

Flanged Characterized Control Valves

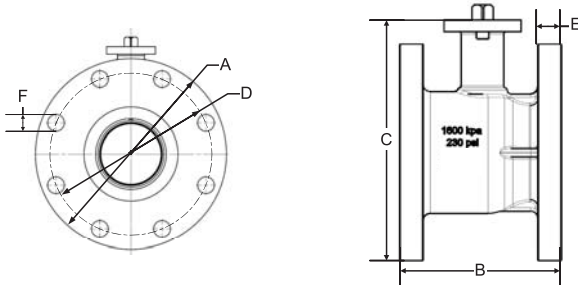
B6 Series

Two-way Valve with Stainless Steel Ball and Stem, 2½" to 6", ANSI 125 Flange

Technical Data

Service	chilled or hot water, 60% glycol
Flow characteristic	A-port equal percentage
Action	75° rotation
Sizes	2½", 3", 4", 5", 6"
Type of end fitting	pattern to mate with ANSI 125 flange
Materials:	
Body	cast iron - GG25
Ball	stainless steel
Stem	stainless steel
Seats	PTFE
Characterizing disc	stainless steel
Packing	EPDM O rings, lubricated
Pressure rating	According to ANSI 125, standard class B
Media temp. range	0°F to 250°F [-18°C to +121°C]
Close off pressure	100 psi
Maximum differential pressure (ΔP)	50 psi
Leakage	0% for A to AB

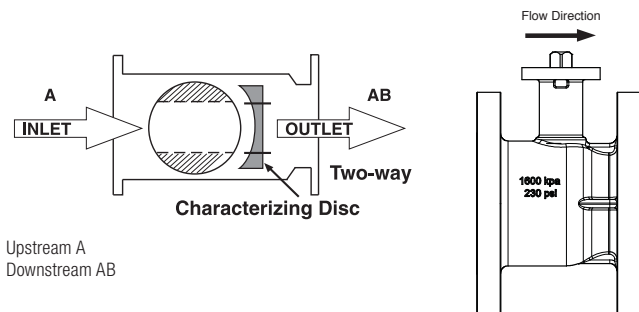
Valve Dimensions



NOTES: Flange bolt pattern matches ANSI class 125 flanges (not ANSI/ASME rated)
 Maximum allowable working pressure: 100 PSIG
 It is not recommended to connect raised-face flanges to flat-faced flanges

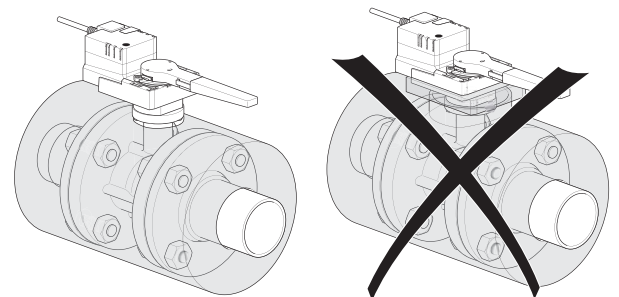
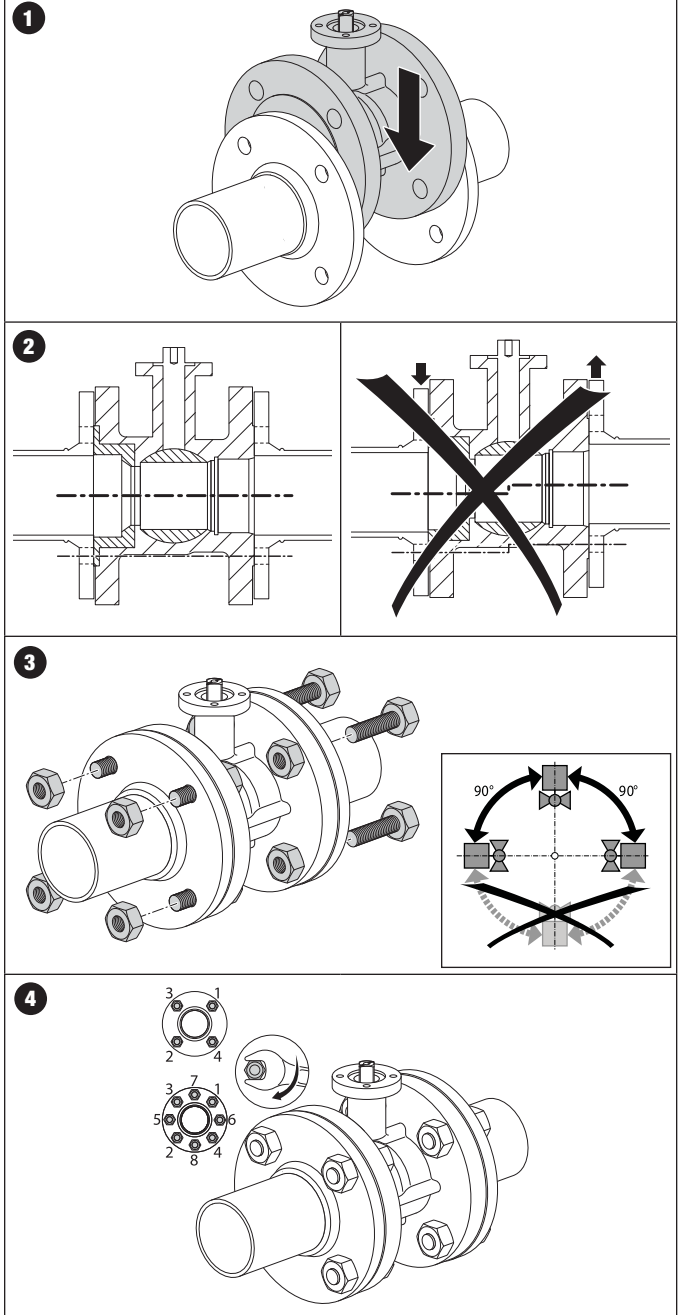
Flow Pattern

