



HYDROFIRE ΕΠΕ

Buildings - Industry - Marine – Waterworks
END OF AG. PANTELEIMONOS Str. (ELEONAS)
GR-12241 EGALEO,
Tel.: +30 210 3412 749-750 Fax: +30 210 3412 406
www.hydrofire.gr, email: info@hydrofire.gr



FireLock® Check Valves

Series 717 Check Valve

Series 717H High Pressure Check Valve



10.08



Series 717H
High Pressure Check Valve
(2 – 3"/DN50 – DN80)



Series 717
(2½ – 3"/73 mm – DN80)



Series 717
(4 – 12"/DN100 – DN300)

1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 3"/DN50 – DN80 (Series 717H)
- 2½ – 12"/73 mm – DN300 (Series 717)

Pipe Material

- Carbon Steel, Schedule 10, Schedule 40. For use with alternative material please contact Victaulic.

Maximum Working Pressure

- Up to 365 psi/2517 kPa/25 bar
- Working pressure dependent on pipe size, valve size and approval requirements.

Application

- Designed for use in Fire Protection systems.
- Prevents back flow.
- Single-disc mechanism incorporates a spring-assisted feature for non-slamming operation.
- Can be installed either vertically (flow upwards only) or horizontally.
- Valve body cast with arrow indicator to assist with proper valve orientation.
- Optional upstream and downstream pressure taps included on select sizes. See Section 3.0.
- Provided with grooved ends.
- Rated for ambient temperature use in fire protection systems.

Available End Connections

- Victaulic Original Groove System (OGS) standard groove

2.0 CERTIFICATION/LISTINGS



LPS 1199: 16446 3.1
CERT.LPCB Ref: 1044301

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

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2.0 CERTIFICATION/LISTINGS

Approvals/Listings

Series 717H

Size		Approval/Listing Service Pressures				
Nominal inches DN	Actual Outside Diameter inches mm	cULus psi kPa	FM psi kPa	LPCB psi kPa	VdS psi kPa	CCCf psi kPa
2 DN50	2.375 60.3	365 2517	365 2517	365 2517	363 2500	N/A
2½	2.875 73.0	365 2517	365 2517	365 2517	N/A	363 2500
DN65	3.000 76.1	365 2517	365 2517	365 2517	363 2500	363 2500
3 DN80	3.500 88.9	365 2517	365 2517	365 2517	363 2500	363 2500

Series 717

Size		Approval/Listing Service Pressures				
Nominal inches DN	Actual Outside Diameter inches mm	cULus psi kPa	FM psi kPa	LPCB psi kPa	VdS psi kPa	CCCf psi kPa
2½	2.875 73.0	250 1725	N/A	N/A	N/A	N/A
DN65	3.000 76.1	250 1725	N/A	N/A	232 1600	N/A
3 DN80	3.500 88.9	250 1725	N/A	N/A	232 1600	N/A
4 DN100	4.500 114.3	365 2517	365 2517	365 2517	363 2500	363 2500
DN125	5.500 139.7	365 2517	365 2517	365 2517	363 2500	363 2500
5	5.563 141.3	365 2517	365 2517	365 2517	N/A	N/A
	6.500 165.1	365 2517	365 2517	365 2517	N/A	363 2500
6 DN150	6.625 168.3	365 2517	365 2517	365 2517	363 2500	N/A
8 DN200	8.625 219.1	365 2517	365 2517	348 2400	247 1700	363 2500
10 DN250	10.750 273.0	250 1725	250 1725	250 1725	N/A	232 1600
12 DN300	12.750 323.9	250 1725	250 1725	250 1725	N/A	N/A



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3.0 SPECIFICATIONS – MATERIAL

Body:

- Ductile Iron conforming to ASTM A536, Grade 65-45-12.

