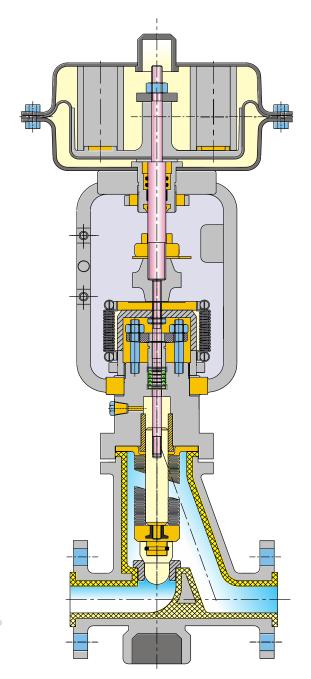




# PFA Lining Bellows Sealed Globe Control Valve SERIES - 1500 PFA





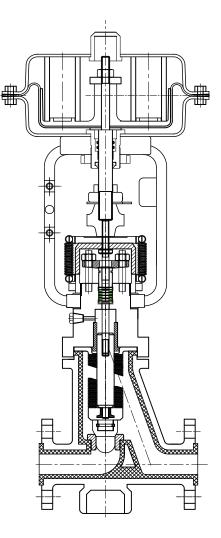
**PFA Lining Corrosion-resistance.** Friendly with Chemical

#### **FORWORD**

The series 1500-PFA lined globe valve specially design for controlling corrosive, hazardous, vapor, gases and pharmaceutical industries.

## **FEATURES**

- One piece body:- One piece PFA lined body design for easy access to all internal parts for Online inspection, maintenance and trim replacement.
- 2) PTFE Bellows: PTFE Bellows hermetically seal the product chamber from the atmosphere and protect the valve shaft form corrosion.



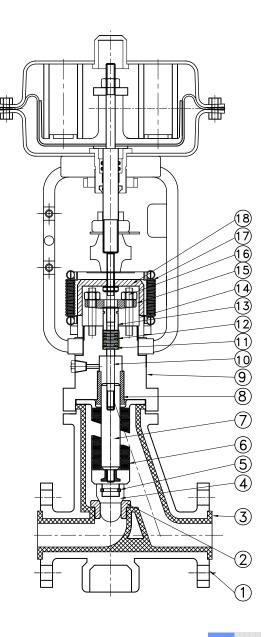
- 3) Wall thickness:-Valve body with thick wall thickness 5 to 6 mm for high durability.
- 4) PTFE Cord: PTFE Cord used for the locking bellow and plug without play also easy maintenance and durability.
- 5) Replicable plug: Replicable plug design used for easy maintenance and changing the valve CV as per the requirement. pure PTFE no Fillers.
- 6) Replicable seat: Replicable seat design used for easy maintenance and changing the valve CV as per the requirement. pure PTFE no Fillers.
- 7) Gland packing:- Adjustable gland packing are provided as a standard feature this work as a secondary gland seal (first bellow seal)
- 8) Travel stopper:- Travel stopper are specially design to protect the PTFE plug and seat from the actuator force during high shut off.

# **SPECIFICATIONS**

| Operating Pressure    | 0.1mbar vacuum up to 16 bar   |
|-----------------------|---|
| Operating Temperature | -60 to +200°C   |
| Size Range            | ½ " to 4" (15mm to 100mm)   |
| Class                 | ANSI 150#, Equivalent in BS and DIN   |
| Body MOC              | A 216 GR WCB  |
| Bonnet                | Standard  |
| Actuator              | Multispring Diaphragm Actuator  |
| Accessories           | Pneumatic Valve Positioner, Air Filter Regulator, Electro Pneumatic (E/P) Valve Positioner, Air Lock Relay, Air Volume Booster, Limit Switch, Proximity Switch, Solenoid Valve, Position Transmitter etc. |

