

Operation:

The Flomatic Flo-E-Centric® plug valves are designed for years of trouble free operation. These valves are a quarter-turn, eccentric, resilient seated valve capable of working with several types of fluids, including those with suspended solids. The plug itself is offset from the center of the valve which causes it to rotate and lift off the seat at the same time to reduce friction and wear. The valve can be operated with an operating nut, lever or gearbox. **Please consult factory for use with electric actuators.**

Installation:

Installation must be performed by qualified, licensed personnel only.

Remove all packing materials from the valve before placing in line.

The Flomatic Flo-E-Centric® plug valve must be installed properly for it to operate properly. The valve is designed for flow in either direction; maximum operating pressures depend on the location of the seat end. SEAT END is marked on the valve body and should be placed as recommended in this manual.



- **When an actuator is mounted on the Flo-E-Centric® valve, the actuator should not be mounted below horizontal in order to avoid water damage to the actuator that may occur if there is condensation or a water leak that travels along the piping and into the actuator.**

Clean Service – Both horizontal and vertical installations should be installed in direct pressure orientation – inlet pressure opposite the seat end.

Suspended Solids Service – Horizontal installations should be installed with the flow entering the seat end, the shaft is in the horizontal position with the plug up when it's open.

Vertical installations must be placed with the seat end up regardless of flow direction.

Pump Discharge Service – For all horizontal applications the seat end must be towards the pump.

The valves must be mated with flat face pipe flanges and a resilient gasket must be used, making sure the valve and attaching pipes are supported and aligned correctly to prevent cantilevered stress on valve. After the lubricated bolts or studs are inserted around the flange, hand tighten to eliminate any gaps. Use the torque chart and cross-over tightening method.

CAUTION: The use of raised-face flanges or using excessive torque may damage the flanges and will void any warranty.

150# Flange		
Valve Size	Bolt Diameter	Bolt Torque
2	5/8	25-90
2.5	5/8	25-90
3	5/8	25-90
4	5/8	30-90
6	3/4	30-150
8	3/4	40-150
10	7/8	45-205
12	7/8	65-205

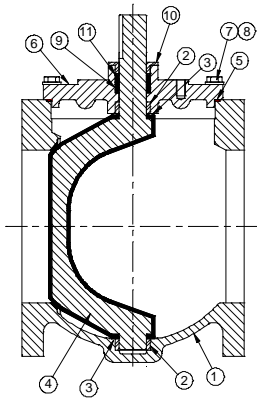
Maintenance:

The Flomatic Flo-E-Centric® plug valve should be serviced every six months or yearly by a qualified and licensed person only. The valve should be inspected and exercised, which is done by fully opening and closing the valve several times to make sure the operation is smooth. If not the valve should be flushed of debris by opening and closing several times while under pressure. This must be completed slowly to prevent water hammer.

Disassembly / Reassembly:

The Flomatic Flo-E-Centric® plug valve can be disassembled without removing the valve from the line and must be completed by qualified, licensed personnel only. Open the valve and drain the line before removing the cover bolts or the pressure may be released and could cause injury.

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Item #	Qty	Description	Material	ASTM
1	1	Body	Ductile Iron	A536 (65-45-12)
2	2	Bushing	Stainless Steel	316
3	2	Washer	PTFE	-----
4	1	Plug	Ductile Iron/NBR	A536 (65-45-12)
5	1	O-Ring	EPDM	-----
6	1	Bonnet	Ductile Iron	A536 (65-45-12)
7	6	Bolt	Stainless Steel	304
8	6	Washer	Stainless Steel	304
9	5	V-Packing	NBR	-----
10	1	Packing Washer	Carbon Steel	1045, Cr Plated
11	1	Washer	Brass	B16

1. Once the valve has been opened and the pipelined drained, close the valve until the plug just touches the seat.
2. Remove any operating nut, gear operator, actuator or mounting bracket if present.
3. Make a match up mark on the bonnet (6) and body (1), and then remove the cover bolts & washers. For heavier valves place eye-bolts in the actuator mounting holes and use a hoist to lift the cover and plug from the valve. Be careful NOT drop the plug assembly when removing, the use of a sling on the top of the plug assemble is recommended.
4. Inspection of Washers (3), Bushing (2), V-Packing (9), Packing Washer (10) and Washer (11), should be completed and replace if damaged.
5. All parts should be cleaned and re-lubricated before re-installing. Any worn or damaged part must be replaced.
6. To reassemble make sure the bushing (2) and washer (3) are correctly replaced in the bottom of the valve.
7. Install the cover O-Ring (5) over the lip of the bonnet (6).
8. Apply a thin coat of lubricant, to the rubber seal. Place the washer (3) over the upper end of the shaft.
9. Place the plug into the body (1) and carefully place the lower plug shaft into the bushing (2) and washer (3). Make sure the plug (4) is in the open position and place the cover over the plug shaft and into the body. Align the match marks on the bonnet (6) and cover (1). Tighten the bonnet bolts (7, 8).
10. Replace the operating nut, gear operator, actuator or mounting bracket if needed.

Trouble Shooting Guide	
Problem:	Possible Solutions:
Valve Shaft Leakage	Replace or adjust the V-Packing.
Valve leak when Closed	The water flow, pressure should be in the direction of pushing the plug into the seat. Adjust plug position by rotating the plug. Inspection the interior for damage may be necessary. Replace damaged parts.
Hard to Open	Flush debris. If flushing does not work check the interior of the valve for buildup of debris or damage. Replace damaged parts.
Flange Leakage	Tighten flange bolts. If this does not work replace the gaskets.

Information needed to order repair parts:

- Valve Model Number
- Valve Size
- Valve working Pressure

Limited One Year Warranty: Flomatic valves are guaranteed against defects of material or workmanship when used for the services recommended. If, in any recommended service a defect develops due to material or workmanship, and the device is returned, freight prepaid, to Flomatic Corporation within 12 months from date of purchase, it will be repaired or replaced free of charge. Flomatic Corporations' liability shall be limited to our agreement to repair or replacement of valve only.