

# Series 608 Copper Connection Butterfly Valves

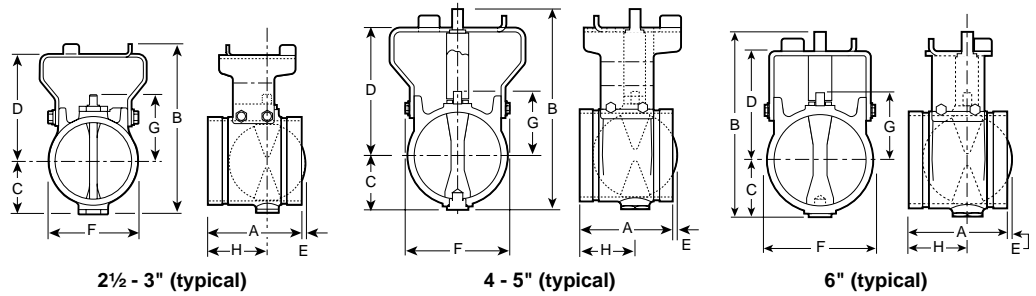
## PRODUCT DESCRIPTION



Victaulic Series 608 butterfly valves are designed to provide bubble-tight shut-off to 300 psi (2065 kPa). This grooved end valve is quickly and easily joined to the piping system by utilizing Style 606 couplings from 2½ - 6" (66,7 - 155,6 mm) sizes. The valve features a double-seal disc design with a resilient elastomeric coating bonded to the ductile iron disc core. The disc drive hub is integrally cast as part of the disc and can be actuated by a manual lever, gear, pneumatic, electric or hydraulic operators. Dead end service is provided to full working pressure in both directions.

Sealing and positive shut-off are accomplished by a double ring seal which is integrally molded on the disc. This results in superior sealing performance with low torque requirements.

## DIMENSIONS

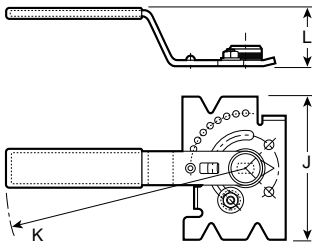


TUBING SIZE Nominal Inches Actual mm	Dimensions – Inches/millimeters								Approx. Wgt. Ea. w/o Oper. Lbs./kg
	End to End A	Overall Height B	C	D	E	F	G	H	
2½ 66,7	3.77 96	6.12 155	1.81 46	3.02 77	– –	2.63 67	2.25 57	2.31 59	4.4 c 2.0
3 79,4	3.77 96	6.58 167	2.06 52	3.33 85	0.08 2	3.13 79	2.54 65	2.31 59	5.1 c 2.3
4 104,8	4.63 118	9.25 235	2.75 70	5.15 131	0.13 3	4.13 105	3.19 81	2.82 72	10.5 c 4.8
5 130,2	5.88 149	10.13 257	3.12 79	5.67 144	0.50 13	5.13 130	3.75 95	4.00 102	14.0 c 6.4
6 155,6	5.88 149	11.15 283	3.62 92	6.25 159	1.00 25	6.13 156	4.16 106	4.00 102	19.0 c 8.6

c = Bronze casting

## DIMENSIONS

### Lever Lock/Infinitely Variable Handle

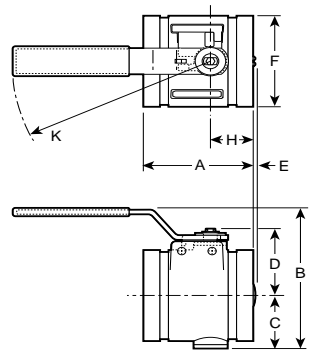


SIZE Nominal Inches Actual mm	Dimensions Inches /millimeters			Approx. Wgt. Ea. Lbs./kg
	J	K	L	
2 1/2 66,7	4,20 107	7,15 182	1,70 43	1,5 0,7
3 79,4	4,20 107	7,15 182	1,70 43	1,5 0,7
4 104,8	7,00 178	10,53 267	2,50 64	1,5 0,7
5 130,2	7,00 178	10,53 267	2,50 64	1,5 0,7
6 155,6	7,00 178	12,03 306	2,50 64	1,5 0,7

NOTE: Handles for 2 1/2" - 6" (66,7 - 155,6 mm) valves come complete with hardware for both lever lock and infinitely variable handle plus memory stop.

