

Engineered Valves

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**INSTALLATION AND MAINTENANCE INSTRUCTIONS
FIGURE C42 - RECYCLE/REJECTS VALVE
FABRI-VALVE® BONNETLESS KNIFE 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:

Inspect the valve and identify the seat side. The word "SEAT" is cast on the valve body in the chest area on the seat side. Install the valve in the line with the seat side upstream.

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

Bolt the valve to the mating flange using proper size bolts as listed below. If stainless bolts are used, lubricate threads to prevent galling. It is recommended that studs be used in the tapped holes in the chest area. If bolts are used select length that will not cause bolt to bottom out in flange hole before sealing gasket.

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: REPLACEABLE 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 DAMAGE OR INJURY. 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 and seat tested before shipment and a green inspection tag is attached. The packing gland may require some adjusting after line pressure is up to normal. Tighten just enough to stop leakage. Overtightening may cause undue pressure against the gate making the valve difficult to operate and cause rapid packing wear. If possible, stroke the valve a few times before setting packing bolts. Each valve is seat tested at 40 psi and 150 psi for seat leakage.

CAUTION: THE VALVES ARE SUPPLIED WITH CYLINDERS SIZED FOR 80 PSI PRESSURE AND PRESSURES EXCEEDING THIS MAY CAUSE DAMAGE TO THE VALVE. AIR REGULATORS AND AIR FILTERS ARE AVAILABLE FROM YOUR ITT SALES REPRESENTATIVE.

Valves are supplied with flushports to flush accumulated debris from body cavities. Water lines should be connected to these for flushing during the open and close cycling, using solenoids to control the flushing cycles.

MAINTENANCE:

REPLACEABLE SEATS:

1. Remove the valve from the pipeline and open 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 only a small area the seat ring may be rotated to put wear point towards the top of the port and further service obtained.
4. Clean the recess where the seat ring fits.
5. Install the new or rotated seat ring with a new, 1/16" thick gasket between the body and seat ring.

TO REPACK STUFFING BOX:

DANGER: DO NOT REPACK VALVE UNDER PRESSURE

1. Disconnect stem from gate. Raise stem.
2. Remove gland nuts (and live loaded washers) and raise the packing gland.
3. Remove old packing and clean the packing chamber.
4. Install new packing per table below. Cut packing length to fit around the gate, cutting each end of the packing at a 45 degree bevel. Stagger the joints on opposite sides of the gate.

Note: standard packing is Kevlar. Optional packing is available. See the Fabri-Valve® catalog.

Valve Size	Number Rows	Packing Size	Packing Length
2	3	1/4	6 3/4
3	3	1/4	8 3/4
4	3	1/4	10 3/4
6	3	3/8	15 7/8
8	3	3/8	20 1/2
10	3	3/8	25 1/8
12	3	3/8	30 3/8
14	3	1/2	32 3/4
16	3	1/2	37 1/2
18	3	1/2	41 1/2
20	3	1/2	45
24	3	1/2	53 1/4

5. Reseat the packing gland and replace the packing nuts and washers (stack washers so that each washer opposes the other) making sure the gate is centered and against the valve body seat. Tighten nuts just to the point that the gland contacts and sets the packing. Do not tighten completely.
6. Lower the stem and reconnect to the gate.
7. Pressurize the valve to the working pressure and tighten the gland nuts evenly from side to side until leakage is stopped and spring washers go solid. Do not over tighten.

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

VALVES WITH ELECTRIC ACTUATORS

Valves with electric motors should be set up torque closed, position open if valve is single seated and position closed, position open if valve is double seated.

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.