

Victaulic® Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve for High-Pressure Applications



17.42



Series 462

1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 12"/DN50 – DN300

Pipe Material

- Stainless steel

End Preparation

- Victaulic Original Groove System (OGS)

Maximum Working Pressure

- Uni-directional service: Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 400 psi/2758 kPa/28 Bar
- Bi-directional service: Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 300 psi/2068 kPa/21 Bar
- Full working pressure for dead-end services

NOTE

- Before start up, the test pressure may be increased to 1 ½ times the maximum working pressure. This is for a one-time system test and must be performed at ambient conditions.

Operating Temperature

- Dependent on seat selection from [Section 3.0](#)

Application

- Use on systems where stainless steel piping is required; typical examples include potable water, technology cooling water, and HVAC, among others.

NOTE

- Reference [publication 02.06](#), Victaulic Approvals for Potable Water Products – ANSI/NSF 372, for more details.

Actuation Options

- Standard ISO 5211 mounting flange
- Standard flat head drive
- Optional ISO 5211 diagonal square head drive
- 10-position handle (2 – 6"/DN50 – DN150) – Infinitely variable operation with memory stop, padlockable
- Lever lock handle (8"/DN200) – Infinitely variable operation with memory stop, padlockable
- Gear operator (2 – 12"/DN50 – DN300)
 - 4 ½"/120-mm length input shaft extension for gear operator handwheel (2 – 8"/DN50 – DN200)
 - 3 ½"/90-mm length input shaft extension for gear operator handwheel (10 – 12"/DN250 – DN300)
- Additional 2"/50 mm neck extension available when more than 2"/50 mm of insulation is required

NOTES

- The 10-position and lever lock handles contain a lockout opening that can accommodate a variety of industrial padlocks constructed with either solid metal or cable shackles.
- Valves may be padlocked in either the fully open or fully closed position to help prevent inadvertent valve operation.
- A tamper-resistant option is also available, which is meant to deter theft, vandalism, or other malicious activity. The handles and associated components are assembled with tamper-resistant fasteners designed for one-time assembly. Attempts to defeat the padlock by partial disassembly of the valve will likely result in evidence of such activity.
- Gear operator handwheel input shaft extensions are not for use with chainwheels.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.



2.0 CERTIFICATIONS/LISTINGS

When utilizing a Victaulic Fluoroelastomer seat, the Series 462 is UL Classified in accordance with ANSI/NSF 61 and ANSI/NSF 372 for commercial hot water service to +180°F/+82°C.

Valve construction and performance meet or exceed MSS-SP-67 requirements.

Compliant with Closure/Seat Leakage Rate A per EN 12266-1, EN 1074-1, EN 1074-2, and ISO 5208.

NOTE

- Reference [publication 02.06](#): Victaulic Approvals for Potable Water Products - ANSI/NSF 61 and ANSI/NSF 372 for more details.

3.0 SPECIFICATIONS - MATERIAL

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

Body: Stainless steel conforming to ASTM A351 Grade CF8M

End Face, 2 – 6"/DN50 – DN150: Stainless steel conforming to ASTM A351 Grade CF8M

Seal Retainer, 8 – 12"/DN200 – DN300: Stainless steel conforming to ASTM A351 Grade CF8M

Disc: Stainless steel conforming to ASTM A351 Grade CF8M

Seat: (specify choice)

Victaulic EPDM

EPDM (Green and silver color code). Temperature range –30°F to +230°F/–34°C to +110°C. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

Victaulic Nitrile

Nitrile (Orange color code). Temperature range +10°F to +150°F/–12°C to +65°C. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/60°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

Victaulic Fluoroelastomer

Fluoroelastomer (Double blue stripe color code). Temperature range +20°F to +180°F/–7°C to +82°C. Specifically formulated for compatibility with potable water systems. Optimized for improved resistance to chlorine, chloramine and other typical potable water disinfectants. UL Classified in accordance with ANSI/NSF 61 and ANSI/NSF 372 for commercial hot water service to +180°F/+82°C.

Stem: 17-4PH stainless steel conforming to ASTM A564

Stem Seal Cartridge: 17-4PH stainless steel conforming to ASTM A564

Bearings: Fiberglass and 316 stainless steel with TFE lining

Stem Seal: Furnished in same materials as seat

Stem Retaining Ring: Stainless steel

3.0 SPECIFICATIONS - MATERIAL (CONTINUED)

10-Position Handle: For sizes 2 – 6"/DN50 – DN150 (specify choice):

Standard

Zinc-plated carbon steel handle with zinc-plated carbon steel latch plate and zinc-plated carbon steel fasteners

Handle selected above plus optional tamper-resistant hardware

Optional

Stainless steel handle with Grade 304 stainless steel latch plate and stainless steel fasteners

Handle selected above plus optional tamper-resistant hardware

Lever Lock Handle: For size 8"/DN200 (specify choice):

Standard

Painted ductile iron conforming to ASTM A536, Grade 65-45-12, with carbon steel latch plate and zinc-plated carbon steel fasteners

Handle selected above plus optional tamper-resistant hardware

Optional

Stainless steel conforming to ASTM A564, with Grade 304 stainless steel latch plate and stainless steel fasteners

Handle selected above plus optional tamper-resistant hardware

Gear Operator with options below (specify choice):

