

Victaulic Plug Valve

MTS™ Series 465



1.0 PRODUCT DESCRIPTION

NOTE

- MTS Plug Valve

Available Sizes

- 2 – 24"/DN50 – DN600

NOTE

- Contact Victaulic for other sizes.

Maximum Working Pressure

- Grooved Ends: up to 1200psi/8275 kPa/ 83 bar depending upon the pipe material/wall thickness and coupling selection
- Butt Weld ends: 1450psi/10,000 kPa/100 bar depending upon the pipe material/wall thickness and coupling selection
- Flanged ends: Per flange specification up to 1450psi/10,000kPa/100bar depending upon the pipe material/wall thickness and coupling selection

Operating Temperature

- Maximum operating temperature of 180°F/82°C.

Function

- Typically for use in reverse osmosis desalination applications.
- Intended for use in on-off service or control applications. See Plug Options.
- Valve accessories: Diffusers, orifice plates.

Plug Options

- Victaulic offers the Series 465 Plug Valve with various plugs and different accessory devices for a variety of operating conditions.
- ON/OFF: For system and equipment isolation.
- CONTROL: For plant start-up, pump by-pass, ERD by-pass, plant emergency shut down.
- CIP: For Clean In Place circuit inlet and outlet

Valve Pattern

- Reduced port, Venturi pattern.

Pipe Preparation

- Grooved end valves designed specifically for use on OGS or Victaulic StrengThin System formed ends. For additional information contact Victaulic.

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

2.0 CERTIFICATION/LISTINGS



UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C high flow, high velocity applications such as public water treatment facilities and ANSI/NSF 372.¹

¹ Reference ANSI/NSF - 2012, sec. 3.3.2.

NOTE

- Refer to Victaulic [submittal publication 02.06](#) for potable water approvals if applicable.

3.0 SPECIFICATIONS – MATERIAL

Body: Stainless Steel, Duplex, Super Duplex and Special Alloys.

Bonnet: Stainless Steel, Duplex, Super Duplex and Special Alloys.

Plug: Stainless Steel, Duplex, Super Duplex and Special Alloys.

Seat and Seals: PTFE

Typical casting materials:

- ☐ ASTM A-890/A-995 Grade 4A
- ☐ ASTM A-890/A-995 Grade 5A
- ☐ ASTM A-890/A-995 Grade 6A
- ☐ ASTM A-351 CK3MCuN (254 SMO)
- ☐ ASTM A-351 CF8M (316 SS)
- ☐ ASTM A-351 CF3M (316L SS)
- ☐ Other Stainless Steel and Alloys

3.1 SPECIFICATIONS – TECHNICAL

Ends: Available with Victaulic Original Grooved System (OGS), StrengThin™, butt weld or flanged ends (ANSI Class/ DIN Flange).

NOTE

- Transition valves are available having two different end configurations (for example, OGS x Flanged or StrengThin x Flanged valves may be provided). Contact Victaulic for details.

Production Hydrostatic Test: In accordance with API 598

Shell Test: 1.5 times design pressure

Closure Test: 1.1 times design pressure

Service: ON/OFF (isolating) and Flow Control configurations available.

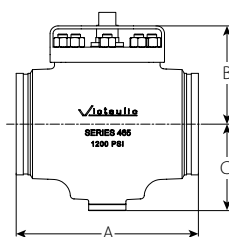
Operation: Manual (wrench/gearbox), Pneumatic, Hydraulic and Electric actuators.

Actuator Accessories: Limit Switches, Positioners, Solenoids, Positions Transmitters, Communication Buses, Control Panels.

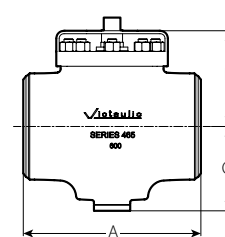
Valve Accessories: Diffusers, Orifice plates, Bonnet/shaft extensions are available upon request.

