Victaulic[®] Vic-300 MasterSeal[™] Stainless Steel Butterfly Valve for Potable Water Applications

Series 861 Series 861



1.0 PRODUCT DESCRIPTION

Available Sizes

• 2 - 12"/DN50 - DN300

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 300 psi/2100 kPa/21 bar
- Full working pressure for bi-directional, 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

• +20°F to +180°F/-7°C to +82°C

Application

• Intended for use in potable water systems where full stainless steel wetted construction is required

NOTE

• For non-potable water systems, refer to <u>publication 17.40</u>: Victaulic Stainless Steel Butterfly Valve Series 461.

Actuation Options

- Standard ISO 5211 mounting flange
- ISO 5211 mounting flange with ISO 5211 diagonal square head drive (2 12"/DN50 DN300)
- 10-position handle (2 6"/DN50 DN150)
 - Infinitely variable service with memory stop; Padlockable
- Lever lock handle (8"/DN200)
 - Infinitely variable service with memory stop; Padlockable
- Gear operator (2 12"/DN50 DN300)
- Additional 2"/50 mm neck extension available when more than 2"/50 mm of insulation is needed
- 4½"/120 mm-long handle wheel input shaft extension (2 8"/DN50 DN200)
- 3 ½"/90 mm-long handle wheel input shaft extension (10 12"/DN250 DN300)

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



CERTIFICATION/LISTINGS







When utilizing a Victaulic Fluoroelastomer seat, the Series 861 is UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372.

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.

See publication 02.06: Victaulic Approvals for Potable Water Products - ANSI/NSF 61 and ANSI/NSF 372 for more details.

SPECIFICATIONS - MATERIAL 3.0

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

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: 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 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372.

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.

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

Zinc-plated carbon steel handle with zinc-plated carbon steel latch plate and zinc-plated carbon steel fasteners, infinitely variable, padlockable and includes memory stop. Optionally available with tamper-resistant hardware. Stainless steel handle with Grade 304 stainless steel latch plate and stainless steel fasteners, infinitely variable, padlockable and includes memory stop. Optionally available with tamper-resistant hardware.

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

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

Stainless steel conforming to ASTM A564, with Grade 304 stainless steel latch plate and stainless steel fasteners. Infinitely variable, padlockable and includes memory stop. Optionally available with tamper-resistant hardware.

Gear Operator with options below (specify choice):

Handwheel with memory stop

Handwheel with chainwheel

2" square nut

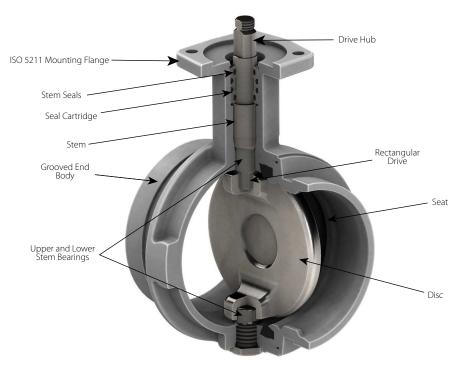
NOTES

- A padlockable valve refers to those valves which can be padlocked to lockout equipment for preventing inadvertent valve operation. When used in conjunction with an appropriate lockout/tagout system, multiple padlocks may be used. The valve may be padlocked either fully open or fully closed.
- 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 which are designed for one-time assembly. Attempts to defeat the padlock by partial disassembly of the valve will likely result in evidence of such activity. The valve may be padlocked either fully open or fully closed.
- Hand wheel input shaft extensions are not for use with chain wheels

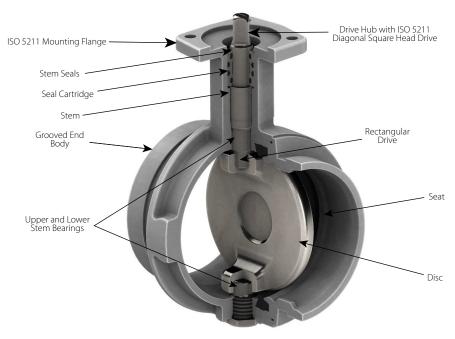


3.0 SPECIFICATIONS - MATERIAL (CONTINUED)

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications



Standard ISO 5211 Mounting Flange

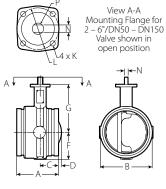


With ISO 5211 Diagonal Square Head Drive



4.0 DIMENSIONS

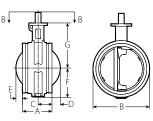
Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications – Bare Valve