Standard

Gear operator with handwheel

Optional

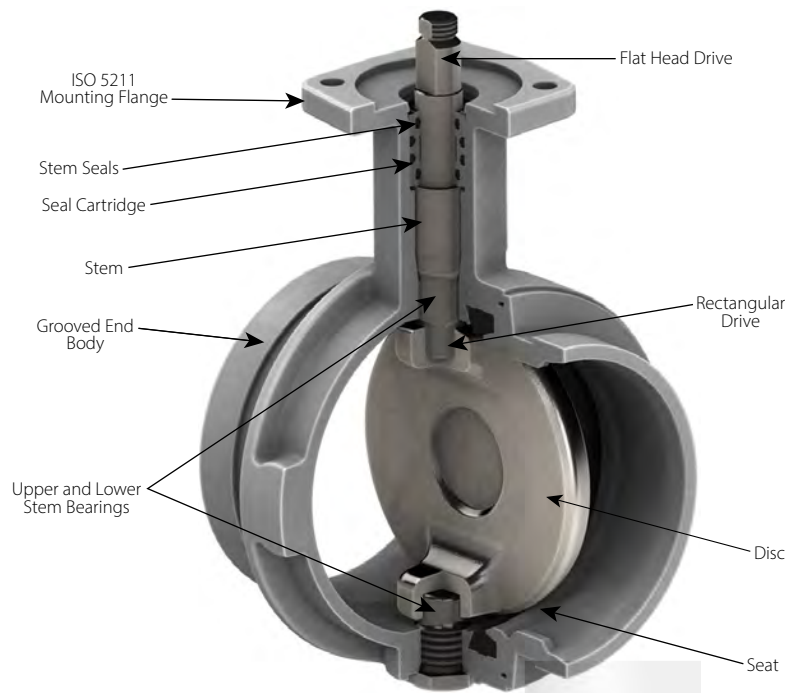
Gear operator with handwheel and memory stop

Gear operator with handwheel and chainwheel

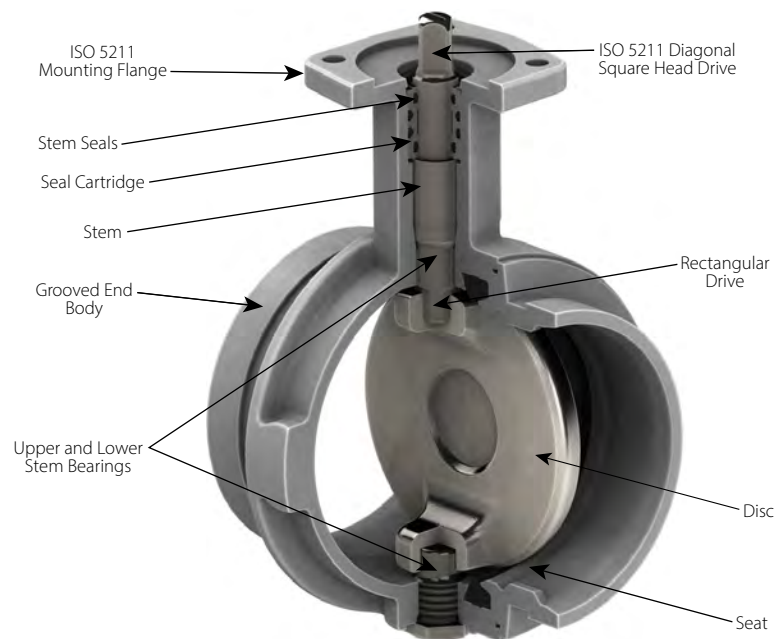
Gear operator with 2" square nut (replaces handwheel)

