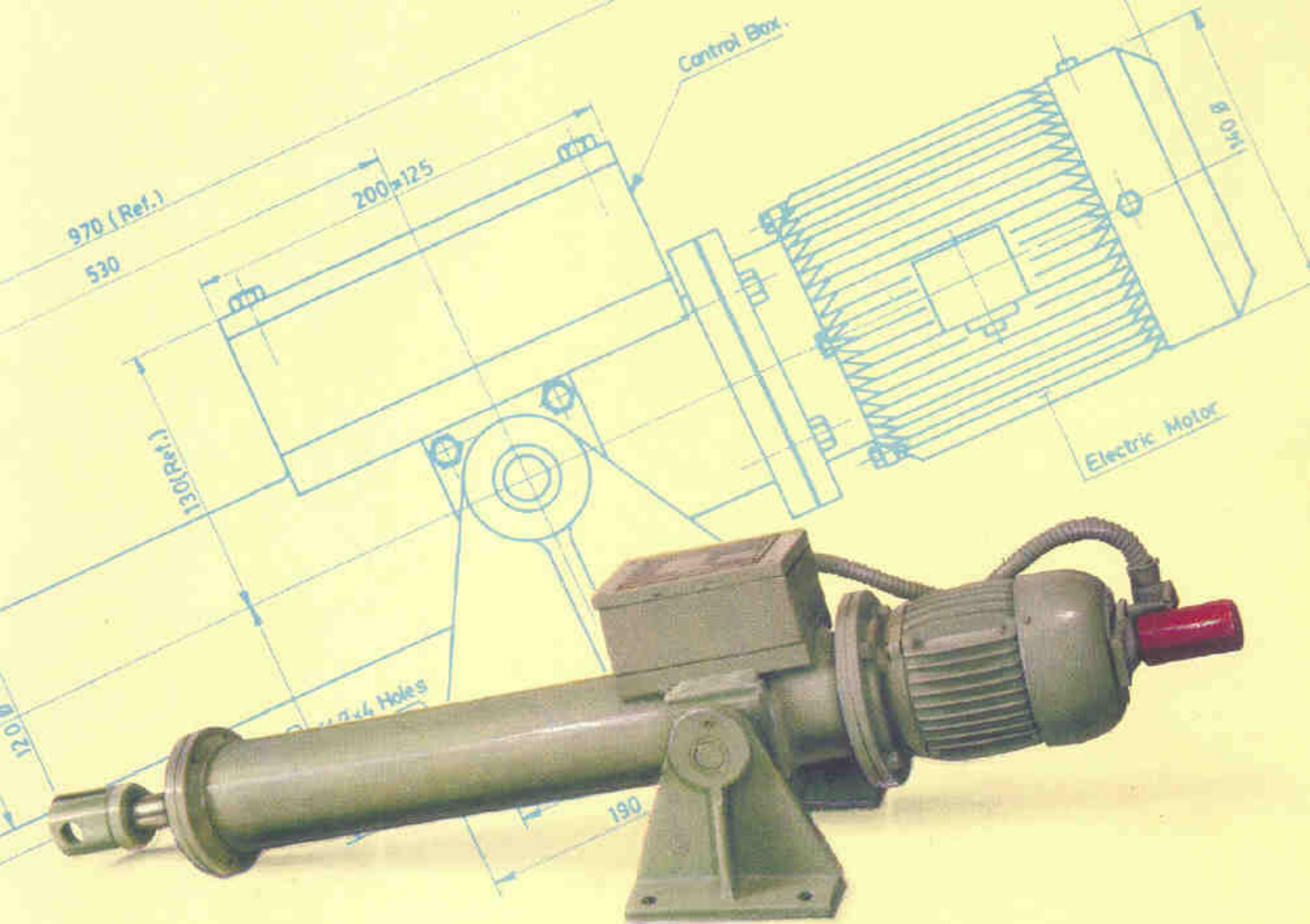


THE **ELECTRIC** CYLINDER

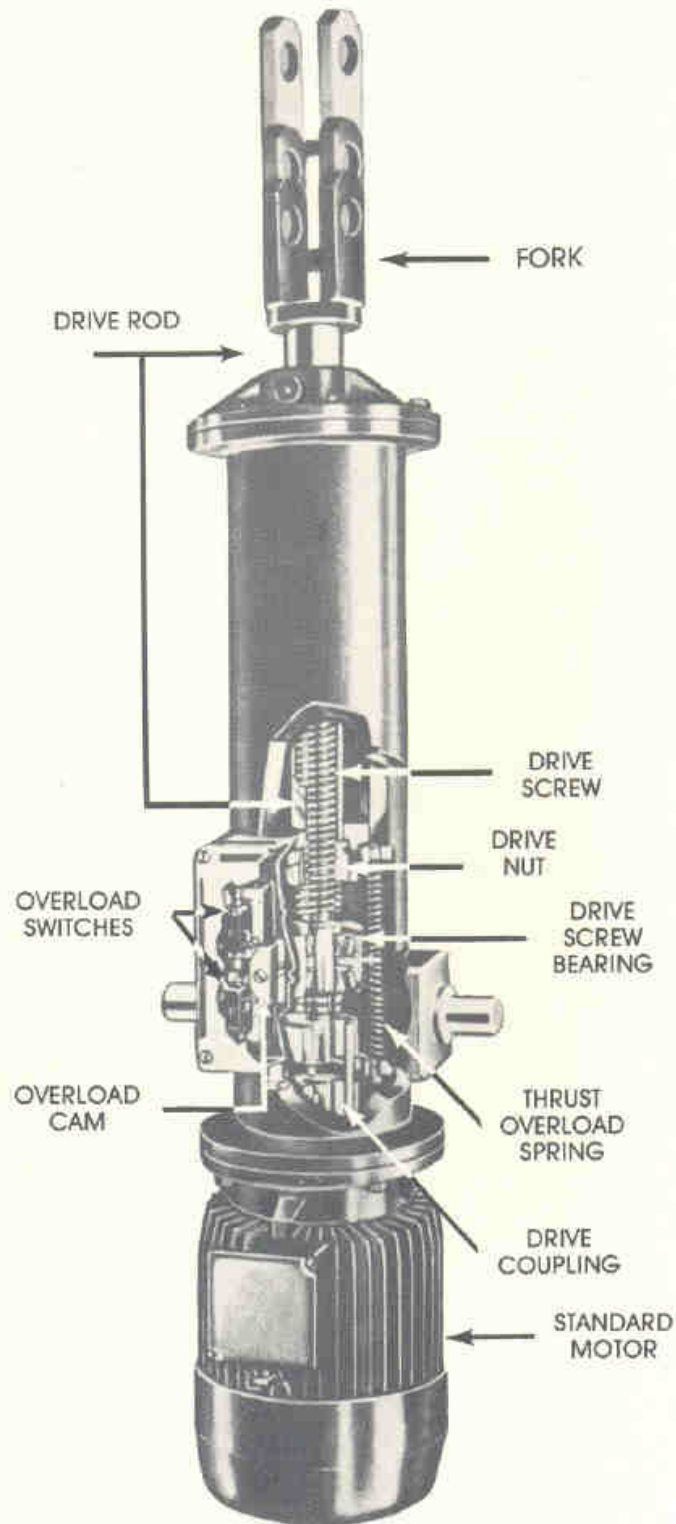


- For more linear power without more drain on your hydraulic or pneumatic system.
- For fast, easy, inexpensive hookup without adding pumps, compressors, piping or expensive maintenance.
- For reliable performance even in dirty hostile environment.
- For thrust overload protection and precise positioning.
- For wide selection of sizes.

CONSTRUCTION :

'TECHNOMECH' Electric Cylinder/Linear Actuator is a completely self contained, electromechanical device, designed and fabricated for dependable long life and controlled 'LINEAR MOTION'.

The Electric Cylinder/Linear Actuator is a compact, powerful unit providing breakaway forces upto 20,000 Kgs. and positioning strokes upto 2500 MM on the standard units. The Cylinder is totally enclosed and weather proof. The drive rod of the Electric Cylinder/Linear Actuator is plated, corrosion resistant. The rod guide incorporates a lubrication seal, bronze bushing and a rod wiper to prevent dirt from entering. All Electrical connections are internal within a common cast housing with two NPT conduit Entries. All models are available with standard Foot or Trunnion Mounting Arrangements for ease of installation.



OPERATION :

