Installation and Operating Manual
Butterfly ValvesButterfly Valves

Installation

1 Piping systems should be thoroughly cleaned and free from ingress of foreign materials.
2 Visually inspect the valve seating and ports for cleanliness immediately prior to installation.
3 All valves should be independently supported against movement and stress from the connected piping system.
4 Check that the valve pressure rating is compatible with service conditions
5 Operate the valve at least once from the open to closed position.
6 Ensure that mating Flanges are compatible with intended service conditions.
7 Install valves with the disc in the almost closed position. Good working practice dictates that butterfly valves installed in the horizontal position have the stems in the vertical position.
8 Interference between the butterfly valve disc and the mating pipes should be avoided under all circumstances. Before tightening flange bolts, carefully open the valve to the open position and check for any disc interference.
9 Ensure that the valve is centrally located between the flanges, is independently supported and is not dependent for any support from the connecting pipework.
Wafer valves should be installed by installing bolts through the lugs and tightening carefully, ensuring even contact between the flange face and Elastomer. Forcing the wafer valves into a tight space will cause damage to the Elastomer and should be avoided.
10 Tighten the bolts using the crossover method to distribute the loads evenly over the valves. Do not overtighten the bolts.
11 On dead end service a mating downstream blank flange should be installed to ensure safety.
12 Verify and adjust gear operator stops after installation.

Operation is via a lever handle with an indicator disc or a gear operator with an indicator.

Operation

Periodic inspection and operation of the valves is recommended to prevent buildup of foreign materials inside the valves and piping system.

Installation

1 Piping systems and valves should be thoroughly cleaned and free from ingress of foreign materials.
2 Visually inspect the valve seating and ports for cleanliness immediately prior to installation.
3 All valves should be independently supported against movement and stress from the connected piping system.
4 Ensure that the valve pressure rating is compatible with service conditions
5 Operate the valve at least once from the open to closed position.
6 Verify that packing nuts are tight before pressurizing the system
7 Check valves must be oriented properly for flow and gravity and must be installed sufficiently distant from pumps or other devices producing turbulence.
8 Gate valves are not suitable for throttling applications.
9 Gate valves should be installed in the vertical position on horizontal pipework and in the horizontal position on vertical pipework.

Operation

Gate and globe valves are manually operated multi-turn valves and are opened by a handwheel or other operating device, generally in a clockwise direction and then closed counterclockwise. Gate valves with counterclockwise opening should be clearly identified to ensure safe operation Check valves operate automatically.

Inspection and Maintenance

1 Valves should be inspected periodically and should be cycled to prevent buildup of foreign materials in the piping system and valve body.
2 In the event of a packing leak adjust the packing nuts to increase pressure on the stem packing. Packing nuts should be tightening evenly approximately a quarter turn in a clockwise direction.
3 Always shut down the system before repacking the valve. Valves are designed with backseats for repacking under pressure but this is not recommended.

Silent Check Valves

Designed to automatically prevent reverse flow into the piping system. Installation procedures are as above with the arrow in the direction of flow.

Inspection and removal procedures

Close the isolating valve on the discharge side. Bleed system pressure from the discharge flange Do not loosen the flange bolts on the inlet sideuntil system pressure is relieved as damage may occur to the valve Remove Valve from the line and inspect internal parts for wear and tear. Do not attempt to inspect by removing the inlet side pipe as this will result indamage to the valve.
For spare parts consult “MATERIALS” in the Fivalco catalogue.