

# Sharpe® Series 13 Direct Mount Three-Piece

**Ball Valve Datasheet** 









## Direct Mount Three-Piece Ball Valve



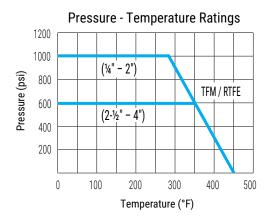




## **Technical Information**

| Size  | C <sub>V</sub> | Break Away*<br>Torque (in-lb <sub>f</sub> ) | Weight<br>(lbs.) |  |
|-------|----------------|---|------------------|--|
| 1/4   | 6              | 40  | 1.4              |  |
| 3/8   | 6              | 40  | 1.4              |  |
| 1/2   | 24             | 40  | 1.4              |  |
| 3/4   | 35             | 80  | 2.0              |  |
| 1     | 47             | 110   | 3.4              |  |
| 1-1/4 | 81             | 160   | 5.4              |  |
| 1-1/2 | 105            | 190   | 7.2              |  |
| 2     | 240            | 250   | 11               |  |
| 2-1/2 | 320            | 500   | 20               |  |
| 3     | 580            | 720   | 32               |  |
| 4     | 970            | 800   | 51               |  |

\*Based on clean non-lubricating fluid at listed pressures and ambient temperature. Call Sharpe® Valves for assistance for other conditions







Building connections that last™



## **Design Features**

- Low Profile, Space Saving, Actuated Ball Valve
- Innovative Stem Packing System
- · Quick, efficient stem packing adjustments with the actuator installed and the pipeline pressurized
- Full Port
- 1000 PSI CWP (1/4"- 2"), 600 PSI CWP (2-1/2"- 4"), 150 WSP
- 316 Stainless Steel ASTM A351 CF8M
- Carbon Steel ASTM A216 WCB Threaded and Socket Weld Ends, Stainless Steel ASTM A351 CF8M Threaded, Socket Weld and Schedule 10 or 40 Butt Weld Ends
- Direct Mount Pad Eliminates the Need for Brackets and Couplings\*
- · Live Loaded, Blow-Out Proof Stem
- · Lockable, Reversible, Lever Handle

## **Applicable Standards**

- Mounting Dimensions: ISO 5211
- Socket Weld & Threaded Ends: ASME B16.11
- Butt-Weld Ends: ASME B16.25
- Shell and Seat Pressure Test: ASME B16.34

## **Options**

- 4X4 Pneumatic Four Piston Actuator
- SPN II Pneumatic Two Piston Actuator
- SEA Electric Actuator
- Solenoids
- Limit Switches

## Note:

\*Mounting Bracket Must be Used for High Temperature (>180°F) and Steam Applications.



# Direct Mount Three-Piece Ball Valve **Sharpe® Series 13**



## **Easy Maintenance of Actuated Valves**

- Innovative Stem Packing System
- Quick In line adjustments
- · Line does not need to be depressurized
- Removal of actuator not required

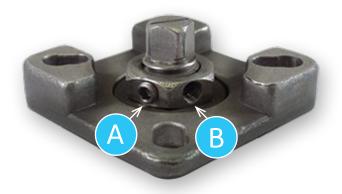


## Easy as 1, 2, 3

With the actuator installed:

- 1 Loosen the stem nut's set screw ("A") with an allen wrench.
- Insert the allen wrench in an empty hole in the stem nut ("B") and rotate the stem nut clockwise to tighten. See IOM.
- 3 Retighten the stem nut's set screw ("A") with an allen wrench.