3.0 SPECIFICATIONS - MATERIAL (CONTINUED)

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve



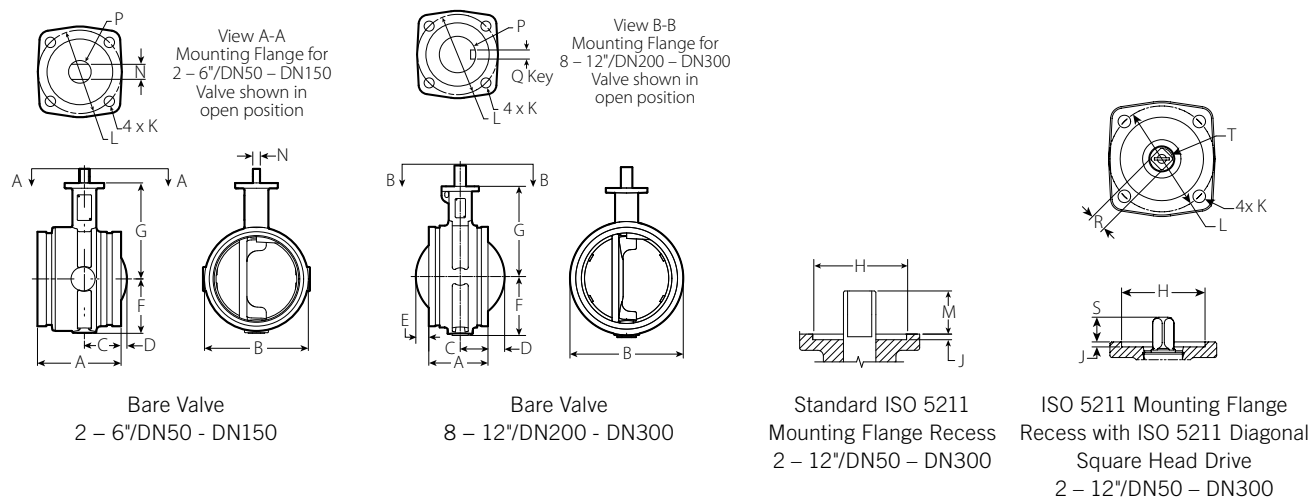
Standard ISO 5211 Mounting Flange



With ISO 5211 Diagonal Square Head Drive

4.0 DIMENSIONS

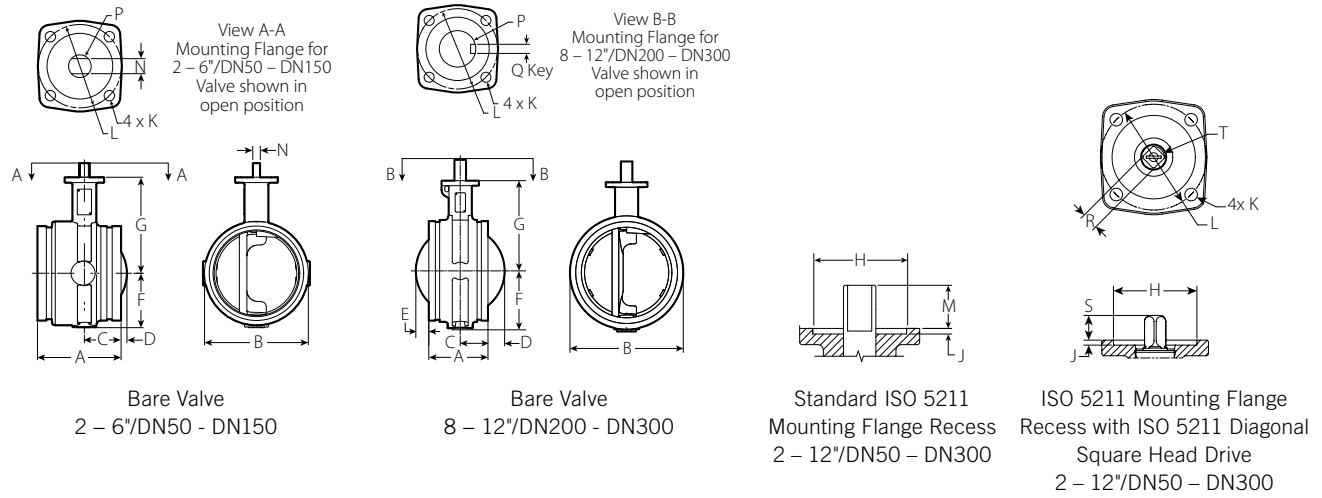
Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve - Bare Valve



Size		Dimensions									Weight	ISO 5211 Flange Designation
Nominal inches DN	Actual Outside Diameter inches mm	A End to End inches mm	B inches mm	C inches mm	D inches mm	E inches mm	F inches mm	G inches mm	H inches mm	Q-Key inches mm	Approx. (Each) lb kg	
2 DN50	2.375 60.3	3.25 83	3.25 83	1.50 38	– –	– –	1.88 48	3.75 95	2.13 54	– –	3.8 1.7	F07
2½	2.875 73.0	3.75 95	4.13 105	1.75 44	– –	– –	2.13 54	4.25 108	2.13 54	– –	5.8 2.6	F07
DN65	3.000 76.1	3.75 95	4.13 105	1.75 44	– –	– –	2.13 54	4.25 108	2.13 54	– –	6.0 2.7	F07
3 DN80	3.500 88.9	3.75 95	4.63 117	1.75 44	– –	– –	2.38 60	4.50 114	2.13 54	– –	6.9 3.1	F07
4 DN100	4.500 114.3	4.63 117	5.50 140	2.13 54	– –	– –	2.88 73	5.25 133	2.13 54	– –	11.1 5.0	F07
DN125	5.500 139.7	5.88 149	6.25 159	2.63 67	– –	– –	3.38 86	6.25 159	2.13 54	– –	18.4 8.4	F07
5	5.563 141.3	5.88 149	6.25 159	2.63 67	– –	– –	3.38 86	6.25 159	2.13 54	– –	22.3 10.0	F07
	6.500 165.1	5.88 149	7.25 184	2.63 67	0.38 10	– –	3.88 98	6.75 171	2.13 54	– –	22.3 10.1	F07
6 DN150	6.625 168.3	5.88 149	7.25 184	2.63 67	0.38 10	– –	3.88 98	6.75 171	2.13 54	– –	22.8 10.3	F07
8 DN200	8.625 219.1	5.38 137	9.25 235	2.38 60	1.50 38	0.75 19	5.13 130	8.00 203	2.13 54	0.188 x 0.88 4.78 x 22.35	38.4 17.4	F07
10 DN250	10.750 273.0	6.40 163	11.22 285	3.00 76	1.81 46	1.41 36	6.37 162	9.75 248	2.76 70	0.312 x 1.88 7.92 x 47.75	66.9 30.3	F10
12 DN300	12.750 323.9	6.50 165	13.33 339	3.00 76	2.80 71	2.30 58	7.36 187	10.75 273	2.76 70	0.312 x 1.88 7.92 x 47.75	85.3 38.7	F10