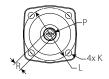
View B-B Mounting Flange for 8 – 12"/DN200 – DN300 Valve shown in open position



Bare Valve 8 – 12"/DN200 - DN300



Standard ISO 5211 Mounting Flange Recess 2 – 12"/DN50 – DN300





ISO 5211 Mounting Flange Recess with ISO 5211 Diagonal Square Head Drive 2 – 12"/DN50 – DN300

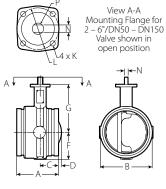
Si	ze				D	imensions					Weight	
Nominal	Actual Outside Diameter	A End to End	В	С	D	E	F	G	н	Q-Key	Approx. (Each)	ISO 5211
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg	Flange Designation
2 DN50	2.375 60.3	3.25 83	3.25 83	1.50 38	- -	- -	1.88 48	3.75 95	2.13 54	- -	3.8 1.7	F07
21/2	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
3 DN80	3.500 88.9	3.75 95	4.63 117	1.75 44	-	-	2.38 60	4.5 114	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
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	0.13 3	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	0.31 8	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	0.31 8	85.3 38.7	F10

4



4.0 DIMENSIONS (CONTINUED)

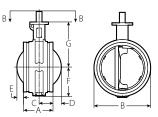
Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications – Bare Valve



Bare Valve 2 – 6"/DN50 - DN150



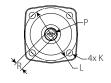
View B-B Mounting Flange for 8 – 12"/DN200 – DN300 Valve shown in open position



Bare Valve 8 – 12"/DN200 - DN300



Standard ISO 5211 Mounting Flange Recess 2 – 12"/DN50 – DN300





ISO 5211 Mounting Flange Recess with ISO 5211 Diagonal Square Head Drive 2 – 12"/DN50 – DN300

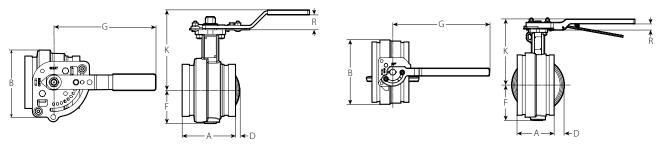
Si	ize					Dimensio	ns				Weight	
Nominal inches	Actual Outside Diameter inches	J inches	K inches	L inches	M inches	N inches	P inches	R ¹ inches	S inches	Q-Key inches	Approx. (Each)	ISO 5211 Flange
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	Designation
2	2.375	0.13	0.38	2.75	0.88	0.32	0.43	0.35	0.48	-	3.8	F07
DN50	60.3	3	10	70	22	8	11	9	12.2	_	1.7	FU7
21/2	2.875	0.13	0.38	2.75	0.88	0.32	0.43	0.35	0.48	_	5.8	F07
	73.0	3	10	70	22	8	11	9	12.2	_	2.6	F07
3	3.500	0.13	0.38	2.75	0.88	0.32	0.43	0.35	0.48	_	6.9	F07
DN80	88.9	3	10	70	22	8	11	9	12.2	_	3.1	FU7
4	4.500	0.13	0.38	2.75	0.88	0.43	0.59	0.43	0.61	_	11.1	F07
DN100	114.3	3	10	70	22	11	15	11	15.5	_	5.0	FU7
6	6.625	0.13	0.38	2.75	1.00	0.50	0.75	0.55	0.89	_	22.8	F07
DN150	168.3	3	10	70	25	13	19	14	22.6	_	10.3	FU7
8	8.625	0.13	0.38	2.75	1.13	-	0.88	0.67	1.15	0.188 x 0.88	38.4	F07
DN200	219.1	3	10	70	29	-	22	17	29.2	4.78 x 22.35	17.4	FU7
10	10.750	0.13	0.43	4.02	2.25	-	1.25	0.87	1.32	0.312 x 1.88	66.9	F10
DN250	273.0	3	11	102	61	-	32	22	33.5	7.92 x 47.75	30.3	FIU
12	12.750	0.13	0.43	4.02	2.25	-	1.25	0.87	1.31	0.312 x 1.88	85.3	F10
DN300	323.9	3	11	102	57	_	32	22	33.3	7.92 x 47.75	38.7	FIU

Diagonal square head drive follows a C11 clearance fit.



