

Butterfly Valves

SERIES 700

Victaulic Series 700 butterfly valves are designed for bubble-tight shut-off to 200 psi/ 1400 kPa. Two piece stem permits narrow disc design for low pressure drop performance and is self-centering for positive shut-off. Valves are available with EPDM for water service to +230°F/+110°C or nitrile for oil services to +180°F/+82°C liners. Refer to Liner/ Disc Selection for general service recommendations.

Series 700 butterfly valves are available in 1½ - 6" / 40 - 150 mm sizes. The body is fully rubber lined, and the valve housing is cast of durable ductile iron. Standard disc is aluminum bronze (also available in 316 stainless steel), with a variety of handles or gear operators available.

A low profile design is a variable where space is a problem. Contact Victaulic for details.

Victaulic recommends the use of Style 07 Zero-Flex® couplings with the Series 700 butterfly valve to eliminate joint deflection or valve rotation at the coupling connection to the piping system.

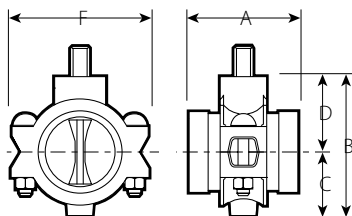


LEVER LOCK HANDLE



GEAR OPERATOR

DIMENSIONS



1½ - 6" / 40 - 150 MM (TYPICAL)

STANDARD PROFILE BFV

Size		Dimensions – Inches/millimeters					Aprx. Weight Each
Nominal Size In./mm	Actual Outside Dia. In./mm	End to End A	B	C	D	F	Lbs./kg
1½ 40	1.900 48.3	3.38 86	4.45 113	1.63 41	2.82 72	3.63 92	2.8 1.3
2 50	2.375 60.3	3.19 81	4.97 126	1.88 48	3.09 78	4.06 105	3.3 1.5
2½ 65	2.875 73.0	3.81 97	6.19 157	2.50 64	3.69 94	4.88 124	6.4 2.9
3 80	3.500 88.9	3.81 97	6.75 171	2.75 70	4.00 102	5.63 143	6.8 3.1
4 100	4.500 114.3	4.56 116	8.19 208	3.50 89	4.69 119	7.00 178	12.1 5.5
5 125	5.563 141.3	5.81 148	9.34 237	4.00 102	5.34 136	8.50 216	26.1 11.8
6 150	6.625 168.3	5.81 148	10.38 264	4.50 114	5.88 149	9.50 241	32.5 14.7
165.1 mm	6.500 165.1	5.81 148	10.38 264	4.50 114	5.88 149	9.50 241	30.5 13.8

LOW PROFILE BFV

1½ 40	1.900 48.3	3.38 86	3.57 91	1.62 41	1.95 50	3.93 100	2.8 1.3
2 50	2.375 60.3	3.20 81	4.09 104	1.87 48	2.22 56	4.33 110	3.3 1.5
2½ 65	2.875 73.0	3.81 97	5.19 132	2.69 68	2.50 64	5.27 134	6.4 2.9
3 80	3.500 88.9	3.81 97	5.75 146	2.75 70	3.00 76	6.05 154	6.8 3.1
4 100	4.500 114.3	4.56 116	7.38 188	3.50 89	3.88 99	7.11 181	12.1 5.5
5 125	5.563 141.3	5.81 148	8.84 225	4.00 102	4.84 123	9.14 232	26.1 11.8
6 150	6.625 168.3	5.81 148	9.88 251	4.50 114	5.38 137	10.08 256	32.5 14.7
165.1 mm	6.500 165.1	5.81 148	9.88 251	4.50 114	5.38 137	10.08 256	30.5 13.8

