

Butterfly Valves and Gear Operator Replacement

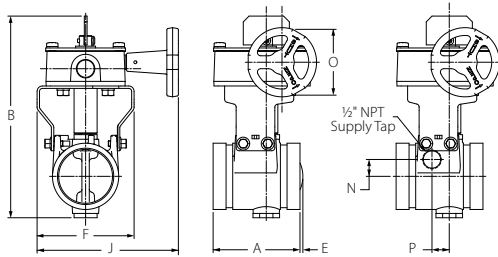
SERIES 705W (300-PSI/2065-KPA)
SERIES 708W (175-PSI/1200-KPA)

DIMENSIONS

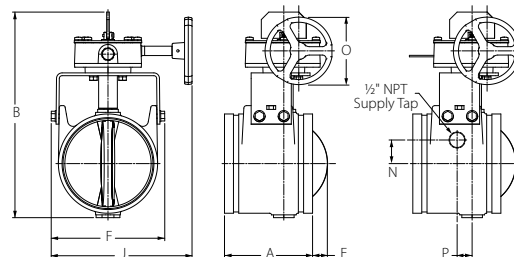
Size		Dimensions – inches/millimeters								Aprx. Wgt. Each
Nominal Size inches/mm	Pipe Outside Diameter inches/mm	End to End "A"	Hgt. "B"	"E"	"F"	"J"	"O"	"N" ‡	"P" ‡	lbs/kg
2½ 65	2.875 73.0	3.77 95.6	8.76 222.5	—	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.3 3.8
76.1 mm	3.000 76.1	3.77 95.6	8.76 222.5	—	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.3 3.8
3 80	3.500 88.9	3.77 95.6	9.40 238.8	0.08 2.0	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.9 4.0
4 100	4.500 114.3	4.63 117.6	10.84 275.3	0.07 1.8	6.01 152.7	6.98 177.3	3.00 76.2	0.73 18.5	1.13 28.7	14.9 6.8
139.7 mm	5.500 139.7	5.88 149.4	12.38 314.5	0.43 10.9	6.01 152.7	8.57 217.7	4.50 114.3	—	—	21.0 9.5
5 125	5.563 141.3	5.88 149.4	12.38 314.5	0.43 10.9	6.01 152.7	8.57 217.7	4.50 114.3	—	—	21.0 9.5
165.1 mm	6.500 165.1	5.88 149.4	13.41 340.6	1.00 25.4	7.51 190.8	9.32 236.7	4.50 114.3	1.60 40.6	1.88 47.8	26.5 12.0
6 150	6.625 168.3	5.88 149.4	13.41 340.6	1.00 25.4	7.51 190.8	9.32 236.7	4.50 114.3	1.60 40.6	1.88 47.8	26.5 12.0
8 200	8.625 219.1	5.33 135.4	16.50 419.1	1.27 32.3	9.65 245.1	10.98 278.9	6.30 160.0	0.00 * 0.0 *	0.68 17.3	43.0 19.5
10 250	10.750 273.0	6.40 162.6	19.14 486.2	1.72 43.7	12.20 309.9	16.19 411.2	9.00 228.6	—	—	80.0 36.3
12 300	12.750 323.9	6.50 165.1	21.54 547.1	2.66 67.6	14.25 362.0	17.22 437.4	9.00 228.6	—	—	102.0 46.3

* On Centerline

‡ These dimensions apply only to a Series 705W Butterfly Valve with a ½-inch NPT, supply-side tap



2 ½ – 4-INCH/73.0 – 114.3-MM SIZES



5 – 12-INCH/141.3 – 323.9-MM SIZES

IMPORTANT INSTALLATION INFORMATION

WARNING



- Read and understand all instructions before attempting to install any Victaulic piping products.
 - Wear safety glasses, hardhat, and foot protection.
- Failure to follow these instructions could result in serious personal injury and/or property damage.

WARNING



- Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.
- Failure to follow this instruction could result in serious personal injury and/or property damage.

- The Series 705W Butterfly Valve is UL Listed and FM Approved for 300-psi/2065-kPa working pressure for indoor or outdoor use. The Series 708W Butterfly Valve is UL Listed and FM Approved for 175-psi/1200-kPa working pressure for indoor or outdoor use. Contact Victaulic Company of Canada for ULC Listings.
- Flow performance for Series 705W and Series 708W Butterfly Valves satisfies UL Specification 1091 and FM Approval Standard 1112.
- The standard disc coating is EPDM for water and oil-free air service. DO NOT use this material in petroleum service applications.
- Installation of the Series 705W and Series 708W must be made in accordance with NFPA 13 and NFPA 72.
- Series 705W and Series 708W Butterfly Valves are designed for ambient weather conditions. DO NOT use these valves in submersible services.
- DO NOT install valves with the disc in the full-open position. Make sure no part of the disc protrudes beyond the end of the valve body.
- Use ONLY grooved-end, IPS carbon steel pipe (Schedule 5, 10, 40, or 80) with Series 705W and Series 708W Butterfly Valves. DO NOT use plain-end IPS pipe or grooved, cast ductile iron pipe.
- To prevent valves from rotating in the system, Victaulic recommends that the Series 705W and Series 708W be installed with two Victaulic rigid couplings. If Victaulic flexible couplings are used, additional support may be required to prevent the valve from rotating. Refer to the instructions, supplied with the couplings, for proper installation.
- Series 705W and Series 708W Butterfly Valves are not designed for use with handle extensions or chain-wheel operators.

