

OPERATING & MAINTENANCE GUIDE FOR TVI VALVES

SAFETY BLOCK TRUE UNION BALL VALVES

- OPERATING:** Manual handle control, arrow on top of handle gives direction for open and close positions.
- MAINTENANCE:** The valve requires no maintenance. If seat or surface of ball wears, due to abrasion and valve does not shut off tightly, valve can be adjusted.
- ADJUSTMENT:** On valve sizes 1/2" through 4" the operating handle is the tool for tightening the adjusting cartridge (seat carrier part No. 4). Remove body from pipe line by loosening coupling nuts. Remove handle from stem. Place handle hub into seat carrier and give quarter turn clockwise. Reassemble valve and reconnect to pipe line.
- On sizes 2 1/2" and 3" use same method but do not remove handle. Use common spanner wrench to turn seat carrier the quarter turn.

COMPACT BALL VALVES

- OPERATING:** Manual handle control, arrow on top of handle gives direction for open and close positions.
- MAINTENANCE:** The valve requires no maintenance. Valve cannot be adjusted. When materials wear and valve begins to leak, valve must be replaced.

BUTTERFLY VALVES

- OPERATING:** Lever type manual operation. The handle position is the indicator of the blade position in the body. When the lever handle is perpendicular to the pipe line, the blade is in the closed position. If the lever handle is parallel to the pipe line the valve is open.
- IMPORTANT:** The handle has a ten position locking plate. The lever part No. 16 must be disengaged from the locking plate before moving the handle part No. 13 to position desired.
- OPERATING:** Manual Gear type with handwheel or chainwheel. Revolving indicator plate mounted on top of gear box moves to indicate the position of the blade. Mechanical stops are furnished. They can be adjusted to increase or decrease travel into open or closed position.
- MAINTENANCE:** No maintenance required. If valve is to be stored for any length of time, it should be stored in dark and cool condition to lengthen the shelf life of the full faced elastomeric liner seat. Also in outside pipe lines exposed to sun light precautions should be taken to eliminate

valve failures. Expansion joints in the pipe line are necessary to combat pipe expansion causing crushing and fracturing the flanged portion of the full faced elastomeric liner. This will push the rubber into the seating area and bind the operation of the valve. If an outdoor pipe line subject to direct sun light is not normally conveying flow materials the heat can deteriorate the elastomeric liner and shorten life of valve seat.

Manual Gear type operator should be repacked with axle grease every 18 to 24 months. Remove indicator cap Part No. 11 and then the top cap Part No. 9. Pack gears with normal amount of axle grease and reassemble.

HORIZONTAL SWING CHECK/BALL CHECK VALVES

OPERATING: The flow material direction operates the valve. The valve will close under back pressure of flow material.

MAINTENANCE: Periodic maintenance is not required. If parts wear and need replacing the Horizontal Swing Check valve does not need to be removed from piping system. It is necessary to shut off line pressure. Remove valve bonnet and shaft holder bolt and all parts can be easily removed. The ball check valve requires the loosening of the coupling nut.

DIAPHRAGM VALVES

OPERATING: All size valves are equipped with a handwheel for controlling flow. Valves can be pneumatically or electrically operated as an option.

MAINTENANCE: 1/2" through 2" True Union Diaphragm Valves require no maintenance. Flanged valves 3" through 10" have a grease fitting on the bonnet. Standard axle grease should be injected one time every 18 months. Replacing rubber or TFE diaphragm requires removing bonnet and unscrewing diaphragm. When replacing new diaphragm be sure to have seating cross bead directly above body seating ridge. The body seating ridge runs perpendicular to flow stream.

6" STRONG UNION BALL VALVE

OPERATING: Manual handle indicates open and closed position of valve.

MAINTENANCE: If valve leaks because of seat wear, seats can be replaced by removing nuts and bolts and removing worn seats. Valve may also leak because of worn seals. They can also be replaced. After removing nuts and bolts ball can be turned sideways and removed from stem. Stem can then be removed and seals replaced on the stem if necessary. When replacing nuts and bolts make sure that all are tightened to the same degree for bubble-tight shutoff.

ADJUSTMENT: This valve cannot be adjusted for seat wear. Seats must be replaced.