

V Ball Control Valves

B2...VB and B6...VB

Technical Data

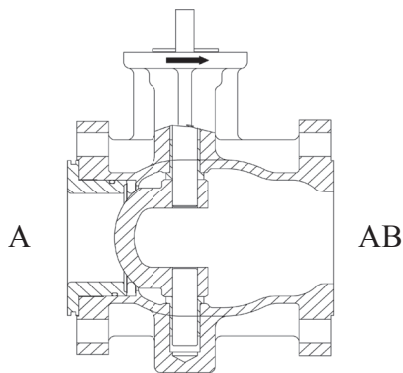
Media	Chilled or hot water, glycol, 250# steam
Flow Characteristic	Equal percentage
Action	90° rotation valve open CW, valve closed CCW
Sizes/End Fitting	1", 1½", 2" (NPT); 3, 4, 6 (Flanged)
Type of end fittings	NPT
Sizes/End Fitting	Flanged
Materials:	
Body	Carbon Steel
Ball	Stainless Steel with Hardened Chrome Plating
Seats	Teflon
Stem	Stainless Steel
Packing	Spring-loaded Teflon V-ring
Pressure rating	ANSI 300
Media temp. range	-22°F to 400°F (-30°C to 204°C)
Close-off pressure	250 psig @ 400°F
Maximum differential pressure (ΔP)	steam: 100psi water: 150psi

- Carbon Steel 150/300 ANSI Rated Bodies
- Equal Percentage Flow Characteristic
- Dual Body rating on 1", 1½" & 2" (ANSI 150/300)
- ASME B16.10 Face to Face Dimensions
- ANSI Class IV Shut-off
- 250PSI 400 degree rated
- Field replaceable seat
- Maintenance free spring loaded packing

Ideal for replacing globe valves where high close off is required.

NOTE: Industrial ball valves have serviceable components similar to globe valves, proper maintenance of these parts will ensure longer in service life for the valves. The seats of these valves will require replacement at an interval consistent with the number of full cycles the valve has been operated, or as field condition dictates.

Flow Pattern

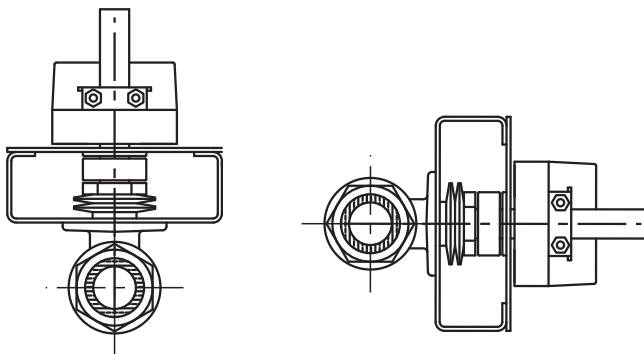


Valve must be installed with the Ball in closed position

Piping/Mounting Orientation

Assembly can be mounted horizontally or vertically for water applications. For steam applications the valve can be mounted vertically but if mounted horizontally the valve must be 90° off center of the pipe.

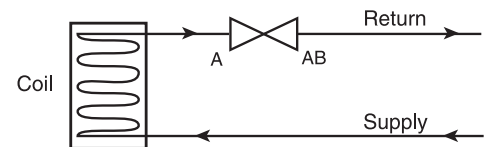
Do not install with actuator below pipe.



VS Series Ball Valve Piping Diagrams

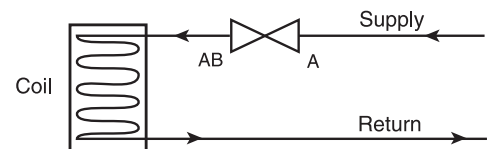
Water Application

2-way Valve Piping Diagram



Steam Application

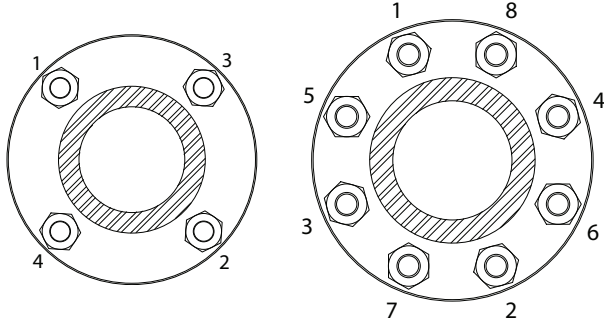
2-way Valve Piping Diagram



Valve Installation Procedure

3", 4" & 6" Valves - Flanged Installation

1. Valve must be in the closed position for installation.
2. **Figure 1 illustrates a flanged valve installation.**
3. Use hex bolts & nuts to secure valve to flange.
4. Ensure proper gaskets are used between the valve flange and pipe flange.
5. Tighten bolts & nuts in alternating opposite sides until completely tightened. Please see torque requirements below. Torque wrench is required.



