

Check Valves

Series 317



1.0 PRODUCT DESCRIPTION

Available Sizes:

- 3 – 12"/DN89 – DN300.

Pipe Material:

- Ductile Iron

Maximum Working Pressure:

- 175psi/1200kPa/12 Bar

Operating Temperature Range:

- Dependent on gasket selection from section 3.0

Function:

- Typically water and wastewater services.

End Preparation:

- AWWA Rigid Cut Groove

2.0 CERTIFICATION/LISTINGS

Codes and Requirements:

- End to end dimensions, materials and general design conform to AWWA C-508
- Rigid grooved ends conform to AWWA C-606

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

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

3.0 MATERIAL SPECIFICATIONS

Body: Cast Iron conforming to ASTM A-126 Class B.

Body Coating: (specify choice)

Standard: Alkyd phenolic primer.

Optional: Other coatings (internal and/or external) available. Coating specification must be supplied with order.

Disc:

3 – 4": Bronze conforming to ASTM B-584.

6 – 12": Ductile iron conforming to ASTM A-536, grade 65-45-12 with welded nickel seat.

Hinge: Ductile iron conforming to ASTM A-536, grade 65-45-12.

Seat: Bronze conforming to ASTM B-584

Optional: Elastomeric coatings (Specify choice on order)

Seat: (specify choice¹)

EPDM

(Green color code). Temperature range -30°F to +230°F/-34°C to +110°C. UL Classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. NOT RECOMMENDED FOR PETROLEUM SERVICES.

Nitrile

(Orange color code). Temperature range -20°F to +180°F/-29°C to +82°C. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C. NOT RECOMMENDED FOR HOT WATER SERVICES.

Shaft: 17-4PH stainless steel conforming to ASTM A-564.

Bearings and Packing Nut: Bronze conforming to ASTM B-140.

Cap: Ductile iron conforming ASTM A-536, grade 65-45-12.

Closure Coupling: Ductile iron conforming to ASTM A-536, grade 65-45-12.

Coupling Gasket: (specify choice¹)

Grade “M” Halogenated Butyl

Halogenated butyl (Brown color code). Temperature range -20°F to +200°F/-29°C to +93°C. Recommended for water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. Readily conforms to ductile pipe surfaces. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

Grade “S” Nitrile

Nitrile (Red color code). Temperature range -20°F to +180°F/-29°C to +82°C. Specially compounded to conform to ductile pipe surfaces. 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.

¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nuts: Heat treated carbon steel, zinc plated to ASTM B-633, track-head conforming to physical properties of ASTM A-183 minimum tensile 110,000 psi (758340 kPa).

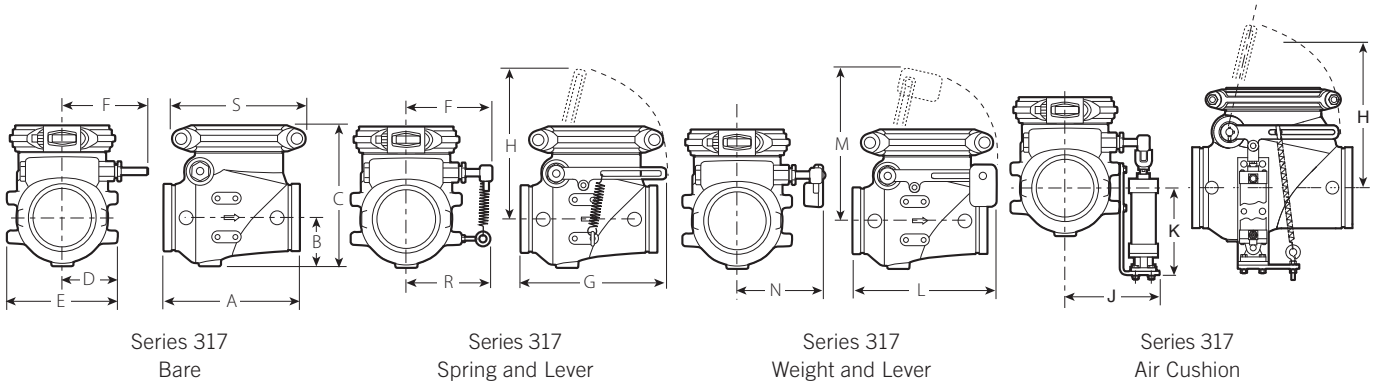
Accessories: (specify choice on order)

