

## INSTALLATION OPERATION AND MAINTENANCE INSTRUCTIONS

### FIGURE F39

### FABRI-VALVE® SLIDE GATE VALVE

**CAUTION: IF THE VALVE IS TO BE STORED FOR A LONG PERIOD OF TIME BEFORE INSTALLATION IT SHOULD BE STORED IN A VERTICAL POSITION AND IN A COOL, CLEAN AREA TO PREVENT DAMAGING EFFECTS ON THE PACKING.**

#### **INSTALLATION:**

Use gasket material suitable for the pressure, temperature, and media and cut to fit the raised face of the valve.

**CAUTION: A SINGLE SEATED VALVE IS DESIGNED TO SEAL IN ONE DIRECTION ONLY. IF REVERSE PRESSURE IS EXPECTED CONTACT THE FACTORY FOR TECHNICAL ASSISTANCE.**

It is recommended that studs are used in the tapped holes in the chest area. If bolts are used select length that will not cause bolt to bottom out in the flange hole.

When tightening flange bolts work from side to side to ensure even compression of the gasket. The amount of torque required is determined by the type of gasket, line pressure, type of bolt, and bolt lubrication.

**WARNING: VALVES WITH REPLACEABLE URETHANE, METAL, TFE, OR UHMW SEATS. THESE SEATS ARE LOOSE PIECES AND NOT ATTACHED TO THE VALVE BODY. THE VALVE MUST BE INSTALLED BETWEEN TWO MATING FLANGES BEFORE PRESSURIZING. FAILURE TO DO THIS MAY CAUSE INJURY OR DAMAGE. IF THE VALVE IS INSTALLED ON THE DISCHARGE END OF A PIPELINE, A COMPANION FLANGE MUST BE BOLTED TO THE OUTLET FLANGE OF THE VALVE TO RETAIN THE REPLACEABLE SEAT. THE GATE MUST BE SLIGHTLY OPEN WHEN INSTALLING.**

All valves are pressure tested at the factory and the packing bolts set to seal at 150 psi. Some adjustment may be necessary to seal tight due to packing gland bolts loosening during shipment and handling. Tighten just enough to seal.

If the valve is installed in a position other than vertical and a powered actuator is included with the valve, support of the actuator may be required. Consult the factory for technical assistance.

Air operated valves must be supplied with clean, dry regulated air.

**CAUTION: CYLINDERS ARE SIZED FOR A SPECIFIED AIR PRESSURE AND PRESSURES EXCEEDING THIS MAY CAUSE DAMAGE TO THE VALVE. AIR REGULATORS AND AIR FILTERS ARE AVAILABLE FROM YOUR ITT REPRESENTATIVE.**

If the valve is supplied with flush ports they should be connected to aid in preventing buildup of solids that will jam or plug the valve. The purging pressure and sequence is dependent on the operating cycle of the system and the tendency for the solids to collect. The purge pressure should be about 10 psi above the operating pressure and operated often enough to prevent any buildup that can prevent the valve from closing.

## **MAINTENANCE:**

### **TO REPACK THE STUFFING BOX:**

**DANGER: DO NOT REPACK VALVE UNDER PRESSURE.**

1. Remove gate guard assembly.
2. Position gate in ½ open position.
3. Remove the packing gland nuts. Slide packing gland back on gate far enough to have access to the packing.
4. Remove the old packing and clean out the packing chamber.
5. Install the new packing per table below. Cut to length to fit around the gate, cutting each end of the packing at a 45 degree bevel. The splices must be alternated from side to side of the gate for a tight seal.

Valve Size	No. Rows	Packing Size	Packing Length
2	4	3/8	9 3/8
3	4	3/8	9 3/8
4	4	3/8	14 ¼
6	6	3/8	16 1/8
8	6	½	21
10	6	½	24 ¾
12	6	½	30 ¼
14	6	5/8	35 1/8
16	8	5/8	39 1/8
18	6	5/8	43 5/8
20	8	5/8	47 3/8
24	8	5/8	60 3/8

6. Reinstall packing gland and gland nuts and tighten the packing into the packing chamber. Tighten just enough to seal against the line pressure.
7. Replace gate guard assembly.

The stem and stemnut are lubricated at the factory before shipment. However, these parts should be lubricated periodically to prevent wear and to minimize operating forces. Some recommended lubricants are:

CHEVRON INDUSTRIAL GREASE-MEDIUM  
 TEXACO MOLYTEX GREASE #2  
 MOLY XL 47-F2-75  
 FEL-PRO C5-A COMPOUND

## VALVES WITH ELECTRIC ACTUATORS

Valves with electric motors should be set up as positioned closed.

## VALVES WITH REPLACEABLE SEATS:

### REPLACEABLE RP, RH, RT, AND RW SEATS

1. Remove valve from the pipeline and open the gate.
2. Seat ring is loose and may be removed from outlet flange of valve. If necessary, it may be driven out with a piece of wood from the inlet side.
3. Inspect the seat surface of the ring. If wear appears on the only a small area, the seat ring may be rotated to put the wear spot towards the top of the port and further service obtained.
4. Clean the recess where the seat ring fits.
5. If the seat ring is nonmetallic install new or rotated ring. If the seat ring is metallic install the new or rotated ring with a new, 1/16" thick gasket between the body and seat ring.

### 6. D-RING SEALS

1. Remove valve from line and disassemble.
2. Remove old seal from groove. The groove must be clean and dry before installing new seal.
3. Roughen flat bottom surface of seal ring and clean.
4. Lay seal ring on flat surface with flat side up. Apply a thin layer of adhesive to the flat surface (.003 to .005 thick).

NOTE: Black Max adhesive # 38050 is available from factory under part no. 137-900.

5. Install the seat ring in the body groove flat side down. Press seal into the groove starting at the top, and then move to the bottom, and then to the sides as illustrated in figure 1. The ring must be stretched slightly to fit and care must be taken to keep the ring smooth and flat.
6. Wipe off excess adhesive.
7. Allow adhesive to dry for a minimum of 8 hours for full bond strength.
8. Reassemble valve and repack per instructions above.

## VALVES WITH CHEST BUTTONS:

Chest buttons are adjusted at the factory. If replacement or adjustment is required:

### CAUTION: DO NOT ADJUST PRESSURIZED VALVE.

Close the valve. Remove the pipe plug from chest button housing shown in figure 2. Adjust the chest button setscrew so that it is just seated against the backside of the gate. Replace pipe plug screw.

Maintenance manuals for cylinders, electric motors, and other accessories are available from the factory.

## WARNING:

Valves and valve actuators supplied by Engineered Valves are designed and manufactured using good workmanship and materials, and they meet the applicable industry standards. These valves are available

with components of various materials, and they should be used only in services recommended herein or by a company valve engineer. Misapplication of the product may result in injuries or property damage. A selection of valve components of the proper material consistent with the particular performance requirement is important for proper application.

Examples of the misapplication or misuse of a valve or valve actuator includes use in an application that exceeds the pressure / temperature rating, or failure to maintain the equipment as recommended.