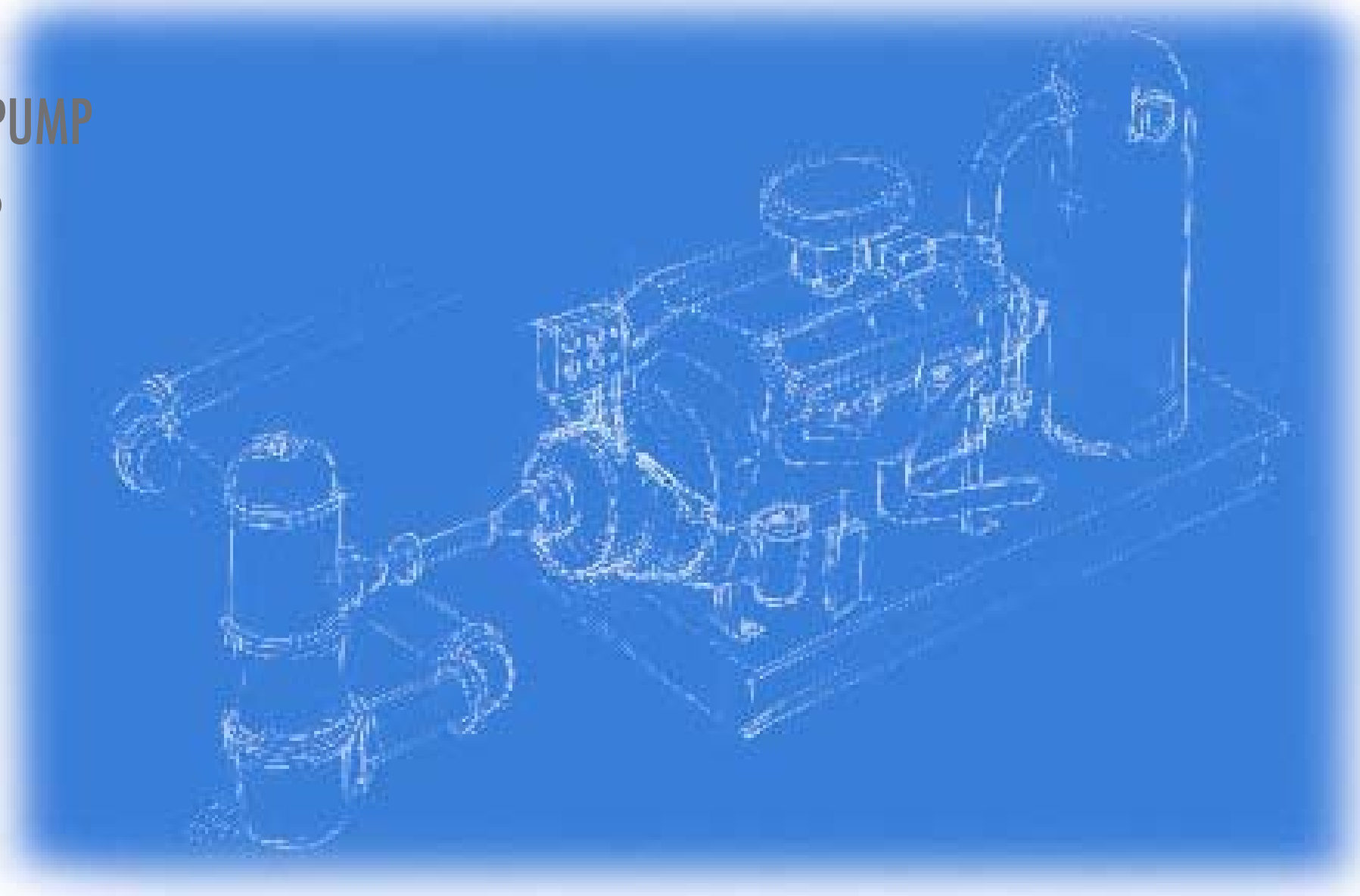
LEVEL & PRESSURE PUMP CONTROL GAGES

The OPL & OPLH are 4" (114 mm) dial pressure and level SWICHGAGES® that allow operators to start and stop pumps based on pressure or level.

- Eliminates Under/Overfill Due to "Human Error"
- Combination Level Indicating Gage and Critical Level Limit Switch
- High and Low Level Limit Contacts Are Visible and Adjustable



TYPICAL ENGINE & PUMP PROTECTION POINTS



1. **Engine Control Panel** – Monitors critical temperatures and pressures on engine and pump. Automatically shutdowns the system or engages and alarms when a malfunction arises. Various models protect any type of engine and pump. Choose between 12 and 24 Volt systems. Add an EMS Pro engine controller and increase your capabilities.
2. **L-129 Lube Level SWICHGAGE®** – High and low level shutdown contacts provide protection against crankcase overfill or low lube level. Provides visual indication of oil level without shutting down engine.
3. **EL150K1 SWICHGAGE®** – Combination liquid level gauge and low limit switch. Provides visual indication of coolant level, and low level protects against sudden loss of coolant.
4. **Model 24-T Hour Time Clock** – Set the dial to the desired operating time of your equipment, and the system will automatically shut down when it “times out.” Choose between 12 and 24 Volt models.
5. **AT03069 Engine Throttler** – Gradually increases and decreases engine speed during the start-up and shut-down operation of the engine. Automatically regulates engine speed to maintain desired pressure, level or engine load. Choose between 12 and 24 Volt models.
6. **RP2307 DC Solenoid or SV Series** fuel shutoff valves shutdown the engine quickly and safely. Choose between 12 and 24 Volt models.
7. **20PW7 SWICHGAGE®** – Detects pump failure from shaft breakage, pumped out well or pipe rupture. Choose optional manual lockout to allow pump pressure to build prior to alarming.

Murphy's engine protection and control products were designed to work on almost any application, including Power Units, Irrigation and Dewatering Pumps, Chippers, Genset, Light Towers, Air Compression, and many more industrial stationary applications.

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