# PARTS ILLUSTRATED

| TARTSTEECSTRATED |                       |                             |  |
|------------------|-----------------------|-----------------------------|--|
| SR.<br>NO.       | PARTS                 | MATERIAL OF<br>CONSTRUCTION |  |
| 1                | Valve Body            | A 216 GR WCB                |  |
| 2                | Seat Ring             | PTFE                        |  |
| 3                | PTFE Insert           | PTFE                        |  |
| 4                | Plug                  | HASR-C                      |  |
| 5                | Braided Rope          | PTFE                        |  |
| 6                | Bellow                | PTFE                        |  |
| 7                | Bellow Shaft          | HASR-C                      |  |
| 8                | Guide Bush            | HASR-C                      |  |
| 9                | Bonnet                | A 216 GR WCB                |  |
| 10               | Bonnet                | HASR-C                      |  |
| 11               | Spreader              | HASR-C                      |  |
| 12               | V-Ring                | PTFE                        |  |
| 13               | Gland                 | HASR-C                      |  |
| 14               | Lock Ring             | HASR-C                      |  |
| 15               | Gland Flange          | HASR-C                      |  |
| 16               | Gland Stud            | HASR-C                      |  |
| 17               | Bellow Cover          | Rubber                      |  |
| 18               | Stopper Cum Lock Ring | SS 316                      |  |



#### DOUBLE GLAND PACKING ARRANGEMENT

The PFA Lining Bellows Sealed Globe Control Valves are offered with double gland packing arrangement as an alternate to bellow seal arrangements. The arrangement consists of two individual sets of V-Teflon rings separated by lantern ring. The arrangement provides total sealing against valve stem and stuffing box. Figure shows a cross sectional view of special variation in the concept of the most popular, conventional, bolted, single packing arrangements. First set of packing rings is always under influence of full pressure of the fluid. Any corrosive / toxic fluid, that has tendency to leak past the first set of Packing Rings, tries to accumulate in the region of lower lantern ring. But here, it is comparatively at a low pressure and its effectiveness to leak past the barrier of the second set of packing rings is minimum. Each Teflon Chevron ring has been designed, not only to arrest the gland leak but also to act as a wiper ring, so that the wetness is not carried forward during stem moving Thus this Double packing arrangement is outward. wonderfully effective in stem sealing, reliable and far less expensive than a Bellow seal arrangement.

#### **MICRO TRIMS**

Micro trims are available with ported cage guided plugs. Complete Trim Set comprising of Valve Plug, Stem, Cage and Seat Ring are in Hast 'C' or superior metal - well compatible with fluid corrosion.

| VALVE SIZE |        | TRIM SIZE |        | Cv VALUES |
|------------|--------|-----------|--------|-----------|
| INCH       | MM     | INCH      | MM     | USGPM     |
| 1/2,       | 15     | 1         | 25     | 09        |
| 3/4 and    | 20 and | 3/4       | 20     | 07        |
| 1 2        | 5      | 1/2       | 15     | 05        |
|            |        | 3/8       | 10     | 04        |
|            |        | 5/16      | 08     | 03        |
|            |        | 1/4       | 06     | 02        |
|            |        | 3/16      | 05     | 1.5       |
|            |        | 1/8       | 03     | 01        |
|            |        | 1         | 1/240  | 20        |
| 1          | 1/240  | 1         | 1/4 32 | 16        |
|            |        | 1         | 25     | 13        |
|            |        | 2         | 50     | 32        |
| 2          | 50     | 1         | 1/2 40 | 24        |
|            |        | 1         | 1/4    | 32 16     |
|            |        | 2 1/2     | 65     | 60        |
| 2          | 1/265  | 2         | 50     | 40        |
|            |        | 1         | 1/2 40 | 30        |
|            |        | 3         | 80     | 80        |
| 3          | 80     | 2         | 1/2    | 65 70     |
|            |        | 2         | 50     | 50        |
|            |        | 4         | 100    | 140       |
|            |        | 3         | 80     | 100       |
| 4          | 100    | 2/2       | 65     | 80        |
|            |        | 2         | 50     | 50        |

