

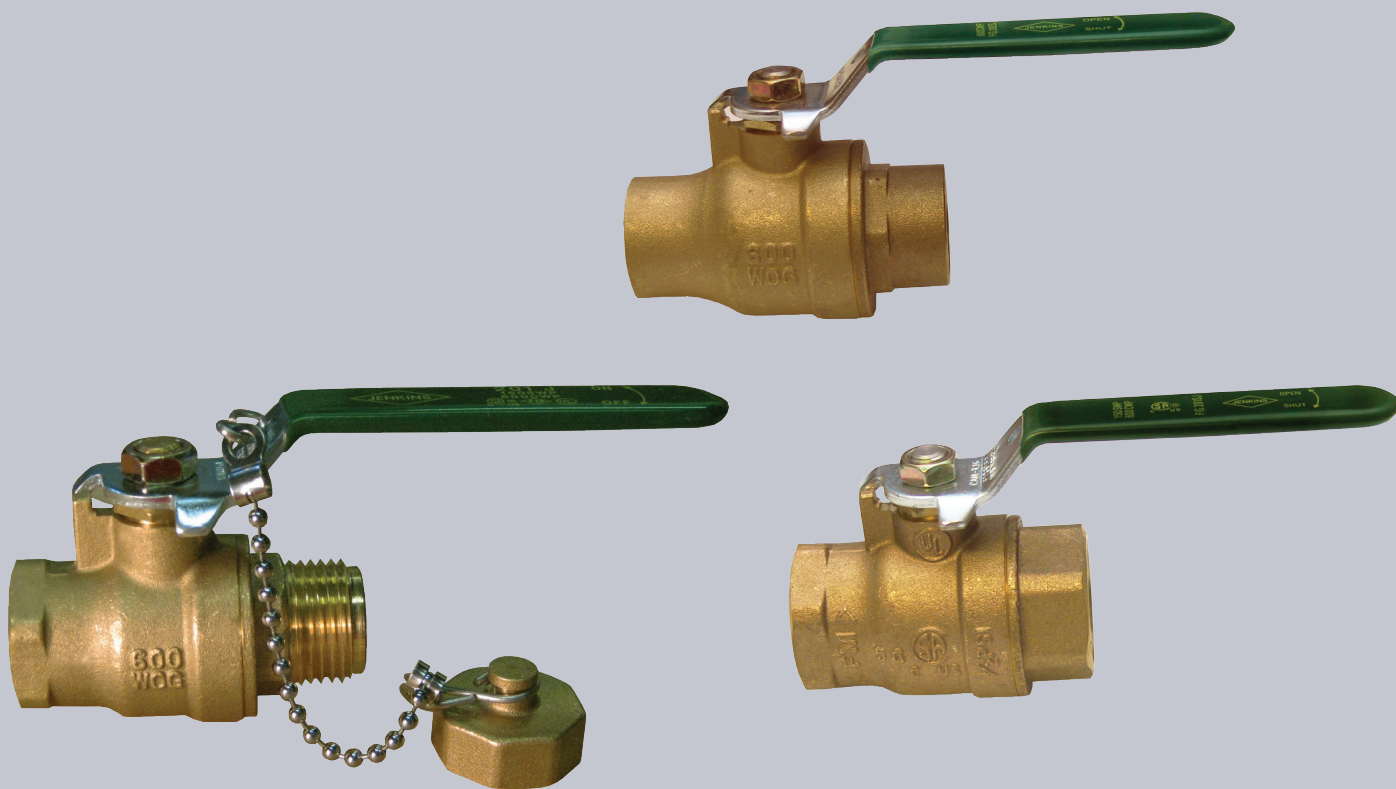
SINCE

1864

JENKINS

®

brands you trust.



CRANE

Energy Flow Solutions

JENKINS® Ball Valves

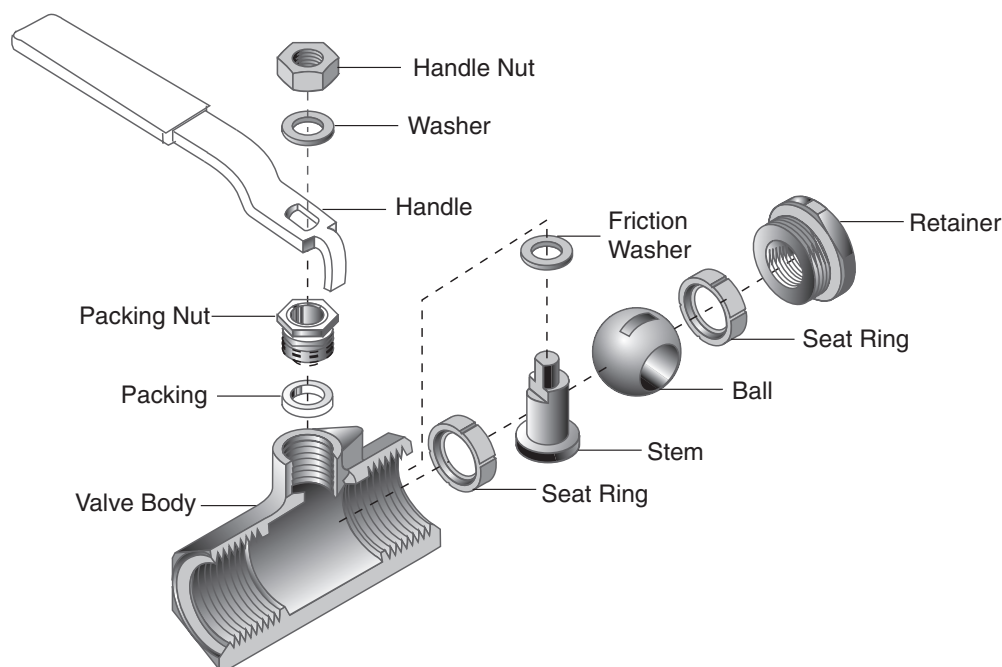
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Figure Number Index

Fig No.	Page
201J	4
202J	5
201SJ	6
202SJ	7
201CJ	8
202CJ	9
201CSJ	10
202CSJ	11

Key Features, Options and Pressure-Temperature Ratings

Jenkins® ball valves are general purpose two-piece end entry ball valves that covers the full spectrum of industrial and commercial applications.



Jenkins® Ball Valve Key Features and Options:

Blow-Out Proof Stem

The internally loaded stem has an integral thrust collar which prevents stem removal while the valve is installed.

Adjustable Packing

The packing may be tightened to compensate for wear throughout the life of the valve.

Lever Handle

Heavy duty lever handles are standard for easy operation. All handles include a vinyl insulator sleeve for protection from high or low temperatures.

Options Include

- Memory Stop
- Extension Stems
- Tee Handles
- Stainless Steel Lever Handles
- Locking Handles

CGA Approved

Jenkins® threaded ends ball valves are Canadian Gas Association Approved.

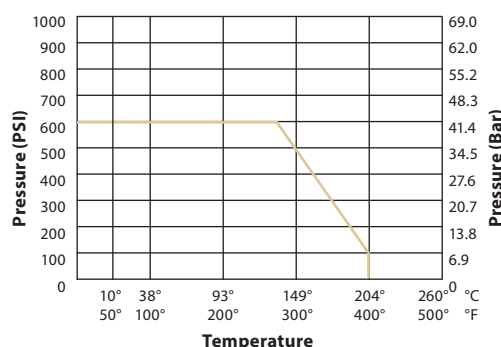
AGA Approved

Jenkins® threaded end ball valves are American Gas Association Approved.

UL/FM Approved

Figures 201J & 201SJ, size 1/4" – 2" are Underwriter's Laboratory/ Factory Mutual Approved.

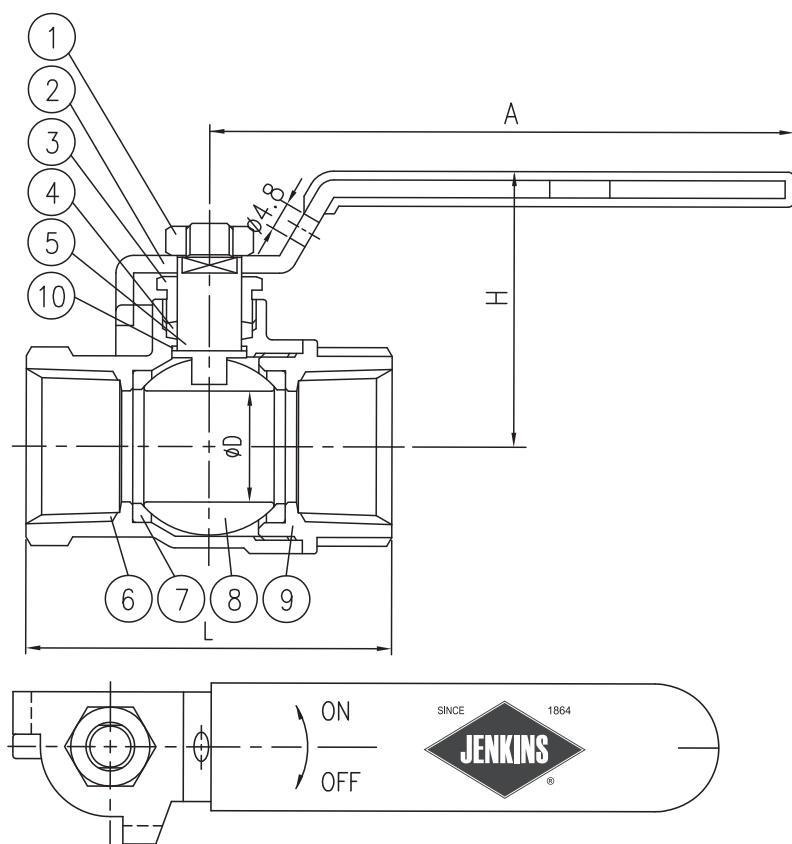
Pressure-Temperature Ratings



600 CWP/150 SWP • Full Port • Threaded Ends

201J

Forged Brass, 2-Piece Body, Meets MSS SP-110,
CSA/UL/FM Approval (½ - 2" only)



MH46785
Listed
2L73



Approvals:

UL Approved

- YSDT (LP-Gas Shut-off valves)
- YRBX (Flammable Liquid Shut-off valves)
- MHKZ (Manual valves)

CSA Approved

- CLASS 3371 94 - Manually Operated Metallic for Use in Piping Systems
Certified to US Standards
- CLASS 3371 92 - Manually Operated Metallic for Use in House
Piping Systems - Certified to US Standards
- CLASS 3371 88 - General Use - Certified to US Standards
- CLASS 3371 12 - Manually Operated for Use on Piping
- CLASS 3371 10 - Lever Operated Non-Lubricated Shut-off
- CLASS 3371 08 - General Use

Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	B16-C36000
6	Body	B124-C37700 B584-C85700 (2" - 4")
7	Seat	PTFE
8	Ball	B16-C36000 or B124-C37700 (1" - 4")
9	End Plug	B124-C37700
10	Thrust Washer	PTFE (2" - 4")