4.0 DIMENSIONS

Series 465, Grooved and Butt-Welded ends



Series 465 Groove



Series 465 Butt Weld

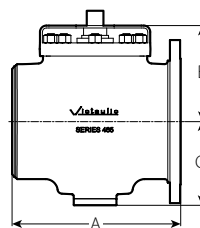
Valve Size		Dimensions		
Nominal Diameter	Actual Outside Diameter	A End to End	B	C
inches DN	inches mm	inches mm	inches mm	inches mm
2 DN50	2.375 60.3	8.504 216.0	4.960 126.0	2.953 75.0
3 DN80	3.500 88.9	8.858 225.0	5.579 141.7	3.681 93.5
4 DN100	4.500 114.3	9.252 235.0	6.012 152.7	4.193 106.5
5 DN125	5.563 141.3	13.465 342.0	8.003 203.3	4.694 119.2
6 DN150	6.625 168.3	13.465 342.0	7.668 194.8	5.029 127.7
8 DN200	8.625 219.1	16.496 419.0	8.998 228.5	6.691 170.0
10 DN250	10.750 273.0	19.291 490.0	11.829 300.5	9.152 232.5
12 DN300	12.750 323.9	20.512 521.0	11.961 304.0	10.145 258.0
14 DN350	14.000 355.6	21.457 545.0	12.404 315.0	10.805 274.0
16 DN400	16.000 406.4	31.496 800.0	14.546 369.5	13.418 341.0

NOTE

- Transition valves are available having two different end configurations (for example, OGS x BW or StrengThin x BW valves may be provided). Sizes available up to 24"/DN600. Contact Victaulic for details.

4.1 DIMENSIONS

Series 465, CIP plug valves



Series 465 CIP

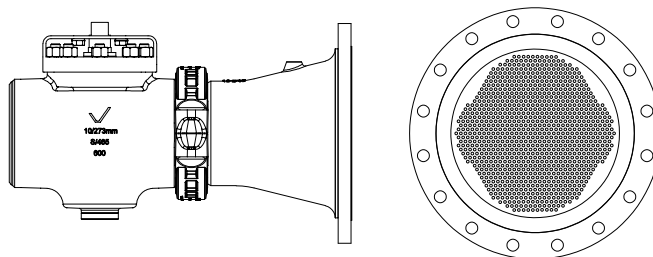
Valve Size		Dimensions		
Nominal Diameter inches DN	Actual Outside Diameter inches mm	A End to End inches mm	B inches mm	C inches mm
2 DN50	2.375 60.3	8.504 216.0	4.960 126.0	2.953 75.0
3 DN80	3.500 88.9	8.858 225.0	5.579 141.7	3.681 93.5
4 DN100	4.500 114.3	9.252 235.0	6.012 152.7	4.193 106.5
5 DN125	5.563 141.3	13.465 342.0	8.003 203.3	4.694 119.2
6 DN150	6.625 168.3	13.465 342.0	7.668 194.8	5.029 127.7
8 DN200	8.625 219.1	16.496 419.0	8.998 228.5	6.691 170.0
10 DN250	10.750 273.0	19.291 490.0	11.829 300.5	9.152 232.5
12 DN300	12.750 323.9	21.102 536.0	11.961 304.0	10.145 258.0
14 DN350	14.000 355.6	21.811 554.0	12.404 315.0	10.805 274.0
16 DN400	16.000 406.4	31.496 800.0	14.546 369.5	13.418 341.0

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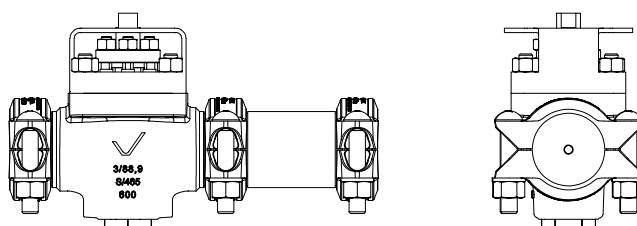
- Transition valves are available having two different end configurations (for example, OGS x Flange or StrengThin x Flange or BW x Flange valves may be provided). Sizes available up to 24"/DN600. Contact Victaulic for details.
- Flange dimensions are in accordance with ASME B16.5 or EN 1092-1.