4.0 DIMENSIONS (CONTINUED)

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve - Bare Valve

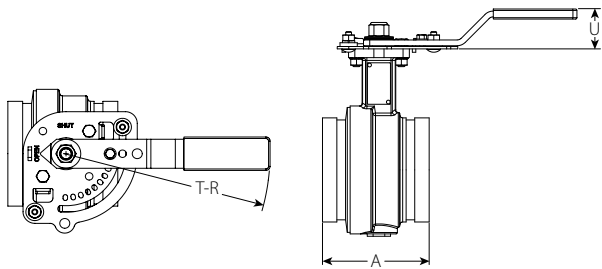


Size		Dimensions									Weight	ISO 5211 Flange Designation
Nominal inches DN	Actual Outside Diameter inches mm	J inches mm	K inches mm	L inches mm	M inches mm	N inches mm	T inches mm	R ¹ inches mm	S inches mm	Q-Key inches mm	Approx. (Each) lb kg	
2 DN50	2.375 60.3	0.13 3	0.38 10	2.75 70	0.88 22	0.32 8	0.43 11	0.35 9	0.48 12	– –	3.8 1.7	F07
2½	2.875 73.0	0.13 3	0.38 10	2.75 70	0.88 22	0.32 8	0.43 11	0.35 9	0.48 12	– –	5.8 2.6	F07
DN65	3.000 76.1	0.13 3	0.38 10	2.75 70	0.88 22	0.32 8	0.43 11	0.35 9	0.48 12	– –	6.0 2.7	F07
3 DN80	3.500 88.9	0.13 3	0.38 10	2.75 70	0.88 22	0.32 8	0.43 11	0.35 9	0.48 12	– –	6.9 3.1	F07
4 DN100	4.500 114.3	0.13 3	0.38 10	2.75 70	0.88 22	0.43 11	0.59 15	0.43 11	0.61 16	– –	11.1 5.0	F07
DN125	5.500 139.7	0.13 3	0.38 10	2.75 70	1.00 25	0.50 13	0.75 19	0.55 14	0.89 23	– –	18.4 8.4	F07
5	5.563 141.3	0.13 3	0.38 10	2.75 70	1.00 25	0.50 13	0.75 19	0.55 14	0.89 23	– –	22.3 10.1	F07
	6.500 165.1	0.13 3	0.38 10	2.75 70	1.00 25	0.50 13	0.75 19	0.55 14	0.89 23	– –	22.3 10.1	F07
6 DN150	6.625 168.3	0.13 3	0.38 10	2.75 70	1.00 25	0.50 13	0.75 19	0.55 14	0.89 23	– –	22.8 10.3	F07
8 DN200	8.625 219.1	0.13 3	0.38 10	2.75 70	1.13 29	– –	0.88 22	0.67 17	1.15 29	0.188 x 0.88 4.78 x 22.35	38.4 17.4	F07
10 DN250	10.750 273.0	0.13 3	0.50 13	4.00 102	2.25 57	– –	1.25 32	0.87 22	1.32 34	0.312 x 1.88 7.92 x 47.75	66.9 30.3	F10
12 DN300	12.750 323.9	0.13 3	0.43 11	4.02 102	2.25 57	– –	1.25 32	0.87 22	1.31 33	0.312 x 1.88 7.92 x 47.75	85.3 38.7	F10

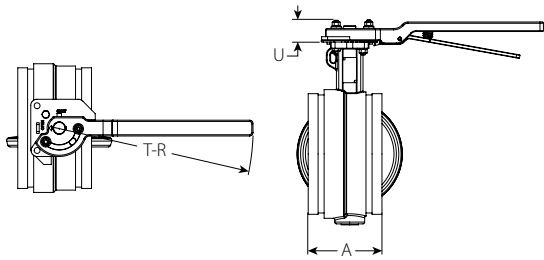
¹ Diagonal square head drive follows a C11 clearance fit