Dimensions and Weights

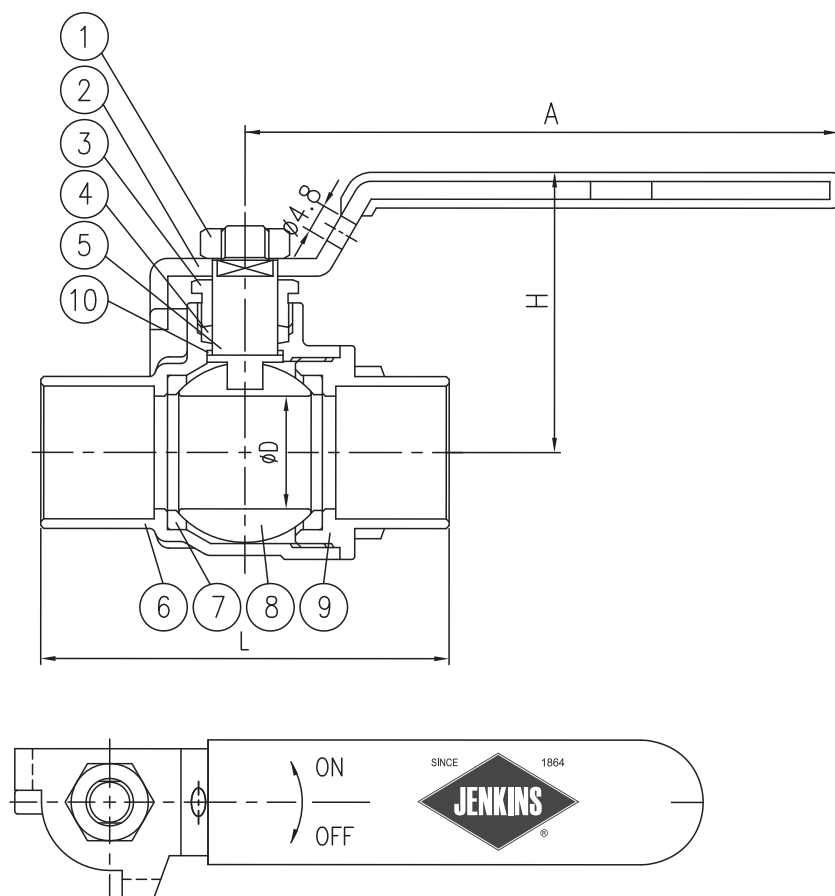
Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
¼	3.15	0.35	1.42	1.69	0.35
	(80)	(9)	(36)	(43)	(0.16)
⅜	3.15	0.39	1.46	1.81	0.35
	(80)	(10)	(37)	(46)	(0.16)
½	3.15	0.50	1.50	2.13	0.42
	(80)	(13)	(38)	(54)	(0.19)
¾	4.33	0.75	1.85	2.48	0.84
	(110)	(19)	(47)	(63)	(0.38)
1	4.33	0.98	2.05	2.99	1.25
	(110)	(25)	(52)	(76)	(0.57)
1 ¼	5.11	1.25	2.36	3.35	1.83
	(130)	(32)	(60)	(85)	(0.83)
1 ½	5.12	1.50	2.56	3.62	2.49
	(130)	(38)	(65)	(92)	(1.13)
2	7.87	1.97	3.11	4.25	4.58
	(200)	(50)	(79)	(108)	(2.08)
2 ½	7.87	2.48	3.50	5.16	7.71
	(200)	(63)	(89)	(131)	(3.50)
3	7.87	2.95	3.86	5.91	10.64
	(200)	(75)	(98)	(150)	(4.83)
4	7.87	2.95	3.86	6.26	13.22
	(200)	(75)	(98)	(159)	(6.00)

600 CWP • Full Port • Solder Ends

202J

Forged Brass, 2-Piece Body, Meets MSS SP-110



Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	B16-C36000
6	Body	B124-C37700 B584-C85700 (2" - 3")
7	Seat	PTFE
8	Ball	B16-C36000 or B124-C37700 (3/4" - 3")
9	End Plug	B124-C37700
10	Thrust Washer	PTFE (2" - 3")

Dimensions and Weights

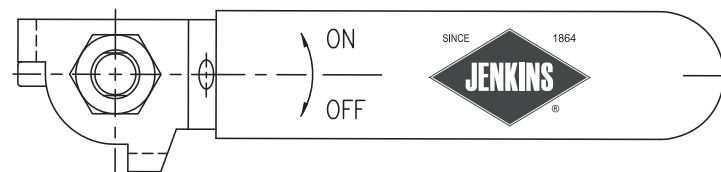
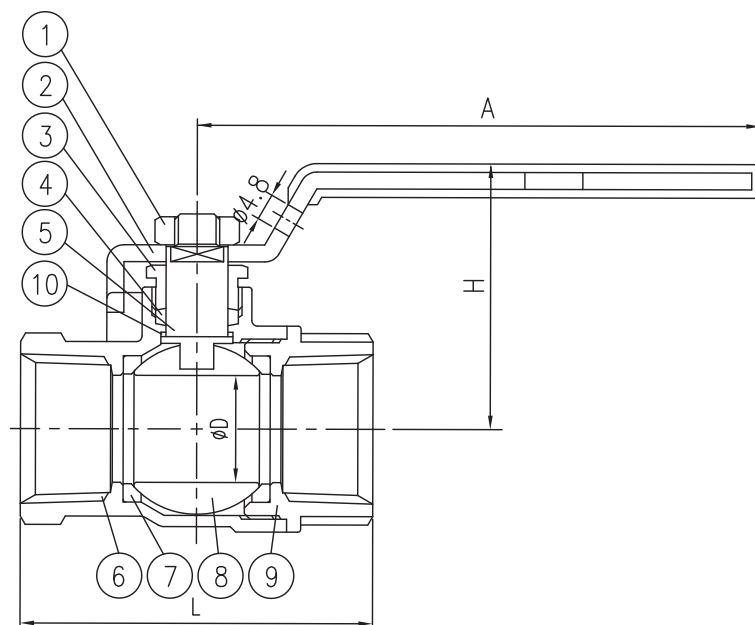
Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	3.15	0.50	1.50	1.93	0.37
	(80)	(13)	(38)	(49)	(0.17)
¾	4.33	0.75	1.85	2.72	0.79
	(110)	(19)	(47)	(69)	(0.36)
1	4.33	0.98	2.05	3.31	1.16
	(110)	(25)	(52)	(84)	(0.53)
1 ¼	5.12	1.25	2.36	3.78	1.65
	(130)	(32)	(60)	(96)	(0.75)
1 ½	5.12	1.50	2.56	4.29	2.20
	(130)	(38)	(65)	(109)	(1.00)
2	7.87	1.97	3.11	5.35	4.40
	(200)	(50)	(79)	(136)	(2.00)
2 ½	7.87	2.48	3.50	6.18	6.90
	(200)	(63)	(89)	(157)	(3.13)
3	7.87	2.95	3.86	7.09	9.92
	(200)	(75)	(98)	(180)	(4.50)

600 CWP/150 SWP • Full Port • Threaded Ends

201SJ

Stainless Steel Ball and Stem, 2-Piece Body, Meets MSS SP-110, CSA/UL/FM Approval (½ - 2" only)



MH46785
Listed
2L73

Approvals:

UL Approved

- YSDT (LP-Gas Shut-off valves)
- YRBX (Flammable Liquid Shut-off valves)
- MHKZ (Manual valves)

CSA Approved

- CLASS 3371 94 - Manually Operated Metallic for Use in Piping Systems
Certified to US Standards
- CLASS 3371 92 - Manually Operated Metallic for Use in House
Piping Systems - Certified to US Standards
- CLASS 3371 88 - General Use - Certified to US Standards
- CLASS 3371 12 - Manually Operated for Use on Piping
- CLASS 3371 10 - Lever Operated Non-Lubricated Shut-off
- CLASS 3371 08 - General Use

Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	Type 304 SS
6	Body	B124-C37700 B584-C85700 (2" - 4")
7	Seat	PTFE
8	Ball	Type 304 SS
9	End Plug	B124-C37700
10	Thrust Washer	PTFE (2" - 4")

Dimensions and Weights

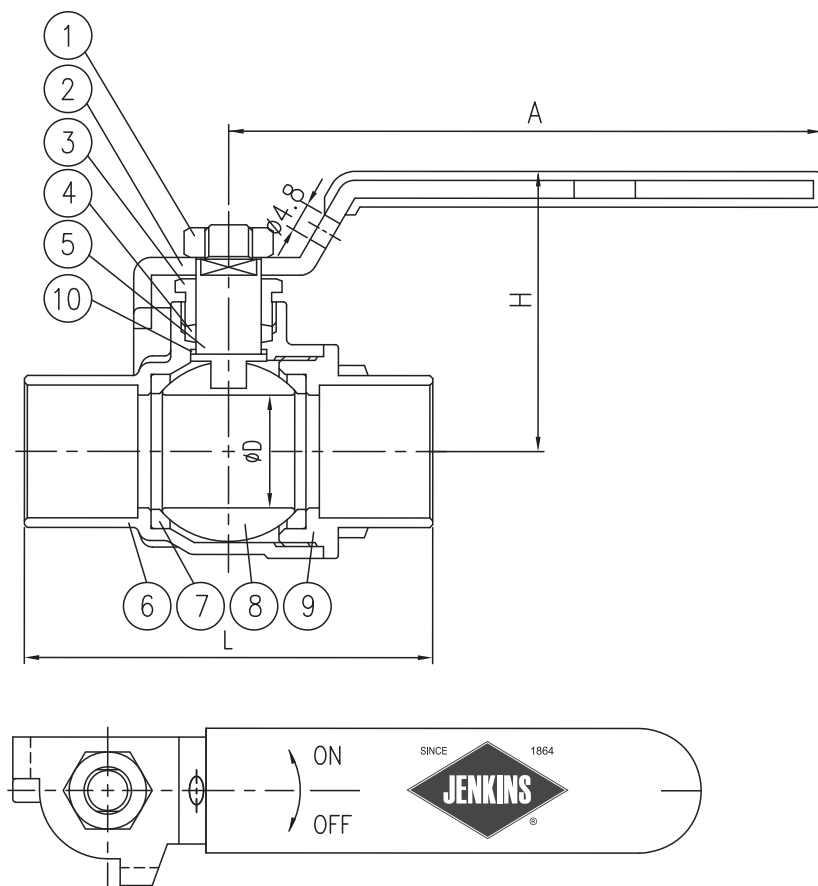
Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
¼	3.15	0.35	1.26	1.69	0.35
	(80)	(9)	(36)	(43)	(0.16)
⅜	3.15	0.39	1.46	1.81	0.35
	(80)	(10)	(37)	(46)	(0.16)
½	3.15	0.50	1.50	2.13	0.42
	(80)	(13)	(38)	(54)	(0.19)
¾	4.33	0.75	1.85	2.48	0.84
	(110)	(19)	(47)	(63)	(0.38)
1	4.33	0.98	2.05	2.99	1.25
	(110)	(25)	(52)	(76)	(0.57)
1 ¼	5.12	1.25	2.36	3.35	1.83
	(130)	(32)	(60)	(85)	(0.83)
1 ½	5.12	1.50	2.56	3.62	2.49
	(130)	(38)	(65)	(92)	(1.13)
2	7.87	1.97	3.11	4.25	4.58
	(200)	(50)	(79)	(108)	(2.08)
2 ½	7.87	2.48	3.50	5.16	7.71
	(200)	(63)	(89)	(131)	(3.50)
3	7.87	2.95	3.86	5.91	10.64
	(200)	(75)	(98)	(150)	(4.83)
4	7.87	2.95	3.86	6.26	13.22
	(200)	(75)	(98)	(159)	(6.00)

600 CWP • Full Port • Solder Ends

202SJ

**Stainless Steel Ball and Stem, 2-Piece Body,
Meets MSS SP-110, NSF 61.8 (½ - 3")**



Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	Type 304 SS
6	Body	B124-C37700 B584-C85700 (2" - 3")
7	Seat	PTFE
8	Ball	Type 304 SS
9	End Plug	B124-C37700
10	Thrust Washer	PTFE (2" - 3")

