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AUTOMATIC FEED PUMP CONTROL SYSTEM (40031274)

The M.W. Watermark® Automatic Feed Pump Control System (AFPCS) is used in conjunction with air-operated diaphragm feed pumps to automatically increase the feed pump pressure during the filtration cycle. High initial feed pump pressures can build a very tightly packed, impermeable layer of solids on the filter cloth, restricting the flow of slurry, and increasing filtration cycle times. Reduced initial feed pressure allows a soft layer of slurry particles to be deposited on the filter cloth. Because this layer becomes the filtering media, filtration of the incoming slurry is enhanced.

The AFPCS automatically increases the feed pressure in four stages throughout the fill cycle. These stages and pressures are fully adjustable to suit the type of slurry and the solids concentration. Cycle completion is determined either by adjustable times (feed by time) or by monitoring the feed pump flow sensor (feed by flow).

The AFPCS also incorporates a low hydraulic pressure safety shut down device. If insufficient hydraulic clamping pressure is present, the AFPCS system will not start, or shuts down, eliminating possible leaking from between the filter plates and the potential to start the feed pump when the press is not fully closed and clamped. The AFPCS features power ON, START cycle and STOP cycle functions. The controller also indicates when the filtration cycle is complete.

The M.W. Watermark AFPCS also controls air-blow even-fill manifolds with the option to control double air-blow, effectively combining multiple filter press functions in a simple control box - for a cost effective solution that is also expandable.

The pump kit includes the pump air pressure regulator, 20-meter cables, 5-foot pump air connection hose, and 1/2" & 3/4" NPT pump air connection adapters.

Automatic feed pump controls allow your filter press to run at its optimum efficiency creating dryer filter cakes, reducing disposal costs, reducing filtration time, and increasing the life of your filter cloths and feed pumps. Typical payback is less than one year.

Features:

- **PLC controlled with interlocks and faults**
- **Controls air-blow even-fill manifolds with option to control double air-blow**
- **Use with filter presses ranging from 320mm to 1500mm**
- **Use with actuated butterfly or ball valves of any size**
- **Start, stop and cycle complete**
- **Pump air pressure regulator**
- **Feed by flow or time**
- **Cycle counter**
- **Pre-wired and tested**
- **16” x 16” x 8” NEMA 4 enclosure**
- **120/240 VAC / 1Φ / 60 Hz / 1 Amp**
- **Retro-fit to any filter press**

Digitally Programmable Controller

AFPCS Pump Control Kit - Part Number: 40031272

M.W. Watermark Filter Press with AFPCS

AFPCS Pump Control Mounted to Filter Press

M.W. WATERMARK – Equipment and Service for Filtration, Process, and Dewatering Needs

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