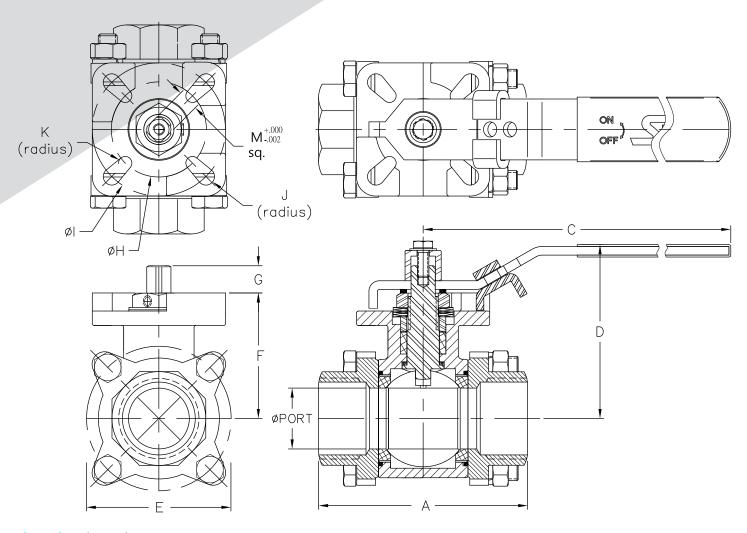




**Note:** Removal of the actuator is not required. Actuator has been removed to show mounting pad and stem nut.

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## **Dimensions** (Inches)

| Size  | PORT | А     | С     | D    | E    | F    | G    | ØН           | Ø١         | J     | K     | М     |
|-------|------|-------|-------|------|------|------|------|--------------|------------|-------|-------|-------|
| SIZE  | PURI | A     | · ·   | U    |      | Г    |      | חש           | וש         | J     | N.    | IVI   |
| 1/4   | 0.46 | 2.65  | 4.92  | 2.65 | 1.97 | 1.50 | 0.31 | F03 (1.42)*  | F05 (1.97) | 0.130 | 0.110 | 0.350 |
| 3/8   | 0.50 | 2.65  | 4.92  | 2.65 | 1.97 | 1.50 | 0.31 | F03 (1.42)*  | F05 (1.97) | 0.130 | 0.110 | 0.350 |
| 1/2   | 0.59 | 2.83  | 4.92  | 2.65 | 1.97 | 1.50 | 0.31 | F03 (1.42)*  | F05 (1.97) | 0.130 | 0.110 | 0.350 |
| 3/4   | 0.79 | 3.35  | 4.92  | 2.89 | 1.97 | 1.85 | 0.40 | F04 (1.65)   | F05 (1.97) | 0.118 | 0.118 | 0.350 |
| 1     | 1.00 | 3.62  | 7.48  | 3.19 | 2.76 | 2.20 | 0.44 | F05 (1.97)   | F07 (2.76) | 0.177 | 0.138 | 0.350 |
| 1-1/4 | 1.26 | 4.33  | 7.48  | 3.58 | 2.76 | 2.60 | 0.60 | F05 (1.97)   | F07 (2.76) | 0.177 | 0.138 | 0.430 |
| 1-1/2 | 1.50 | 4.83  | 7.48  | 3.80 | 2.76 | 2.81 | 0.54 | F05 (1.97)   | F07 (2.76) | 0.177 | 0.138 | 0.430 |
| 2     | 2.00 | 5.58  | 7.48  | 4.15 | 2.76 | 3.17 | 0.54 | F05 (1.97)   | F07 (2.76) | 0.177 | 0.138 | 0.430 |
| 2-1/2 | 2.56 | 6.84  | 9.84  | 5.99 | 4.02 | 3.84 | 0.79 | F07 (2.76)** | F10 (4.02) | 0.216 | 0.177 | 0.665 |
| 3     | 2.95 | 7.57  | 9.84  | 6.42 | 4.02 | 4.25 | 0.79 | F07 (2.76)** | F10 (4.02) | 0.216 | 0.177 | 0.665 |
| 4     | 3.94 | 10.78 | 14.96 | 7.05 | 4.92 | 4.86 | 1.00 | F10 (4.02)   | F12 (4.92) | 0.256 | 0.216 | 0.665 |

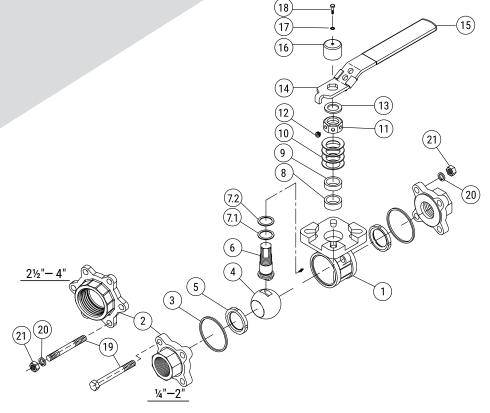
## Notes:



<sup>\*</sup>Slotted bolt holes will accept F03, F04 and F05.
\*\*F07 size only for use with a bracket.