4.1 DIMENSIONS

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve - With Handle



10-Position Handle
2 – 6"/DN50 – DN150

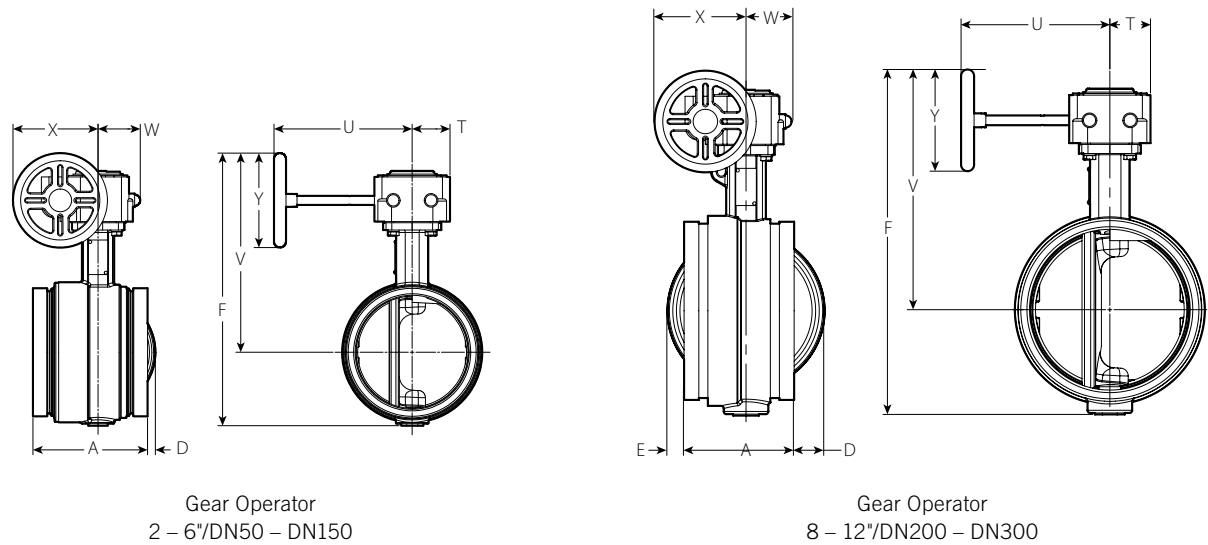


Lever Lock Handle
8"/DN200

Size		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	T-R inches mm	U inches mm	Approximate (Each) lb kg
2 DN50	2.375 60.3	3.25 83	7.00 178	1.63 41	5.0 2.3
2½	2.875 73.0	3.75 95	7.00 178	1.63 41	7.0 3.2
DN65	3.000 76.1	3.75 95	7.00 178	1.63 41	7.2 3.3
3 DN80	3.500 88.9	3.75 95	7.00 178	1.63 41	8.1 3.7
4 DN100	4.500 114.3	4.63 117	8.50 216	1.63 41	12.8 5.8
DN125	5.500 139.7	5.88 149	12.00 305	1.63 41	21.5 9.8
5	5.563 141.3	5.88 149	12.00 305	1.63 41	22.3 10.0
	6.500 165.1	5.88 149	12.00 305	1.63 41	25.4 11.5
6 DN150	6.625 168.3	5.88 149	12.00 305	1.63 41	25.9 11.7
8 DN200	8.625 219.1	5.38 137	14.00 356	0.75 19	47.5 21.5

4.2 DIMENSIONS

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve - With Gear Operator



Size		Dimensions										Weight
Nominal inches DN	Actual Outside Diameter inches mm	A End to End inches mm	D inches mm	E inches mm	F inches mm	T inches mm	U inches mm	V inches mm	W inches mm	X inches mm	Y inches mm	Approximate (Each) lb kg
2 DN50	2.375 60.3	3.25 83	– –	– –	8.63 219	1.63 41	4.75 121	6.88 175	1.88 48	3.63 92	4.00 102	6.3 2.9
2½	2.875 73.0	3.75 95	– –	– –	9.50 241	1.63 41	4.75 121	7.25 184	1.88 48	3.63 92	4.00 102	8.3 3.8
DN65	3.000 76.1	3.75 95	– –	– –	9.50 241	1.63 41	4.75 121	7.25 184	1.88 48	3.63 92	4.00 102	8.5 3.9
3 DN80	3.500 88.9	3.75 95	– –	– –	9.88 251	1.63 41	4.75 121	7.50 191	1.88 48	3.63 92	4.00 102	9.4 4.3
4 DN100	4.500 114.3	4.63 117	– –	– –	11.25 286	1.63 41	4.75 121	8.25 210	1.88 48	3.63 92	4.00 102	13.6 6.2
DN125	5.500 139.7	5.88 149	– –	– –	13.25 337	2.00 51	7.25 184	9.75 248	2.25 57	4.38 111	4.88 124	22.4 10.2
5	5.563 141.3	5.88 149	– –	– –	13.25 337	2.00 51	7.25 184	9.75 248	2.25 57	4.38 111	4.88 124	22.4 10.2
	6.500 165.1	5.88 149	0.38 10	– –	14.13 359	2.00 51	7.25 184	10.25 260	2.25 57	4.38 111	4.88 124	26.3 11.9
6 DN150	6.625 168.3	5.88 149	0.38 10	– –	14.13 359	2.00 51	7.25 184	10.25 260	2.25 57	4.38 111	4.88 124	26.8 12.2
8 DN200	8.625 219.1	5.38 137	1.50 38	0.75 19	16.63 422	2.00 51	7.25 184	11.50 292	2.25 57	4.38 111	4.88 124	42.4 19.2
10 DN250	10.750 273.0	6.40 163	1.81 46	1.41 36	21.62 549	2.87 73	8.98 228	15.25 387	3.11 79	6.30 160	7.88 200	76.5 34.7
12 DN300	12.750 323.9	6.50 165	2.80 71	2.30 58	23.60 599	2.87 73	8.98 228	16.25 413	3.11 79	6.30 160	7.88 200	88.7 40.2

4.3 DIMENSIONS

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

Accessories – Chainwheels

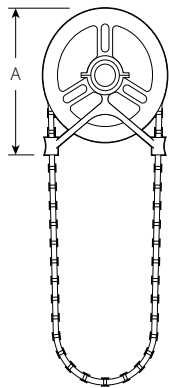
Chainwheels are mounted to gear operator handwheels. Sprocket rim and guide arms are made of cast aluminum. Chain is galvanized steel.

HOW TO ORDER:

Specify type valve and operator by valve numbering system shown on [page 13](#).