Lever with Weight

Lever with Adjustable Spring

Lever with Adjustable Spring and Air Cushion

4.0 DIMENSIONS

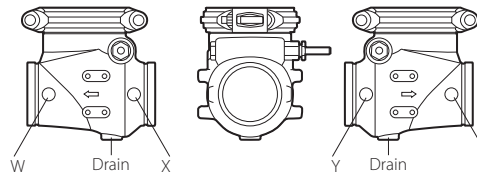


Valve Size		Dimensions															Weight ²	Accessory Kits Approximate Weight		
Nom. Dia.	Actual Out. Dia.	A	B	C	D	E	F	G	H	J	K	L	M	N	R	S	Aprx. (Each)	Spring & Lever	Weight & Lever	Air Cushion
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg	lb kg	lb kg	lb kg
3 DN40	3.960 100.6	9.50 241	3.28 83	10.13 257	3.87 98	7.74 197	7.05 179	13.56 344	13.22 336	8.00 203	11.28 287	14.65 372	14.07 357	7.30 185	6.82 173	9.50 241	50.0 22.7	4.0 1.8	7.0 3.2	15.0 6.8
4 DN100	4.800 121.9	11.50 292	4.05 103	11.38 289	4.62 117	9.24 235	7.80 198	13.93 354	13.91 353	8.75 222	10.74 273	15.03 382	14.74 374	8.05 204	7.54 192	11.74 298	70.0 31.8	4.0 1.8	7.0 3.2	15.0 6.8
6 DN150	6.900 175.3	14.00 356	4.98 126	14.43 367	5.68 144	11.36 289	8.86 225	14.50 368	15.26 388	9.81 249	9.47 241	15.59 396	16.07 408	9.11 231	8.60 218	14.57 370	120.0 54.4	4.0 1.8	7.0 3.2	15.0 6.8
8 DN200	9.050 229.9	19.50 495	6.12 155	18.14 461	7.15 182	14.30 363	11.34 288	20.25 514	21.37 543	12.65 321	12.74 324	21.52 547	22.21 564	11.64 296	10.37 263	17.94 456	225.0 102.1	8.0 3.6	17.0 7.7	34.0 15.4
10 DN250	11.100 281.9	22.00 559	7.38 187	20.90 531	8.28 210	16.56 421	12.48 317	20.39 518	22.61 574	13.78 350	11.51 292	21.65 550	23.45 596	12.77 324	11.50 292	20.42 519	350.0 158.8	8.0 3.6	17.0 7.7	34.0 15.4
12 DN300	13.200 335.3	26.00 660	8.60 218	27.04 687	9.62 244	19.24 489	13.81 351	21.00 533	24.00 610	15.12 384	10.13 257	22.27 566	24.83 631	14.11 358	12.84 326	23.05 585	460.0 217.7	8.0 3.6	17.0 7.7	34.0 15.4

2 Weights listed above are for the bare valve. Accessory kit weights are listed separately in right hand columns.

NOTE

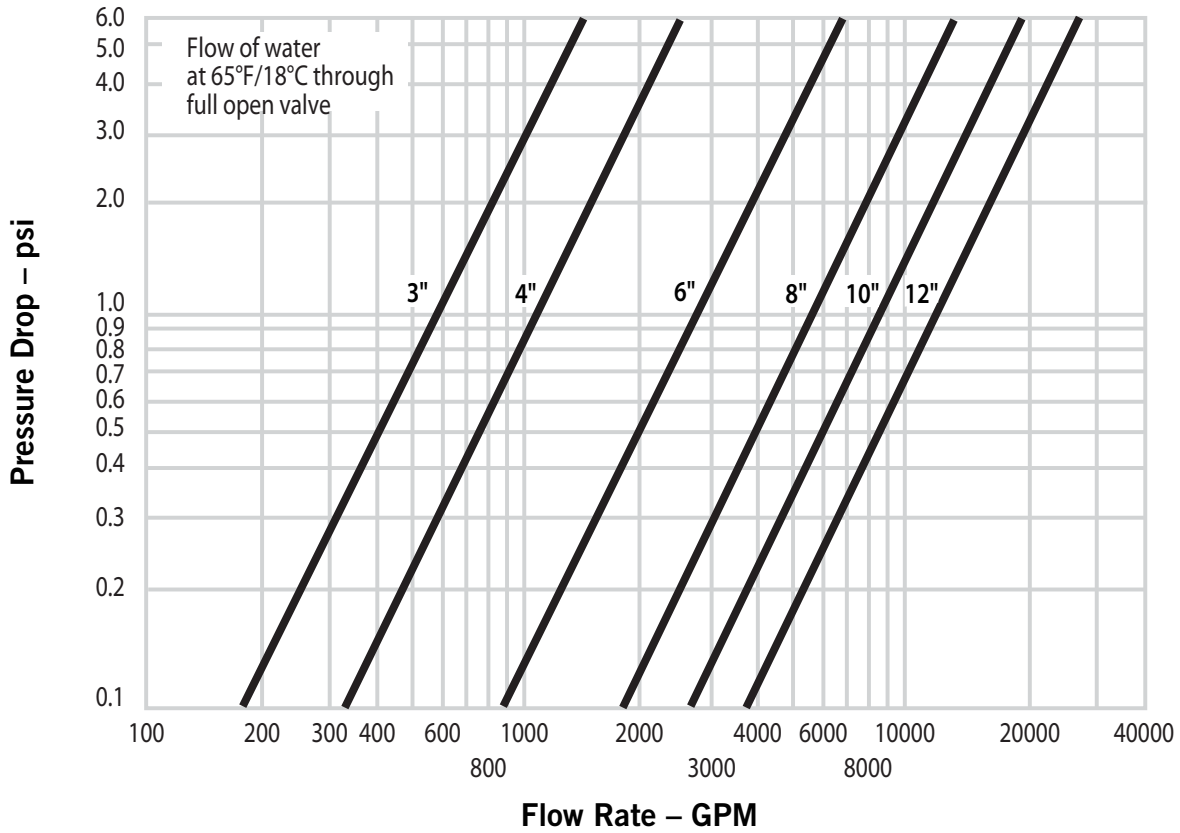
- Refer to the "Important Installation Considerations" table on page 3 for proper installation orientations.



