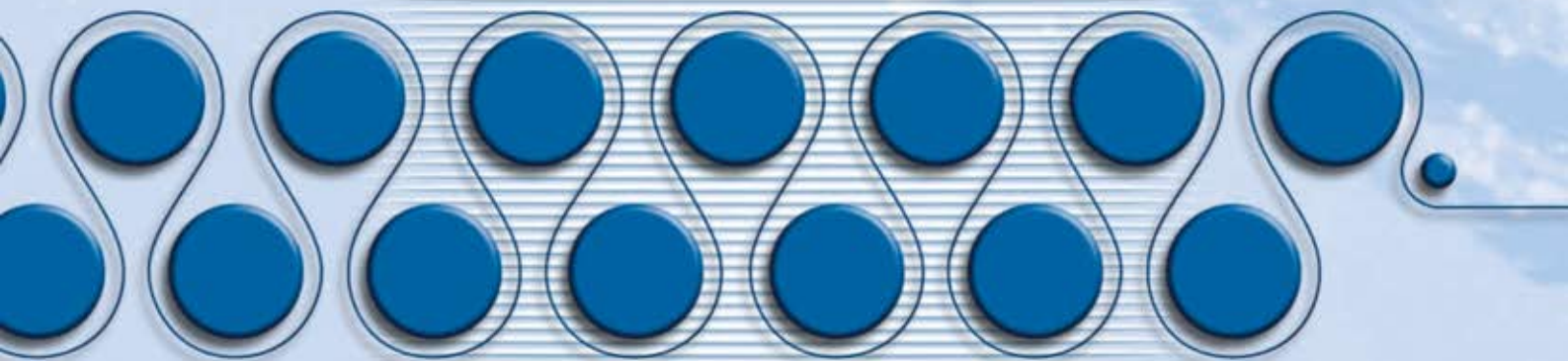
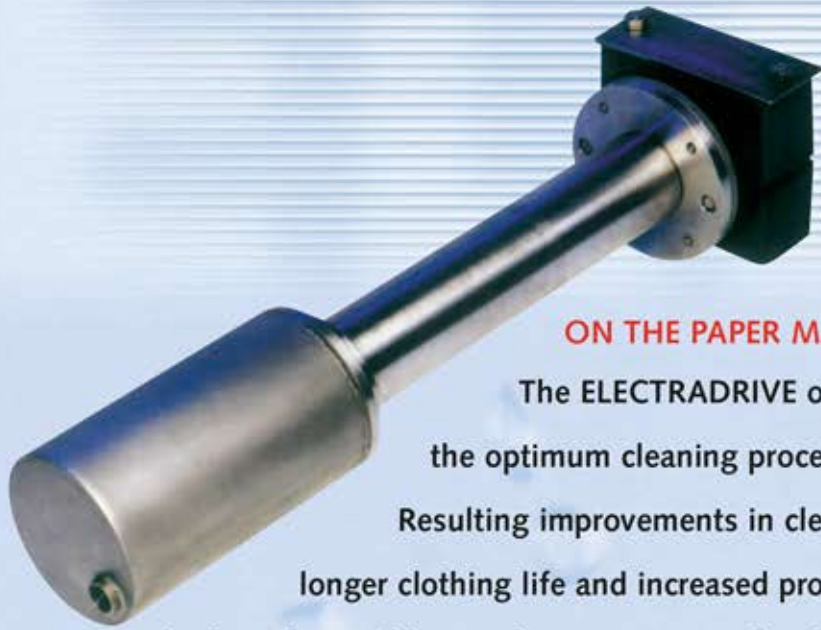




# ELECTRADRIVE



OPTIMISING SHOWER OSCILLATION



## ON THE PAPER MACHINE

The ELECTRADRIVE oscillator has been designed to provide the optimum cleaning process for paper machine clothing.