4.1 DIMENSIONS

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications – With Handle



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

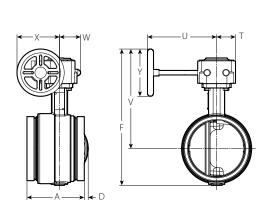
Lever Lock Handle 8"/DN200

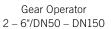
Si	ize				Dimensions				Weight	
Nominal	Actual Outside Diameter	A	В	D	F	G	К	R	Approximate (Each)	
inches	inches	inches	inches	inches	inches	inches	inches	inches	lb	
DN	mm	mm	mm	mm	mm	mm	mm	mm	kg	
2	2.375	3.25	3.25	_	1.88	7.00	5.38	1.63	5.0	
DN50	60.3	83	83	_	48	178	137	41	2.3	
21/2	2.875	3.75	4.13	-	2.13	7.00	5.88	1.63	7.0	
	73.0	95	105	_	54	178	149	41	3.2	
3	3.500	3.75	4.63	-	2.38	7.00	6.13	1.63	8.1	
DN80	88.9	95	117	_	60	178	156	41	3.7	
4	4.500	4.63	5.50	_	2.88	8.50	6.75	1.63	12.8	
DN100	114.3	117	140	_	73	216	171	41	5.8	
6	6.625	5.88	7.25	0.38	3.88	12.00	8.38	1.63	25.9	
DN150	168.3	149	184	10	98	305	213	41	11.7	
8	8.625	5.38	9.25	0.38	5.13	14.00	9.5	0.75	47.5	
DN200	219.1	137	235	10	130	356	241	19	21.5	

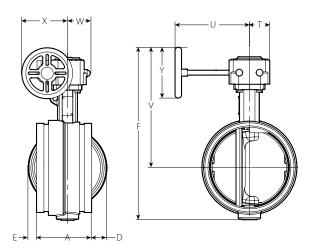


4.2 DIMENSIONS

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications – With Gear Operator







Gear Operator 8 – 12"/DN200 – DN300

S	ize					Dime	nsions					Weight
Nominal	Actual Outside Diameter	A End to End	D	E	F	т	U	v	w	x	Υ	Approximate (Each)
inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	lb
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	2.375	3.25	_	-	8.63	1.63	4.75	6.88	1.88	3.63	4.00	6.3
DN50	60.3	83	_	_	219	41	121	175	48	92	102	2.9
21/2	2.875	3.75	-	_	9.50	1.63	4.75	7.25	1.88	3.63	4.00	8.3
	73.0	95	_	_	241	41	121	184	48	92	102	3.8
3	3.500	3.75	-	-	9.88	1.63	4.75	7.50	1.88	3.63	4.00	9.4
DN80	88.9	95	_	_	251	41	121	191	48	92	102	4.3
4	4.500	4.63	_	_	11.25	1.63	4.75	8.25	1.88	3.63	4.00	13.6
DN100	114.3	117	_	_	286	41	121	210	48	92	102	6.2
6	6.625	5.88	0.38	_	14.13	2.00	7.25	10.25	2.25	4.38	4.88	26.8
DN150	168.3	149	10	_	359	51	184	260	57	111	124	12.2
8	8.625	5.38	1.50	0.75	16.63	2.00	7.25	11.50	2.25	4.38	4.88	42.4
DN200	219.1	137	38	19	422	51	184	292	57	111	124	19.2
10	10.750	6.40	1.81	1.41	21.62	2.87	8.98	15.25	3.11	6.30	7.87	76.5
DN250	273.0	163	46	36	549	73	228	387	79	160	200	34.7
12	12.750	6.50	2.80	2.30	23.60	2.87	8.98	16.25	3.11	6.30	7.87	88.7
DN300	323.9	165	71	58	599	73	228	413	79	160	200	40.2

_ictaulic

4.3 DIMENSIONS

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

Accessories

Chainwheels

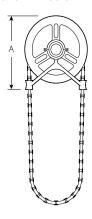
Chainwheels are mounted to the gear operator handwheels. Sprocket rim and guide arms are made of cast aluminum. Chain is galvanized steel.