Always specify length of chain required.

For insulation and locking device, contact Victaulic for details. Handwheel input shaft extensions shall not be used with chainwheels.



Size	Sprocket inches	Chain Trade Size	Chainwheel (Diameter) inches mm	Dimensions	Weight
Nominal inches				A inches mm	Approximate (Each) lb kg
2 – 4	0	2	4.00 102	4.63 118	2.0 0.9
5 – 8	1	1/0	5.75 146	6.38 162	4.0 1.8
10 – 12	2	1/0	9.00 229	10.50 267	10.0 4.5

5.0 PERFORMANCE

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

C_v/K_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/K_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

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

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

Where:

Q = Flow (m³/hr)

ΔP = Pressure Drop (Bar)

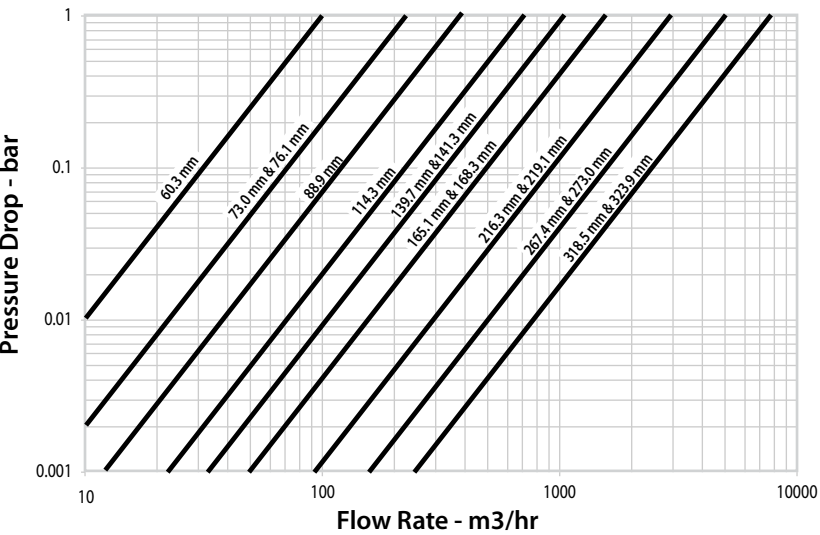
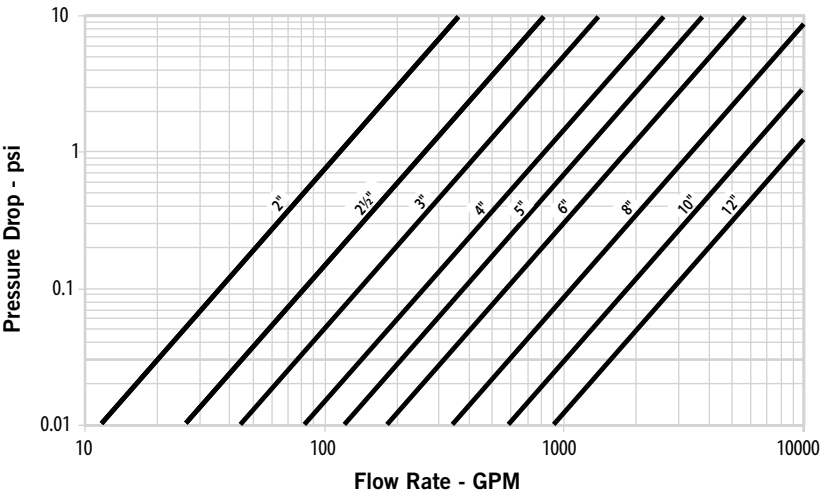
K_v = Flow Coefficient

Size		Flow Coefficients – C _v /K _v											
		Disc Position (Degrees Open)											
Nominal inches DN	Actual Outside Diameter inches mm	90 		70 		60 		50 		40 		30 	
		C _v	K _v	C _v	K _v	C _v	K _v	C _v	K _v	C _v	K _v	C _v	K _v
2 DN50	2.375 60.3	115	99	60	52	36	31	23	20	14	12	7	6
2½	2.875 73.0	260	224	140	121	80	69	50	43	30	26	16	14
DN65	3.000 76.1	260	224	140	121	80	69	50	43	30	26	16	14
3 DN80	3.500 88.9	440	379	230	198	140	121	90	78	50	43	26	22
4 DN100	4.500 114.3	820	707	430	321	250	216	160	138	100	86	50	43
DN125	5.500 139.7	1200	1034	620	534	370	319	240	207	140	121	70	60
5	5.563 141.3	1200	1034	620	534	370	319	240	207	140	121	70	60
	6.500 165.1	1800	1552	940	810	560	483	360	310	220	190	110	95
6 DN150	6.625 168.3	1800	1552	940	810	560	483	360	310	220	190	110	95
8 DN200	8.625 219.1	3400	2931	1770	1526	1050	905	670	578	410	353	200	172
10 DN250	10.750 273.0	5800	5000	3020	2603	1800	1552	1150	991	700	603	350	302
12 DN300	12.750 323.9	9000	7758	4680	4034	2790	2405	1780	1534	1080	931	540	465

