



MOTORISED

BUTTERFLY VALVES

VALVES & DAMPERS



SLUICE & GATE VALVES



BALL VALVES



German Technology for Electrical Actuators



MOTORISED VALVES & DAMPERS

MOTORISED VALVES & DAMPERS

Marsh offers various types & sizes of Valves such as Butterfly, Ball, Sluice, Globe & Dampers with Electrical Actuators.

These units will be offered in "Ready for use" conditions with backup services of installation & commissioning assistance.

Marsh can also offer the allied electrical & electronic accessories such as control panels, feedback & positioning devices required in close-loop system.

Electrically operated dampers

We also undertake the assignments for complete designing & manufacturing of various types of dampers such as Motorised Butterfly type single flap dampers/ Multi louver dampers/ 3 way Diverter dampers /Material Diverters/Slide Gates/Guillotine dampers in IS 2062 , IS 2002, SA 516 , SS 316 , SS 304 , SS 310 etc. We also manufacture High Temperature & High Performance Dampers.

Automated Valves & Dampers

Electrically /Pneumatically Operated Butterfly Valves / Ball valves/ Slide Gates

Electrically Operated Globe Valves / Sluice / Gate Valves

Electrically Operated Guillotine & Other varieties of Dampers



BUTTERFLY & BALL VALVES

MOTORISED / PNEUMATICALLY OPERATED BUTTERFLY & BALL VALVES

BUTTERFLY & BALL VALVES

Marsh offers Motorised Butterfly Valves from size 50 to 1000 NB with line pressures of 6 to 16 Bar in wafer or flanged types, similarly Motorised Ball Valves from size 10 to 500 NB in the class of #150, #300, #600 & #800 end connections of screwed, socket weld or flanged types as detailed below :

Special Features of Butterfly Valves

- Integrally moulded body liner ■ Longer Valve Life ■ Fit and forget valve ■ Low torque
- No need of separate gasket between the valve face & companion flange ■ Tight shut off ■ Easy Installation.

DETAILS OF BUTTERFLY VALVES				
Valve Size	Type	Material of Construction		
		Body	Disc	Shaft
50	Wafer/ Flangeless	Cast Iron	Cast Iron	Carbon Steel S. S.
65			SG Iron	
80	Or	Cast Iron	SG Iron	
100			encapsulated in EPDM	
125	Wafer/ Lugged	S. G. Iron	SG Iron Coated with nylon	
150			S. S. (CF8)	
200	Double Flanged Body	Carbon Steel	S. S. (CF8M)	
250			S. S.	
300	Double Flanged Body	Carbon Steel	Aluminium bronze	
350			Aluminium bronze	
400	Double Flanged Body	Carbon Steel	Aluminium bronze	
450			Aluminium bronze	
500	Double Flanged Body	Carbon Steel	Aluminium bronze	
600			Aluminium bronze	
700	Double Flanged Body	Carbon Steel	Aluminium bronze	
800			Aluminium bronze	
1000	Double Flanged Body	Carbon Steel	Aluminium bronze	



TEST PRESSURE			
Seat	Working Pressure	Test Pressures (Bar)	
		Body	Seat
PN 10	10	15	11
PN 16	16	24	17

*For other material of Body, Ball, Disc contact Marsh Automation Pvt Ltd.

DETAILS OF BALL VALVES							
VALVE SIZE MM	END CONNECTIONS	TYPE	PRESSURE RATING	MATERIAL OF CONSTRUCTION			
				BODY	BALL	STEM	SEAT
10 TO 500	SCREWED SOCKET WELD FLANGED	REGULAR FULL BORE	CLASS # 150	CARBON STEEL	S.S. 304/316	S. S.	PTFE / G. F. T.
			# 300	FORGED STEEL	MIRROR FINISH		
		ONE / TWO THREE / PIECE	# 600	STEEL	MIRROR FINISH		
			# 800	S.S. 304/316	MIRROR FINISH		



Electrical Actuator details for Butterfly & Ball Valve Applications-Quarter Turn

Small Size Valve : These are direct mounted type compact actuators having following Features & accessories.

Accessories

Standard

- Limit Switches (1NO +1NC) - 2 Nos. (Rating 10A - 250 VAC)
- Hand wheel
- Local position indicator
- Adjustable mechanical stoppers
- Space Heater

Optional

- Auxillary limit switches - (1NO +1NC) - 4 NOs.
- Torque limit switches (1NO +1NC) - 2 NOs. (for QT10 onwards)
- Three Position switch for ON/OFF operation Field/Panel Mounted
- Feed back Potentiometer - output 100-235 ohms or 0-1000 ohms
- Two wire position transmitter 4-20mA Output field/panel mounted
- Positioner is available in field/panel mounted to accept 4-20mA/0-10 V DC control signal & Rx Output.
- IP 67 Protection ■ Remote position indicator-Digital
- Special accessories on request ■ Local control station ■ Integral Starter