Dimensions and Weights

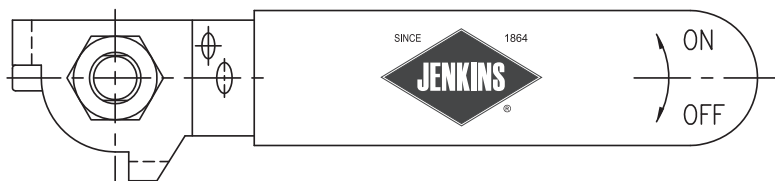
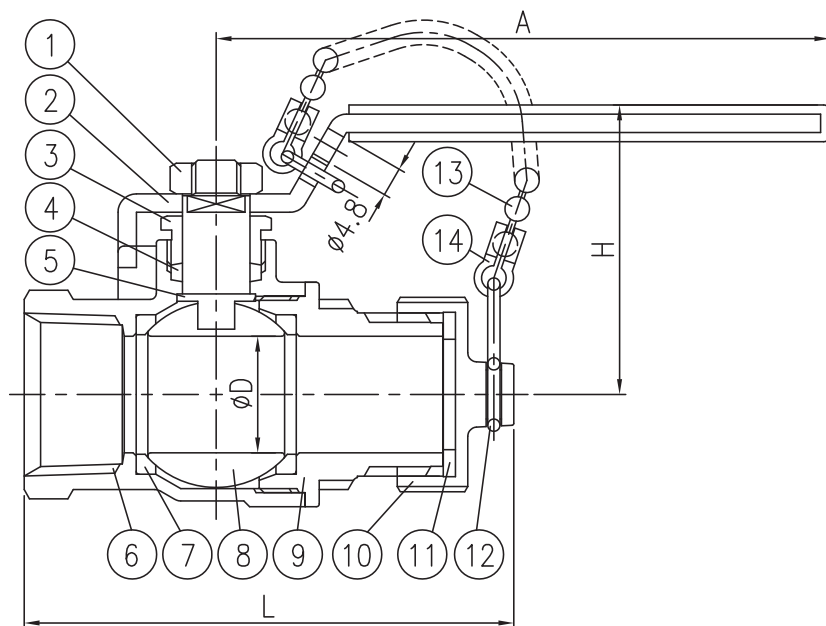
Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	3.15 (80)	0.50 (13)	1.50 (38)	1.93 (49)	0.37 (0.17)
	4.33 (110)	0.75 (19)	1.85 (47)	2.72 (69)	0.79 (0.36)
¾	4.33 (110)	0.98 (25)	2.05 (52)	3.31 (84)	1.16 (0.53)
	5.12 (130)	1.25 (32)	2.36 (60)	3.78 (96)	1.65 (0.75)
1	5.12 (125)	1.50 (38)	2.56 (65)	4.29 (109)	2.20 (1.00)
	7.87 (200)	1.97 (50)	3.11 (79)	5.35 (136)	4.40 (2.00)
1 ¼	7.87 (200)	2.48 (63)	3.50 (89)	6.18 (157)	6.90 (3.13)
	7.87 (200)	2.95 (75)	3.86 (98)	7.09 (180)	9.92 (4.50)

600 CWP • Full Port • Threaded Ends

201CJ

Forged Brass, Hose Cap and Chain, Pressure Rated
Hose Cap*, 2-Piece Body, Meets MSS SP-110



Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	B16-C36000
6	Body	B124-C37700
7	Seat	PTFE
8	Ball Disc	B16-C36000
9	End Plug	B124-C37700
10	Cap Nut	B124-C37700
11	Nut Packing	NBR
12	Ring	S30400
13	Chain	BRASS PLATED CR
14	Plate	S4300

*Hose cap pressure rated to 150 psi W.O.G.

Dimensions and Weights

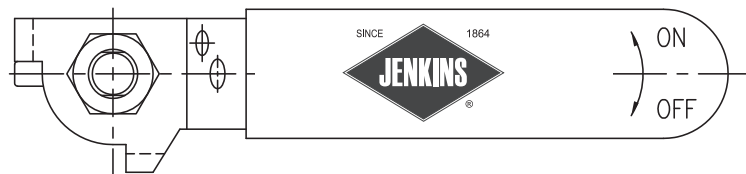
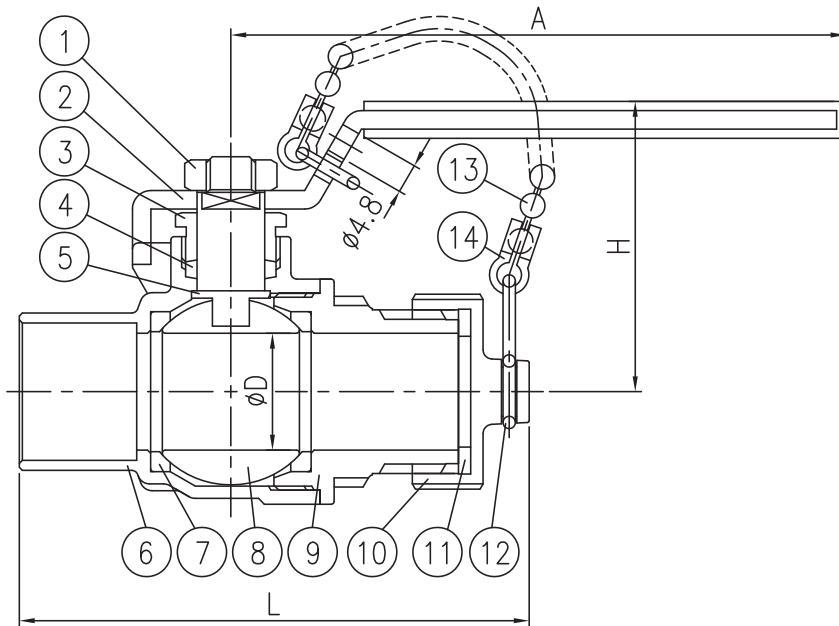
Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	3.15	.50	1.50	2.83	0.57
	(80)	(13)	(38)	(72)	(0.26)
¾	4.33	.75	1.85	3.15	1.03
	(110)	(19)	(47)	(80)	(0.47)

600 CWP • Full Port • Solder Ends

202CJ

Forged Brass, Hose Cap and Chain, Pressure Rated
Hose Cap*, 2-Piece Body, Meets MSS SP-110



Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	B16-C36000
6	Body	B124-C37700
7	Seat	PTFE
8	Ball Disc	B16-C36000
9	End Plug	B124-C37700
10	Cap Nut	B124-C37700
11	Nut Packing	NBR
12	Ring	S30400
13	Chain	BRASS PLATED CR
14	Plate	S43000

*Hose cap pressure rated to 150 psi W.O.G.

Dimensions and Weights

Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	3.15	.50	1.50	2.71	0.57
	(80)	(13)	(38)	(69)	(0.26)
¾	4.33	.75	1.85	3.27	0.99
	(110)	(19)	(47)	(83)	(0.45)

600 CWP • Full Port • Threaded Ends

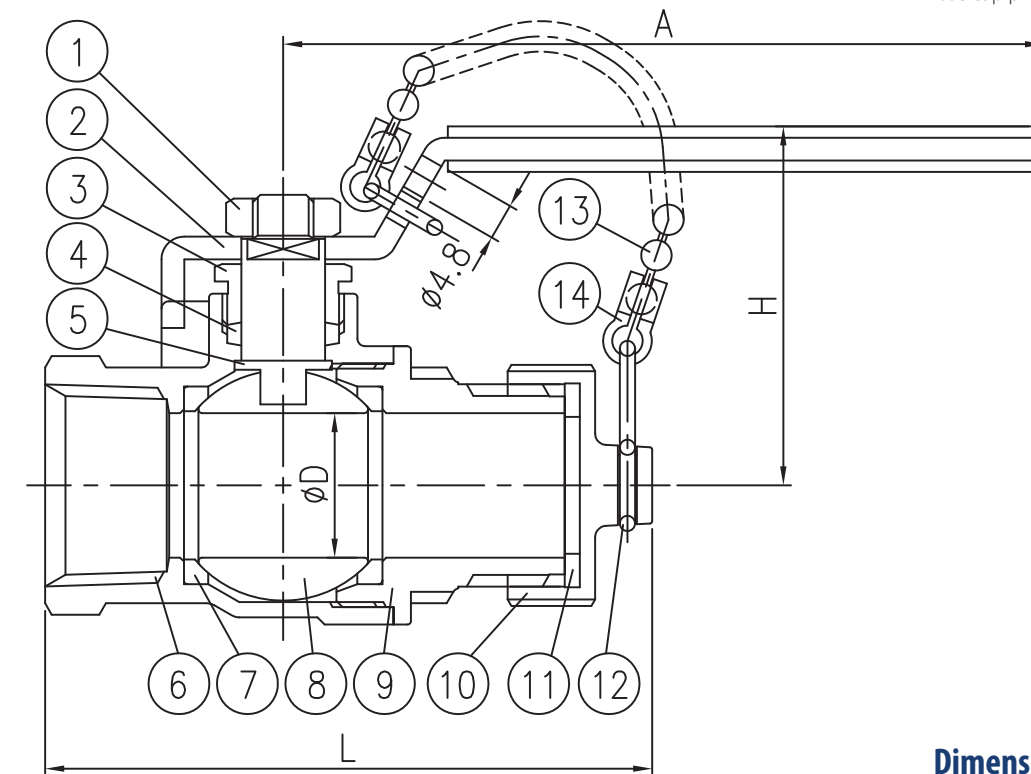
201CSJ

Stainless Steel Ball and Trim, Hose Cap and Chain, Pressure Rated Hose Cap*, 2-Piece Body, Meets MSS SP-110

Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	Type 304 SS
6	Body	B124-C37700
7	Seat	PTFE
8	Ball Disc	Type 304 SS
9	End Plug	B124-C37700
10	Cap Nut	B124-C37700
11	Nut Packing	NBR
12	Ring	A227M
13	Chain	BRASS PLATED CR
14	Plate	S43000

*Hose cap pressure rated to 150 psi W.O.G.



Dimensions and Weights

Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	3.15	.50	1.50	2.83	0.57
	(80)	(13)	(38)	(72)	(0.26)
¾	4.33	.75	1.85	3.15	1.03
	(110)	(19)	(47)	(80)	(0.47)

600 CWP • Full Port • Solder Ends

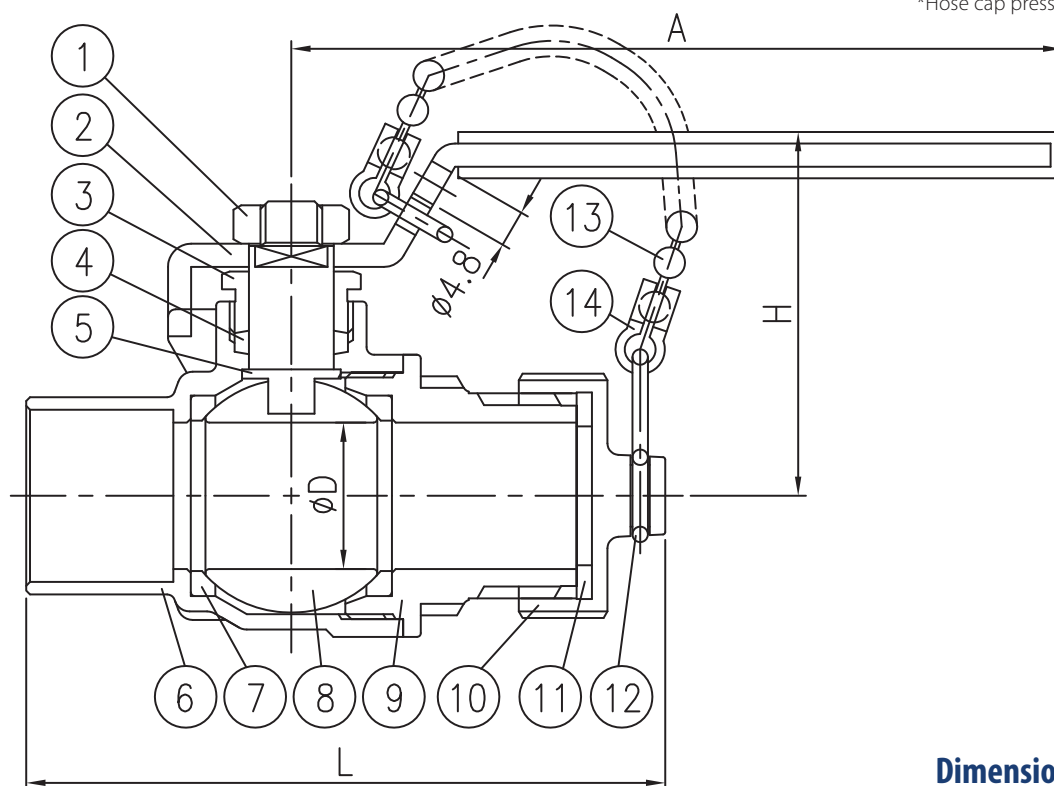
202CSJ

Stainless Steel Ball and Trim, Hose Cap and Chain, Pressure Rated Hose Cap*, 2-Piece Body, Meets MSS SP-110

Materials of Construction

No.	Description	Material
1	Nut	AISI-1010
2	Handle	A283-D
3	Stem Gland Screw	B16-C36000
4	Stem Packing	PTFE
5	Stem	Type 304 SS
6	Body	B124-C37700
7	Seat	PTFE
8	Ball Disc	Type 304 SS
9	End Plug	B124-C37700
10	Cap Nut	B124-C37700
11	Nut Packing	NBR
12	Ring	A227
13	Chain	BRASS PLATED CR
14	Plate	S43000

*Hose cap pressure rated to 150 psi W.O.G.