5.0 PERFORMANCE (CONTINUED)

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

Flow Characteristics



5.1 PERFORMANCE

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

Valve Torque Requirements

Size		Torque – Inch Pounds/Newton Meters					
Nominal inches DN	Actual Outside Diameter inches mm	Differential Pressure – psi/bar					
		50/3	100/7	150/10	200/14	232/16	300/21
2	2.375	53	65	78	90	100	115
DN50	60.3	6	7	9	10	11	13
2 ½	2.875	100	120	140	160	170	200
	73.0	11	14	16	18	19	23
DN65	3.000	100	120	140	160	170	200
	76.1	11	14	16	18	19	23
3	3.500	150	170	190	210	230	260
DN80	88.9	17	19	22	24	26	29
4	4.500	220	250	280	310	330	370
DN100	114.3	25	28	32	35	37	42
DN125	5.500	340	390	450	500	530	600
	139.7	38	44	51	57	60	68
5	5.563	340	390	450	500	530	600
	141.3	38	44	51	57	60	68
	6.500	410	470	540	600	640	730
	165.1	46	53	61	68	72	83
6	6.625	410	470	540	600	640	730
DN150	168.3	46	53	61	68	72	83
8	8.625	540	680	820	950	1040	1230
DN200	219.1	61	77	93	107	118	139
10	10.750	1610	1920	2230	2530	2730	3150
DN250	273	182	217	252	286	308	356
12	12.750	2720	2880	3040	3190	3290	3510
DN300	323.9	307	325	344	360	372	397

Source:

These torque values were derived from test data with non-lubricated valves in water at ambient temperatures with EPDM seals. For other material and service conditions, apply a suitable service factor.

Torque Factors:

All torque values are for normal conditions (i.e., the valve is operated at least once a quarter, disc corrosion is expected to be minor, the media is clean and nonabrasive, and the chemical effects upon the elastomer are minor).

Typical Fluid Torque Factors Commonly Used in the Industry:

Water: 1.0; Lubricated service: 0.8; Dry gases: Lubricated nitrile “T” seat seals may be specified for dry gases wherever chemically appropriate. Reference material torque factors below.

Material Torque Factors:

EPDM = 1.0; Fluoroelastomer = 1.2; Nitrile = 0.8

Cycling Factor:

Valve torque will typically increase and actuator output decrease as the valve is cycled. A factor of 1.5 should be applied for when total valve cycles are expected to exceed 5,000.

Actuation Factor:

A factor should be added to account for potential drift in the output of the actuator due to actuator performance, misalignment or external inputs (i.e., air or power supply). For this, a factor of up to 1.25 may be used.

Combining Torque Factors:

When multiple torque factors apply, they are combined by multiplying them. Example: For an EPDM seal and a 5,000-cycle factor, the combined factor would be $1.0 \times (1.5) = 1.5$.

NOTES

- Under certain high-flow conditions, the hydrodynamic torque can exceed the seating torque. Large butterfly valves are not recommended for use in a free-discharge condition, such as filling an empty line with fluid at the full-rated pressure.
- Contact Victaulic for other services.

5.2 PERFORMANCE

Typical Specifications

Manufacturer and Product Description - Victaulic Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

Valves in 2 – 12"/DN50 – DN300 sizes shall be rated to 400 psi/2758 kPa/28 Bar for uni-directional service, 300 psi/2068 kPa/21 Bar for bi-directional service, or dead-end service to full-rated pressure.

Original Groove System (OGS) grooved-end stainless steel body and disc, grade CF8M, conforming to ASTM A351, with blow-out proof 17-4PH stainless steel stems to ASTM A564.

Disc shall be connected to the stem without the use of fasteners or pins, and be offset from the disc centerline to provide full 360° continuous contact with the seating surface when closed.

Seat shall be EPDM, nitrile, or fluoroelastomer blend. Stem seals shall be of the same material as the seats.

Valve shall have a standard ISO 5211 mounting flange for ease of actuation.

Valve shall be provided with a lever lock or 10-position handle or gear operator, as required. A lever lock handle shall be painted ductile iron or stainless steel. A 10-position handle shall be zinc-plated carbon steel with stainless steel. Handles shall be infinitely variable, padlockable, and include memory stop. A gear operator shall contain a handwheel.

Numbering System

Type	Actual OD in/mm	Size Code	Series	Disc/Stem	Seat	Operator
V	2.375/60.3	020	462	X - 316SS/17-4PH	E - EPDM	0 - Bare Valve with Flat-Head Drive (2 - 12"/DN50 - DN300)
	2.875/73.0	024			T - Nitrile	2 - Carbon Steel 10-Position/Lever Lock Handle with Memory Stop (2 - 8"/DN50 - DN200)
	3.000/76.1	761			O - Fluoroelastomer	3 - Gear Operator with Handwheel (2 - 12"/DN50 - DN300)
	3.500/88.9	030				4 - Carbon Steel 10-Position/Lever Lock Handle with Memory Stop and Tamper-Resistant Hardware (2 - 8"/DN50 - DN200)
	4.500/114.3	040				5 - Gear Operator with Handwheel and Memory Stop (2 - 12"/DN50 - DN300)
	5.500/139.7	139				6 - Gear Operator with Handwheel and Chainwheel Kit (2 - 12"/DN50 - DN300)
	5.563/141.3	050				7 - Gear Operator with Handwheel, Memory Stop, and Chainwheel Kit (2 - 12"/DN50 - DN300)
	6.500/165.1	165				8 - Gear Operator with AWWA 2" Square Operation Nut (2 - 12"/DN50 - DN300)
	6.625/168.3	060				S - Bare Valve with ISO 5211 Diagonal Square-Head Drive (2 - 12"/DN50 - DN300)
	8.625/219.1	080				X - Stainless Steel 10-Position/Lever Lock Handle with Memory Stop (2 - 8"/DN50 - DN200)
	10.750/273.0	100				Y - Stainless Steel 10-Position/Lever Lock Handle with Memory Stop and Tamper-Resistant Hardware (2 - 8"/DN50 - DN200)
	12.750/323.9	120				