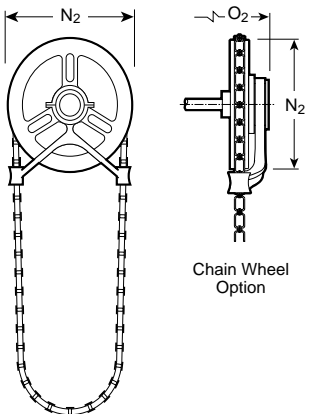
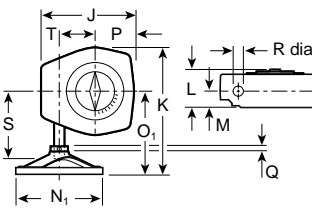
### Two Position Handle

2 1/2" - 3" (66,7 - 79,4 mm) only



SIZE Nominal Inches Actual mm	Dimensions Inches / millimeters								Aprx. Wgt. Ea. Lbs. kg
	End to End A	Overall Hgt. B	C	D	E	F	H	K	
2 1/2 66,7	3,77 96	4,77 121	1,81 46	2,40 61	- -	2,88 73	1,46 37	6,83 173	2,9 1,3
3 79,4	3,77 96	5,39 137	2,06 52	2,80 71	0,08 2	3,25 83	1,46 37	6,83 173	3,6 1,6

### Gear Operator

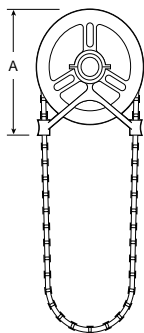


Chain Wheel  
Option

SIZE Nom. Inches Actual mm	Dimensions Inches/millimeters													No. Turns to Close	Aprx. Wgt. Ea. Lbs. kg
	J	K	L	M	Handwheel		Chain Wheel		P	Q	R	S	T		
					N <sub>1</sub>	O <sub>1</sub>	N <sub>2</sub>	O <sub>2</sub>							
2 1/2 66,7	4.23 107	5.99 152	2.15 55	2.12 54	3.12 79	3.87 98	7.50 191	9.25 235	1.90 48	- -	- -	- -	1.66 42	10	2.6 1,2
3 79,4	4.23 107	5.99 152	2.15 55	2.12 54	3.12 79	3.87 98	7.50 191	9.25 235	1.90 48	- -	- -	- -	1.66 42	10	2.6 1,2
4 104,8	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	9.25 235	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	7	4.5 2,0
5 130,2	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	9.25 235	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	7	4.5 2,0
6 155,6	5.19 132	9.25 235	2.36 60	1.13 29	8.00 203	6.87 175	9.00 229	9.50 241	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	7	4.5 2,0

## ACCESSORIES

### Gear Operator



### Chain Wheel and Guide

Chain wheels are mounted to the gear operator handwheels. Sprocket rim and guide arms are made of cast aluminum. Chain is galvanized steel. All gear operators are available with memory stops.

VALVE SIZE Nominal In. Actual mm	Dimensions Inches/millimeters			Approx. Weight Ea. Lbs. kg
	Sprocket Size	Handwheel Size (Diameter)	A	
2½ - 5 66,7 - 130,2	0	4.00 102	4.63 118	3.5 1,6
6 155,6	2	8.00 203	10.5 267	5.0 2,6

**HOW TO ORDER:**

Specify operator by valve number system shown on back page.  
Always specify length of chain required.

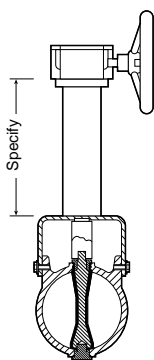
## AUTOMATED VALVES



Victaulic butterfly valves can be provided with a wide variety of pneumatic, hydraulic or electric operators and accessories including 3-way configurations.

