

# **M SERIES SYNCHRONIZED RECIPROCATOR**

# **ECONOMIC SOLUTION TO SYNCHRONIZED SHOWERING**

<u>M-34 / M-46</u>



<u>M-23</u>

## **Constructed for Great Reliability and Longer Service**

The M Series derives its operation from a rolled thread lead screw and a re-circulating ball nut fully enclosed in a stainless steel casing. The stainless steel push rod is concentric to the screw unit. The drive to the lead screw is direct from a reversible 72rpm synchronous AC motor with no intermediate gearing. The motor and control sensors are fully enclosed in the stainless steel housing at the rear of the screw casing.

The Sinclair M Series Reciprocator is a single, self-contained, linear electric reciprocator requiring only the connection of the power supply to complete its installation. All wetted parts are manufactured in stainless steel, reflecting its intended use in paper mills.

### **Features**

#### **Step Operations**

The M Series electric drive system starts and stops 5 times each revolution. At each operation the push rod advances .040" and waits for the next start command.

All controls are solid state, eliminating any problems associated with electromechanical switching.

The unit is capable of producing a high dynamic thrust, but even if stalled due to external axial overload, the mechanism and motor drive are unlikely to suffer damage.

#### Variable Speed

The reciprocator speed is factory or field adjustable, and is adjusted up or down by "DIP" switch selection. The standard range is 0.2 to 6.0 inches per minute in 0.2 inch increments.

The Slo-Mo version is available as an option. The Slo-Mo speed range is 0.2 to .06 inches per minute.

The Super-Slo version is also available as an option. The Super-Slo range is 0.002 to 0.06 inches per minute.

#### Adjustable Stroke

The M-23 reciprocator is available in two forms. One has a maximum stroke length of 6" and the second has a maximum stroke length of 12". The standard selectable stroke lengths in the 6" model are 2", 3", 4" and 6". The standard selectable stroke lengths in the 12" model are 3", 4", 6" and 12". Other stroke choices are available in multiples of full 1" as an option. The M-34 and M-46 reciprocator come in a 12" form only with all stroke adjustments listed above.

#### Loss of Motion Detector

Senses failure of lost motion. Customer usable 2 amp voltage free contacts (1 N.O. or 1 N.C.) are provided).

#### Operation

#### **Electrical Connections**

All electrical service connections are to be made by the customer. Only 120/1/60-5 amp power supply is required. Connections include the single phase power supply and the optional alarm (or interlock) contacts.

#### Force

There are (3) reciprocator models available. M Series models include: M-23, M-34 and M-46. Each application is reviewed and sized appropriately dependent on shower diameter, length, shower condition and other application specific requirements.

#### Maintenance Advantages

The M Series Reciprocator uses sealed bearings and has no oils which require regular changing.

#### Available Options

The M Series in its standard form can be factory or field set to cover a wide range of requirements. We recognize there may be applications outside these specifications, and Sinclair International engineers are always available to consider and discuss alternative options.

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