

# Double Disc Check Valve

## Series 415



17.37



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- 2 – 16"/DN50 – DN400

#### Maximum Working Pressure

- Up to 1200 psi/8274 kPa/83 Bar

#### Application

- Typically for use in seawater desalination service. Exclusively for use with pipe and Victaulic products which feature ends formed with the Victaulic Original Groove System (OGS) or Victaulic groove for StrengThin™ Systems. (see section 7.0 for Reference Materials).

### 2.0 CERTIFICATION/LISTINGS



UL Classified in accordance with NSF/ANSI/CAN 61 and 372 as a high flow device used in high flow, high velocity systems at public water treatment facilities.<sup>1</sup>

<sup>1</sup> Reference NSF/ANSI/CAN 61 - 2023, Section 3.3.2

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



### 3.0 SPECIFICATIONS – MATERIAL

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**Body:** Duplex, and Super Duplex Stainless Steels or Special Alloys

**Disc:** Duplex, and Super Duplex Stainless Steels or Special Alloys

**Shaft:** Duplex, and Super Duplex Stainless Steels or Special Alloys

**Spring:** X-750 Nickel Alloy

**Seals:** PTFE

**Standard Seat:** Metal, EPDM

**Ends:** Victaulic Original Groove System (OGS), Victaulic groove for StrengThin™ Systems.

**Casting Materials: (specify choice)**

Standard:

ASTM A-890 Grade 5A

optional:

ASTM A-890 Grade 4A

ASTM A-890 Grade 6A

ASTM A-351 CK3MCuN (254 SMO)

ASTM A-351 CF8M (316 SS)

ASTM A-351 CF3M (316L SS)

ASTM A-995 Grade 5A

ASTM A-351 CF8 (SS304)

Other Stainless Steel and Alloys

**Trim Materials: (specify choice)**

Standard:

ASTM A-890 Grade 5A

Optional:

ASTM A-890 Grade 4A

ASTM A-890 Grade 6A

ASTM A-351 CK3MCuN (254 SMO)

ASTM A-351 CF8M (316 SS)

ASTM A-351 CF3M (316L SS)

ASTM A-351 CF8 (SS304)

ASTM A-995 Grade 5A

ASTM A-217 CA15

ASTM A182 F53

ASTM A182 F316L

Other Stainless Steel and Alloys

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### 3.1 SPECIFICATIONS – TECHNICAL

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**Production Hydrostatic Test** in accordance with API 598

Shell Test: 1.5 maximum working pressure

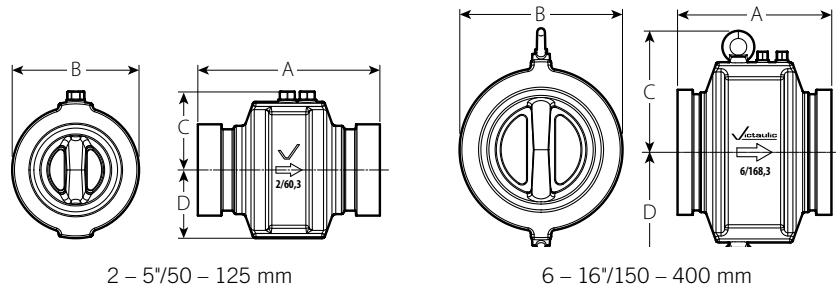
Closure Test: 1.1 maximum working pressure

**Service:** Non-Return

**Materials:** Per Section 5.0 Performance

## 4.0 DIMENSIONS

### Style 415



Valve Size		Dimensions			
Nominal	Actual Outside Diameter	A End to End	B	C	D
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm
2	2.375	5.25	3.75	2.26	1.97
DN50	60.3	133	93	58	50
2 ½	2.875	5.81	4.72	2.81	2.46
	73.0	148	120	72	63
3	3.500	6.10	4.94	2.89	2.60
DN80	88.9	155	126	74	66
4	4.500	6.65	6.69	4.06	3.70
DN100	114.3	169	170	103	94
5	5.563	7.09	8.03	5.12	4.47
	141.3	180	204	130	114
6	6.625	8.74	9.25	6.89	6.89
DN150	168.3	222	235	175	175
8	8.625	10.24	11.81	7.96	7.96
DN200	219.1	260	300	202	202
10	10.750	11.09	13.23	10.20	10.20
DN250	273.0	282	336	259	259
12	12.750	13.43	16.73	11.62	11.62
DN300	323.9	341	425	295	295
14	14.000	14.20	18.23	12.25	12.25
DN350	355.6	361	463	311	311
16	16.000	16.53	20.63	13.70	13.70
DN400	406.4	420	524	348	348
18	18.000	18.425	22.637	14.892	14.892
DN450	457	468	575	378.25	378.25