#### **For Valves with Micro Trims**

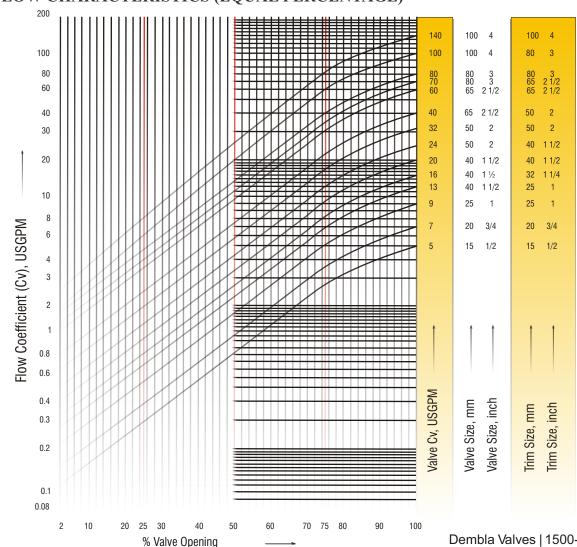
| VALVE SIZE |    | TRIM SIZE      | Cv VALUES |
|------------|----|----------------|-----------|
| INCH       | MM |                | USGPM     |
|            |    | M              | 0.003     |
|            |    | L              | 0.005     |
|            |    | K              | 0.0075    |
|            |    | J              | 0.01      |
|            |    | I              | 0.02      |
| 1/2        | 15 | Н              | 0.03      |
| 3/4        | 20 | G              | 0.05      |
| 1          | 25 | F              | 0.075     |
|            |    | Е              | 0.1       |
|            |    | D              | 0.15      |
|            |    | C              | 0.2       |
|            |    | В              | 0.3       |
|            |    | A              | 0.4       |
|            |    | 1/32" (0.75mm) | 0.5       |
|            |    | 1/16" (1.6mm)  | 0.75      |

1500-PFA

#### NOTE:

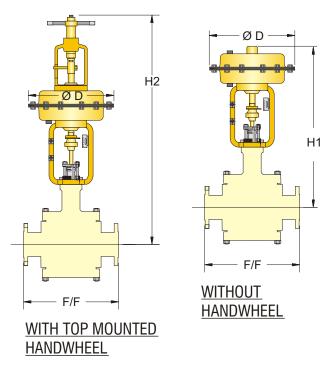
The above mentioned trim sizes are designated sizes only, the actual seat bore for all above sizes is 4mm.

## FLOW CHARACTERISTICS (EQUAL PERCENTAGE)



#### **OVERALL DIMENSIONS**

| ***   |                  |     | HEIGHT (MM) |      |     |
|---|------------------|-----|-------------|------|-----|
| VALVE<br>SIZE<br>INCH   | STD.<br>ACTUATOR | F/F | H1          | Н2   | ØD  |
| <sup>1</sup> / <sub>2</sub> , <sup>3</sup> / <sub>4</sub> , 1 | RM-01<br>DM-01   | 251 | 523         | 743  | 290 |
| 1 ½   | RM-11<br>DM-11   | 291 | 581         | 805  | 290 |
| 1 ½   | RM-12<br>DM-12   | 291 | 633         | 920  | 380 |
| 2   | RM-11<br>DM-11   | 337 | 581         | 805  | 290 |
| 2   | RM-12<br>DM-12   | 337 | 633         | 920  | 380 |
| 2 ½   | RM-22<br>DM-22   | 420 | 732         | 1018 | 380 |
| 2 ½   | RM-23<br>DM-23   | 420 | 780         | 1120 | 452 |
| 3   | RM-22<br>DM-22   | 475 | 769         | 1055 | 380 |
| 3   | RM-23<br>DM-23   | 475 | 817         | 1157 | 452 |
| 4   | RM-22<br>DM-22   | 590 | 798         | 1084 | 380 |
| 4   | RM-23<br>DM-23   | 590 | 846         | 1186 | 452 |





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