Actuator Data		Actuator Models					
	QT-3	QT-5	QT-10	QT-20	QT-30	QT-40	QT-50
Rated Output Torque Kgm	3	5	10	20	30	40	50
Operating Speed Sec/90°	17	17	20	20	26	26	26
Switching Frequency Operations / Hour							
a) Short Time	1200						
b) Normal	600						
Weight Kg.	7.5	9	12	15.5	37	37	37
Degree of Protection	IP65/IP67						
Area of Operation	Safe						
Motor Data							
Type	Non-Blocking A. C. Motor						
Supply : Standard	220V AC 50Hz Single Phase						
Optional	110 V AC 50 Hz Single Phase 415 VAC 50 Hz Three Phase 24 V DC						
Output watts	90	125	175	250	290	300	320
Nominal Current Amp	0.5	0.55	0.9	1.2	1.3	1.4	1.5
Class Insulation	F						
Ambient Temperature	50°C						

Note :- For 24V DC & 415 VAC, 50 Hz motors above current & wattage values are not applicable

Large Size Valves:

These units are the combination of Rotary Actuators with Supplementary worm gear boxes having following features. :

Features of Emtork Actuators :

Standard Features

- Electric motor TEFC, 3ph, S-1 Duty
- Insulation class 'F'
- Travel Limits Switches - 2 NOs.(1 NO +1 NC)
- Torque Limits Switches - 2 NOs. (1 NO +1 NC)
- Continuous type local position indicator
- Handwheel with clutch mechanism
- Protection class IP 65 ■ Hammer-blow effect
- Output couplings viz A/B/C/D/E as per DIN 3210

Optional Features

- Electric motor - TESC, 3ph, S2 or S4 Duty
- Better class of insulation for motor
- Travel Limits Switches - 2 NO + 2 NC in place of 1 NO +1 NC - 2 NOs.
- Torque Limits Switches - 2 NO + 2 NC in place of 1 NO +1 NC - 2 NOs.
- Additional Travel limit switches (1 NO + 1 NC) - 4 NOs. (Extra) - or (2 NO + 2 NC) - 2 NOs., (4 NO + 4 NC) - 2 NOs
- Feedback potentiometer
- Remote position indicators-Analogue/Digital/Bar graph
- Space heater
- Electromagnetic, Electronic brake for the motor
- Protection class IP67/IP68
- Various types of local & remote panels
- Foot mounting brackets ■ Set of linkages
- Tailor made accessories to suit costumers' specific requirements
- Thermostats in motor winding
- Field / Panel mounted source to convert 220VAC to 24 VDC required for transmitter
- Supplementary Spur & Worm gear boxes
- Attachment for linear motion ■ **Retrofitting at site**



**SCADA / DCS
Compatible**

**MODBUS / PROFIBUS
Protocol**

ACTUATOR DATA – LARGE SIZE BUTTERFLY VALVES

Sr. No.	Actuator	Rated Output Torque kgm	Time of Operation Sec/90°	Remarks
1	M300/WG30	300	3 to 45	Quarter Turn
2	M300/WG50	500	5 to 75	
3	M300/WG75	750	7.5 to 115	
4	M300/WG100	1000	10 to 150	
5	M500/WG75	1500	7.5 to 115	High Speed full Rotary Model
6	M500/WG100	2000	10 to 150	
7	M500/WG31	500	3 to 46	
8	M500/WG71	1500	7.5 to 115	



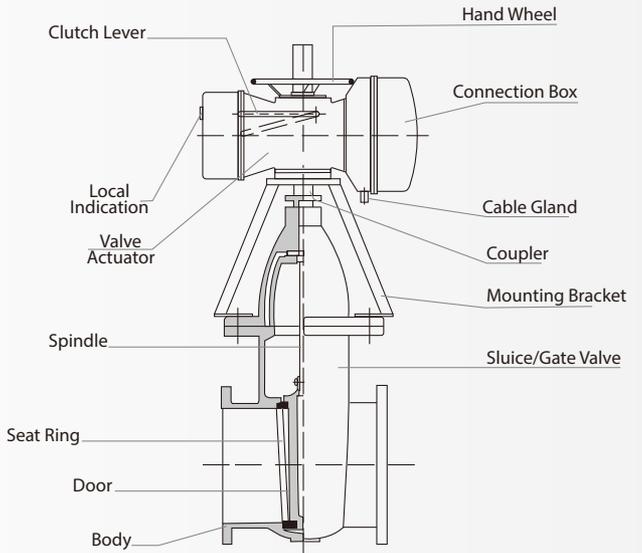
MOTORISED SLUICE & GATE VALVES

MOTORISED SLUICE & GATE VALVES

We can offer various types & sizes of Sluice & Gate Valves duly coupled with Electrical Actuators & necessary automation accessories.