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 are not for use with chainwheels.



Chainwheel and Guide with Safety Cable Kit

Size				Dimensions	Weight
Nominal	Sprocket	Chain Trade Size	Chainwheel (Diameter)	A	Approximate (Each)
inches	inches		inches	inches	lb Israel
DN			mm	mm	kg
2 – 4	0	2	4.00	4.63	2.0
DN50 – DN100	l o	_	102	118	0.9
6 – 8	1	1/0	5.75	6.38	4.0
DN150 – DN200	I	1/0	146	162	1.8
10 – 12	2	1/0	9.00	10.50	10.0
DN250 – DN300	2	1/0	229	267	4.5



5.0 PERFORMANCE

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

 C_v/K_v values for flow of water at $+60^\circ F/+16^\circ C$ with various disc positions are shown in the table below. Formulas for C_v/K_v values:

$$\begin{split} \Delta P &= \underbrace{Q^2}_{C_v{}^2} \\ Q &= C_v \times \sqrt{\Delta P} \end{split}$$

Q = Flow (GPM) $\Delta P = Pressure Drop (psi)$ $C_v = Flow Coefficient$

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

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

 $Q = Flow (m^3/hr)$ $\Delta P = Pressure Drop (Bar)$ $K_y = Flow Coefficient$

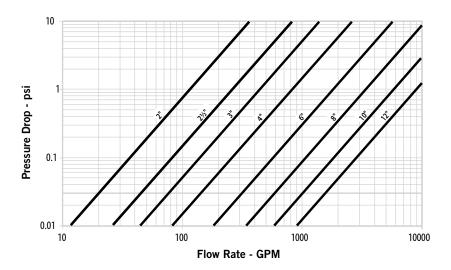
Si	ze	Cv	Κv	
Nominal	Actual Outside Diameter	(Full Open)	(Full Open)	
inches	inches			
DN	mm			
2	2.375	115	00	
DN50	60.3	115	99	
21/2	2.875	260	224	
	73.0	200	224	
3	3.500	440	379	
DN80	88.9	440	3/9	
4	4.500	820	707	
DN100	114.3	620	707	
6	6.625	1800	1552	
DN150	168.3	1000	1332	
8	8.625	3400	2931	
DN200	219.1	3700	2731	
10	10.750	5800	5000	
DN250	273.0	3000	3000	
12	12.750	9000	7758	
DN300	323.9	7000	,,,50	

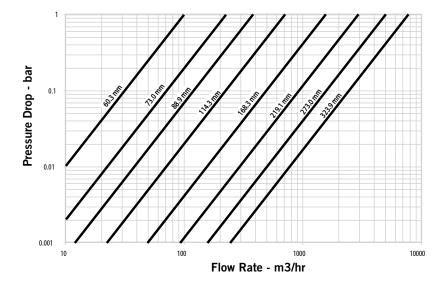


17.45 13556 Rev D Updated 05/2021 © 2021 Victaulic Company. All rights reserved.

5.0 PERFORMANCE (CONTINUED)

Series 861 Vic-300 MasterSeal[™] Stainless Steel Butterfly Valve for Potable Water Applications Flow Characteristics







5.0 PERFORMANCE (CONTINUED)

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

		Flow Coefficients – C _v /K _v											
Si	ze	Disc Position (Degrees Open)											
		9	0	70		60		50		40		30	
Nominal	Actual Outside Diameter	1		1					/				
inches DN	inches mm	C۷	K۷	C۷	K۷	Cv	K۷	Cv	K۷	Cv	K۷	Cv	K۷
2 DN50	2.375 60.3	115	99	60	52	36	31	23	20	14	12	7	6
21/2	2.875 73.0	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
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



5.1 PERFORMANCE

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

Valve Torque Requirements

;	Size		Torque – Inch Pounds/Newton Meters								
Nominal	Actual Outside Diameter		Differential Pressure – psi/bar								
inches DN	inches mm	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				
21/2	2.875	100	120	140	160	170	200				
	73.0	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				
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. See material torque factor below.

