

Check Valves for use in Grooved-End Piping Systems Series 7800



For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions Sales Representative.

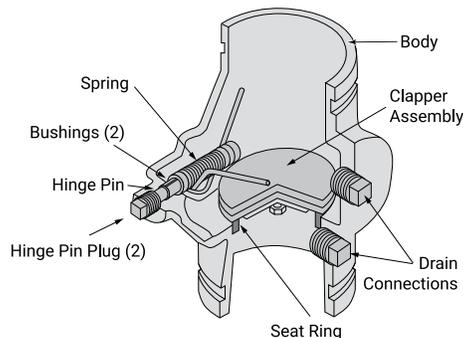
The Gruvlok Series 7800 Check Valve is a compact, cost effective valve offering low pressure-drop, non-slam performance. The Series 7800 Check Valve assembly is lighter and faster to install, and costs less than flanged and wafer valve assemblies.

In the fully open position the Series 7800 swing clapper is held tightly against the valve body, out of the flow stream, to provide maximum flow area and prevention of clapper flutter. The clapper design produces quick, non-slam closure before flow reversal can occur, while meeting FM requirements for an anti-water hammer valve rating.

Each valve is hydrostatically tested for leak tightness to 500 PSI. The clapperseat design permits leak free sealing of back pressures in service conditions ranging from 300 PSI (20.7 bar) to as low as 1 PSI (0.07 bar) (head pressure: 28").

Performance

Pressure Rating: Commercial Applications – Sizes 2" thru 12" inclusive, 300 psi (20.7 bar) maximum working pressure.



Material Specifications

Body

Ductile iron conforming to ASTM A 536, Grade 65-45-12

Coating

Rust inhibiting paint on exterior and interior – color: orange enamel

Clapper

2" - 5" Type 304 or 302 stainless steel to ASTM A 167

6" - 12" Ductile iron conforming to ASTM A 536, Grade 65-45-12

Clapper Facing

Grade E EPDM: -40° to 230°F (-40° to 110°C)
Service Temperature Range

Recommended for water service, dilute acids, alkaline, oil-free air and many chemical services.

Not For Use In Petroleum Services.

Grade T Nitrile: -20° to 180°F (-29° to 80°C)
Service Temperature Range

Recommended for petroleum products, air with oil vapors, vegetable oils and mineral oils.

Not For Use In Hot Water Services.

Seat Ring

Type 304 stainless steel to ASTM A 123, ASTM A 213, ASTM A 312 or ASTM A 269

Spring

Type 302 stainless steel to ASTM A 313

Hinge Pin

Type 304 or 302 stainless steel to ASTM A 580

Hinge Pin Bushings

Sintered bronze to ASTM B 438

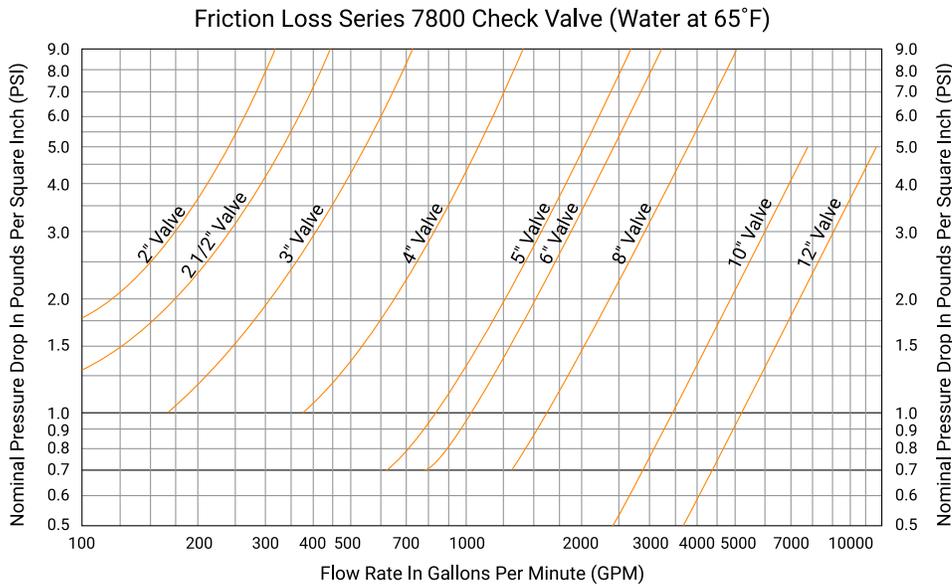
Hinge Pin Plugs & Drain Plugs

Cast iron to ASTM A 126 Class A



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

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Flow Data – Friction Loss (Ft. of Pipe)