Dimensions and Weights

Inches (millimeters) - Pounds (kilograms)

Valve Size	Dimensions				Wt.
	A	D	H	L	
½	2.95	.50	1.50	2.71	0.57
	(75)	(13)	(38)	(69)	(0.26)
¾	3.94	.75	1.85	3.27	0.99
	(100)	(19)	(47)	(83)	(0.45)

Accessories

Extension Stems

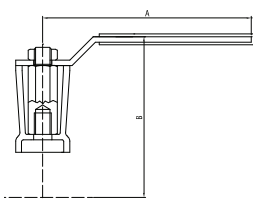
Extension stems may be needed when ball valves are installed in piping requiring insulation or in other special circumstances.

Memory Stop

Continuous operation of a ball valve in partially open position is not recommended. Jenkins does not recommend that a ball valve be used in a position less than 50% full open.

Lever Lock Handles

Lever Lock handles are suitable for use on Lever Lock ball valves. They can be latched for maintenance or operation lockout or for low security protection. Valves may be locked in open and closed positions. Available only in brass as an accessory. Other handle options (not shown): Stainless Steel Handles.

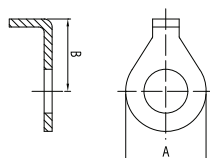


2 1/4" Extension Stems Dimensions

Inches (millimeters)

Valve Size	Dimensions	
	A	B
1/4	2.95	4.29
	(75)	(109)
3/8	2.95	4.29
	(75)	(109)
1/2	2.95	4.37
	(75)	(111)
3/4	3.94	4.72
	(100)	(120)
1	3.94	4.92
	(100)	(125)
1 1/4	4.92	5.31
	(125)	(135)
1 1/2	4.92	5.51
	(125)	(140)
2	7.87	6.10
	(200)	(155)
2 1/2	7.87	6.50
	(200)	(165)
3	7.87	6.85
	(200)	(174)

Available for valves: 201J, 202J, 201SJ, 202SJ, LF201J, LF202J

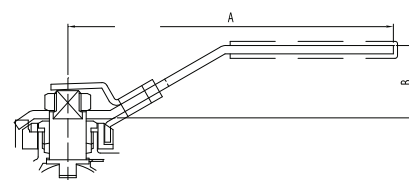


Memory Stop Dimensions

Inches (millimeters)

Valve Size	Dimensions	
	A	B
1/4	0.55	0.47
	(14)	(12)
3/8	0.55	0.47
	(14)	(12)
1/2	0.55	0.47
	(14)	(12)
3/4	0.63	0.55
	(16)	(14)
1	0.63	0.55
	(16)	(14)
1 1/4	0.71	0.67
	(18)	(17)
1 1/2	0.71	0.67
	(18)	(17)
2	0.98	0.87
	(25)	(22)
2 1/2	0.98	0.87
	(25)	(22)
3	0.98	0.87
	(25)	(22)

Available for valves: 201J, 202J



Lever Lock Handles Dimensions

Inches (millimeters)

Valve Size	Dimensions	
	A	B
1/4	3.19	0.55
	(81)	(14)
3/8	3.19	0.55
	(81)	(14)
1/2	3.19	0.55
	(81)	(14)
3/4	4.33	0.71
	(110)	(18)
1	4.33	0.71
	(110)	(18)
1 1/4	5.20	0.87
	(132)	(22)
1 1/2	5.20	0.87
	(132)	(22)
2	7.91	0.98
	(201)	(25)
2 1/2	7.91	0.98
	(201)	(25)
3	7.91	0.98
	(201)	(25)

Available for valves: 201J, 202J, 201SJ, 202SJ, LF201J, LF202J

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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www.cranecpe.com

CRANE

Energy Flow Solutions



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DEPA

ELRO Duo-CHEK



NOZ-CHEK



RESISTOFLEX



Saunders
the science inside

STOCKHAM



UNI-CHEK

Wta

XOMOX

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CRANE[®]

Energy Flow Solutions

Jenkins Bronze Valves

SINCE

1864

JENKINS[®]



SINCE

1864

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General Index

General Data	4
Materials	5
Ratings	6
Pressure/Temperature Ratings	7
Flow Data.....	7
Bronze and Gate Valve Features	8
Globe and Angle Valve Features.....	20
Swing and Lift Check Valve Features.....	29
Commercial/ Light Industrial Series.....	40

Jenkins also manufactures bronze ball valves, iron wafer and lug butterfly valves, and iron gate, globe, and check valves. Brochures and Catalogs are available on request.

Figure Number Index

Fig No.	Page	Fig No.	Page
106BJ.....	21	4093J.....	34
106BPJ	22	4449J.....	37
108BJ.....	23	4475TJ	35
117ATJ.....	36	47CUJ.....	13
119J	30	4962J.....	38
2032J.....	24	518AJ	39
2050J.....	26	592J.....	27
2270UJ	16	594J.....	28
2272J.....	15	743J.....	25
2280UJ	18	744J.....	25
2282J.....	17	810J.....	10
2310J.....	12	990AJ	41
2429J.....	11	991AJ	41
2810J.....	14	992AJ	43
310J.....	9	993AJ	44
313J.....	19	994AJ	45
4037J.....	31	995AJ	46
4041TJ	32	996AJ	47
4092J.....	33	997AJ	48

General Data

Advanced manufacturing techniques and equipment, ongoing engineering research and product development, skilled craftsman, and over fourteen decades of experience in flow control are behind the quality and dependability built into every Jenkins product.

This catalog presents some of these products, namely: Jenkins' line of bronze gate, globe and check valves. The information is presented in a comprehensive manner and includes material, construction, rating, principal dimensions, and weight data.

Hydrostatic and Shock Pressures

Jenkins valves are suitable for liquid working pressures specified on catalog pages only when used in hydraulic installations in which shock is absent or negligible. The sudden closure of a valve in a hydraulic system causes the body of liquid, which may be moving at a rate generally in excess of one foot per second, to stop instantaneously. As liquids are relatively incompressible, the sudden cessation of flow effects a rise in pressure considerably greater than the static working pressure. This pressure increase is termed "SHOCK" and may, in some cases, be sufficient to cause valves or piping to fail.

Pressure increase due to shock is not dependent upon the working pressure in the system but upon the velocity at which the liquid is flowing. This pressure surge, severely limits design velocities...a fact readily understandable if it is remembered that pressure rise resulting from arrest of flow may be as high as 60 psi for each foot per second initial velocity. For example, installations of 100 psi and 1000 psi working pressures, with the same initial velocity of 10 feet per second, will be subject to the same increase in pressure (approximately 600 psi) due to instantaneous closure of a valve.

Shock generally prevails in lines equipped with check or quick-closing valves, or in lines supplied by reciprocating pumps. It may also be produced, to a lesser degree, by rapid closure of gate and globe valves. Therefore, care should be exercised when choosing valves installed in liquid lines.

Where shock is likely to occur, the maximum shock pressure should be added to the working pressure of the line to determine working pressure products in the line...also, hydraulic installations should be equipped with air chambers or other types of shock absorbers to eliminate, as much as possible, increase due to shock.

Testing

Bronze valves described in this section meet or exceed the MSS SP-80 specifications for testing.

Materials

The selection of materials for components of Jenkins valves is based upon expert metallurgical, engineering, foundry and fabrication knowledge as well as on many years of usage experience. Considerations affecting materials of parts which come in contact with the conveyed fluid include pressure, temperature and chemical composition of the fluid. The materials of moving parts that are subject to rubbing contact are selected on the basis of their resistance to wear, corrosion, seizing or galling, and on their frictional characteristics.

Utilization of materials to their full capability is assured by the use of stress analysis techniques that include extensive laboratory testing as well as the application of analytical theory. Stress levels for all materials used are maintained within the levels established by applicable codes, standards and specifications.

Illustrations & Weights

This catalog shows equivalent metric values to the customary imperial units. The "soft" conversion was arrived at by following MSS SP-86 guidelines.

Illustrations – Catalog illustrations are representative of a certain size of each line of product but do not necessarily represent all sizes in all details.

Material & design – We reserve the right to institute changes in materials, designs, dimensions and specifications without notice in keeping with our policy of continuing product development.

Weights – shown are approximate and are not guaranteed. They represent the average weight of Jenkins Valves products as made from patterns in use at time weights were compiled.

Jenkins Copper Alloys

CHEMICAL REQUIREMENTS (%)											MECHANICAL PROPERTIES				
Copper	Tin	Lead	Iron	Nickel	Manganese	Aluminum	Zinc	Silicon	Other		Tensile Strength		Yield Strength		Elongation in 2" (50mm)
Cu	Sn	Pb	Fe	Ni	Mn	Al	Zn	Si			ksi	MPa	ksi	MPa	(%)
STEAM OR VALVE BRONZE CASTINGS											ASTM B61, C92200				
Min.	86.0	5.5	1.0				3.0				34	235	16	110	24
Max.	90.0	6.5	2.0	0.25	1.0	0.005	5.0	0.005	0.05*						
COMPOSITION BRONZE CASTINGS											ASTM B62, C83600				
Min.	84.0	4.0	4.0				4.0				30	205	14	95	20
Max.	86.0	6.0	6.0	0.30	1.0	0.005	6.0	0.005	0.05*						
COPPER-ZINC SILICON ALLOY ROD											ASTM B371, C69400				
Min.	80.0						remainder	3.5			80	550	40	250	15
Max.	83.0		0.30	0.20				4.5							
LEADED SEMI-RED BRASS											ASTM B584, C84400				
Min.	78.0	2.3	6.0				7.0				29	200	13	90	18
Max.	82.0	3.5	8.0		1.0	0.005	10.0	0.005							
SILICONE BRASS CASTINGS											ASTM B584, C87600				
Min.	88.0						4.0	3.5			60	414	30	207	16
Max.			0.50				7.0	5.5							
FREE CUTTING BRASS ROD/BAR											ASTM B16, C36000, H02				
Min.	60.0		2.5				remainder				+	+	+	+	+
Max.	63.0		3.7	0.35					0.50**		+	+	+	+	+
NAVAL BRASS ROD											ASTM B16, C48200, H02				
Min.	59.0	0.5	0.4				remainder				+	+	+	+	+
Max.	62.0	1.0	1.0	0.15					0.10**		+	+	+	+	+
ALUMINUM SILICONE BRONZE ROD											ASTM B150, C64200				
Min.	87.5					6.3		1.5			+	+	+	+	+
Max.	92.5	0.20	0.05	0.30	0.25	0.10	7.6	0.50	2.2	0.50***	+	+	+	+	+
LEADED RED BRASS CONTINUOUS CASTINGS											ASTM B505, C83600				
Min.	84.0	4.0	4.0				4.0				36	248	19	131	15
Max.	86.0	6.0	6.0	0.30	1.0	0.005	6.0	0.005							
BRASS PLATE/SHEET STRIP											ASTM B36, C26000, H04				
Min.	68.5						remainder				71	489			
Max.	71.5		0.07	0.05							81	558			
BRASS WIRE											ASTM B134, C26000, H02				
Min.	68.5						remainder				57	395			
Max.	71.5		0.07	0.05							67	460			
ALUMINUM SILICONE BRONZE FORGINGS											ASTM B283, C64200				
Min.	88.7					6.3		1.5			+	+	+	+	+
Max.	90.1	0.20	0.05	0.30	0.25	0.10	7.6	0.50	2.2	0.15***	+	+	+	+	+
COPPER SILICON ALLOY ROD/BAR											ASTM B98, C65100, H02				
Min.	96.0							0.80			55	379	20	138	11
Max.			0.05	0.08		0.7		1.5	2.00						
SEAMLESS COPPER WATER TUBE											ASTM B88, C12200				
Min.	99.9										30	207			
Max.															