The motor is connected to a drive screw through a pin-type coupling. Rotation of the drive screw by the motor causes the mating drive nut and attached drive rod to move axially.

When continuation of the in or out motion of the drive rod assembly is prevented, either due to completion of the stroke or by some external obstruction, the drive screw and attached overload cam move in the opposite direction against the thrust overload springs. When the pre-set overload force has been attained, the overload cam actuates a limit switch, thereby interrupting power to the motor.

THRUST OVERLOAD PROTECTION :

When overload occurs, the electrical circuitry precludes continued movement in the direction of the overload, but the cylinder/actuator may be reversed upon command. In addition to providing protection for the cylinder's actuator's electrical and mechanical components, the overload mechanism may be conveniently adjusted to provide protection for the device being operated.

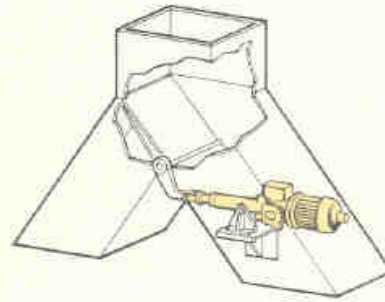
In simple applications where the actuator functions to move an object between two limits, the overload mechanism is the single control element. For applications requiring intermediate positioning or position monitoring, the cylinder/actuator can be provided with an additional position control consisting of adjustable cam operated switches and/or a potentiometer.