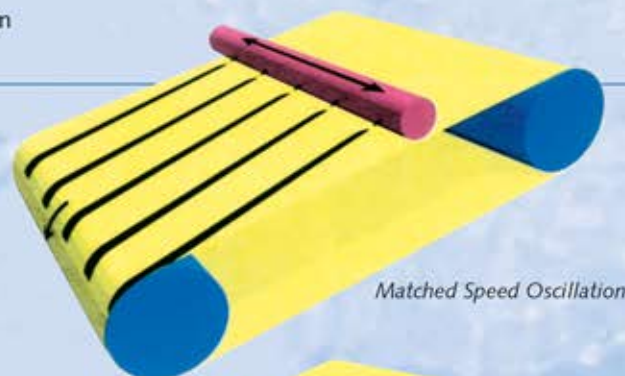
Resulting improvements in cleaning and cross machine profile mean longer clothing life and increased production. ELECTRADRIVE offers a wide and infinitely variable speed range, catering for all machine speeds from the fastest to the slowest and bringing the same benefits whether you produce newsprint, tissue or speciality paper grades.

- Slow speed oscillation matched to machine speed for the optimum wire/felt cleaning
- Robust all stainless steel construction and IP66 enclosure satisfies the toughest and wettest duties
- Minimal maintenance - just periodic greasing and two years operation between major servicing
- Mechanical and electrical spares internationally available
- Single control system provides an uncomplicated program (PLC) or solid state relay switching (fixed speed)
- Choice of High or Low Thrust Units facilitates duties on machines up to 11m wide
- Low power demand - less than 0.25kw from 110V single phase
- Easy installation with simple cabling and mechanicals
- Electronics are user friendly
- Can be installed with all makes of oscillating showers

### NEEDLE OSCILLATION PATTERN

The matched speed oscillation of ELECTRADRIVE gives a complete, consistent and predictable cleaning pattern. The shower cycle time is reduced with water and power savings.

This non-uniform cleaning pattern is commonly seen where jet travel is not synchronised with clothing revolutions or where 'dwell' occurs at stroke ends in the case of pneumatic and mechanical crank arm drive systems. 'Windows' of uncleaned fabric produce low areas of drainage and/or permeability and so impair machine performance.



*Matched Speed Oscillation*



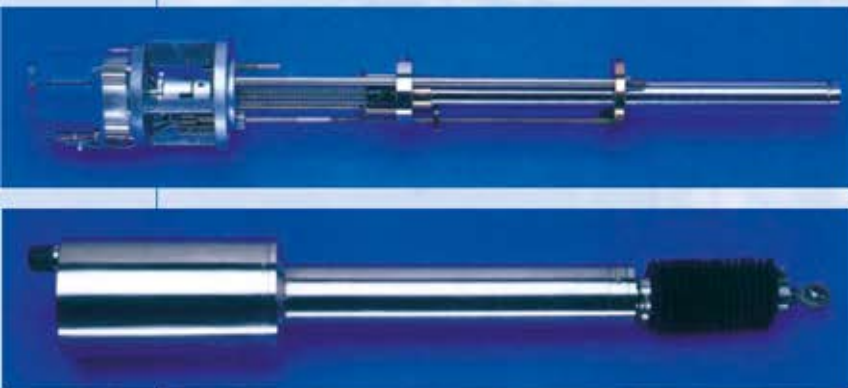
*Random Speed Oscillation*

# RPM ELECTRADRIVE

## BUILT FOR DEPENDABLE SERVICE

Central to the development of ELECTRADRIVE is the need for total reliability in the humid and hostile paper machine environment. Plus the requirement for continuous operation with minimal maintenance, 24 hours per day and all year round.

The ELECTRADRIVE oscillator fulfils this tough specification as a result of advanced design, precision manufacture and incorporation of well proven components and features.