#### NOTES

- Lifting eyes are provided in sizes 6 - 16"/DN150 - DN400 to aid in lifting the valve during installation only. They are not intended for use as piping system supports.
- Flow through the valve must be in the direction indicated by the arrow cast into the valve body.
- Placement of check valves too close to sources of unstable flow (For example but not limited to: pumps, elbows, expanders, reducers or other similar devices) will shorten the life of the valve and potentially may damage the system. Sound piping practices dictate a minimum of five (5) times the pipe diameter for general use. Distance between three (3) and five (5) diameters are allowable provided the flow velocity is less than eight (8) feet per second (2.4 meters per second). Distance less than three (3) diameters are not recommended and will violate the Victaulic product warranty.

## 5.0 PERFORMANCE

### Typical Specifications

Victaulic Series 415 Double Disc Check Valves 2 – 16"/DN50 – DN400 sizes shall be Non-Return service capable to maximum working pressure. Body material shall be duplex and super duplex stainless steels or special alloys, according to internationally recognized ASTM, EN, and DIN. Seals shall be PTFE or EPDM. Ends shall be Victaulic grooved ends for StrenghThin™ Systems or Victaulic Original Grooved Systems (OGS).







### Valve Numbering System

**V0415 020 9 7 DN DN 4A 4A MN**

Series	Size		Plug Type	Class	End Type 1	End Type 2	Body Material	Trim Material	Seat Material
	In./mm	Code							
V0415	2/50	020	9 - Check Dual Plate	7 - 1200 PSI	DN - StrenghThin™ D08-Grooved	DN - StrenghThin™ D08-Grooved	4A - ASTM A-890 Grade 4A	4A - ASTM A-890 Grade 4A	MN - Metal EN - EPDM
	2½/65	024			GN - OGS-Grooved	GN - OGS-Grooved	5A - ASTM A-890 Grade 5A	5A - ASTM A-890 Grade 5A	
	3/80	030					6A - ASTM A-890 Grade 6A	6A - ASTM A-890 Grade 6A	
	4/100	040					CK - ASTM A-351 CK3CuN (254 SMO)	CK - ASTM A-351 CK3CuN (254 SMO)	
	5/125	050					C8 - ASTM A-351 CF8M (316SS)	C8 - ASTM A-351 CF8M (316SS)	
	6/150	060					C3 - ASTM A-351 CF8M (316L)	C3 - ASTM A-351 CF8M (316L)	
	8/200	080					5B - ASTM A-995 Grade 5A	5B - ASTM A-995 Grade 5A	
	10/250	100					C4 - ASTM A-351 CF8 (SS304)	CA - ASTM A-217 CA15 53 - ASTM A182 F53 3L - ASTM A182 F316L C4 - ASTM A-351 CF8 (SS304)	
	12/300	120							
	14/350	140							
	16/400	160							

## 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.
- It is the system designer's responsibility to verify suitability of stainless steel components for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on stainless steel components to confirm system life will be acceptable for the intended service.

Failure to follow these instructions could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

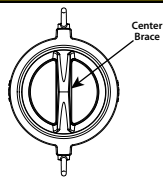

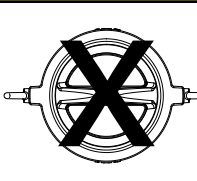
**⚠ WARNING**

Always verify that the valve's mating ends are supplied with the same groove profile as the adjoining pipe:

- Valves with OGS mating ends shall be used only with pipe prepared to OGS specifications.
- Valves with StrengThin mating ends shall be used only with pipe prepared to StrengThin specifications.
- **DO NOT** attempt to assemble the valve with pipe that is prepared to an incompatible groove specification.

Failure to follow these instructions could cause system failure, resulting in death or serious personal injury and property damage.

**⚠ CAUTION**

- For horizontal installations, the center brace inside the Series 415 Double-Disc Check Valve must be in the vertical position, as shown above.

**Failure to install the valve in the correct orientation will cause improper operation, resulting in property damage.**

## 7.0 REFERENCE MATERIALS

[29.01: Victaulic Terms and Conditions of Sale](#)

[I-100: Victaulic Field Installation Handbook](#)

### 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

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### 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.