



# Series BU Butterfly Valve Installation

## INSTRUCTIONS

### Caution Notes Prior to Assembly

1. The disc is set in the slightly open position (see figure 1)\* to prevent the butterfly valve seat from taking a temporary set. If the valve is opened or closed after unpacking, it must be reset to this slightly open position before installation.
2. The valve must not be dropped or come in contact with other objects, as the sealing surface of the disc and the sealing surface of the valve seat may be damaged.
3. Care must be used during installation to ensure that the pipes or flanges are properly aligned so there is no interference with the valve disc. Misalignment as shown in figure 2 will result in damage to the valve.
4. The installed valve must never be opened or closed when foreign matter such as sand is present in pipeline.
5. If valve is in line, system must be shut down and have no line pressure before disassembly

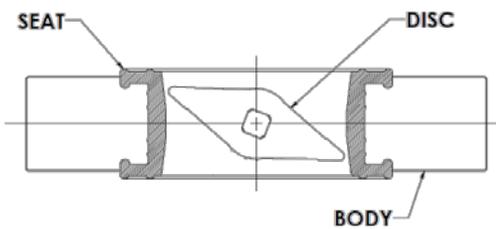


Figure 1

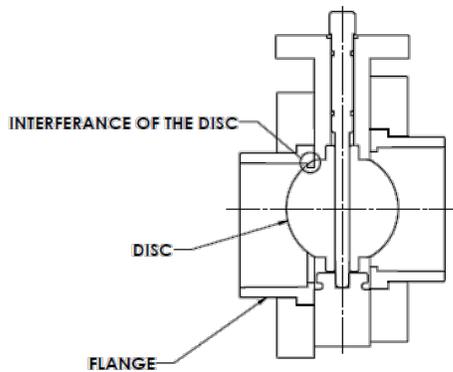


Figure 2

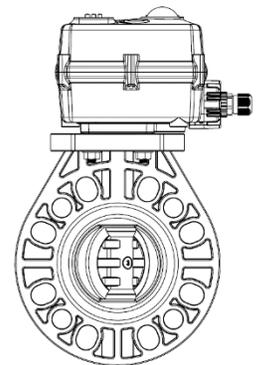


Figure 3

1. To avoid interference, the piping ID must be equal to or larger than diameter "D" listed below. If Pipe interference is evident, spacers or chamfering of the pipe or fitting is required.

Nominal Valve Size	Diameter "D" (inch)	Nominal Valve Size	Diameter "D" (inch)
2"	1.88	5"	4.73
3"	2.78	6"	5.50
4"	3.66	8"	7.43

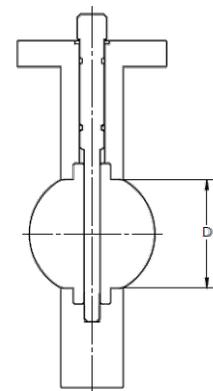


Figure 4

### Installation Procedure

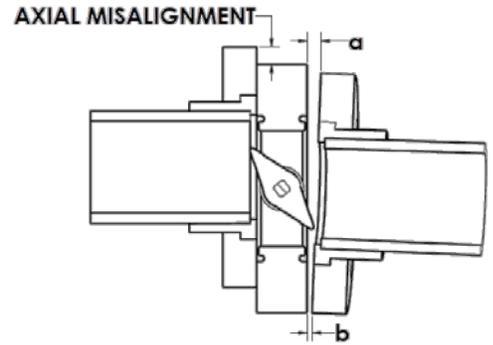
1. Install valve between flanges with the valve slightly open, refer to figure 1
2. Insert bolts, nuts, and washers and tighten by hand.

continued on other side...

3. Open the valve fully to check for pipe interference before fully tightening the bolts.

The parallelism and axial misalignment of the flange surface should be under the values shown in the following table to prevent damage to the valve.

Nominal Valve Size	Axial Misalignment (inches)	Parallelism (a – b) (inches)
2"-3"	0.04	0.03
4"-6"	0.04	0.04
8"	0.06	0.04



Nominal Size	Torque Value (ft.lbs)
2"	16
3"- 4"	22
5"-6"	32
8"	40

4. Tighten bolts and nuts gradually with a torque wrench to the specified torque value in a diagonal manner. (Refer to the table at left and figure 6)

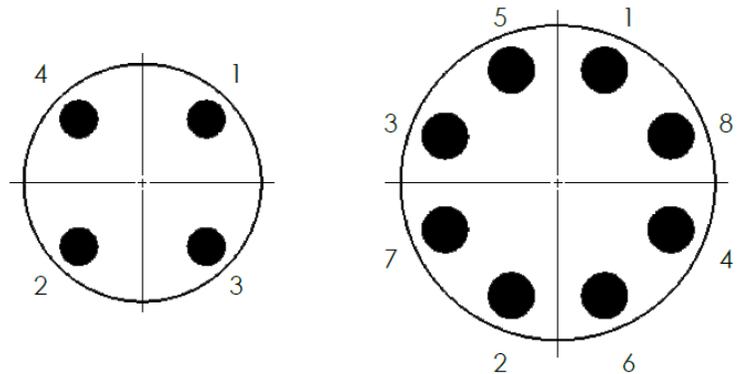


Figure 6

5. After the nuts and bolts are fully tightened to the specified torque, open the valve slowly to check once more for pipe interference.

**Actuated Butterfly Valves Only:**

- a) If a unit is installed other than vertical (see figure 3), the actuator should be supported to prevent side loading and loosening up of fasteners.
- b) Isolate actuator from electrical power supply and compressed air supply before any maintenance is performed. Make sure both sides of pistons have had the air pressure bled off.
- c) Periodic checks should be performed to ensure proper tightness of all fasteners (frequency dependent upon application)

**\*NOTE:** Air X Spring pneumatically actuated butterfly valves will be shipped in the normally closed or normally open position, due to the nature of the actuator.