JOB OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

Butterfly Valves

SERIES 700



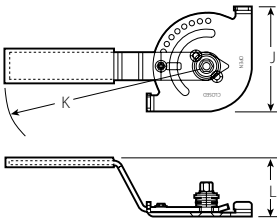
LEVER LOCK HANDLE



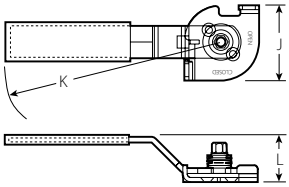
GEAR OPERATOR

DIMENSIONS

Two Position & Lever Lock Handles



LEVER LOCK HANDLE



TWO POSITION HANDLE

Size		Dimensions – Inches/millimeters					
Nominal Size In./mm	Actual Outside Dia. In./mm	Two Position J	Lever Lock J	Two Position K	Lever Lock K	Two Position L	Lever Lock L
1½ 40	1.900 48.3	2.32 59	3.75 95	6.75 171	7.06 179	1.70 43	1.66 42
2 50	2.375 60.3	2.32 59	3.75 95	6.75 171	7.06 179	1.70 43	1.66 42
2½ 65	2.875 73.0	2.32 59	3.75 95	6.75 171	7.06 179	1.70 43	1.66 42
3 80	3.500 88.9	2.32 59	3.75 95	6.75 171	7.06 179	1.70 43	1.66 42
4 100	4.500 114.3	3.86 98	5.50 140	12.00 305	10.50 267	2.50 64	2.50 64
5 125	5.563 141.3	3.86 98	5.50 140	12.00 305	10.50 267	2.50 64	2.50 64
6 150	6.625 168.3	3.86 98	5.50 140	12.00 305	12.00 305	2.50 64	2.50 64
165.1 mm	6.500 165.1	3.86 98	5.50 140	12.00 305	12.00 305	2.50 64	2.50 64

Butterfly Valves

SERIES 700



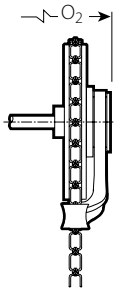
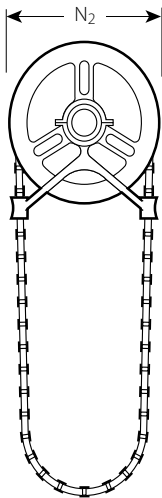
LEVER LOCK HANDLE



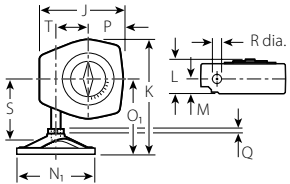
GEAR OPERATOR

DIMENSIONS

Gear Operator



Chain Wheel
Option



1½ - 6/40 - 165.5 MM GEAR OPERATOR

Size		Dimensions – Inches/millimeters													
Nominal Size In./mm	Actual Outside Dia. In./mm					Handwheel		Chain Wheel							
		J	K	L	M	N1	O1	N2	O2	P	Q	R	S	T	
1½ 40	1.900 48.3	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	8.25 210	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
2 50	2.375 60.3	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	8.25 210	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
2½ 65	2.875 73.0	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	8.25 210	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
3 80	3.500 88.9	5.19 132	8.13 207	2.36 60	1.13 29	4.00 102	5.75 146	7.50 191	8.25 210	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
4 100	4.500 114.3	5.19 132	9.25 235	2.36 60	1.13 29	8.00 203	6.87 175	9.00 229	9.38 238	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
5 125	5.563 141.3	5.19 132	9.25 235	2.36 60	1.13 29	8.00 203	6.87 175	9.00 229	9.38 238	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
6 150	6.625 168.3	5.19 132	9.25 235	2.36 60	1.13 29	8.00 203	6.87 175	9.00 229	9.38 238	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	
165.1 mm	6.500 165.1	5.19 132	9.25 235	2.36 60	1.13 29	8.00 203	6.87 175	9.00 229	9.38 238	2.19 56	0.38 10	0.63 16	5.00 127	1.84 47	

Butterfly Valves

SERIES 700



LEVER LOCK HANDLE



GEAR OPERATOR

MATERIAL SPECIFICATIONS

Housing: Ductile iron conforming to ASTM A-536, grade 65-45-12, painted black. Ductile iron conforming to ASTM A-395, grade 65-45-15, is available upon special request.

Body: Carbon steel, electroplated

Seat/Liner: (specify choice*)

- **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 Liner/Disc Selection for specific service recommendations and for a listing of services which are not recommended.

Stem-Upper/Lower: 416 stainless steel

Disc: Aluminum bronze

- **Optional:** 316 stainless steel

Handle: Steel - two position

- **Optional:** Lever lock
- **Optional (1½ - 6"/40 - 150mm):** Manual gear operator with handwheel
- **Optional:** Chain wheel

O-ring: (Same as seat)

Track Bolts: Steel, Electroplated

Nuts: Steel, Electroplated

Butterfly Valves

SERIES 700



LEVER LOCK HANDLE



GEAR OPERATOR

PERFORMANCE

C_v values for flow of water at +60°F/+16°C with various disc positions are shown in the table below.