- Rugged and well proven precision ball screw
- Fractional kW brushless drive motor
- Impedance protected against high stall currents
- Robust thrust and load bearing (sealed for life)
- Anti-torsion guides with bronze bushes
- Advanced seals and packings
- Can be installed with all makes of oscillating showers

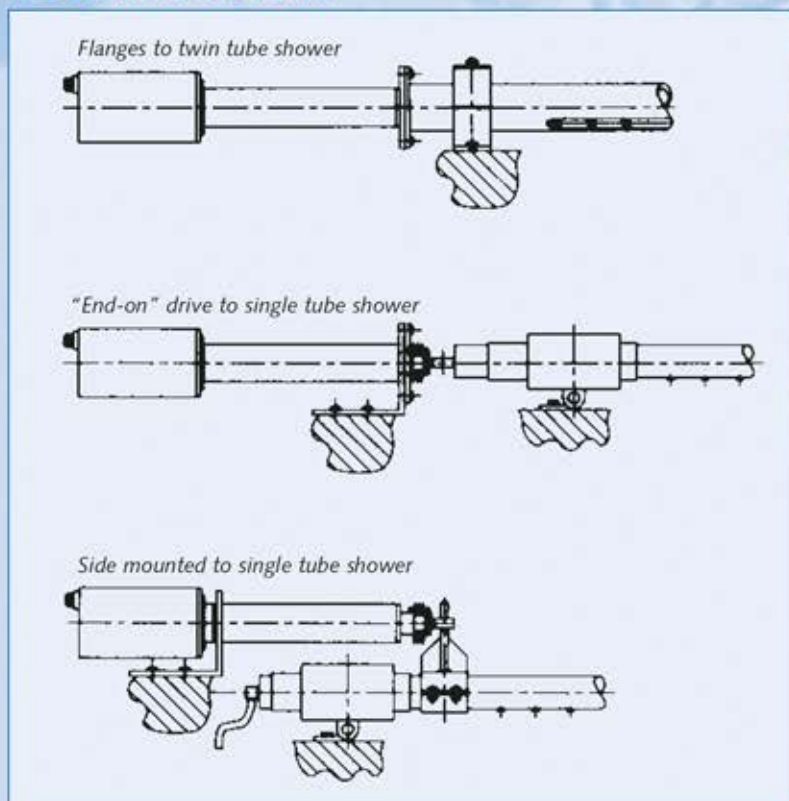
## DOUBLE SEALED FOR PROTECTION

Water ingress means instant failure or shorter operational life for electro-mechanical equipment mounted on paper machines. ELECTRADRIVE houses all components in totally sealed, corrosive resistant stainless steel. 'O' ring seals prevent water entering the unit, while a flexible bellows protects the drive shaft from abrasive debris likely to cause premature seal, scraper or shaft wear.

## A DRIVING FORCE

ELECTRADRIVE delivers a very powerful force to drive shower constructions of any size, from the largest to the smallest. Two models offer choice and cost effective installation for all applications: E0/02SY giving up to 2000 Newtons force (446lb) and E0/10SY giving up to 10,000 Newtons force (2241lb) each of which can be adapted to all shower designs.

## MOUNTING OPTIONS



## VERSATILITY IN CONTROL

ELECTRADRIVE can be operated via a control system to provide adjustable **VARIABLE SPEED**, or by a simplified version, to offer **FIXED SPEED**, depending on the application. The most advanced components have been selected to provide these features:

- Interface with machine speed changes via 0 to 10V dc or 4 to 20 mA inputs
- Manual start or remote start from machine control centre (DCS)
- Interlock to machine drive on stoppage for clothing protection
- Manual speed adjustment via 10 turn potentiometer
- AC Inverter drive with PCL control
- 50,000 hour LED's (no lamps)
- DIN rail mounted components
- Low operating voltages
- IP55 waterproof
- Optional materials for enclosures include stainless steel and GRP
- Frequency displays (oscillator or machine speed available)



### CONTROL PANEL DOOR

Mounted on the door are components for visual indication of the oscillator status, speed of operation (Hertz), a door safety isolator and adjustable potentiometer.

### CONTROL PANEL FOR FIXED SPEED OPTION

Where variable speed is not required, the option is available to operate the **ELECTRADRIVE** oscillator at fixed speed by using a control panel which drives the oscillator at a predetermined speed, eg: 12 or 60mm per minute at 50 Hz. This option offers a cost effective solution where a simple, highly reliable installation is required.