SALIENT FEATURES

1. Seven Different Models, From 50 to 20,000 Kgs. Thrust.
2. Strokes upto 1,000 MM (Against specific requirement upto 2,500 MM).
3. Variable Actuating Time as per requirement.
4. For ON/OFF Control S2 - 10 min. and Regulating Operation S4 - 25% Duty Cycle; 1,200 c/h.
5. Minimum no. of components and modular construction for ease of maintenance.
6. Single/Three Phase; AC, DC or Brake Motors to IEC Standard.
7. For Feedback Signals; Provision of Potentiometers with Resistance output; Transmitter with 4-20 mA current output OR LVDT with 4-20 mA Current output is made as per requirement.
8. Reversible in any position.
9. Provision of Manual Operation in event of power failure; as an optional.
10. Adaptable; can be mounted in any direction.
11. Robust Construction and simple maintenance extends life time and suitable for all industrial applications.

APPLICATIONS :

TECHNOMECH Electric Cylinders are used whenever LINEAR MOTION is required. In simplest form, they are used to move an object between predetermined limits. The typical applications are opening and closing of slide Gates, Flap Gates, Butterfly and Multilouvre Dampers, Hopper Doors, Positioning of conveyor system Diverging Valves, Clam Shell Gates etc; etc.

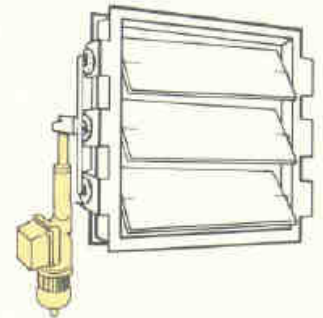


Diverter Gate/Valve

- Non Backdriving
- Thrust Limit Protection
- Accurate Positioning

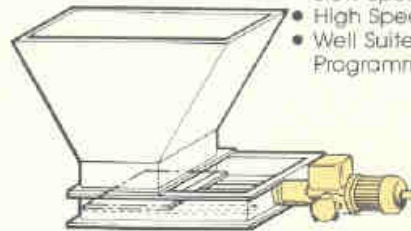
Louver Damper

- Modulating Control
- High Seating Forces
- Convenient Mounting



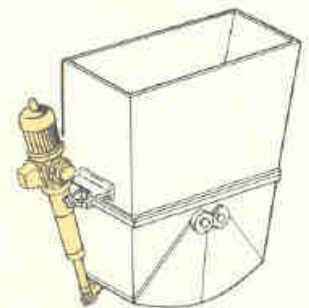
Slide Gates

- Slow Speeds for Regulating Flow
- High Speeds for Weighing and Loadout
- Well Suited for Computer and Programmable Control.



Clam Shell Gate

- High Breakaway Forces
- Positive Closing
- Thrust Overload Protection



Large Vent Valve

- Weather proof Enclosures
- Low Maintenance
- Heavy Duty Control Components



SIZE RANGE :

TECHNOMECH Electric Cylinders are available in a wide range of sizes providing Thrusts from 50 to 20000 Kgs. and positioning strokes upto 2500 MM. Larger Cylinders are available to accomodate Special Requirements.

MODEL	THRUST (Kgs.)	STROKE (MM)	VELOCITY (MM/Sec)	MOTOR (HP)
TM-0	50	50/200	10	<0.12/1 ϕ
TM-1/TMR-1	50/200	100/250	3 - 75	0.25/0.50
TM-2/TMR-2	250/800	100/500	4 - 100	0.50/3.00
TM-3/TMR-3	900/1200	150/1000	5 - 120	1.00/7.50
TM-4/TMR-4	1250/5000	300/1000	5 - 120	1.00/10.00
TM-5/TMR-5	3000/7500	300/2000	10 - 250	2.00/10.00
TM-6/TMR-6	8000/20000	300/2500	12 - 300	3.00/10.00

- Each Cylinder Model is available in multiple Thrust Ratings & Strokes. For a particular model designation, any combination of listed Thrust and Stroke is available.
- Velocity, different than specified above, is also available on request.
- Thrust achieved from Electric Cylinder is identical for extension and retraction of the drive rod.
- Above values are based on use of standard face or flanged mounted motors, 415 \pm 6% V, 3 phase, 50 Hertz. Other Motors, such as Brake Motors are available on request.
- Stroke Lengths are available in 50 mm increments upto 600 mm and 150 mm increments above.

SELECTION:

For proper selection, please specify the following:

- Desired Thrust/Force in Kgs.
- Desired Stroke in mm.
- Desired Mounting Arrangement.
- Power and Control Voltage and other electrical specifications.
- Desired Optionals.
 - Intermediate Position Limit Switches.
 - Position Transmitter for the continuous Position Monitoring.
 - Handwheel with electrical interlock for safe manual operation in case of power failure.
- Any other special requirements.

Note

Product improvement is a continuous process at Technomech Engineers. The data given in this publication is therefore subject to revision.



UNITED

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