Sinclair’s Model XM-23 & 34 are new systems for reciprocating showers on the paper machine, in which one (1) control panel can operate multiple drive units. All wetted parts are manufactured in either 316 stainless steel or anti-acid bronze, reflecting its intended use in paper mills.

CONSTRUCTION
The XM derives its operation from a rolled thread ball lead screw and recirculating-ball nut, fully enclosed in a stainless steel casing. The stainless steel push rod is concentric to the screw unit and is protected by a heavy-duty bellow with a “telescoping cover.” The drive to the lead screw is direct from a reversible A.C. Synchronous motor. Direct drive results in the shortest possible reversing time and provides greater reliability. Both the motor and control sensors are fully enclosed in the stainless steel housing at the rear of the screw casing, and all electrical connections are made via a water tight connection on motor housing, junction box, and the control cabinet.
MAINTENANCE ADVANTAGES
XM uses “sealed for life” bearings and has no oils which require regular changing. The lead screw is grease lubricated and requires little maintenance.

FEATURES

Variable Speed
The panel is used to set reciprocator output speed from .001” to a maximum of 13” per minute, if operating in “manual” mode.

Speed Matching / Tracking
Panel accepts an input (0–10 vdc or 4–20 ma) to increase or decrease drive speed.

Operator’s Control Panel
A NEMA 12 composite panel w/ “HMI” & digital read-out (inches/minute), “ON/OFF” switch light, and “ALARM” light.

Easy Programming
All programming is a list of questions and numeric entries (PM speed, fabric length, stroke length, nozzle size, manual vs. remote, mode, etc.)

Adjustable Stroke
Drive units can be set-up to stroke from 0.04” to 12.0” in increments of .040”, and can be reset “on the fly” at any time.

No-Motion Detector
Senses lost motion. “Alarm” panel indicator and customer usable 10 amp contacts are provided.

OPERATION
The XM-Series Control System facilitates a P.L.C. controller for both the operation and monitoring of the reciprocators motion. The screw unit utilizes multiple recirculating balls for connection between screw and nut. This rolling contact gives the unit a high mechanical efficiency. The unit is capable of producing a high dynamic thrust, but even if stalled due to external axial overload, for instance, the mechanism and motor drive are unlikely to suffer any damage.

AVAILABLE OPTIONS
The XM in its standard form can be factory or field programmed to cover a wide range of requirements. Virtually all options are incorporated into the standard control system of the XM reciprocator system. We realize there may be applications outside these specifications. Sinclair engineers are always available to consider and discuss alternative options that the customer may wish to add to the control system.