3" Bolt Tightening Sequence

4" & 6" Bolt Tightening Sequence



WARNING: Exceeding the Maximum Torque Can Damage the Valve and Void the Warranty!

3" ANSI 150 Flange - 65 ft/lbs

4" ANSI 150 Flange - 70 ft/lbs

6" ANSI 150 Flange - 100 ft/lbs

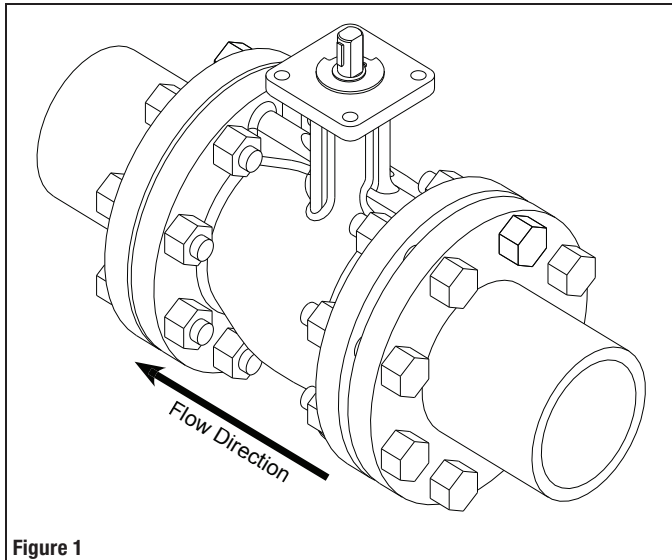


Figure 1

Seat Replacement Procedure

3", 4" & 6" Valves

1. Remove valve from pipe
2. Remove 2 cap retaining washers (1)
3. Using 2 wrenches/flat-head screwdrivers, pry cap assembly (2) out of valve
4. Rotate valve to fully open position
5. Using hands, pull seat (3) out of the valve
6. Replace seat and reverse procedure to reassemble
7. Reinstall valve per installation instructions

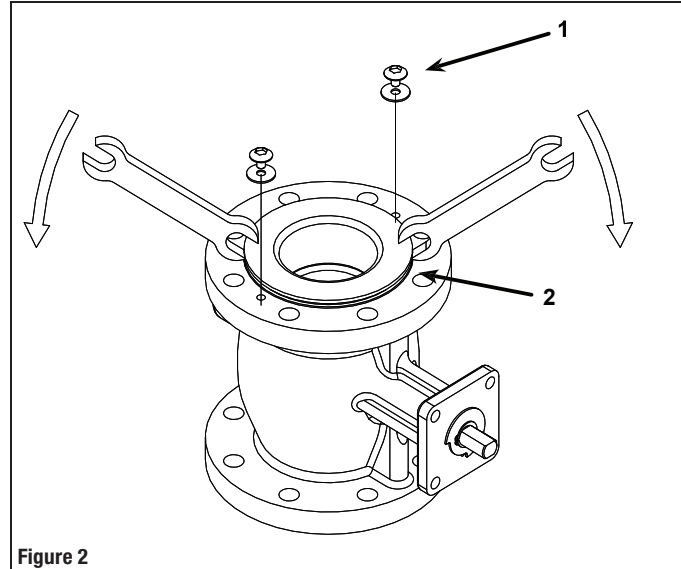


Figure 2

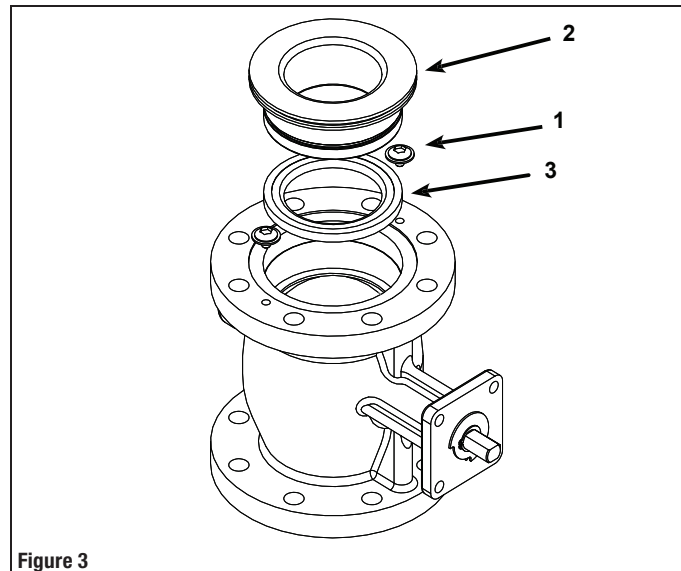


Figure 3