Formulas for C_v Values:

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

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

Where:

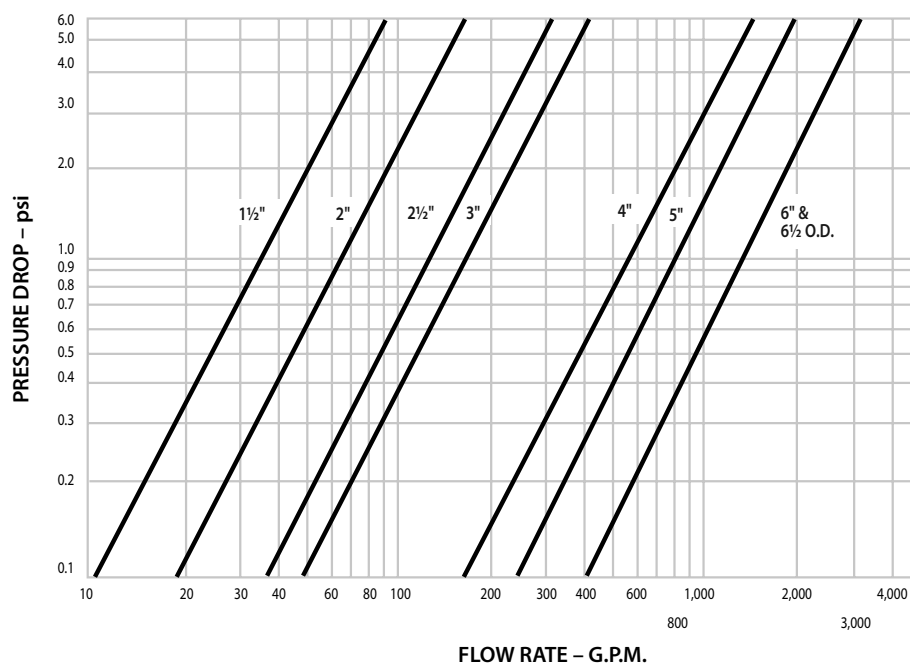
Q = Flow (GPM)

ΔP = Pressure Drop (psi)

C_v = Flow Coefficient

Size		FLOW COEFFICIENTS – C_v					
Nominal Size In./mm	Actual Outside Dia. In./mm	Disc Position (Degrees open)					
		90 	70 	60 	50 	40 	30
1½ 40	1.900 48.3	36	29	22	15	8	5
2 50	2.375 60.3	70	56	43	29	16	9
2½ 65	2.875 73.0	120	100	75	50	26	15
3 80	3.500 88.9	180	145	110	73	40	22
4 100	4.500 114.3	520	420	310	210	115	63
5 125	5.563 141.3	800	650	480	320	175	90
6 150	6.625 168.3	1300	1100	800	520	290	155
165.1 mm	6.500 165.1	1300	1100	800	520	290	155

FLOW CHARACTERISTICS



Butterfly Valves

SERIES 700



LEVER LOCK HANDLE



GEAR OPERATOR

TYPICAL SPECIFICATIONS

Grooved end butterfly valves as manufactured by Victaulic Company of America, shall be incorporated wherever possible, in lieu of wafer, lug, or flanged-type valves. Valves shall have grooved ends designed to accept grooved mechanical couplings (from the same manufacturer) without field preparation. Valves shall have operating conditions not to exceed -30°F to $+230^{\circ}\text{F}$ / -34°C to $+110^{\circ}\text{C}$ temperature range according to the valve lining selected (refer to manufacturer's data) and must provide service from 29.9 inches of mercury vacuum service through 200 psi/1400 kPa. Shut-off must be bubble-tight to full pressure rating and provide dead-end service.

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

WORLD HEADQUARTERS

P.O. Box 31
Easton, PA 18044-0031 USA

4901 Kesslersville Road
Easton, PA 18040 USA

1-800-PICK-VIC (1-800-742-5842)
1-610-559-3300
1-610-250-8817 (fax)
pickvic@victaulic.com

UNITED STATES

1-800-PICK-VIC (1-800-742-5842)
1-610-250-8817 (fax)
pickvic@victaulic.com

CANADA

905-884-7444
905-884-9774 (fax)
viccanada@victaulic.com

EUROPE

32-9-381-15-00
32-9-380-44-38 (fax)
viceuro@victaulic.be

UK

44 (0) 1438741100
44 (0) 1438313883 (fax)
viceuro@victaulic.be

CENTRAL AND SOUTH AMERICA

1-610-559-3300
1-610-559-3608 (fax)
vical@victaulic.com

ASIA PACIFIC

86-21-58855151
86-21-58851298 (fax)
vicap@victaulic.com

MIDDLE EAST

971-4-883-88-70
971-4-883-88-60 (fax)

www.victaulic.com



WCAS-6H2MMR