* Also may include maximum of 0.05% phosphorus.

** Maximum percent of elements permissible other than those indicated.

*** Also may include maximum of 0.15% arsenic.

+ Depends on diameter or thickness (surface to surface) of material: data on request.

Introduction to Ratings

- A) Ratings for Class 125, 150, 200 and 300 bronze valves are indicated on page 7 in this Catalog:
- PSI Steam, Basic Rating; i.e., the nominal rated pressure of the valve.
 - PSI Cold Working Pressure; i.e., the maximum rated pressure of the valve at a temperature range of -20° to 150°F (-30° to 65°C).
- B) Ratings for Class 125 and 150 bronze valves equipped with non-metallic discs are indicated on the relevant catalog pages in this manner;
- PSI Saturated Steam; where "Saturated Steam" is the maximum rated pressure of the valve at the corresponding temperature of saturated steam.
 - PSI Cold Working Pressure; where "Cold Working Pressure" is the maximum rated pressure of the valve at a temperature range of -20°F to 150°F (-30°C to 65°C).
- The full range of allowable pressures and temperatures for these valves is determined by referring to the pressure-temperature charts shown on page 7.
- C) Ratings for bronze valves falling outside Class 125, 150, 200 and 300 are indicated in various ways on the relevant catalog pages. The full range of allowable pressures and temperatures for these valves is determined by referring to the relevant Catalog page.

General

All ratings represent the maximum allowable non-shock pressure at the indicated temperature. If the temperature is different from indicated, the allowable pressure may be interpolated.

Rating Temperature

The operating temperature of the valve is considered the temperature of the media flowing through it. This temperature must not exceed the maximum allowable temperature as stated in the pressure-temperature chart on page 7.

The safe pressure-temperature rating of a solder joint piping system is dependent, not only on valve, fitting and tubing strength but also on the composition of the solder used for joints. It shall be the responsibility of the user to select a solder composition that is compatible with the service conditions.

The safe pressure-temperature rating of valves fitted with non-metallic discs (some Globe, Angle Valves and Check Valves) is dependent upon the composition of the disc material. It shall be the responsibility of the user to specify the service application. PTFE discs are suitable for a maximum service temperature of 400°F (200°C), nitrile composition discs are suitable for a maximum service temperature of 200°F (90°C).

Ratings: Bronze Valves



Pressure-Temperature Ratings

IMPERIAL UNITS						
Press. Class	125	150		200	300	
End Conn.	THD	THD	FLG	THD	THD**	THD
Temp °F	PRESSURE – PSI NON-SHOCK					
	ASTM B-62			ASTM B-61		
-20 to 150	200	300	225	400	1000	600
200	185	270	210	375	920	560
250	170	240	195	350	830	525
300	155	210	180	325	740	490
350	140	180	165	300	650	450
400	–	–	–	275	560	410
406	125	150	150	–	–	–
450	120*	145*	–	250	480	375
500	–	–	–	225	390	340
550	–	–	–	200	300	300

METRIC UNITS						
Press. Class	125	150		200	300	
End Conn.	THD	THD	FLG	THD	THD**	THD
Temp °C	PRESSURE – kPa NON-SHOCK					
	ASTM B-62			ASTM B-61		
-30 to 70	1380	2070	1550	2760	6890	4140
90	1280	1860	1450	2590	6340	3860
120	1170	1660	1340	2410	5720	3620
150	1070	1450	1240	2240	5100	3380
180	970	1240	1140	2070	4490	3100
200	–	–	–	1800	3860	2830
208	860	1030	1030	–	–	–
230	830*	1000*	–	1720	3310	2590
260	–	–	–	1550	2690	2340
290	–	–	–	1380	2070	2070

* Some codes (i.e. ASME BPVC, Section 1) limit the rating temperatures of the indicated material to 406°F (208°C).

** Alternative ratings for valve size 1/8" - 2" having threaded ends and union bonnet, when so indicated on the relevant Catalog pages.

Technical Data: Flow Data (Cv Values)

The flow coefficient Cv expresses flow rate in usg per minute of water at 60°F, with 1.0 psi pressure drop across the valve.

Bronze Gate Valves	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
All	–	8	8	16	36	60	90	140	270	470	680
Globe and Angle Valves											
108BJ	–	1.6	3.1	5.1	9.2	16	28	39	66	–	–
592J	–	1.1	2.1	3.3	6.0	10	18	26	44	64	100
594J	–	1.5	3.0	4.9	9.0	15	27	38	64	–	–
106BPJ	–	–	2.1	3.8	5.9	11	21	28	49	–	–
106BJ, 2032J, 2050J, 101J, 105J	–	1.3	2.4	3.9	7.0	12	21	30	50	74	115
Check Valves											
119J	–	1.3	2.5	4.1	7.6	13	23	31	54	78	125
117ATJ	–	0.9	1.8	3.0	5.4	9	16	22	39	–	–
518AJ	–	1.1	2.1	3.3	6.0	10	18	26	44	64	100
4449J, 4962J, 4092J, 4093J, 4037J, 4475TJ, 4041TJ	–	2.3	4.3	7.2	13	22	39	56	92	135	215
Miscellaneous											
743J, 744J	0.3	0.6	1.1	1.9	3.4	–	–	–	–	–	–

Bronze Gate Valve Features

Jenkins gate valves offer the ultimate in dependable service wherever minimum pressure drop is important. They serve as efficient stop valves with fluid flow in either direction. Gate valves are best for services that require infrequent valve operation and where the disc is kept either in the fully opened or fully closed position.

FEATURES AND BENEFITS

The Jenkins gate valve design provides the following benefits to the user:

- Streamlined design has eliminated sharp body contours while providing maximum strength without added weight.
- Body design increases the resistance to shock and distortion.
- Body design reinforces seat against the wedging action to the disc.
- Wide-faced hexagon ends provide a firm wrench grip and help to prevent damage to the valve.

Other design features have been incorporated into our gate valves, making Jenkins one of the most trusted valve manufacturers in the myriad of industries we serve.

BONNET OPTIONS

Screwed Bonnets

Screwed bonnets have optimum sized hexagons for easy and positive wrench grip. To ensure a leak tight joint and to provide high unit loading with minimal torque, the flat bonnet sealing face contacts on the 5 degree inclined face of the body.

Union Bonnets

Union bonnets are supplied with optimum sized hexagon shaped, high tensile bronze rings to provide a leak-tight joint for maximum security under pressure. It also simplifies inspection of the valve interior.

STEM OPTIONS

Rising Stems

Rising stems provide positive indication of the disc position.

Non-Rising Stems

Valves provided with non-rising stems are ideal for applications where space is limited.

WEDGE OPTIONS

Solid Wedge Discs

The single piece design is ideal for a variety of applications, particularly for conditions of severe turbulence. Discs are reversible in the body and machined to provide for smooth operation. Accurate guiding throughout its travel prevents disc-to-seat contact until the point of closure, thus minimizing seat wear.

Split Wedge Discs

The last turn of the handwheel in the closing operation presses the discs against the seats giving tight shutoff. Also assists for ease of opening. Caution: Double disc valves should be installed in an upright position, the stem being vertical.

VALVE SEAT COMPONENTS

Back Seat

All Jenkins gate valves are provided with a back seat which can be used as an indication of valve position. For normal operation, the stem should be backed off so that the back seat is not in contact. This permits the stem packing to assume its intended sealing function. In the unlikely event of stem packing leakage, the back seat can be used to stop the leakage until the packing can be replaced. Packing replacement should not be undertaken while the valve is under pressure as it represents a safety hazard.

Stainless Steel Seat Rings

Stainless steel (AISI 410) seat rings provide high resistance to wear, temperature, galling and scoring. Normal seating wear is absorbed by the disc which can be easily replaced.

END OPTIONS

Flanged Ends

Valves supplied with flanged ends conform to ASME B16.24 (Class 150). Flanges are plain faced with two V-Shaped concentric grooves between the port and bolt holes.

Threaded Ends

Valves supplied with threaded ends conform to ASME B1.20.1

Solder Joint Ends

Valves supplied with solder joint ends comply with ASME B16.18.

PACKING

Packing

Graphite composition packing provides a tight seal.

HEAT DISPENSING HANDWHEELS

Standard Handwheel

The open rim, multi-rib design provides easy manual operation. Handles are sized to provide adequate torque to operate the valve without the aid of levers, hickies or wrenches.

MARKING

Identification Plate

Each valve is identified and marked in accordance with industry standard MSS SP-25. The identification plate is located under the handwheel nut permitting easy field reference.

INDUSTRY STANDARDS AND APPROVALS

Depending on design, the following specifications and standard are also applicable to Jenkins gate valves. See individual catalogs for specific standard/specification compliance.

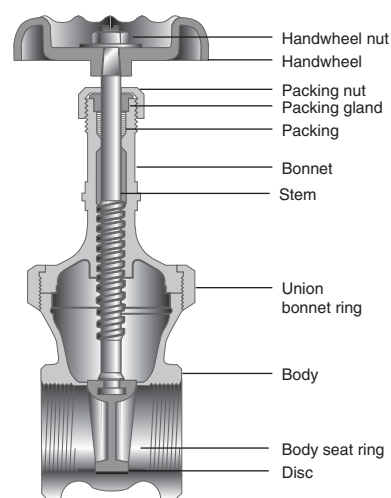
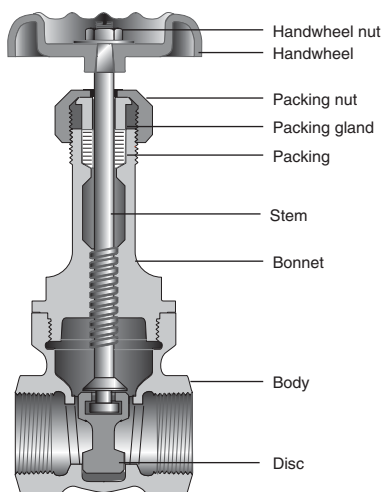
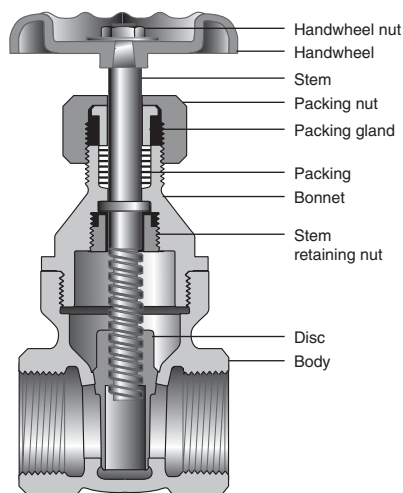
Design Specifications for Bronze Gate Valves

- MSS SP-80
- ASME B16.10, Class 125 for face-to-face dimensions
- ASME B16.24, Class 150 for flanged valves
- ASME B16.18 for solder joint ends

Approvals:

- ULC Listed

CAUTION: Gate valves are not recommended for throttling service since flow against a partially opened disc may cause vibration or chattering, resulting in damage to the seating surfaces of the valve.