Body Coating:

- Series 717H Body: Black Paint
- Series 717H Endface: Electroless Nickel conforming to ASTM B733
- Series 717 (2 ½ – 3"/73mm – DN80): PPS Coating
- Standard: Series 717 (4 – 12"/DN100 – DN300): Black Paint
- Optional: Series 717 (4 – 12"/DN100 – DN300): PPS Coating

Body Seat:

- Series 717H: Nitrile O-ring installed into an Electroless Nickel plating conforming to ASTM B733
- Series 717 (2 ½ – 3"/73mm – DN80): PPS Coated Ductile Iron
- Series 717 (4 – 12"/DN100 – DN300): Ductile Iron with Electroless Nickel plating conforming to ASTM B733

Disc Seal or Coating: (specify choice¹)

- Nitrile (Series 717H only)
- EPDM

NOT COMPATIBLE FOR PETROLEUM SERVICES.

Discs:

- Series 717H: CF8M Cast Stainless Steel
- Series 717 (2 ½ – 3"/73mm – DN80): Aluminum bronze with elastomer seal
- Series 717 (4 – 12"/DN100 – DN300): Elastomer encapsulated disc.

Shaft:

- Series 717H: Brass
- Series 717 (2 ½ – 3"/73mm – DN80): Type 416 Stainless Steel
- Series 717 (4 – 12"/DN100 – DN300): Type 316 Stainless Steel

Spring:

- Type 302/304 Stainless Steel

Shaft Plug:

- Series 717H: Carbon Steel Zinc Plated
- Series 717: Carbon Steel Zinc Plated

Pipe Plug:

- Series 717H: Carbon Steel Zinc Plated
- Series 717: Carbon Steel Zinc Plated

Optional Pressure Taps:

- Series 717H: Available on all sizes
- Series 717: Available on sizes 4 – 12"/DN100 – DN300



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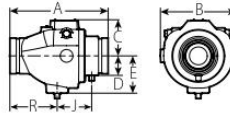
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4.0 DIMENSIONS

Series 717H



Typical 2 – 3/50 – 80 mm

Size		Dimensions						Weight
Nominal inches DN	Actual Outside Diameter inches mm	E to E A inches mm	B inches mm	C inches mm	E inches mm	J inches mm	R inches mm	Approx. (Each) lb kg
2	2.375	8.66	6.46	3.23	3.02	2.80	4.25	10.7
DN50	60.3	220	165	83	77	72	108	4.9
2½	2.875	9.37	6.94	3.31	3.40	3.38	4.38	13.8
	73.0	238	177	85	87	86	112	6.3
DN65	3.000	9.37	6.94	3.31	3.40	3.38	4.38	13.8
	76.1	238	177	85	87	86	112	6.3
3	3.500	9.62	7.44	3.53	3.65	3.38	4.63	20.0
DN80	88.9	244	189	90	93	86	118	9.1



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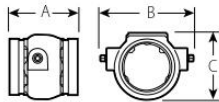
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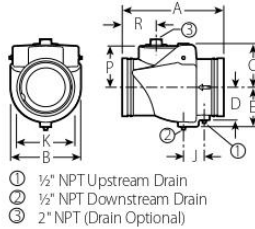
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4.1 DIMENSIONS

Series 717

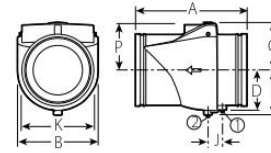


Typical 2 1/2 – 3"/73 mm – DN80



- ① 1/2" NPT Upstream Drain
- ② 1/2" NPT Downstream Drain
- ③ 2" NPT (Drain Optional)