These Sluice valves generally confirm to IS 14846 and having flanges drilled as per IS 1538 Table 4 & 6 or can be customized in various pressure ratings such as PN 1.0, PN 1.6 etc. These valves are either rising or non rising spindle type. The Sluice valve body confirms to Cast Iron IS 210 Gr. FG 200/DI etc., The sizes are 50mm to 1000mm etc.

The Gate valves generally confirm to American standard in ASME Class 150, 300 etc. The Gate Valve body confirm to Cast Steel ASTM A 216 Gr. WCB/SS304/ SS316/F22 etc. The sizes are 50mm to 300mm. The forged steel Gate valves confirm to ASTM A105 are offered in the smaller range in Screwed, Socket Weld #800 & Flanged #150, #300 & #600. (Different types of material of construction can be offered). The sizes are 15mm to 50mm. All the valves are Hydrostatic tested as per the pressure testing standard.



Electrical Actuator details –Sluice / Gate & Knife Edge Gate Valves

The standard and optional features are same as given for large size butterfly valves. These are basically Rotary Actuators with various output Torques & Speeds and with different output couplings to suit rising & non rising stem Sluice & Gate Valves.

TECHNICAL DATA FOR BASIC ACTUATORS WITH SUPPLIMENTARY SPUR GEAR BOXES

Sr.No.	Actuator Model	Rated Output Torque Range Nm	Output Speed Range RPM	Remarks
1	M30 To M200	30 To 200	10 To 150	Rotary Output
2	M250 To M600	250 To 600	10 To 150	Actuators with
3	M1000	1000	10 To 120	Various output
4	M300 / SG08	2000	1.25 To 19	Couplings viz
5	M300 / SG12	3000	0.8 To 12.5	A/B/C/D/E to
6	M500 / SG212	5000	0.8 To 12.5	Suit Rising &
				Non Rising Sluice & Gate Valves

MOTORISED GLOBE VALVES FOR ON/OFF & CONTROL APPLICATION

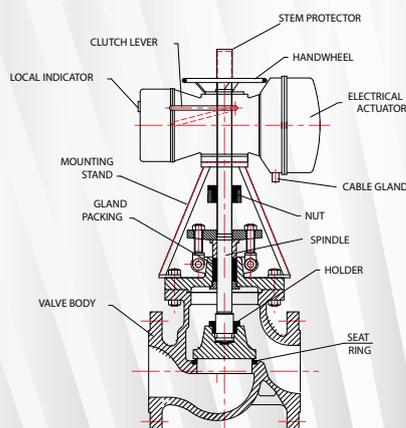
DETAILS OF GLOBE VALVES

Sr. No.	Valve Size mm	Material of Construction	Pressure Class	End Connection
1	15	Cast Iron / SGI / DI / Cast Carbon Steel / Forged Steel / SS	150	Screwed / Socket Weld / Butt Weld / Flanged
2	20			
3	25			
4	40			
5	50			
6	65			
7	80			
8	100			
9	125			
10	150			
11	200			
12	250			
13	300			

Globe Valves in various sizes & pressure ratings suitable for On/Off and control applications in the process Industry can be offered duly mounted with Electrical Actuators, depending upon the thrust requirements the actuators can be offered in Single or Three Phase Electric supply. The accessories such as Positioners, Feedback Transmitters, which are required for close loop systems can also be offered as a complete system.

DETAILS OF ELECTRICAL ACTUATORS FOR GLOBE VALVES

Sr. No.	Actuator Model	Stroke Length mm	Operating Speed mm/Sec	Rated Actuating Force kgs.	Electric Supply
1	ST-5102-32	40	0.26	200	220 VAC 50 Hz 1 Phase
2	ST-5102-33	40/60	0.52	200	or 110 VAC
3	ST-5103-61	60	0.45	600	50 Hz 1 Phase
4	ST-5103-76	60/75	0.8	600	or 24 V DC
5	M60 with Linear Attachment	100	0.8 to 12.5	2000	415 VAC 50 Hz 3 Phase
6	M150 with Linear Attachment	120	1.0 to 15	3500	380 VAC 60 Hz 3 Phase
7	M250 with Linear Attachment	160	1.16 to 17.5	6500	480 VAC 60 Hz 3 Phase
8	M500 with Linear Attachment	160	1.33 to 20	10000	



MOTORISED GLOBE VALVE



MARSH AUTOMATION PVT. LTD.

Corporate Office

98A/25A, Hadapsar Industrial Estate, Pune - 411013 (INDIA)

Tel. : +91-20-26875424, 26879475, Fax : +91-20-26879475

Email : response@marshautomation.com | marshautomation@gmail.com

Website : www.marshautomation.com

Unit No. 1

98A/25A,
Hadapsar Industrial Estate,
Pune - 411013

Unit No. 2

Sr. No. 19/1, Hingane Khurd,
Sinhadgad Road, Vittalwadi,
Pune - 411051