## CONTROL PANEL SUBPLATE

Mounted on the subplate are all wiring terminals, PLC (Programmable Logic Controller) and the ac Inverter. Additional items are variable voltage input transformer (110 - 220/240 ac 50/60 Hz), manual 'fast traverse' push button, water valve relay and trip switch. The control panel is feature packed to provide the paper maker with the optimum system for cleaning/ conditioning the machine clothing. By interfacing with the paper machine control system, **ELECTRADRIVE** can be started remotely or stopped and started via a timed signal. Alternatively, the operator can simply follow the instructions at the control panel. Visual indicators denote operational motor rotation, linear traverse, water valve status and speed of oscillation in Hertz. Multi-station panels are available, or the components can be supplied chassis-mounted for installation into the mill control desk.



# RPM ELECTRADRIVE

## TECHNICAL SPECIFICATIONS

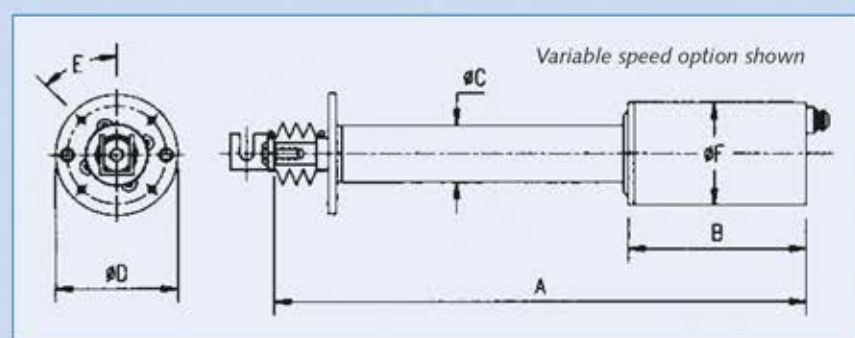
### Oscillator

- All wetted components and those in contact with the process are in 316L stainless steel
- Full 'O' ring sealed and bellows protected
- Choice of 2000 N and 10,000 N force versions
- Adjustable stroke length from 50 to 350mm
- Overtravel protection by stops
- Robust ball screw and motor
- Planetary gearbox of 5:1 ratio (standard), 25:1 ratio on low speed unit, (other ratios on request)
- Proximity sensor protection for rotary movement, linear movement and stroke travel
- PNP sensors (standard) for European users (NPN available on request)
- **Length:** 2000 N model, 760mm (30 in)  
10,000 N model, 835mm (33 in)  
(Shortened units available on request)
- **Weight:** 2000 N model, 20kg (44lbs)  
10,000 N model, 25kg (55lbs)
- 3 phase, 240V ac synchronous motor TENV (0.2 amp)
- **Operational motor speed:** 60 rev/min (60 pole) at 50 Hz ac input
- **Normal running frequency:** 5 to 75 Hertz
- **Linear oscillation speed:** 6 to 90mm/min at 5:1 ratio

### Panel

- Epoxy coated steel enclosure to IP55. Stainless steel and GRP available on request
- Supply voltage: 110 or 220/240 ac, 50/60 Hz 1 phase
- Inverter frequency output: 5 to 75 Hz/160V, 3 phase
- 14 I.O. PLC fully programmed
- Pulse monitoring of rotation, stroke and home positions
- 10 turn potentiometer (end travel limited)
- DIN rail mounted components
- 50,000 hour LED's
- Fixed speed, solid state relay versions available
- Multi-unit panels available
- **Standard panel dimensions:**  
418mm high x 418mm wide x 218mm deep  
Weight: 19.6kg (43lb)
- **Fixed speed panel dimensions:**  
300mm high x 200mm wide x 150mm deep  
Weight: 8.6kg (19lb)

	OSCILLATOR TYPE & SIZE	
	EO-25Y	EO-105Y
A	747	835
B	263	295
C	84	114
D	180	250
E	45°	45°
F	153	204
Kg	20	25





# ELECTRADRIVE

## APPLICATIONS

