# MURPHYMATIC® Pump Panels

The MURPHYMATIC® Pump Panel for electric motor powered pumps combination motor controller and limit switch package conveniently arranged in a weather-proof enclosure. It can be custom designed to almost any user specifications. The "direct dialing" SWICHGAGE®s give continuous indications of line pressure and tank level during operation.

A MURPHYMATIC® panel offers a convenient service to users of pumps. Motor controls are in a NEMA 3 type weatherproof enclosure. This panel is used primarily to control transfer pumps, disposal pumps or pipeline pumps.

In the panel at the right, the first SWICHGAGE® shown is an OPLHFC liquid level control that senses fluid level in water storage tanks. This SWICHGAGE® automatically stops and starts an electric motor according to pre-adjusted levels.

The second SWICHGAGE® on the panel at the right is an OPLFC that provides both high and low pressure control of the injection pumps in addition to the stop-start function, and the third SWICHGAGE® is an OPLHFC which normally is required on waterflood installations to control the storage tank supply pump, which maintains adequate level in the tank.

Some panels are equipped with a "time delay after restart" when electrical power has been interrupted by wind, storm, etc.

Field hook-up time is reduced to a minimum by combining the prewiring of Murphy SWICHGAGE® control instruments and Motor Controls at the factory.

Various functions available, consult MP selector chart MP-6691-A.

- For electric motor powered pumps
- Combination motor controller and limit switch





#### **FEATURES:**

- **A.** Indicating Lights—indicate when pumps are operating or on stand-by.
- **B.** TATTLETALE® Indicators—indicate cause when emergency shutdown occurs.
- **C.** Control Functions Module. Various Murphy transformer relay assembly modules are available which reduce line voltages down to a 24 V control circuit. (See Bulletin MP-6691-A.)
- **D.** OPLHFC Tank Level SWICH-GAGE®-signals transformer relay assembly to start and stop, or shutdown motor at pre-set adjustable tank levels. Provides visible indication of tank level at all times.
- **E.** OPLCFC pressure SWICH-GAGE®-Normally used to monitor pump discharge pressure. Operates in conjunction with transformer relay assembly to control pump motor on changes in discharge pressure.

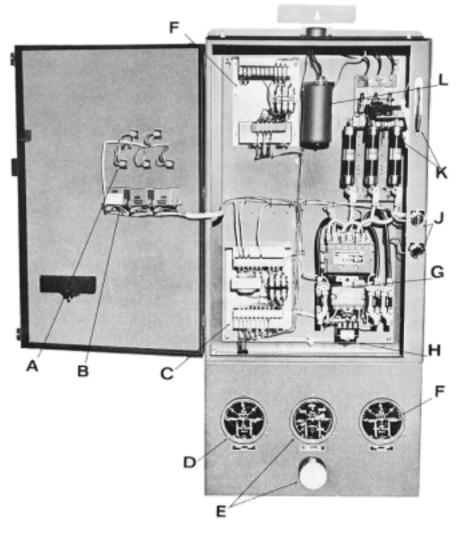
Pulsation Dampener-reduce pointer flutter and eliminate excessive wear on gauge movement.

- **F.** Additional space is provided to incorporate supply pump transformer relay and SWICHGAGE®.
- **G.** Magnetic Motor Starter–Dual voltage holding coil, three ambient compensated overload relays and heaters.

Silver-Cadmium Oxide Contacts—Have excellent conductivity plus resistance to arc erosion and welding which assure long contact life and minimum replacement cost.

Simplified Construction—All mounting screws are front accessible. All components can be removed with a standard screwdriver.

- **H.** Adjustable time delay-relay available to lockout shutdown devices during automatic startup.
- **J.** Heavy Duty H-O-A Switch allows for automatic or manual operation. Pushbutton provides for manual reset after emergency shutdown.
- **K.** Fusible disconnect with interlock handle. Door cannot be accidentally opened without disconnecting circuit. Power can be connected with door open by following instructions that accompany unit. Fuses included.
- **L.** Lighting Arrester–Absorbs excessive voltage as the result of lightning, giving reasonable protection against high voltage damage to control panel components. (Is not designed for electric motor protection.)



# STANDARD MP PANEL COMPONENTS INCLUDE:\*

- NEMA-3 weatherproof enclosure.
- Three phase disconnect with safety interlock handle. Fused panel only.
- Three dual element line fuses.
- Breaker panel includes motor circuit protector with safety interlock handle. No fuses.
- Magnetic motor starter and three ambient compensated overload relays with standard trip heaters.
- Heavy Duty H-O-A Selector Switch.
- Heavy Duty Manual Start Push Button.
- External Overload Reset.

See bulletin MP-6691-A for ordering information or contact our sales/engineering department for special applications.

\*Before modifications such as Skirt, Control Circuit and SWICHGAGE® Instruments.

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.



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