



BUTTERFLY VALVES

INSTALLATION AND INSTRUCTION

SAFETY

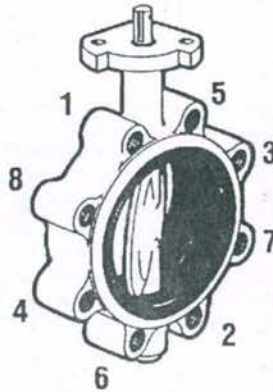
Personnel involved in the installation, maintenance or removal of Butterfly valves from pipelines should be constantly alert to potential leakage or

emission of process material and take appropriate precautions to insure safety. Valves which have been removed from service should be handled assuming the

presence of process material within the valve. Personnel should be suitably protected

INSTALLATION

Prior to installation, butterfly valves and mating flanges should be inspected to assure gasket surfaces are free of defects. Valves should not be mounted between flanges having defective gasket surfaces. Piping should be checked for proper alignment. Lugged butterfly valve should never be used to align improperly positioned piping. The distance between pipe flange should be checked to assure sufficient



clearance for valve installation. The valve should be in the closed position when being placed between flanges. The valve should be operated to assure that no binding or interference is taking place. Flange bolting should be tightened gradually in a crisscross manner according to the illustration at right. Bolting should then be tightened sufficiently to prevent loosening of the joint.

MAINTENANCE

Butterfly valves are designed such that no periodic maintenance or lubrication is required throughout the life of the product. It is, however, recommended that the following practices be followed on a monthly basis:

- (1) Operate the valve from full open to closed to assure operability.
- (2) Check fasteners for evidence of loosening and correct as required.
- (3) Inspect valve and surrounding area for previous or existing leakage at flange faces or stem connections.
- (4) Check piping and/or wiring to actuators and related equipment for looseness, corrosion, or defects and correct as required.

REMOVAL OF VALVE FROM PIPELINE

Prior to loosening the flange bolts (valve in open position):

1. Drain piping run as much as possible.
2. Vent line to relieve pressure.

CLOSE VALVE

- (1) Disconnect air/electric lines from actuator and tag for re-installation,
- (2) Loosen flange bolts to decompress valve gasket seals.

(CAUTION: Be alert to emission of process material from pipeline.)

- (3) Secure necessary lifting equipment to valve assembly.
- (4) Remove flange bolting and carefully remove valve from between pipe flanges.

INSTRUCTION (CONTINUATION)

TO ASSEMBLE 2" THROUGH 12" BUTTERFLY VALVES

- (1) Thoroughly clean all parts, then inspect disc and seat for any nicks or scratches.
- (2) Hold seat midway between stem holes and squeeze into a figure eight. Insert seat into body, making sure that the stem holes in the seat line up with the stem holes in the body. Also make sure that the seat is in the grooves completely around the body on both sides.
- (3) Lightly apply Dow Corning Molycot No. 33 Medium silicone grease or equivalent to the stem and insert through the body with a twisting motion so that the stem holes are lined up. Remove stem.
- (4) Completely coat the inside of the seat with the silicone grease. Insert the disc into the seat in the "open" position (90 deg. to the body) at one o'clock and seven o'clock and twist into liner hubs. Align the stem holes of the disc as closely as possible with the stem holes in the seat and body.
- (5) Lightly wipe the O-ring with the silicone grease and insert into the lower stem. Insert the lower stem, smooth end first, into the bottom stem of the body and lock with the self-locking set screw.
- (6) Insert upper stem through the body and disc square end first, using a twisting motion to make sure that the stem keyway and disc line up 90 degree to one another.
- (7) Insert top bushing. Lightly wipe silicone grease on the O-

ring and insert in the top groove of body.

- (8) Place the position plate between handle and gripper, slide handle and position plate over the upper stem. Bolt position plate with cap screws, lock washers and nuts. Line up keyways and press in key and tighten set screw in handle.

NOTE: Valve cannot be operated without position plate or gear operator bolted in place on valve body.



PART LIST FOR BUTTERFLY VALVE 2" TO 12"

| 2"-12" | | | |
|----------|--------------------|------|--|
| ITEM NO. | DESCRIPTION | QTY. | |
| 1 | Body | 1 | |
| 2 | Seat | 1 | |
| 3 | Disc | 1 | |
| 4 | Stem (Upper) | 1 | |
| 5 | Stem (Lower) | 1 | |
| 6 | Bushing | 1 | |
| 7 | O-Ring (Upper) | 1 | |
| 8 | O-Ring (Lower) | 1 | |
| 9 | Self-Locking Screw | 1 | |

