

MARSH

emtorck

**YOUR QUALIFIED PARTNER IN
ACTUATOR TECHNOLOGY**



MOTORISED DAMPERS, ELECTRIC THRUSTERS



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Motorised dampers

Marsh offers various types & sizes of Electrically operated dampers to control the flow of air, gases required in the process industries.

Electrical Actuators are designed to operate the dampers or gates for different types of applications such as :

- Linear motion Thrusters
- Quarter turn Actuators for single & multi louver dampers
- Multi turn Actuators for Rising Stem Gates

The Actuators operate on either 415 V AC 3 Phase or 220 V AC 1 phase supply depending upon requirements and also can be supplied for ON-OFF or Regulating duty application. For Hazardous area applications specially developed flame-proof / explosion-proof & for special requirements pneumatically operated dampers can also be supplied.

Emtork electric thrusters

Emtork Thrust unit actuators are Positioning Devices suitable for operating large size dampers, flaps, shutters, fan blades etc. from a remote control station in ON/ OFF and Regulating modes. The Thruster units swivel either in one or two axes while imparting the Thrust, so as to achieve correct alignment with the final control element.



Marsh Offers :

- 2 Types 1 Axes / 2 Axes movement units.
- 5 Models Thrust rating up to 5000 Kg force
- Stroke length up to 1000 mm.
- Large variety of operating speeds.
- ON/OFF & Regulating duty models.
- Area of Operation Safe or Hazardous.
- Manual Operation with motor over riding provision.
- Weather proof construction .
- Provision for Integral starter.
- Self locking Units.
- Various Accessories available on demand.

Features of emtork electric thrusters:

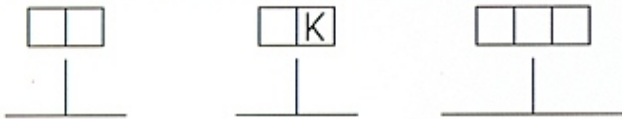
Standard Features:

- Electric motor TEFC, 3 phase, S- 1 Duty.
- Insulation class 'F'
- Travel limit switches 2 Nos (1 NO +1 NC)
- Torque limit switches 2 Nos (1NO +1 NC)
- Continuous type local position indicator.
- Hand wheel with clutch mechanism.
- Protection class IP 65
- Hammer blow effect

Optional Features :

- Electric motor TESC.3 Phase, S2 or S4 Duty
- Protection class IP 67 /IP 68.
- Better class of insulation for motor.
- Travel limits switches 2 NO + 2NC in place of 1 NO + 1 NC-2 Nos.
- Torque limits switch 2 NO + 2NC in place of 1 NO + 1 NC-2 Nos.
- Additional limits switch (1 NO + 1NC) 4 NOS. (Extra)
- Feed back potentiometer
- Feed back Transmitter.
- Remote position indicator Analogue / Digital
- Space heater.
- Valve positioner.
- Various types of local & remote panels
- Set of linkages.
- Tailor made accessories to suit customer's requirements.

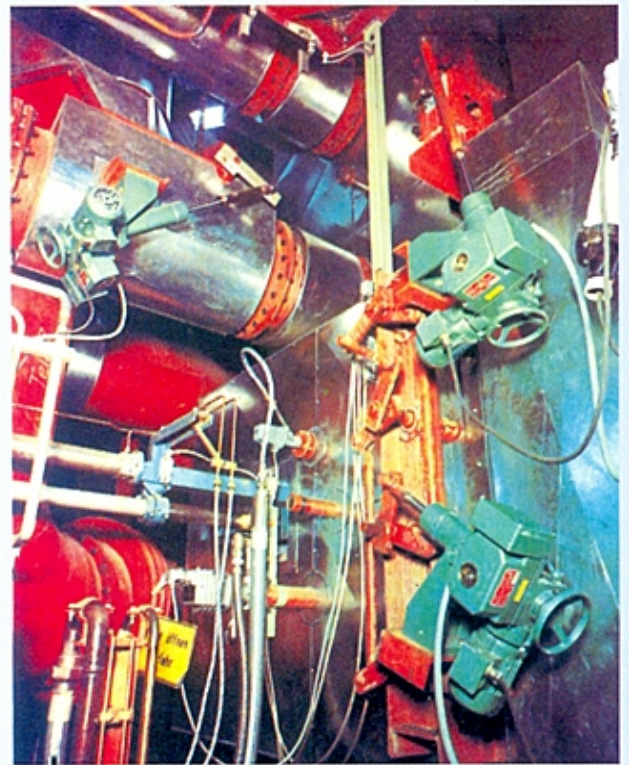
Ordering Specifications:



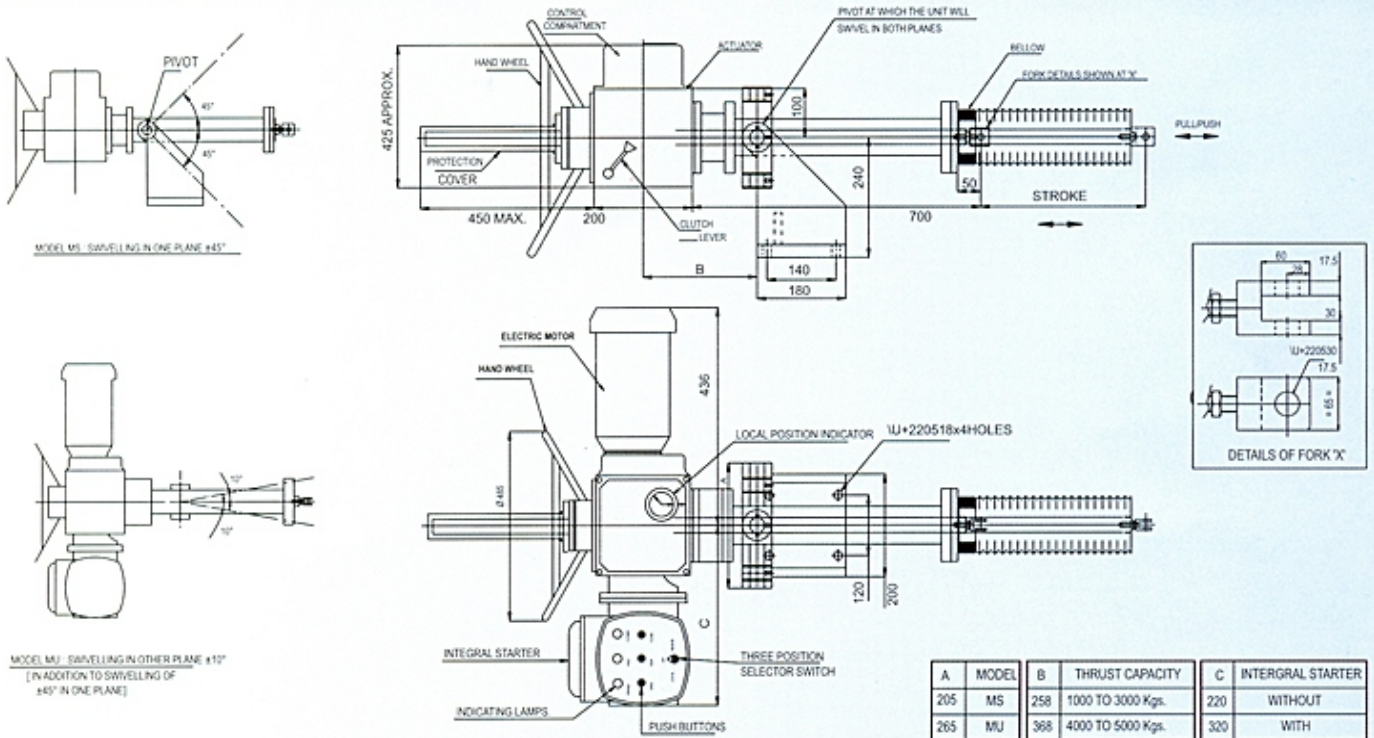
Models	Thrust	Stroke length in mm
MS: Single Axis	1: 1000 Kgs.	200
MU: Dual Axis (Universal)	2: 2000Kgs.	300
	3: 3000Kgs.	400
	4: 4000Kgs.	500
	5: 5000Kgs.	750
		1000

Examples:

- A simple Single Axis swivelling Thruster having thrust power of 3000 Kgs. & the stroke Length of 500 mm will be denoted as: MS/ 3K/500
- A dual Axes swivelling Thruster having thrust power of 2000 Kgs. Stroke length of 200 mm will be denoted as : MU/ 2K/200

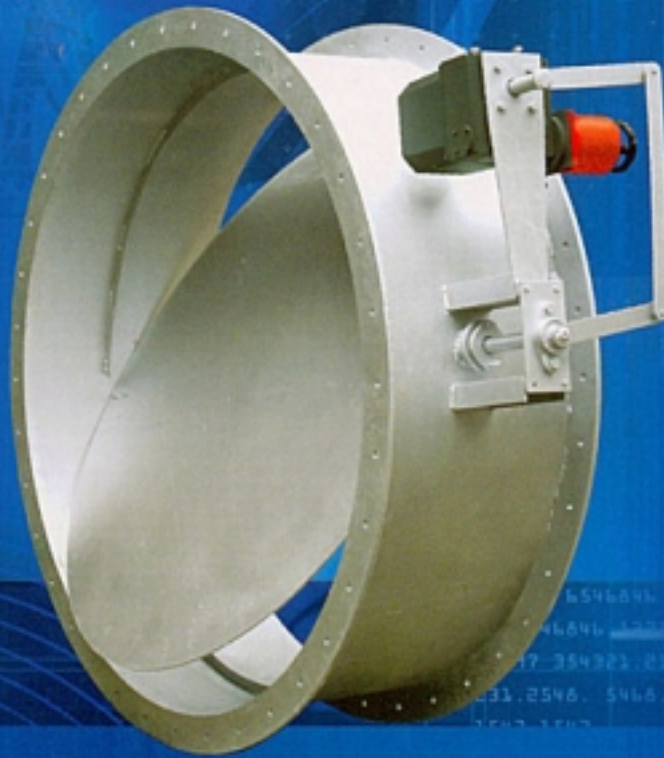
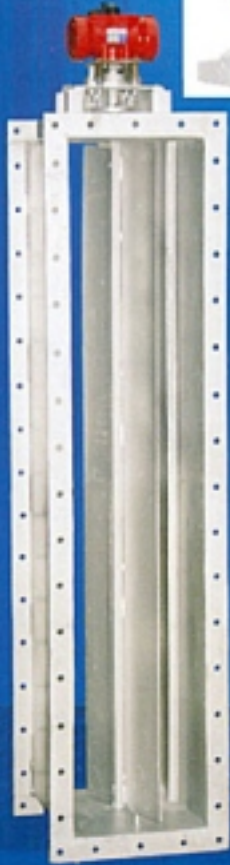
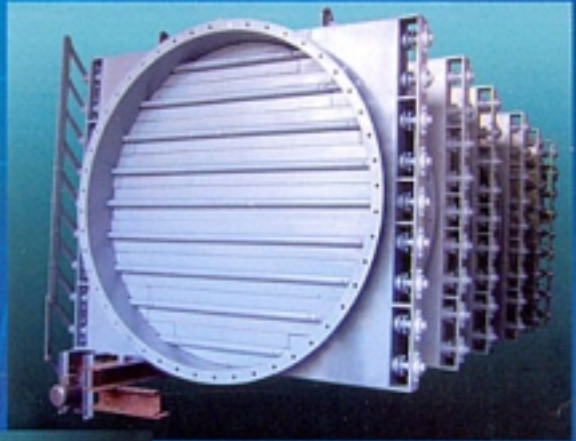


G. A. Drawing for Thruster



Technical Specifications:

Model	Rated Thrust Kgs.	Operating Speed mm/ Sec	Motor Date			
			KW/ HP	Speed	Rated Current RPM AMP	Efficiency % (FL)
MS MU	1000	1/1.5/ 2	0.5/ 0.75	1405	1.4	72
	2000	3/4/6/7	0.75/1.0	1405	1.8	76
	3000	8/12/19/24/ 27/36/42	2.2/3.0	2850	4.55	81
MS MU	4000	1/1.5/2	0.75/1.0	1405	1.8	76
	5000	3/4/6/	1.5/2.0	1415	3.3	78
		8/9/12/19	2.2/3.0	2850	4.55	81



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Details Subject to change