5.3 PERFORMANCE

Series 462 Vic-300™ MasterSeal™ Stainless Steel Butterfly Valve

NOTICE

- To prevent Victaulic Butterfly Valves from rotating in the system, Victaulic recommends installing the valve with at least one Victaulic Rigid Coupling. If two Victaulic Flexible Couplings are used, additional support may be required to eliminate joint deflection or valve rotation at the coupling connection to the piping system.

- When installing a Victaulic Butterfly Valve into the piping system, follow the instructions supplied with the applicable coupling. Victaulic Butterfly Valves can be installed in either the horizontal or vertical orientations.



DO NOT INSTALL BUTTERFLY VALVES INTO THE SYSTEM WITH THE DISC IN THE FULLY-OPEN POSITION.

Exposed disc may be damaged and prevent proper function of the valve.
Verify that no part of the disc protrudes beyond the end of the valve body.

- When using Victaulic Butterfly Valves for throttling service, Victaulic recommends positioning the disc no less than 30 degrees open. For best results, the disc should be between 30 and 70 degrees open; this is dependent on the flow requirements/characteristics for the piping system. High pipeline velocities and/ or throttling with the disc less than 30 degrees open may result in noise, vibration, cavitation, severe gasket erosion/abrasion, and/or loss of control. Contact Victaulic regarding throttling services.
- Victaulic recommends limiting the flow velocities for water service to 20 feet per second/6 meters per second. Contact Victaulic before installing a butterfly valve when higher flow velocities are necessary or specified. When dealing with flow media other than water, contact Victaulic.
- Victaulic recommends good piping practices by installing the butterfly valve five pipe diameters downstream of sources of irregular flow, such as pumps, elbows, and control valves. If not practical due to space constraints, the system should be designed to locate and orient the valve to minimize the impact of dynamic torque on valve life.
- Victaulic Butterfly Valves and connected piping shall be supported properly to prevent the joints from being overloaded. Hanger spacing shall comply with the applicable "Rigid System Hanger Spacing" section of the [I-100 Field Installation Handbook](#).
- DO NOT use a Victaulic Butterfly Valve as a support for the piping system.
- Welding to Victaulic Butterfly Valves is not permitted and will void the Victaulic warranty.
- When directly connecting a Victaulic End Cap to a Victaulic Butterfly Valve, use only a tapped end cap with a ball valve that can be opened to verify if the system is depressurized. If the butterfly valve is opened and then closed unknowingly while the end cap is attached, the space between the disc and end cap will be filled and pressurized. A sudden release of energy can occur if the end cap is removed while the space behind it is pressurized. **PRESSURE SHALL BE VENTED THROUGH THE END CAP'S BALL VALVE BEFORE ATTEMPTING TO REMOVE THE CAP.**
NOTE: Due to disc clearance dimensions, an end cap directly connected to a Butterfly Valve may prevent the disc from reaching the fully "OPEN" position.

⚠ DANGER



- When directly connecting a Victaulic End Cap to a Victaulic Butterfly Valve, use only a tapped end cap with a ball valve that can be opened to verify if the system is depressurized.
 - Pressure shall be vented through the end cap's ball valve before attempting to remove the cap.
- Failure to follow these instructions could result in death or serious personal injury and property damage.

Victaulic butterfly valves are designed with grooved ends for use with grooved pipe couplings. If flange connections are required, refer to the following notes regarding *Vic-Flange* Adapter application.

- Series 462 Butterfly Valves (2 – 6"/DN50 – DN150 sizes) can be used with Style 441 *Vic-Flange* Adapters.
- Series 462 Butterfly Valves (all sizes) can be used with Style 741 *Vic-Flange* Adapters.
- Series 462 Butterfly Valves CANNOT be connected directly to flanged components with Style 743 *Vic-Flange* Adapters. A No. 46 ANSI 300 groove-by-flange adapter is required for this application.

6.0 NOTIFICATIONS

⚠️ WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

- [17.16: Victaulic Stainless Steel Fittings](#)
- [17.41: Victaulic Stainless Steel Check Valves Series 416 and Series E416](#)
- [I-100: Victaulic Field Installation Handbook](#)
- [I-ENDCAP: Victaulic End Cap Installation Safety Instructions](#)
- [I-VIC300MS: Installation and Maintenance Instructions - Vic-300™ MasterSeal™ Stainless Steel Butterfly Valves](#)

User Responsibility for Product Selection and Suitability Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer. Installation Always refer to and follow the Victaulic Installation Handbook or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at victaulic.com. Warranty Refer to the Warranty section of the current Price List or contact Victaulic for details.	Intellectual Property Rights No statement concerning the use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its affiliates, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries. Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries. Note All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.
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