2-way B6250 to B6600 Characterized Control Valves™



Upstream A
 Downstream AB

Operation Installation



Installation

1. Inspect shipping package, valve, linkage, and actuator for physical damage. If shipping damage has occurred notify appropriate carrier. Do not install.
2. If a replacement, remove existing valve, linkage and actuator from the piping system.
3. If actuator and linkage are removed, they must be reinstalled correctly. The actuator must be rotated so that the valve seats properly for close off.
4. Install valve with the proper ports as inlets and outlets. Check that inlet and outlet of 2-way valves are correct. Flow direction arrows must be correct.
5. Blow out all piping and thoroughly clean before valve installation.
6. Clean male pipe threads with wire brush and rag. If threads have been damaged or exposed to weather, running a tap or die over the threads may straighten them. Clean pipes, threads, and valve threads before installation; check for any foreign material that can become lodged in trim components. Strainers should be cleaned after initial startup.
7. Valve must be installed with the stem towards the vertical, not below horizontal.
8. These valves are designed to be installed between ANSI Class 125/150 flanges.
9. Carefully follow installation using ANSI piping practices.

Warning!

Valve should not be used for combustible gas applications. Gas leaks and explosions may result. Do not install in systems, which exceed the ratings of the valve.

- Avoid installations where valve may be exposed to excessive moisture, corrosive fumes, vibration, high ambient temperatures, elements, or high traffic areas with potential for mechanical damage.
- Valve assembly location must be within ambient ratings of actuator. If temperature is below -22°F a heater is required.
- The valve assembly will require heat shielding, thermal isolation, or cooling if combined effect of medium and ambient temperatures – conduction, convection, and radiation– is above 122°F for prolonged time periods at the actuator.
- Following standard procedure, a strainer should be installed before the coil and valve or in another appropriate place in the system.
- Visual access must be provided. Assembly must be accessible for routine schedule service. Contractor should provide unions for removal from line and isolation valves.
- Avoid excessive stresses. Mechanical support must be provided where reducers have been used and the piping system may have less structural integrity than full pipe sizes.
- Sufficient upstream and downstream piping runs must be provided to ensure proper valve capacity and flow response. Five diameters in each direction are recommended.
- Life span of valve stems and O-rings is dependent on maintaining non-damaging conditions. Poor water treatment or filtration, corrosion, scale, other particulate can result in damage to trim components. A water treatment specialist should be consulted.

Mounting

The flange allows the actuator to be either parallel or perpendicular to the pipe; there are four orientations possible.

If field installing a spring return actuator, disconnect power and allow actuator to spring closed. Flip actuator over if necessary to achieve proper rotation direction. **DO NOT USE THE REVERSING SWITCH TO DO THIS.**

Two-Way Valves Mounting

For NORMALLY CLOSED operation:

The ball of the valve must be rotated so that the ball is CLOSED to flow. The actuator should be mounted with the clamp fully rotated CW (R). Spring return actuators will show the CW (R) symbol near the clamp and position indicator. Depressing the gear release to move the clamp rotates non-spring return actuators.

For NORMALLY OPEN operation:

The ball of the valve must be rotated so that the ball is OPEN to flow. The actuator should be mounted with the clamp fully rotated CCW (L). Spring return actuators will show the CCW (L) symbol near the clamp and position indicator. Depressing the gear release to move the clamp rotates non-spring return actuators. There are marks on the top of the valve stem, which indicate the port directions.

Do not force. Do not use the actuator to turn the pipe or the stem. Do not use any toothed tool such as pliers, which may damage the stem.

- Check that the actuator rotates so that the valve seats for close off and also rotates open to achieve full Cv. Use the gear release or the AF crank to verify.
- Verify that CCW (L) rotation of the actuator will open the ball to flow.
- Install and tighten the hold down screw not more than 1/2 turn beyond the point where resistance is felt.