

# Linear Actuators



**ELECTRIC ACTUATOR**

**COMPANY LIMITED**

[www.electricactuator.co.uk](http://www.electricactuator.co.uk)

MADE IN  
BRITAIN



We are The Electric Actuator Company supplying an unsurpassed level of quality and service in actuator design and manufacture.

**The Company**

Since 1956 we have been designing and manufacturing electric actuators from our headquarters in Yorkshire. Our comprehensive range of standard and bespoke actuators are used in numerous industries and applications world wide.

**The Principle**

A linear electric actuator uses the rotation of an electric motor to turn a machined lead screw or nut to create directional linear motion. The integration of a gearbox increases the thrust capability of the actuator to suit high load applications.

**Features and Advantages**

- High dynamic and static load capacity.
- Wide range of speeds.
- Purpose built squirrel cage motors offering compact size, designed with a low starting current and inertia essential for actuator control.
- Accurate repeatability of positioning.
- Long life.
- Clean and compact.
- No hydraulic pack or pneumatic compressor required.
- All electric design, no oil leaks or risk of contamination.
- Unique internal actuator control switches offering robust protection against extreme external environments.
- The actuator will hold position at any point of its stroke.
- Maintain full thrust with power off.
- No power consumption when not operating.
- Low maintenance.
- Can be mounted in any position.

*“We specialise in the design and manufacture of bespoke actuators”*

**Applications**

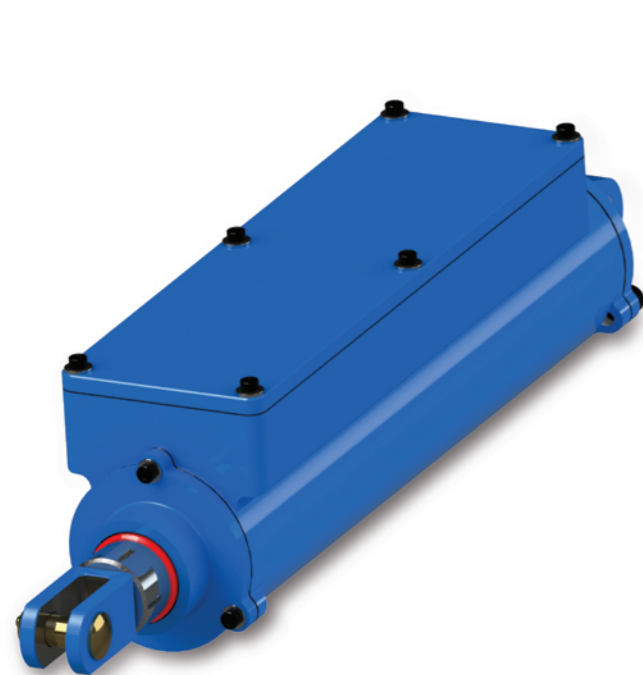
- Mechanical handling of components, covers, flaps, chutes and doors.
- Sewage treatment debris screens.
- Railway De-railers, switch points and signalling.
- Parcel sorting and packing equipment.
- Valves and switch gear isolators.
- Conveyor ploughs and cranes.
- Boiler and furnace dampers.
- Machine tools.
- Dust removal and filters.
- Hydraulic pump control.
- Remote control of heating and air conditioning vents and dampers.

**High Speed Actuators: Compact S and SMX Range.**

The actuator lead screw is directly driven by the motor. As the lead screw rotates the drive nut/push pull tube assembly extends or retracts as the nut travels on the lead screw.

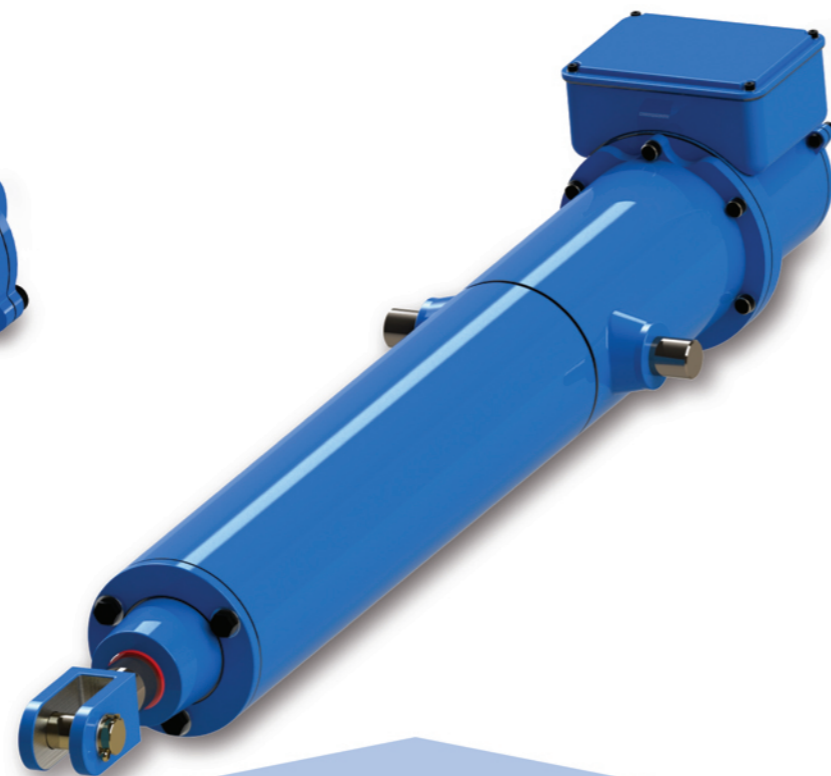
**High Force Actuators: LS, LA and SGX Range.**

