

Motorized Glass Control Valves

Application : Pickling Plant.

Sector: Steel.



'Marsh' introduces new range of Motorized Glass Valves for controlling flow of Acid in an Acid Regeneration Plant specially used in Pickling Plant to recycle waste Acid.



THE PACKAGE MAINLY CONSISTS OF

- Glass Valve
- High Resolution Electrical Actuator
- Accessories

Brief Description

Waste from pickling process which mainly consists of Hydrochloric Acid, Suspended Iron Particles & Water along with CNG and Air is feed to a reactor in controlled manner through motorized Glass Valve. This acid gets converted to gaseous form in the reactor which is again converted to acid in an absorption column.

The Glass Valve is made of Borosilicate glass and PTFE plugs. Glass Valve allows visual checking to monitor flow of acid and see that crystallization does not take place. The Valve has to be washed periodically with water to remove iron particles if any.

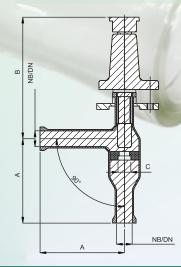
Glass Valve Specification

| Valve Size in NB | 25, 40, 50 | | | | |
|------------------|---|--|--|--|--|
| End Connections | Flanged | | | | |
| Material | Borosilicate Glass. | | | | |
| Plug | PTFE. | | | | |
| Max. Temperature | 200°C. | | | | |
| Media | Hydrochloric Acid. | | | | |
| Valve Types | Straight Through Valves, Drain Valves, Angle Valves, Vent /Vacuum Valves, Bottom Outlet Valves etc. | | | | |

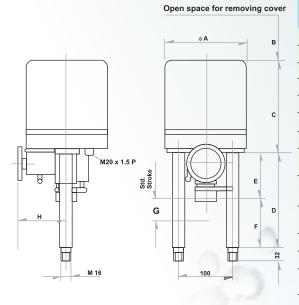
Dimensional Drawing

A Typical Dimensional Details of an Angle Valve is shown below:

| Valve Ref. No | NB / DN | NB / DN A | | С |
|---------------|---------|-----------|-----|----|
| RP 1 | 25 | 100 | 175 | 18 |
| RP 1.5 | 40 | 150 | 200 | 26 |
| RP 2 | 50 | 150 | 220 | 38 |



Dimensional Drawing



| HIGH RESOLUTION ELECTRICAL ACTUATOR SPECIFICATION | | | | | | |
|---|--|---|--|--|--|--|
| Description | Specification of an Electrical Actuator | Standard Accessories | | | | |
| Model | ST 5102 - G | 1. Travel Limit Switches | | | | |
| Glass Valve - Size NB | 25, 40, 50 | 1NO+1NC – 2 Nos. | | | | |
| Operation time in sec | 18 – 20 approx. | 2. Hand Wheel for Manual | | | | |
| Linear Speed mm/sec | 0.26 / 0.52 | Operation | | | | |
| Rated Thrust Kg's | 200 | 3. Local Position Indicator | | | | |
| Maximum Closing Thrust in Kg's | 350 | | | | | |
| Degree Of Protection | IP – 55 / 65 | Optional Accessories | | | | |
| Switching frequency Short Time / Normal | 7000 / 1800 | Auxiliary Switches | | | | |
| Input Signal | 4-20 mA, 230 / 110 VAC relay signal | Space Heater | | | | |
| Motor Type | Non blocking - Step Synchronous Motor | Feedback Potentiometer | | | | |
| Supply Voltage V AC | 220 / 110 | 2/4 Wire Position Transmitter | | | | |
| Frequency | 50 Hz | Digital Indicator | | | | |
| Motor Rating – Watts | 4.7 | Panel Mounted Positioner to accept 4-20mA / 0 – 10 V DC | | | | |
| Class of Insulation | F | | | | | |

| Dimensional Details | | | | | | | | |
|---------------------|------------|-----|-----|-----|----|-----|----|----|
| Model | Dimensions | | | | | | | |
| | Α | В | С | D | Е | F | G | Н |
| ST-5102-G | 150 | 120 | 162 | 200 | 98 | 102 | 40 | 90 |



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