Valve Size	O.D.	C=100			C=120		
		Sch. 10	Sch. 30	Sch. 40	Sch. 10	Sch. 30	Sch. 40
In./mm	In./mm	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m
2	2.375	10	—	8	14	—	11
50	60.3	3.0	—	2.4	4.3	—	3.4
2½	2.875	14	—	10	20	—	15
65	73.0	4.3	—	3.0	6.1	—	4.6
3	3.500	17	—	12	23	—	17
80	88.9	5.2	—	3.7	7.0	—	5.2
4	4.500	17	—	13	23	—	18
100	114.3	5.2	—	4.0	7.0	—	5.5
5	5.563	14	—	11	20	—	15
125	141.3	4.3	—	3.4	6.1	—	4.6
6	6.625	23	—	19	33	—	26
150	168.3	7.0	—	5.8	10.1	—	7.9
8	8.625	35	32	30	50	45	43
200	219.1	10.7	9.8	9.1	15.2	13.7	13.1
10	10.750	28	25	24	40	36	34
250	273.1	8.5	7.6	7.3	12.2	11.0	10.4
12	12.750	31	28	26	44	39	37
300	323.9	9.4	8.5	7.9	13.4	11.9	11.3

Flow Data

The approximate friction losses, based on the Hazen and Williams formula, expressed in equivalent length of pipe is given below. The friction losses have been calculated on the basis of flow rates typically used with each size valve.

Important Note:

Check valve life may be shortened and system damage may occur if check valves are installed too close to a source of unstable flow. Check valves must be installed at a reasonable distance away from pumps, elbows, expanders, reducers or other similar devices. Sound piping practices dictate a minimum of five (5) times the pipe diameter for general use. Distances between three (3) and five (5) diameters are allowable provided the flow velocity is less than 8 feet per second. Distances less than 3 diameters are not recommended.

This valve may be installed vertically or horizontally. In a horizontal installation, the hinge pin is to be located on top.

Not for use in copper systems.



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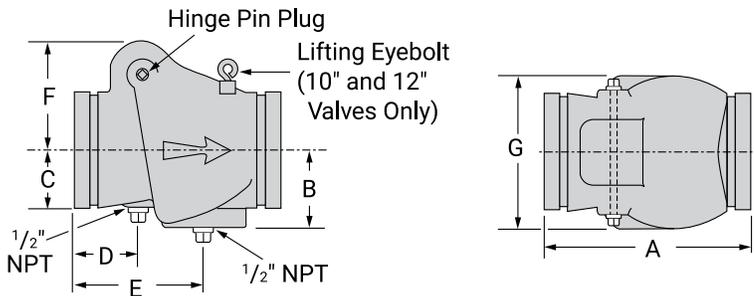


Fig. 7800 Check Valve

Valve Size	O.D.	Nominal Dimensions							Approx. Wt. Ea.
		A	B	C	D	E	F	G	
In./mm	In./mm	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m	Ft./m
2 50	2.375 60.3	6 ³ / ₄ 171	2 ³ / ₈ 60	1 ⁷ / ₁₆ 36	1 ³ / ₄ 44	4 ¹ / ₂ 114	3 ³ / ₁₆ 81	4 ³ / ₈ 111	7.5 3.4
2½ 65	2.875 73.0	7¼ 184	2 ⁷ / ₁₆ 61	1 ⁹ / ₁₆ 39	1¾ 44	3 ¹³ / ₁₆ 96	3 ³ / ₈ 92	4½ 114	10.5 4.8
3 80	3.500 88.9	7¾ 197	2 ⁵ / ₈ 67	2 51	1 ¹³ / ₁₆ 46	4 ¹ / ₁₆ 103	3 ¹¹ / ₁₆ 93	4 ¹⁵ / ₁₆ 125	11.5 5.2
4 100	4.500 114.3	8 ¹ / ₈ 206	3 ¹ / ₈ 79	2¼ 57	2½ 64	5 ¹ / ₁₆ 128	4¼ 108	6 152	13.5 6.1
5 125	5.563 141.3	9¾ 248	3½ 89	2¾ 70	2 ⁷ / ₁₆ 61	5 ¹³ / ₁₆ 147	4 ⁵ / ₈ 117	6¾ 171	19.0 8.6
6 150	6.625 168.3	12¾ 324	4¼ 108	3 ⁵ / ₁₆ 84	3 ¹ / ₈ 79	6¼ 159	6¾ 171	8½ 216	33.5 15.2
8 200	8.625 219.1	14¾ 365	5 ¹ / ₁₆ 128	3 ¹⁵ / ₁₆ 100	4 102	5 ¹⁵ / ₁₆ 150	8 203	10¼ 260	59.0 26.8
10 250	10.750 273.1	18 457	6 ⁵ / ₁₆ 160	4 ¹⁵ / ₁₆ 125	4 ⁹ / ₁₆ 115	6 ⁷ / ₈ 175	9 ³ / ₁₆ 233	12 ¹¹ / ₁₆ 322	130.0 59.0
12 300	12.750 323.9	21 533	7 ⁵ / ₁₆ 185	6 152	5 ¹ / ₁₆ 128	7¼ 184	10 ³ / ₈ 264	14¾ 375	183.0 83.0

Series 7800 Check Valves (Ordering Information)

Sample Part Number	Size	Series	Clapper Facing Material	Body Finish	Special Configuration
4" 7811-->	4"	78	1	1	X
	2" - 12"	78 - 7800	1 - EPDM (Std) 2 - Nitrile (Std)	1 - Painted (Std)	2 - Other *

* Contact an ASC Engineered Solutions representative for more information.



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