Material Torque Factors:

Fluoroelastomer = 1.2

Cycling Factor:

Valve torque will typically increase and actuator output decrease as the valve is cycled. A factor of 1.5 should be applied 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 Fluroelastomer seal and a 5,000-cycle factor, the combined factor would be $1.2 \times (1.5) = 1.8$.

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.



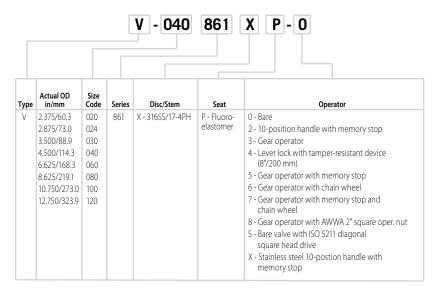
5.2 PERFORMANCE

Series 861 Vic-300 MasterSeal™ Stainless Steel Butterfly Valve for Potable Water Applications

Typical Specifications

Butterfly valves 2 – 12"/DN50 – DN300 shall be rated to 300 psi/2100 kPa/21 bar and be suitable for bi-directional and dead-end service to full-rated pressure. 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 a full 360° continuous contact with the seating surface when closed. Seat shall be pressure responsive, Fluoroelastomer. Stem seals shall be of the same material as the seats. Valve shall have standard ISO flange mounting for ease of actuation. Valve provided with lever handle or gear operator as required. The handle shall be zinc-plated carbon steel or fully stainless steel, latch lock type with infinitely variable and memory stop features. Manufacturer - Victaulic Series 861 Vic-300 MasterSeal™ Valves.

Numbering System





5.3 PERFORMANCE

Series 861 Vic-300 MasterSeal[™] Stainless Steel Butterfly Valve for Potable Water Applications Important Installation Considerations

When installing a Victaulic butterfly valve into a piping system, follow the instructions supplied with the coupling. Refer to the notes below for applications/limitations.

When using butterfly valves for throttling service, Victaulic recommends the disc be positioned no less than 30 degrees open. For best results, the disc should be between 30 and 70 degrees open. High pipeline velocities and/or throttling with the disc less than 30 degrees open may result in noise, vibration, cavitation, severe line erosion, and/or loss of control. For details regarding throttling services, contact Victaulic.

Victaulic recommends that flow velocities for water service are limited to 20 ft. per sec./6 m per sec. When higher flow velocities are necessary, contact Victaulic. When dealing with flow media other than water, contact Victaulic.

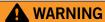
Victaulic recommends good piping practices and installing the valve five pipe diameters downstream of sources of irregular flow, such as pumps, elbows and control valves. If not practical due to space constraints, the system should be designed to locate and orient the valve to minimize the impact of dynamic torque and valve life.



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



6.0 NOTIFICATIONS















- · Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- . Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- · Wear safety glasses, hardhat, and foot protection.

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

7.0 REFERENCE MATERIALS

02.06: Victaulic Approvals for Potable Water Products - ANSI/NSF 61 and ANSI/NSF 372

17.40: Victaulic Vic-300 MasterSeal™ Stainless Steel Butterfly Valves: Series 461 and Series E461

I-ENDCAP: Victaulic End Cap Installation Safety Instructions

I-VIC300MS: Installation and Maintenance Instructions - Series 861 VIC-300 MasterSeal™ Stainless Steel Butterfly Valve

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning 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, installation guide, or this disclaimer.

Intellectual Property Rights

No statement contained herein concerning a possible or suggested use of any material, product, service, or design is intended, or should be constructed, to grant any license under any patent or other intellectual property right of Victaulic or any of its subsidiaries or affiliates covering such use or design, 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.

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.

Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of 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 www.victaulic.com.

Warranty

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

Trademarks

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.

17.45 13556 Rev D Updated 05/2021 © 2021 Victaulic Company. All rights reserved.

