Resilient Seated Gate Valve
Outside Screw and Yoke (OS&Y)

General

AFCO Resilient Seated Gate Valves are used to permit or prevent the flow of liquids in fire protection systems. Raising the valve allows liquids to flow through the valve while lowering the valve cuts off the liquids flowing through the valve.

This valve conforms to AWWA C515/BS5163. Body, wedge, and bonnet are made of high strength ductile iron. All stems are made of stainless steel and all components are corrosion resistant or protected by fusion bond epoxy coating that offers the ultimate corrosion resistance.

Valves are available in Flange-Flange, Groove-Groove and Flange-Groove end connection. Flange drilling is ANSI B16.1 Class 150 or PN16 EN1092-2. Other Flange end connection are available upon request.

Technical Data

Approval

UL Listed
FM Approved

Maximum Working pressure

300 PSI (20.87 bar)

Operating temperature

10°F (-23°C) to 230°F (110°C), for optimal performance, refer to figure 1

Nominal Sizes

2″ (DN50), 2 ½″ (DN65), 3″ (DN80), 4″ (DN100), 5″ (DN125), 6″ (DN150), 8″ (DN200), 10″ (DN250) and 12″ (DN300)

Connections

Flanged Ends

ANSI B16.1 Class 150

EN1092-2 PN16

Grooved Ends

Conforms to AWWA C606

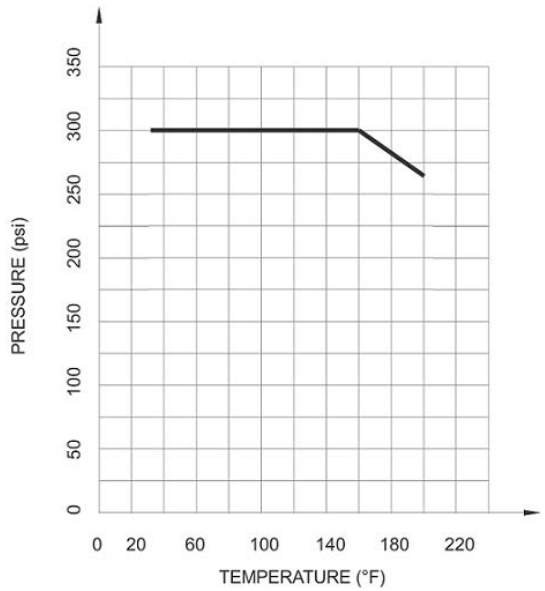
Finish

Fusion bond epoxy coated

Pressure-Temperature Performance

See figure 1

Figure 1 Operating pressure-temperature chart



Components

See material list and figure 2

Figure 2 Valve components

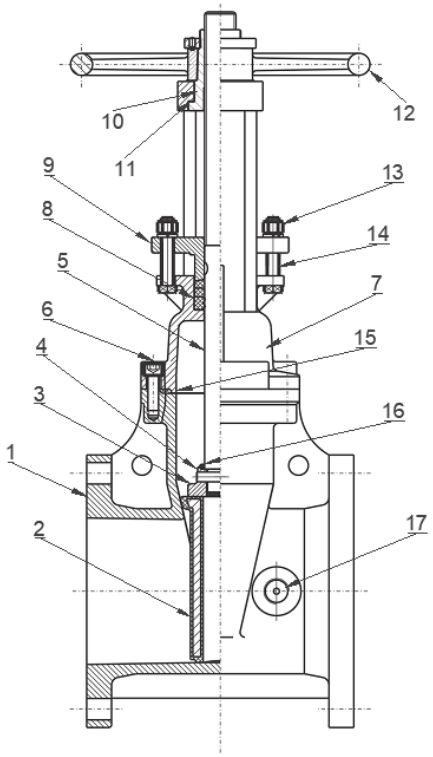


Table 1 Material list

No	Description	Material	Specification
1	Body	Ductile Iron	ASTM A536 65-45-12
2	Wedge	EPDM Coated Ductile Iron	ASTM A536 65-45-12
3	Wedge Nut	Stainless Steel	AISI 304
4	Pin	Stainless Steel	AISI 304
5	Stem	Stainless Steel	AISI 304/302
6	Bonnet Bolt	Stainless Steel	AISI 304
7	Bonnet	Ductile Iron	ASTM A536 65-45-12
8	Packing	Graphite	Non-asbestos
9	Gland	Ductile Iron	ASTM A536 65-45-12
10	Stem Nut	Bronze	ASTM B62
11	Washer	Brass	ASTM B16 C36000
12	Hand wheel	Ductile Iron	ASTM A536 65-45-12
13	Gland Nut	Stainless Steel	AISI 304
14	Gland Bolt	Stainless Steel	AISI 304
15	Gasket	EPDM	Commercial
16	O-Ring	EPDM	Commercial
17	Plug	Brass	ASTM B16 C36000