5.0 ACCESSORIES

Victaulic can make hydraulic calculations upon customer request to detect cavitation issues and provide solutions downstream the plug valve when one stage is not enough to eliminate it. Diffusers and orifice plates are typically the device Victaulic supplies for such services



Series 465 with diffuser – High Pressure discharge pump by-pass



Series 465 with orifice plate – Rack start up by-pass

6.0 PERFORMANCE

See Section 1.0 – contact Victaulic with any questions.

7.0 NOTIFICATIONS

Not applicable – contact Victaulic with any questions.

 WARNING					
					
• 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.					

8.0 REFERENCE MATERIALS

Typical Specifications

Victaulic MTS Plug valves 2 – 24"/50 – 600 mm sizes shall be both bi-directional and dead-end service capable to full rated pressure. Body, bonnet and plug material shall be stainless steel according to internationally recognized material standards. Sleeve material and all seals shall be suitable for water service. Valve shall have standard ISO 5211 flange mounting for ease of actuation. Ends shall be Victaulic StrengThin™ or Victaulic Original Grooved Systems (OGS), butt weld or flanged ends (ANSI Class/DIN Flange).

Valve Numbering System

V0465 020 1 1 A 1 A 1 4A P B											
Series	Size		Plug Type	Rating	End Type 1	Schedule End 1	End Type 2	Schedule End 2	Body/Bonnet Material	Seat Material	Operator
V0465	2/50	020	1 - On/Off	1 - ANSI 150	A - AGS Grooved	1 - Sch. 10	A - AGS Grooved	1 - Sch. 10	4A - ASTM A-890/ A-995 Grade 4A	P - PTFE	B - Bare Shaft
	2½/65	024	2 - Control		B - Butt Weld	2 - Sch. 20	B - Butt Weld	2 - Sch. 20		R - RTFE	E - Electric
	3/80	030		3 - ANSI 300	F - Flanged (ANSI) Flat Face	3 - Sch. 30	F - Flanged (ANSI) Flat Face	3 - Sch. 30			G - Gear Box
	4/100	040				4 - Sch. 40		4 - Sch. 40	5A - ASTM A-890/ A-995 Grade 5A		H - Hydraulic
	5/125	050		6 - ANSI 600	G - OGS Grooved	6 - Sch. 60	G - OGS Grooved	6 - Sch. 60			L - Lever
	6/150	060			R - Flanged (ANSI) Raised Face	8 - Sch. 80	R - Flanged (ANSI) Raised Face	8 - Sch. 80	6A - ASTM A-890/ A-995 Grade 6A		N - Non Actuation
	8/200	080		7 - 1200 psi		N - Not Applicable		N - Not Applicable			P - Pneumatic
	10/250	100			S - StrengThin		S - StrengThin				
	12/300	120				5 - ANSI 150 Flange		5 - ANSI 150 Flange	CK - ASTM A-351 CK3MCuN (254 SMO)		
	14/350	140				7 - ANSI 300 Flange		7 - ANSI 300 Flange			
	16/400	160							C8 - ASTM A-351 CF8M (316SS)		
	18/450	180				9 - ANSI 600 Flange		9 - ANSI 600 Flange	C3 - ASTM A-351 CF3M (316L)		
	20/500	200									
	22/550	220				A - Sch. 10S		A - Sch. 10S			
	24/600	240				B - Sch. 40S		B - Sch. 40S			
						C - Sch. 80S		C - Sch. 80S			
						D - PN10		D - PN10			
						E - PN16		E - PN16			

[02.06: Potable Water Approvals](#)

[25.01: Standard Groove Specification](#)

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.

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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.

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