Typical 4 – 8"/DN100 – DN200



- ① 1/2" NPT Upstream Drain
- ② 1/2" NPT Downstream Drain

Typical 10 – 12"/DN250 – DN300

Size		Dimensions								Weight
Nominal	Actual Outside Diameter	E to E A	B	C	E	J	K	P	R	Approx. (Each)
inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	lb
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
2 1/2	2.875 73.0	3.88 99	4.26 109	3.57 91	- -	- -	- -	- -	- -	3.6 1.6
DN65	3.000 76.1	3.88 99	4.26 108	3.57 91	- -	- -	- -	- -	- -	3.6 1.6
3	3.500 88.9	4.25 108	5.06 129	4.17 106	- -	- -	- -	- -	- -	4.5 2.0
DN80	4.500 114.3	9.63 245	6.00 152	3.88 99	3.50 89	2.00 51	4.50 114	3.50 89	3.35 85	20.0 9.1
4	5.500 139.7	10.50 267	6.80 173	4.50 114	4.17 106	2.15 55	5.88 149	4.08 104	3.98 101	27.0 12.2
DN100	5.563 141.3	10.50 267	6.80 173	4.50 114	4.17 106	2.15 55	5.88 149	4.08 104	3.98 101	27.0 12.2
5	6.500 165.1	11.50 292	8.00 203	5.00 127	4.50 114	2.38 60	6.67 169	4.73 120	3.89 99	38.0 17.2
DN150	6.625 168.3	11.50 292	8.00 203	5.00 127	4.50 114	2.38 60	6.67 169	4.73 120	3.89 99	38.0 17.2
6	8.625 219.1	14.00 356	9.88 251	6.06 154	5.65 144	2.15 55	8.85 225	5.65 144	5.75 146	64.0 29.0
DN200	10.750 273.0	17.00 432	12.00 305	7.09 180	6.69 170	2.15 55	10.92 277	6.73 171	- -	100.0 45.4
10	12.750 323.9	19.50 495	14.00 356	8.06 205	7.64 194	2.51 64	12.81 325	7.73 196	- -	140.0 63.5
DN250	12.750 323.9	19.50 495	14.00 356	8.06 205	7.64 194	2.51 64	12.81 325	7.73 196	- -	140.0 63.5
12	DN300									



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5.0 PERFORMANCE

Flow Characteristics

The charts below express the flow of water at 60°F/16°C through valve.

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

Series 717H

Size		Flow Characteristics
Nominal inches DN	Actual Outside Diameter inches mm	Full Open C _v K _v
2 DN50	2.375 60.3	160 138
2½	2.875 73.0	215 186
DN65	3.000 76.1	215 186
3 DN80	3.500 88.9	315 272

Series 717

Size		Flow Characteristics
Nominal inches DN	Actual Outside Diameter inches mm	Full Open C _v K _v
2½	2.875 73.0	140 121
DN65	3.000 76.1	140 121
3 DN80	3.500 88.9	250 216
4 DN100	4.500 114.3	390 337
DN125	5.500 139.7	700 606
5	5.563 141.3	700 606
	6.500 165.1	1000 865
6 DN150	6.625 168.3	1000 865
8 DN200	8.625 219.1	1800 1557
10 DN250	10.750 273.0	3000 2595
12 DN300	12.750 323.9	4200 3633