Class 125 • Threaded Bonnet • Non-Rising Stem • Threaded Ends

Features

- Non-Rising Stem
- Screwed Bonnet
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Figure 310J

Size Range:

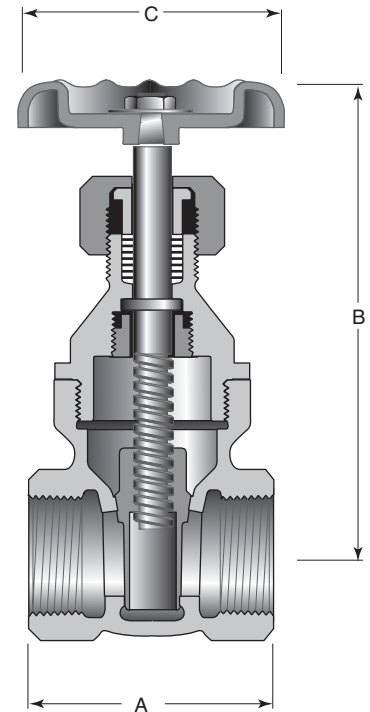
¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating

200 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.65 (42)	1.65 (42)	2.10 (53)	2.14 (54)	2.47 (63)	3.08 (78)	3.21 (82)	3.39 (86)	4.25 (109)	4.59 (117)
B	2.95 (75)	2.95 (75)	3.92 (100)	4.50 (114)	5.08 (129)	5.86 (149)	6.75 (171)	7.81 (198)	9.26 (235)	9.89 (251)
C	2.56 (65)	2.56 (65)	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.5 (0.22)	0.5 (0.22)	1.0 (0.45)	1.5 (0.68)	2.5 (1.13)	3.6 (1.63)	4.5 (2.03)	7.6 (3.43)	12.4 (5.60)	17.4 (7.86)

Class 125 • Threaded Bonnet • Rising Stem • Threaded Ends

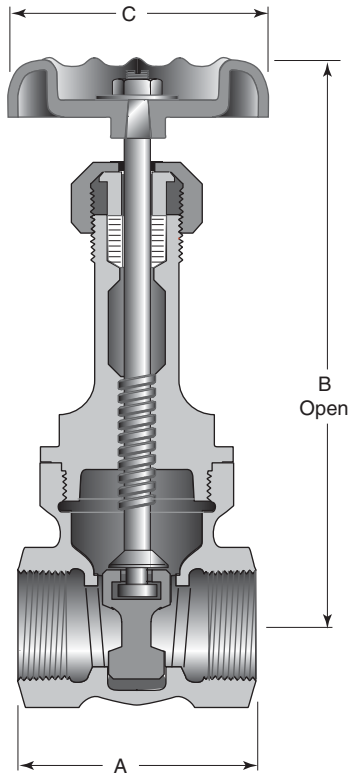


Figure 810J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

Features

- Rising Stem
- Screwed Bonnet
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.65 (42)	1.65 (42)	2.10 (53)	2.14 (54)	2.47 (63)	3.08 (78)	3.21 (82)	3.39 (86)	4.25 (108)	4.59 (117)
B	4.92 (125)	4.92 (125)	5.48 (139)	6.68 (170)	7.81 (199)	9.26 (235)	10.26 (261)	12.36 (313)	14.53 (369)	16.39 (416)
C	2.13 (54)	2.13 (54)	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.5 (0.22)	0.5 (0.22)	1.10 (0.50)	1.70 (0.77)	2.70 (1.22)	3.80 (1.72)	4.90 (2.21)	7.90 (3.57)	12.70 (5.74)	18.80 (8.49)



Class 150 • Threaded Bonnet • Non-Rising Stem • Flanged Ends

Features

- Non-Rising Stem
- Screwed Bonnet
- Solid Wedge Disc
- Flanged Ends are plain faced with two V-shaped concentric grooves between the port and bolt holes.
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Figure 2429J

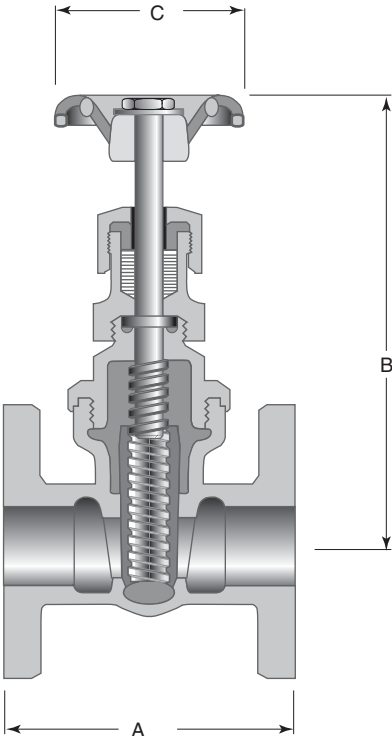
Size Range:

1 through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating
225 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body	Bronze	B62 alloy 83600
Bonnet	Bronze	B62 alloy 83600
Disc	Bronze	B62 alloy 83600
Stem	Bronze	B62 alloy 83600

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	3.94 (100)	4.33 (110)	4.72 (120)	5.32 (135)	6.50 (165)	7.28 (185)
B	4.88 (124)	5.71 (145)	6.50 (165)	7.44 (189)	9.19 (233)	10.38 (264)
C	2.56 (66)	2.75 (70)	3.06 (78)	3.62 (92)	4.06 (103)	4.75 (121)
WTS.	5.7 (2.6)	6.3 (2.85)	9.00 (4.06)	12.20 (5.51)	18.50 (8.36)	25.50 (11.52)

Class 150 • Threaded Bonnet • Non Rising Stem • Threaded Ends

Figure 2310J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

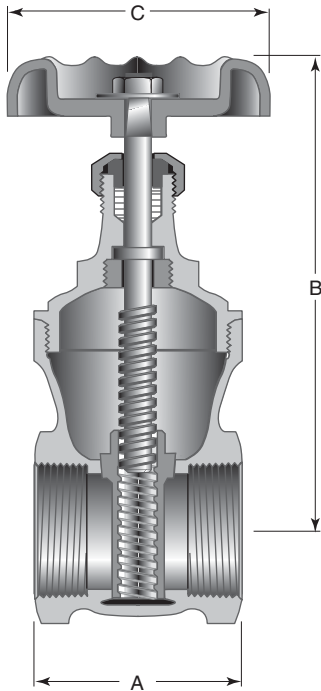
150 psi Steam, Basic Rating

300 psi Cold Working Pressure

Features

- Non-Rising Stem
- Screwed Bonnet
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.64 (42)	1.64 (42)	2.10 (53)	2.14 (54)	2.47 (63)	3.08 (78)	3.21 (82)	3.39 (86)	4.25 (108)	4.59 (117)
B	3.52 (84)	3.52 (89)	3.92 (100)	4.50 (114)	5.08 (129)	5.86 (149)	6.75 (171)	7.81 (198)	9.26 (235)	9.89 (251)
C	1.75 (44)	1.75 (44)	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.70 (0.31)	0.70 (0.31)	1.00 (0.44)	1.50 (0.68)	2.50 (1.13)	3.60 (1.63)	4.60 (2.08)	7.60 (3.43)	12.40 (5.69)	17.40 (7.86)

Class 150 • Union Bonnet • Rising Stem • Threaded Ends

Features

- Rising Stem
- Union Bonnet
- Solid Wedge Disc
- Non-Asbestos Composition Packing
- Threaded Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Figure 47CUJ

Size Range:

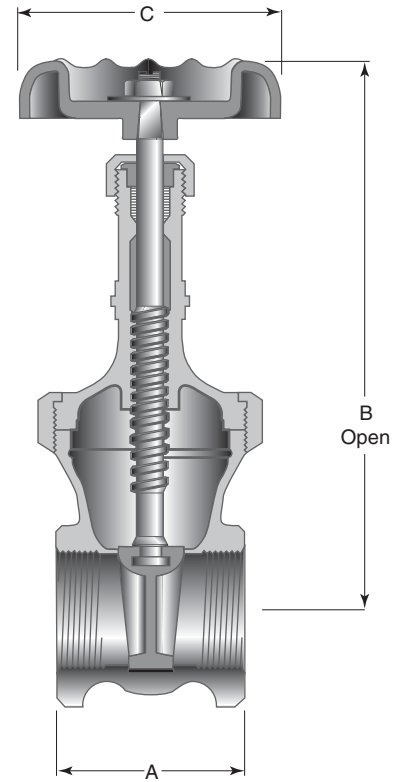
¼ through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.64 (42)	1.64 (42)	2.10 (53)	2.14 (54)	2.47 (63)	3.08 (78)	3.21 (82)	3.39 (86)	4.25 (108)	4.59 (117)
B	4.77 (121)	4.77 (121)	5.48 (139)	6.68 (170)	7.81 (198)	9.26 (235)	10.26 (261)	12.36 (314)	14.53 (369)	16.39 (416)
C	1.75 (44)	1.75 (44)	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.70 (0.31)	0.80 (0.36)	1.20 (0.54)	1.80 (0.81)	3.00 (1.36)	4.00 (1.81)	5.30 (2.39)	8.70 (3.93)	13.10 (5.92)	20.10 (7.08)

Class 150 • Threaded Bonnet • Rising Stem • Threaded Ends

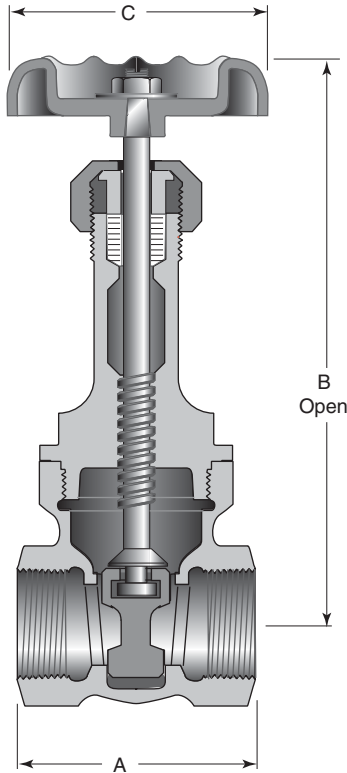


Figure 2810J
Solid Wedge Disc
Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure

Features

- Rising Stem
- Screwed Bonnet
- Threaded Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.64 (42)	1.64 (42)	2.10 (53)	2.14 (54)	2.47 (63)	3.08 (78)	3.21 (82)	3.39 (86)	4.25 (108)	4.59 (117)
B	4.77 (121)	4.77 (121)	5.48 (139)	6.68 (170)	7.81 (198)	9.26 (235)	10.26 (261)	12.36 (314)	14.53 (369)	16.39 (416)
C	1.75 (44)	1.75 (44)	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.80 (0.36)	0.80 (0.36)	1.10 (0.50)	1.70 (0.77)	2.70 (1.22)	3.80 (1.72)	4.90 (2.21)	7.90 (3.57)	12.70 (5.62)	18.80 (8.49)



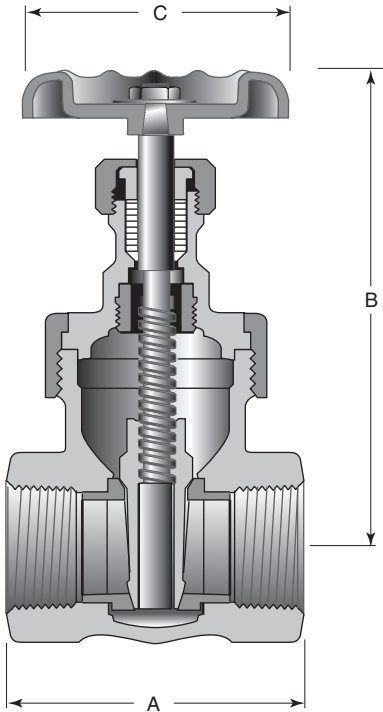
Class 200 • Union Bonnet • Non-Rising Stem • Stainless Steel Seats

- Features
- Non-Rising Stem
 - Union Bonnet
 - Threaded Ends
 - Solid Wedge Disc
 - Full Ports
 - Back Seat
 - Stainless Steel Seat Ring
 - Recommended for WOG
 - MSS Specification SP-80

For more detailed features, refer to Page 8.