Operating on the same principle as the high speed actuator with lead screws and drive nuts. The introduction of a gearbox enables the actuator to produce higher thrust forces and slower linear speeds.



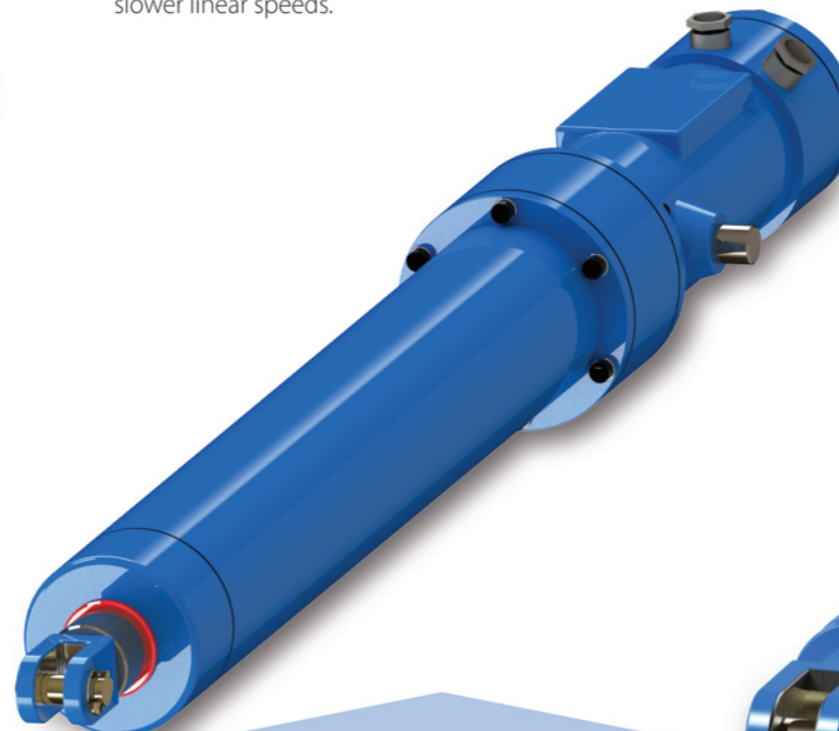
**Compact S1-S3**

Thrusts to 2kN,  
Strokes to 300mm,  
Speeds to 90mm/sec



**SMX 01 - SMX 08**

Thrusts to 30kN  
Stroke range to 3000mm  
Speeds to 240mm/sec



**SGX 01 - SGX 03**

Thrusts to 20kN  
Stroke to 1200mm  
Speeds to 24mm/sec



**LS1 - LS8 LA1 - LA8**

Thrusts to 785kN,  
Strokes to 2000mm,  
Speeds to 24mm/sec

## Optional Features

Switches	For stopping at the end of stroke and for signalling
Potentiometer	For positional indication or proportional control
Hard Chrome Shaft	For abrasive or corrosive conditions
Shaft Bellows	For protection of the push/pull shaft
Tropical Finish	For high humidity or tropical areas
Hand winding	Manual hand winding of push pull shaft with electrical interlock
Brake	Electro-magnetic type for accurate positioning and high static loads
Heater	For anti-condensation protection
High Temp Thermistors	For protection of motor against overloads
Terminal box or flying leads	For on site connections

## Enclosure

Dust and damp protected
Weatherproof IP54
Weatherproof and hose proof IP55
Dustproof and hose proof IP65
Flameproof and explosion proof models available

## Mounting Options

	Shaft	Housing
Fork Clevis	Y	Y
Yoke Clevis	Y	Y
Threaded	Y	N
Rod End	Y	N
Trunnion	N	Y
Flange	N	Y

## Electrics

Our motors are purpose built squirrel cage type with die-cast aluminium rotors, designed with a low starting current and low inertia. These characteristics have been chosen as actuators are often required to start and stop frequently with accurate positioning. The motor to be energised by forward and reversing contactors initiated by the control system.

<b>Supply options:</b>	3 Phase AC up to 600 Volts, Frequencies up to 60 Hz
	1 Phase 110 - 240 - 240 Volts
	DC 24 Volts

Our actuators can be supplied with integral limit switches, signal switches and potentiometer for interfacing with customer control systems.

# ELECTRIC ACTUATOR CO LTD

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