Butterfly Valves and Gear Operator Replacement

SERIES 705W (300-PSI/2065-KPA)
SERIES 708W (175-PSI/1200-KPA)

- The ½-inch NPT, supply-side tap of the Series 705W Butterfly Valve **MUST BE UPSTREAM** (away from the device) when supplying pressure to the piston charge line of Series 756 and Series 758 FireLock fire protection valves or the diaphragm charge line of Series 768 and Series 769 FireLock NXT fire protection valves.

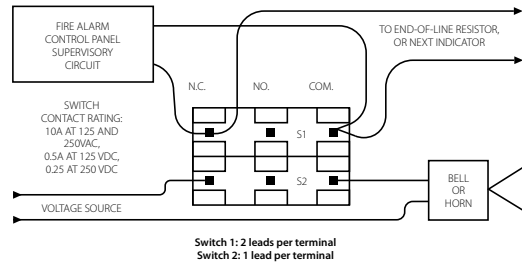
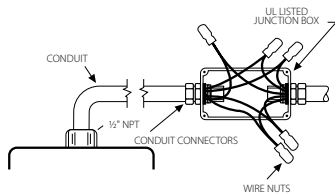
INSTALLATION INSTRUCTIONS

- To prevent damage to the disc during installation, turn the hand wheel so that the disc is in the "closed" position. No portion of the disc should extend beyond the end of the valve body.
- Install the valve with two Victaulic rigid couplings. Refer to the instructions, supplied with the couplings, for proper installation. **NOTE:** When installing rigid, angle-pad couplings, the nuts must be tightened evenly to obtain metal-to-metal contact with the same offset at each bolt pad.

SWITCH AND WIRING

- The supervisory switch contains two, single pole, double throw, pre-wired switches.
- Switches are rated:
 10 amps @ 125 or 250 VAC/60 Hz
 0.50 amps @ 125 VDC
 0.25 amps @ 250 VDC
- Switches supervise the valve in the "open" position.**
- One switch has two #18 MTW wires per terminal, which permit complete supervision of leads (refer to diagrams and notes below). The second switch has one #18 MTW wire per terminal. This double circuit provides flexibility to operate two electrical devices at separate locations, such as an indicating light and an audible alarm, in the area that the valve is installed.
- A #14 MTW ground lead (green) is provided.
 Switch #1 = S1 For connection to the supervisory circuit of a UL Listed alarm control panel
 Switch #2 = S2 Auxiliary switch that may be connected to auxiliary devices, per the authority having jurisdiction

S1	{	Normally Closed: (2) Blue
		Common: (2) Yellow
S2	{	Normally Closed: Blue with Orange Stripe
		Normally Open: Brown with Orange Stripe
		Common: Yellow with Orange Stripe



NOTE:

The above diagram shows a connection between the common terminal (yellow – S1 and yellow-with-orange stripe – S2) and the normally closed terminal (blue – S1 and blue-with-orange stripe – S2). In this example, the indicator light and alarm will stay on until the valve is fully open. When the valve is fully open, the indicator light and alarm will go out. Cap off any unused wires (e.g. brown with orange stripe).

Only S1 (two leads per terminal) may be connected to the fire alarm control panel.

The connection of the alarm switch wiring shall be in accordance with NFPA 72 and the auxiliary switch per NFPA 70 (NEC).

GEAR OPERATOR REPLACEMENT

In the event that a gear operator fails, complete replacement would be required.

CAUTION

- Use **ONLY** Victaulic replacement parts.
 Use of any other manufacturer's parts may result in improper operation of the valve or valve failure.

NOTICE

- Before removing the gear operator, note the current orientation of the gear operator on the bracket. The new gear operator must be installed on the bracket in the same orientation.

- Remove the mounting hardware from the underside of the gear operator's bracket. Save this hardware for re-assembly.
- Lift the gear operator assembly off the bracket.
- Install the replacement gear operator in the exact orientation as the one removed from the bracket. Line up the oval, recessed slot in the stem adapter with the oval drive hub on the valve.
- Use the mounting hardware, removed in step 1, to secure the new gear operator onto the bracket.
- Wire the gear operator, as described in the "Switch and Wiring" section on this page.

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