Please contact Victaulic for the name of your nearest Victaulic authorized valve automation center.

## STEM AND DRIVE HUB EXTENSIONS



### Stem Extensions

Stem extensions are used for remote operations of the valve. Lever, gear or power actuators can be attached to the top of the extension. All extension components are carbon steel (stainless steel also available). Specify extension length per drawing and identify valve by figure number to which the extension will be attached.



### Drive Hub Extension Insulation

Series 608 valves with bracket mounted handles, operators or actuators are available with factory installed (removable) blown urethane insulation around the drive hub extension. This option provides a fully internally insulated bracket over the drive hub leaving only normal external areas to be insulated.

## FLOW DATA

C<sub>v</sub> values for flow of water at +60°F (+16°C) with a fully open valve are shown in the table at right.

**Formulas for CV Values:**

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

**Where:**

Q = Flow (GPM)

C<sub>v</sub> = Flow Coefficient

ΔP = Pressure Drop (PSI)

Valve Size Inches/mm	C <sub>v</sub> (Full Open)	Valve Size Inches/mm	C <sub>v</sub> (Full Open)
2½ 66,7	325	5 130,2	1150
3 79,4	480	6 155,6	1850
4 104,8	600		

## BUTTERFLY VALVE NUMBERING SYSTEM

### Butterfly Valve Numbering System for Series 608

V - 040 - 3 6 2 2 11

Type	Size		Pressure Rating	Body	Disc/Trim	Bracket	Operator
	Act. In.	Fig. No.					
V	2½"	024	3 - 300 psi	6 - Bronze (w/copper connection grooves)  9 - Special*	1 - Buna/Bronze-"T" 2 - EPDM/Bronze-"E"  9 - Special*	0 - No Bracket (2) 2 - Standard 3 - Standard with insulation  9 - Special*	00 - Bare 11 - Lever handle with memory stop 15 - 2 position detent handle (sizes 2", 2½" & 3" only) 20 - Gear operator 21 - Gear operator with memory stop 22 - Gear operator with chain wheel 23 - Gear operator with AWWA square oper. nut 24 - Gear operator with memory stop and chain wheel 29 - Non-std. gear operator* VV - Pneumatic* WW - Electric* YY - Hydraulic* LD - 10 position handle with tamper-proof Locking Device
	3"	030					
	4"	040					
	5"	050					
	6"	060					

**NOTES:**

(2) Used with 2 position detent handle only

\*Details required

## MATERIAL SPECIFICATIONS

**Body:** Bronze per CDA-836 (85-5-5-5).

• **Grade "E" EPDM**

EPDM (Green color code). Temperature range -30°F to +230°F (-34°C to +110°C). Recommended for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL classified in accordance with ANSI/NSF 61 for cold +86°F (+30°C) and hot +180°F (+82°C) potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

• **Grade "T" nitrile**

Nitrile (Orange color code). Temperature range -20°F to +180°F (-29°C to +82°C). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F (+66°C) or for hot dry air over +140°F (+60°C).

\*Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific gasket service recommendations and for a listing of services which are not recommended.

**NOTE:** When connecting butterfly valves to Style 641 Vic-Flange® adapters please contact Victaulic.

**Drive Hub Adapter:** Steel - black enamel coated

**Upper Bearing/Lower Trunnion Seals:** Same as Disc Coating

**Trim:** (Upper Bearing/Lower Trunnion) Naval brass

**Operator Bracket:** Steel - black enamel coated

**Bracket Bolts/Washers:** Steel - zinc plated

**Operator** (specify choice)

• **2½" - 3" (66,7 - 79,4 mm)**

**Two-position detent manual handle:** Steel - black enamel coated

• **2½" - 6" (66,7 - 155,6 mm)**

**Manual lever lock/ininitely variable handle with memory stop:** Steel - black enamel coated

• **Manual gear operator with handwheel:**

• **Optional:** Memory Stop

• **Optional:** Chain Wheel

**Electric actuator** §

**Pneumatic actuator** §

§ Sizing of actuator is dependent upon service. Contact Victaulic for details.