Figure 2272J
Size Range:
¼ through 2 inches

Working Pressures
Non-Shock:
200 psi Steam, Basic Rating
400 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B61 alloy C92200
Disc	Bronze	B61 alloy C92200
Stem	Bronze	B371 alloy C69400

Dimensions and Weights
Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	2.03 (52)	2.13 (54)	2.42 (61)	2.61 (66)	3.06 (78)	3.35 (85)	3.69 (94)	3.96 (101)
B	3.60 (91)	3.51 (89)	4.07 (103)	4.81 (122)	5.26 (134)	6.18 (157)	7.05 (179)	7.93 (201)
C	2.05 (52)	2.13 (54)	2.44 (62)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)
WTS.	0.90 (0.41)	0.90 (0.41)	1.40 (0.63)	1.80 (0.81)	3.16 (1.40)	4.90 (2.66)	5.90 (2.66)	10.10 (4.55)

Class 200 • Union Bonnet • Rising Stem • Stainless Steel Seats • Threaded

Figure 2270UJ

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

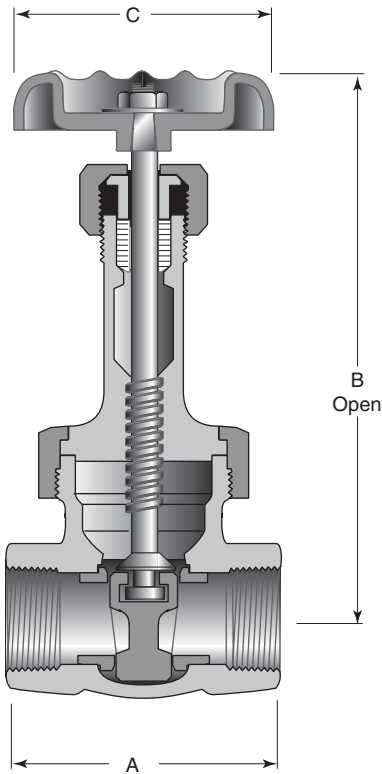
200 psi Steam, Basic Rating

400 psi Cold Working Pressure

Features

- Rising Stem
- Union Bonnet
- Bolted Bonnet, 2 ½" and 3"
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Stainless Steel Seat Rings
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.



Principal Parts & Dimensions

Part	Material	ASTM
Body & bonnet	Bronze	B61 alloy C92200
Disc	Bronze	B61 alloy C92200
Seat ring	Stainless Steel	A276 S41000
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.03 (52)	2.13 (54)	2.42 (61)	2.61 (66)	3.06 (78)	3.35 (85)	3.69 (94)	3.96 (101)	4.60 (117)	5.63 (143)
B	4.86 (123)	4.86 (123)	5.40 (137)	6.60 (168)	7.91 (201)	9.32 (237)	10.45 (265)	13.38 (340)	14.12 (359)	16.78 (426)
C	2.13 (54)	2.13 (54)	2.44 (62)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	7.00 (179)
WTS.	0.90 (0.41)	0.90 (0.41)	1.50 (0.68)	2.10 (0.95)	3.30 (1.49)	5.10 (2.30)	6.10 (2.75)	10.40 (4.68)	23.50 (10.61)	36.00 (16.26)

Class 300 • Union Bonnet • Non-Rising Stem • Stainless Steel Seats

Features

- Non-Rising Stem
- Union Bonnet
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Recommended for WOG
- Stainless Steel Seat Rings
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Figure 2282J

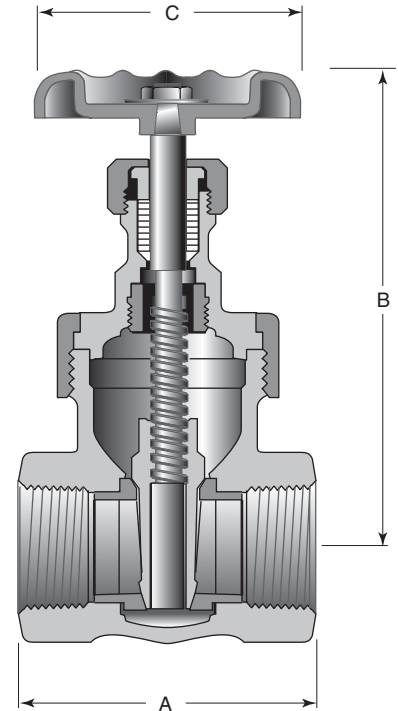
Size Range:

¼ through 2 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating
1000 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B61 alloy C92200
Disc	Bronze	B61 alloy C92200
Seat ring	Stainless Steel	A276 S41000
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	2.03 (52)	2.13 (54)	2.42 (61)	2.61 (66)	3.06 (78)	3.35 (85)	3.69 (94)	3.96 (101)
B	3.70 (94)	3.70 (94)	4.07 (103)	4.81 (122)	5.26 (134)	6.18 (157)	7.05 (179)	7.93 (201)
C	2.13 (54)	2.13 (54)	2.44 (62)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)
WTS.	0.80 (0.36)	0.90 (0.41)	1.40 (0.63)	1.80 (0.81)	3.10 (1.40)	4.70 (2.12)	5.90 (2.67)	10.30 (4.65)

Class 300 • Union Bonnet • Rising Stem • Stainless Steel Seats • Threaded

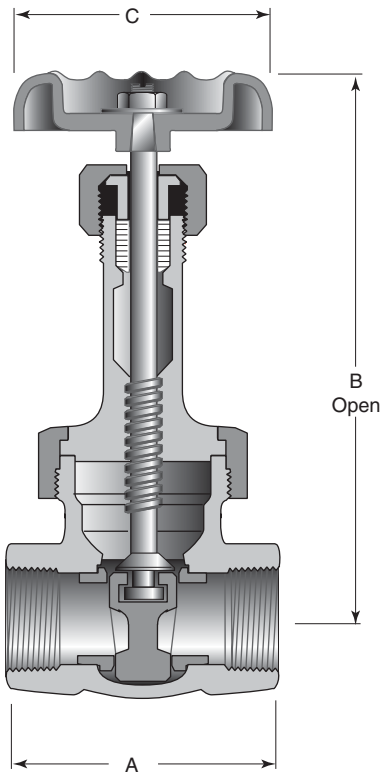


Figure 2280UJ

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating

1000 psi Cold Working Pressure

¼" to 2" - (6mm - 50mm)

600 psi Cold Working Pressure

2 ½" to 3" - (65mm-80mm)

Features

- Rising Stem
- Union Bonnet
- Bolted Bonnet, 2 ½" - 3"
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- Back Seat
- Stainless Steel Seat Rings
- Recommended for WOG
- MSS Specification SP-80

For more detailed features, refer to Page 8.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body & bonnet	All	Bronze	B61 alloy C92200
Disc	All	Bronze	B61 alloy C92200
Seat ring	All	Stainless Steel	A276 S41000
Stem	All	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.03 (52)	2.13 (54)	2.42 (61)	2.61 (86)	3.06 (78)	3.35 (65)	3.69 (94)	3.96 (101)	4.60 (117)	5.63 (143)
B	4.86 (123)	4.86 (123)	5.40 (137)	6.60 (168)	7.91 (201)	9.32 (237)	10.45 (265)	13.38 (340)	14.12 (359)	16.78 (426)
C	2.13 (54)	2.13 (54)	2.44 (62)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)	7.00 (178)
WTS.	0.90 (0.41)	0.90 (0.41)	1.40 (0.63)	2.10 (0.95)	3.30 (1.49)	4.80 (2.17)	6.10 (2.76)	10.40 (4.69)	20.50 (9.31)	44.00 (19.98)

300 CWP • Threaded Bonnet • Non-Rising Stem • Solder Ends

Features

- Non-Rising Stem
- Screwed Bonnet
- Solid Wedge Disc
- Solder Joint Ends
- Full Ports
- Back Seat
- Integral Bronze Seat
- Soldered Connections
- MSS Specification SP-80

For more detailed features, refer to Page 8.

CAUTION: Before installing solder joint valves, be sure solder or brazing alloy melting point is high enough to withstand line pressure temperature conditions and is compatible with fluid medium.

Figure 313J

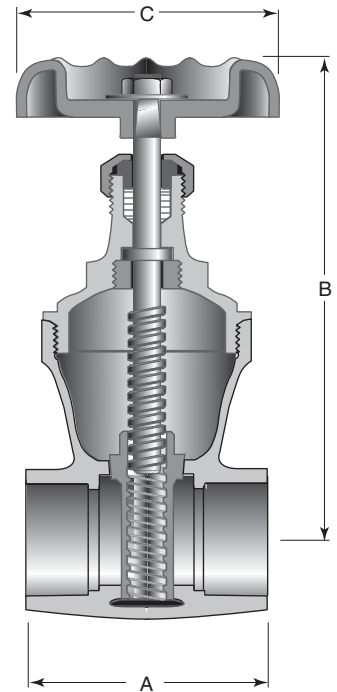
Size Range:

½ through 3 inches

Working Pressures

Non-Shock:

300 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B62 alloy C83600
Disc	Bronze	B62 alloy C83600
Stem	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.81 (46)	2.44 (62)	2.90 (74)	3.19 (81)	3.68 (93)	4.40 (112)	4.91 (125)	5.97 (152)
B	3.92 (100)	4.50 (114)	5.11 (130)	5.86 (149)	6.75 (171)	7.81 (198)	9.26 (235)	9.89 (251)
C	2.13 (54)	2.71 (69)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)	5.28 (134)
WTS.	0.90 (0.41)	1.50 (0.68)	2.60 (1.18)	3.00 (1.36)	4.40 (2.00)	7.30 (3.30)	11.50 (5.19)	16.30 (7.36)

Bronze Globe and Angle Valve Features

Bonze Globe and Angle Valve Features

Jenkins Globe and Angle Valves are highly efficient for regulating flow because disc and seat design provide flow characteristics with proportionate relationships between valve lift and flow rate. This assures accurate regulated flow control. The additional advantage of an Angle Valve is that it provides a 90° turn in piping so fewer joints are required and make-up time and labor are reduced.

Each valve in this section is classified by its pressure rating. All valves designated as Class 125, 150, 200 or 300 comply with MSS SP-80 Standard Practice.

NOTE THESE SUPERIOR FEATURES

Body is made of bronze conforming to requirements of ASTM B62 or B61 depending on valve pressure class. Like all parts, bodies are designed to withstand high internal pressures and line strains... and are proportioned to assure a high safety factor under recommended working pressures.

Body Seat Ring is made from high grade material especially selected to perform dependably in the services for which the valve is recommended.

Disc Stem Connection in all valves is designed to hold the disc securely while allowing it to rotate. The result is true, positive sealing with no damage to sealing surfaces.

Conventional Metal Disc has a relatively narrow contact with the body seal. It is recommended for a variety of general services but not for close throttling.

PTFE Disc has the same basic construction as the fully guided metal disc except that the disc is inserted in a disc holder. These pliable discs assure tight sealing and simplify valve maintenance. The PTFE disc is recommended for 150 psi saturated steam, 300 psi maximum non-shock cold water, oil, gas, and air.

Metal Plug Type Disc is conically shaped. This design is universally accepted for rigorous service. Because of the wide sealing surfaces, it is not easily harmed by foreign matter or wiredrawing. Jenkins uses stainless steel in this design.

Stem is made fro high grade materials especially selected to perform dependably in the services for which the valve is recommended.

Multiple Choice Seating are engineered for optimum performance on a wide range of services; renewable PTFE disc, regrind bronze seating, regrind and renewable plug type disc and seat ring in hardened 450 BHN, AISI 420 stainless steel. Hardened stainless steel discs and seat rings are performance proven. Needle or plug type seating provides graduated closure for throttling service. PTFE discs assure tight shut-off and are easy to change.

Cylindrical Shaped Body is the strongest and most successful design for withstanding internal pressures and line strains. The extra rigidity imparted by this shape prevents body distortion from line strain.

Large End Hexagons add additional body reinforcement and provide large surfaces for positive wrench grip.

Screwed Bonnet has generous optimum-sized hexagons for easy and positive wrench grip. For an easily remade and positively leak-tight joint, the flat bonnet seating face contacts a 5° inclined face of the body, providing high unit loading with relatively low torques.

Union Bonnet Where service conditions require, generous union bonnet rings facilitate frequent dismantling and reassembly of the bonnets and reinforce the bonnet joint to ensure a tight joint and maximum security under pressure.

Solder Joint Valves conform to ASME B16.18 specification for depth and diameter.

Heat Dispersing Handwheel Open rim, rounded multi-rib design provides a comfortable, positive grip. Handles are sized to provide adequate torque to operate the valve without the aid of levers, hickies or wrenches.