Figure 3 Valve dimensions

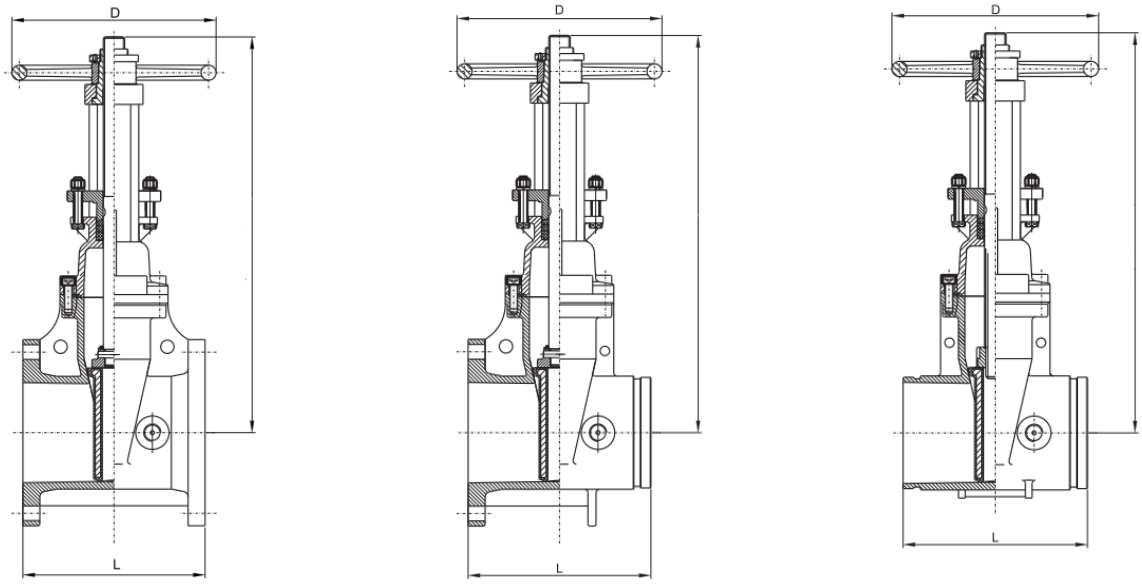


Table 2 Dimensions

SIZE	Unit	2"	2 ½"	3	4	5	6	8	10	12
		50	65	80	100	125	150	200	250	300
L	inch	7.00	7.50	8.00	9.00	10.00	10.50	11.50	13.00	14.00
	mm	178	191	203	229	254	267	292	330	356
H (OPEN)	inch	16.46	16.46	19.21	21.18	25.75	29.13	36.81	44.33	51.81
	mm	418	418	488	538	654	740	935	1126	1316
D	inch	7.20	7.20	9.96	9.96	12.05	12.05	13.98	17.52	17.52
	mm	183	183	253	253	306	306	355	445	445

Table 3 Part number and ordering information

Nominal Sizes	Part Number				
	Flange-Flange ANSI Class 150	Flange-Flange EN1092-2 PN16	Flange-Groove ANSI Class 150	Flange-Groove EN1092-2 PN16	Groove-Groove
2" (DN50)	GV01-300FF50	GV01-16FF50	GV01-300FG50	GV01-16FG50	GV01-GG50
2 ½" (DN65)	GV01-300FF65	GV01-16FF65	GV01-300FG65	GV01-16FG65	GV01-GG65
3" (DN80)	GV01-300FF80	GV01-16FF80	GV01-300FG80	GV01-16FG80	GV01-GG80
4" (DN100)	GV01-300FF100	GV01-16FF100	GV01-300FG100	GV01-16FG100	GV01-GG100
5" (DN125)	GV01-300FF125	GV01-16FF125	GV01-300FG125	GV01-16FG125	GV01-GG125
6" (DN150)	GV01-300FF150	GV01-16FF150	GV01-300FG150	GV01-16FG150	GV01-GG150
8" (DN200)	GV01-300FF200	GV01-16FF200	GV01-300FG200	GV01-16FG200	GV01-GG200
10" (DN250)	GV01-300FF250	GV01-16FF250	GV01-300FG250	GV01-16FG250	GV01-GG250
12" (DN300)	GV01-300FF300	GV01-16FF300	GV01-300FG300	GV01-16FG300	GV01-GG300

Installation

1. Valves should be considered to be located in order to allow access for operation, adjustment and maintenance. Spared space above the valve is required to accommodate the rising stem.
2. Ensure the operating pressure of the valve accordance to the system pressure.
3. Valves shall be installed on adequate support and all joining pipe work shall be supported to avoid the imposition of pipeline strains on the valve, which would decrease its performance or damage the valve.
4. Handling the valve carefully, avoid lifting valve at the hand wheel or the stem.
5. Visual inspection of the valves should be perform through the end ports to avoid any dirt.
6. Examine both flanges (valve and pipe) for correct gasket material, operating pressure/temperature, contact face and surface finish.
7. Valves may be installed with the stem in the vertical position on the horizontal pipe work and in the horizontal position on the vertical pipe work.
8. Fix all potential cause of leakage, prior to final installation of the valve.

Maintenance

1. Valves should be at zero pressure and ambient temperature while performing any maintenance.
2. In the event of gland leakage, each gland nut should be tightened diametrically and evenly until the leakage stops.
3. In the corrosion environment, wall thickness checks on the body and bonnet should be perform periodically. If the wall thickness already reduced more than 25%, the valve shall be replaced.

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