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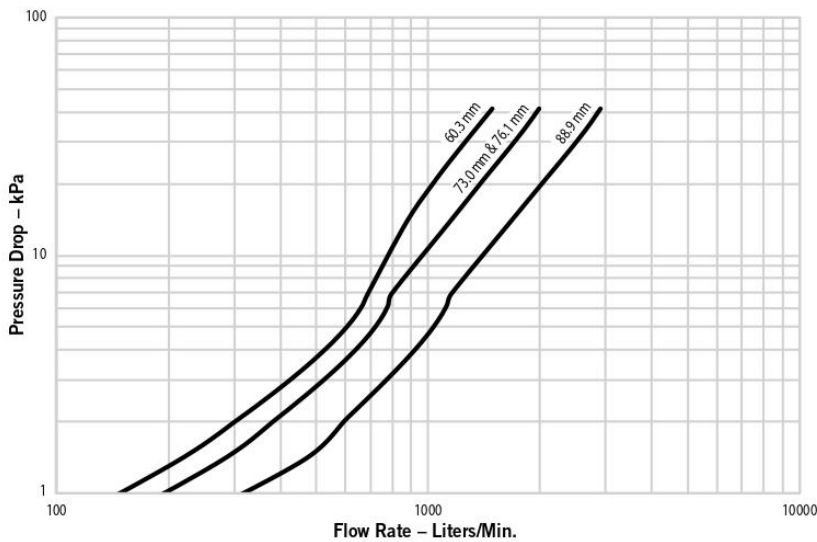
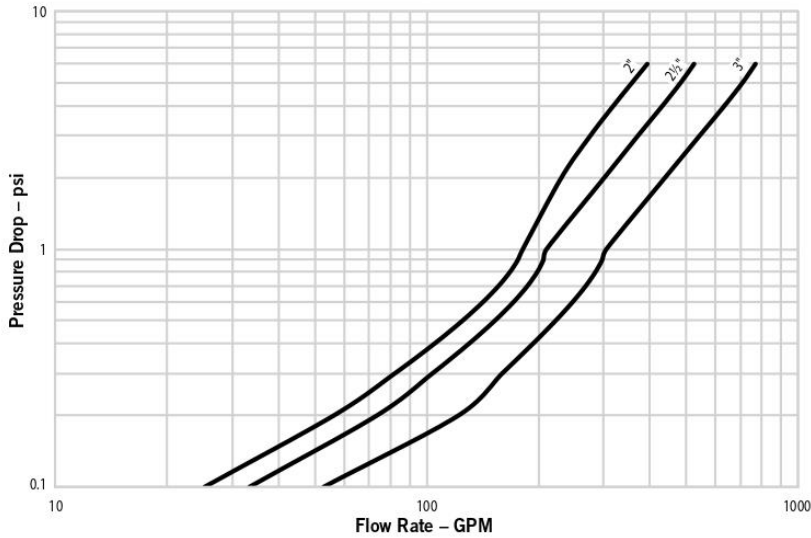
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5.0 PERFORMANCE (CONTINUED)

Flow Characteristics

The charts below express the flow of water at 60°F/16°C through valve.

S717H





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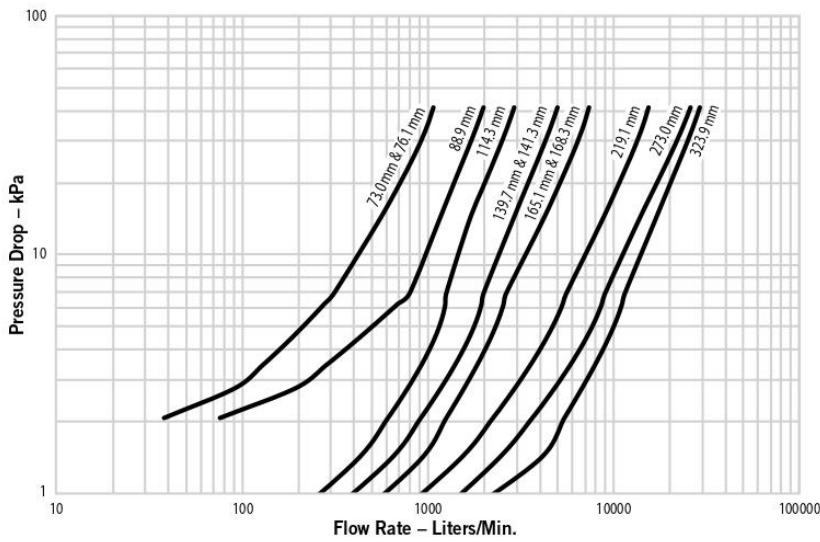
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5.1 PERFORMANCE

Flow Characteristics

The charts below express the flow of water at 60°F/16°C through valve.

S717





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6.0 NOTIFICATIONS

WARNING



- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.

7.0 REFERENCE MATERIALS

[05.01: Seal Selection Guide](#)

[10.01: Regulatory Approval Reference Guide](#)

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

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

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, 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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