## Direct Mount Three-Piece Ball Valve Sharpe® Series 13





## Parts & Materials

| No. | Part Name           | Qty.   | Material  |
|-----|---------------------|--------|---|
| 1   | Body                | 1      | 316 Stainless Steel ASTM A351 CF8M                                  |
| 2   | End Pieces          | 2      | Carbon Steel ASTM A216 WCB or<br>316 Stainless Steel ASTM A351 CF8M |
| 3   | Body Seal           | 2      | PTFE  |
| 4   | Ball                | 1      | 316 Stainless Steel   |
| 5   | Seat                | 2      | TFM or RTFE   |
| 6   | Stem                | 1      | 17-4PH SS (¼" – 2")<br>316 Stainless Steel (2-½" – 4")              |
| 7.1 | Thrust Bearing      | 1      | PEEK  |
| 7.2 | Thrust Bearing*     | 1      | Nova  |
| 8   | Stem Packing        | 1      | RTFE  |
| 9   | Gland Packing       | 1      | 300 Series Stainless Steel  |
| 10  | Belleville Washers  | 4      | 300 Series Stainless Steel  |
| 11  | McNut (Packing Nut) | 1      | 300 Series Stainless Steel  |
| 12  | Set Screw           | 1      | 300 Series Stainless Steel  |
| 13  | Handle Washer**     | 1      | 300 Series Stainless Steel  |
| 14  | Handle              | 1      | 300 Series Stainless Steel  |
| 15  | Handle Sleeve       | 1      | PVC   |
| 16  | Stem Cover          | 1      | 300 Series Stainless Steel  |
| 17  | Lock Washer         | 1      | 300 Series Stainless Steel  |
| 18  | Stem Bolt           | 1      | 300 Series Stainless Steel  |
| 19  | Bolt/Stud           | 4/6    | 300 Series Stainless Steel  |
| 20  | Washer              | 6 / 12 | 300 Series Stainless Steel  |
| 21  | Nut                 | 6 / 12 | 300 Series Stainless Steel  |

#### Notes:

<sup>\*</sup>¼ – 2" valves. \*\*2–½, 3, and 4" have two washers.

## Direct Mount Three-Piece Ball Valve Sharpe® Series 13









## How to order Series 13

| :     | 3     | 13 -   | - 6  | 6                          | TE                        | М                          |                    |  |
|-------|-------|--------|--|----------------------------|---------------------------|----------------------------|--------------------|--|
| Size  |       | Series | Body, Ball & Stem Materials  | End Material               | End Connection            | Seat Material              | Suffixes & Options |  |
| 1/4   | 1-1/2 | 13     | Stainless Steel  | ASTM A216                  | TE Threaded               | M TFM                      |                    |  |
| 3/8   | 2     |        | Body: CF8M SS †  6 Ball: 316 SS  Stem: 17-4PH SS (¼" to 2")  Stem: 316 SS (2-½" to 4") | 4 Cast WCB<br>Carbon Steel | SW Socket Weld            | R RTFE                     |                    |  |
| 1/2   | 2-1/2 |        |  |                            | ASTM A351                 | Additional End Connections |                    |  |
| 3/4   | 3     |        |  | 6 Cast CF8M<br>SS †        | CF8M Stainless Steel Only |                            |                    |  |
| 1     | 4     |        | Note: † Closest cast equivalent to   | wrought 316 SS             | BW Butt-weld (Sch 40)     |                            |                    |  |
| 1-1/4 | -     |        | Hote. I closest east equivalent to   | wiodgiit 510 55.           | BW10 Butt-weld (Sch10)*   |                            |                    |  |

## Notes:

\*POA.

Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user. We reserve the right to modify or improve the designs or specifications of any product at any time without notice.



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