Valve Size		Tap Sizes NPT Location W,X,Y,Z (max.) inches mm	Drain Tap NPT inches mm
Nominal Diameter inches DN	Actual Outside Diameter inches mm		
3 DN80	3.960 100.6	1/4 6.4	3/4 19.1
4 DN100	4.800 121.9	1/2 12.7	3/4 19.1
6 DN150	6.900 175.3	1/2 12.7	1 25.4
8 DN200	9.050 229.9	3/4 19.1	1 25.4
10 DN250	11.100 281.9	3/4 19.1	1 1/4 31.8
12 DN300	13.200 335.3	1 25.4	1 1/4 31.8

5.0 PERFORMANCE

Pressure losses for flow of water at 65°F (18°C) with a fully open valve are shown in the graph below.



6.0 NOTIFICATIONS

The following is a listing of proper installation orientations for the Series 317 Check Valve.

Option ³	Horizontal Orientation	Vertical Orientation
Bare	Yes	Yes
Lever with Weight	Yes	Yes ⁴
Lever with Spring	Yes	Yes
Lever with Adjustable Spring ⁵ and Air Cushion	Yes	Yes

³ Valves installed without air cushions are subject to slamming.

⁴ For proper operation in vertical orientations, the lever must be rotated 90° (refer to instructions supplied with the valve).

⁵ All valves installed with an air cushion must also contain an adjustable spring. NOTE: This is not the same spring that is provided with non-air cushion options.

- Field retrofit kits are available.
- Excessive tightening of the packing nut may impede the rate of clapper closure.
- Valves are supplied without pressure taps and drains. Specify at the time of order if taps or drains are required. Refer to the table below for available tap and drain locations and sizes.

7.0 REFERENCE MATERIALS

C - 040 - 1 1 1 1 - 10

Type	Act. In./mm	Size Code	Pressure Rating	Body Material	Closure Coupling Gasket Grade	Seat	Accessories*
C	3/80	030	1 - 175 psi 9 - Special*	1 - Iron	1 - (S) Nitrile	1 - Bronze	10 - Bare shaft on right side of valve
	4/100	040		3 - Coated Iron**	2 - (M) Hologenated Butyl	2 - (T) Nitrile	11 - Lever with Adjustable Spring mounted on right side of valve
	6/150	060		7 - Glass lined	3 - (V) Neoprene	3 - (E) EPDM	12 - Lever with Weight mounted on right side of valve
	8/200	080		9 - Special*	4 - (O) Fluoroelastomer	4 - (V) Neoprene	13 - Air Cushion with Adjustable Spring mounted on right side of valve
	10/250	100			5 - (O) Fluoroelastomer	5 - (O) Fluoroelastomer	20 - Bare shaft on left side of valve
	12/300	120			9 - Special*	9 - Special*	21 - Lever with Adjustable Spring mounted on left side of valve
					22 - Lever with Weight mounted on left side of valve		
					23 - Air Cushion with Adjustable Spring mounted on left side of valve		
						9 - Special*	

*Details must be supplied with order.

**Details of coating must be supplied with order.

[23.01: AWWA Ductile Iron Pipe - Grooved System](#)

[23.02: AWWA Style 31 Coupling](#)

[23.05: AWWA \(Cast\) Fittings](#)

[25.05: Radius Cut Groove Specifications](#)

[29.01: Terms and Conditions/Warranty](#)

[I-300: Field Installation Handbook](#)

[I-ENDCAP: Victaulic® End Caps Installation Instructions](#)

User Responsibility for Product Selection and Suitability

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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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