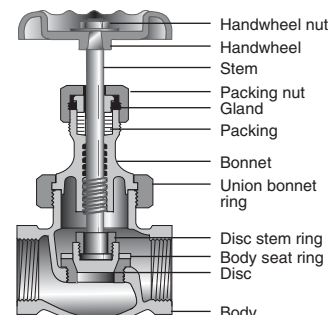
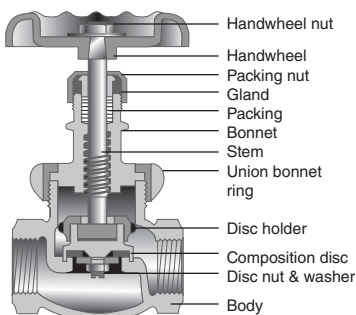
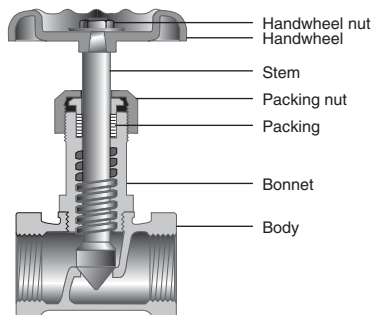
End Threads are precision cut in accordance to ASME B1.20.1.

Strong Stem Threads are precision machined to ensure ease of operation and long service.

Jenkins Bronze Globe and Angle valves have an identification plate which indicates the valve catalog number and the type of disc. Located under the handwheel nut, it permits easy and accurate field reference.

All valves are clearly identified and marked to MSS SP-25 specification.

For pressure-temperature ratings and Cv values, see page 7.



Class 150 • Union Bonnet • PTFE Disc • Threaded Ends

Features

- Rising Stem
- Union Bonnet
- PTFE Disc
- Non-Asbestos Packing
- Valves 2" and smaller have union bonnet. Disc holder retains disc and slips on the stem. Sizes 2 ½" and 3" have bolted bonnet; disc holder is fastened by a disc stem ring.
- Threaded Ends
- Back Seat
- Integral Bronze Seat
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Figure 106BJ

Size Range:

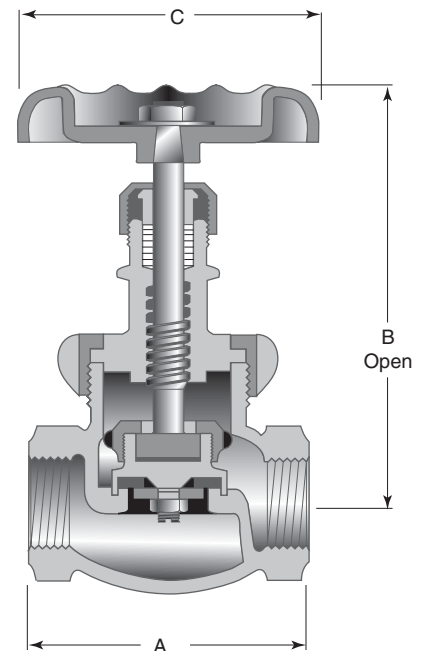
¼ through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	¼" - ¾"	Brass	B16 H02
Bonnet	½" - 3"	Bronze	B62 alloy C83600
Disc Holder	¼" - ½"	Brass	B16 H02
Disc Holder	¾" - 3"	Bronze	B62 alloy C83600
Stem	All	Bronze	B371 alloy C69400
Disc	All	PTFE	—

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	¾ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.56 (65)	2.96 (75)	3.50 (89)	4.02 (102)	4.58 (116)	5.70 (145)	7.25 (184)	8.50 (216)
B	4.34 (110)	4.34 (110)	4.14 (105)	5.13 (130)	5.45 (138)	6.42 (163)	6.98 (177)	7.50 (190)	8.87 (225)	10.28 (261)
C	2.13 (54)	2.13 (54)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)	7.00 (178)	7.00 (178)
WTS.	0.90 (0.41)	0.80 (0.36)	1.50 (0.68)	2.80 (1.27)	3.40 (1.54)	4.70 (2.12)	7.10 (3.21)	11.60 (5.24)	21.90 (9.89)	34.10 (15.40)

300 CWP • Threaded Bonnet • PTFE Disc • Solder Ends

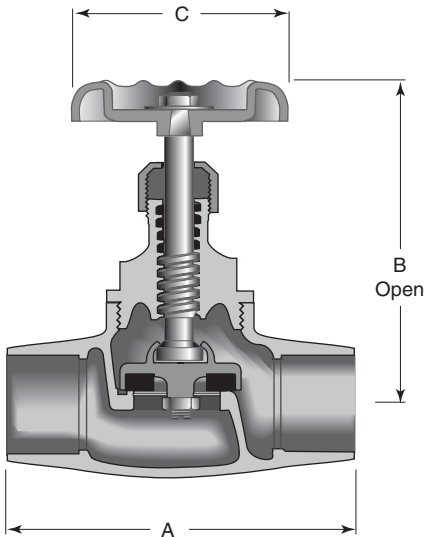


Figure 106BPJ

Size Range:

$\frac{3}{8}$ through 2 inches

Working Pressures

Non-Shock:

300 psi Cold Working Pressure

Features

- Rising Stem
- Screwed Bonnet
- Solder Joint Ends
- Back Seat
- Integral Bronze Seat
- Renewable PTFE discs simplify valve maintenance.
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Caution: Before installing solder joint valves, be sure solder or brazing alloy melting point is high enough to withstand line pressure/temperature conditions, and is compatible with fluid medium.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	All	Bronze	B62 alloy C83600
Disc	All	PTFE	—
Stem	All	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	$\frac{3}{8}$ (10)	$\frac{1}{2}$ (15)	$\frac{3}{4}$ (20)	1 (25)	1 $\frac{1}{4}$ (32)	1 $\frac{1}{2}$ (40)	2 (50)
A	2.73 (69)	2.72 (69)	3.52 (89)	4.24 (108)	4.71 (120)	5.52 (140)	6.97 (177)
B	4.28 (109)	3.61 (92)	4.51 (115)	4.84 (123)	5.20 (132)	5.82 (148)	6.65 (169)
C	2.13 (54)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)
WTS.	1.00 (0.45)	0.90 (0.41)	1.50 (0.68)	2.10 (0.95)	2.90 (1.31)	4.50 (2.03)	7.40 (3.33)

Class 150 • Union Bonnet • PTFE Disc • Threaded Ends

Features

- Rising Stem
- Union Bonnet
- Threaded Ends
- Back Seat
- Integral Bronze Seat
- MSS Specification SP-80
- PTFE Disc
- Non-asbestos Packing

For more detailed features, refer to Page 20.

Figure 108BJ

Size Range:

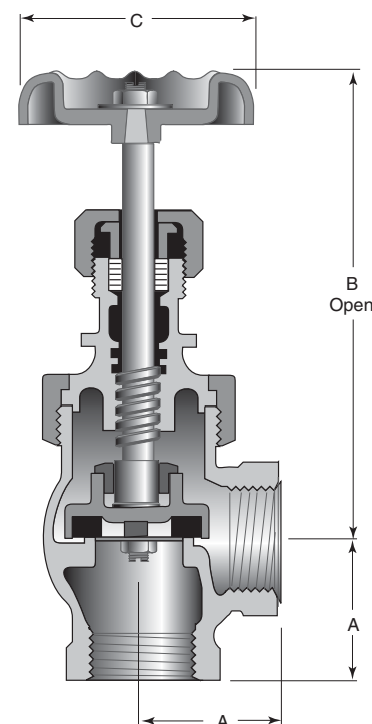
¼ through 2 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	¼" - ¾"	Brass	B16 H02
Bonnet	½" - 2"	Bronze	B62 alloy C83600
Disc Holder	¼" - ½"	Brass	B16 H02
Disc Holder	¾" - 2"	Bronze	B62 alloy C83600
Stem	All	Bronze	B371 alloy C69400
Disc	All	PTFE	—

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	¾ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	1.13 (29)	1.13 (29)	1.15 (29)	1.39 (35)	1.64 (42)	2.00 (51)	2.18 (55)	2.69 (68)
B	4.34 (110)	4.34 (110)	4.02 (102)	4.98 (126)	5.30 (135)	6.17 (157)	6.85 (174)	7.37 (184)
C	2.13 (54)	2.13 (54)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (94)	4.72 (120)	5.28 (134)
WTS.	0.70 (0.32)	0.80 (0.36)	1.60 (0.72)	2.30 (1.04)	3.30 (1.49)	5.00 (2.25)	7.10 (3.20)	11.40 (5.13)

Class 150 • Union Bonnet • Stainless Steel Disc & Seat Ring • Threaded Ends

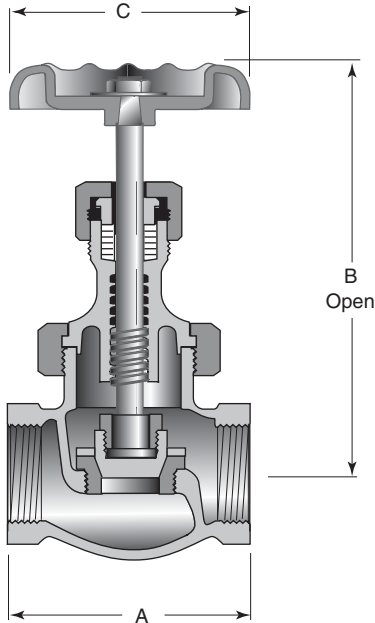


Figure 2032J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure

Features

- Rising Stem
- Union Bonnet, ¼"-2"
- Bolted Bonnet, 2 ½" and 3"
- Threaded Ends
- Stainless Steel Seat Rings
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	All	Bronze	B62 alloy C83600
Disc and seat ring	All	Stainless Steel	A276 S42000
Stem	All	Bronze	B371 alloy C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.56 (65)	2.96 (75)	3.50 (89)	4.02 (102)	4.58 (116)	5.70 (145)	7.25 (184)	8.50 (216)
B	4.39 (112)	4.39 (112)	4.09 (104)	4.18 (106)	5.45 (138)	6.36 (162)	6.95 (177)	7.55 (192)	8.92 (227)	10.16 (258)
C	2.75 (70)	2.75 (70)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)	7.00 (178)	7.00 (178)
WTS.	0.80 (0.36)	1.10 (0.45)	1.70 (0.77)	2.40 (1.08)	2.50 (1.13)	5.50 (2.48)	7.60 (3.43)	13.50 (6.10)	23.00 (10.39)	36.00 (16.26)

Class 200 • Threaded Bonnet • Needle Type Disc • Threaded Ends

Features

- Rising Stem
- Screwed Bonnet
- Threaded Ends
- Integral Seat
- Graphite Packing

For more detailed features, refer to Page 20.

Figure 743J

Globe Valve

Size Range:

1/8 through 3/4 inches

Working Pressures

Non-Shock:

200 psi Steam, Basic Rating

400 psi Cold Working Pressure

Figure 744J

Angle Valve

Size Range:

1/8 through 3/4 inches

Working Pressures

Non-Shock:

200 psi Steam, Basic Rating

400 psi Cold Working Pressure

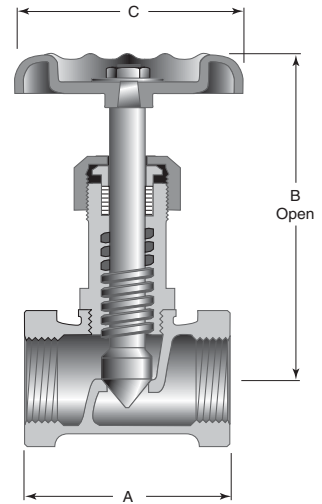


Figure 743J

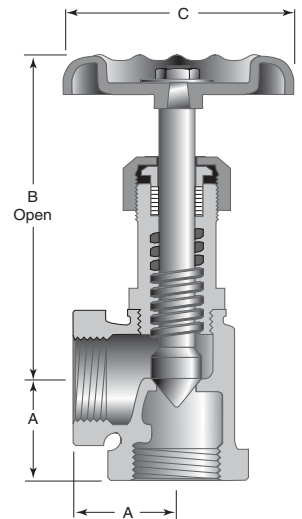


Figure 744J

Principal Parts & Materials

Part	Material	ASTM
Body	Bronze	B62 C83600
Bonnet	Brass	B16 H02
Stem	Brass	B16 H02

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Fig. 743J	1/8	1/4	3/8	1/2	3/4	Fig. 744J	1/8	1/4	3/8	1/2	3/4
	(3)	(6)	(10)	(15)	(20)		(3)	(6)	(10)	(15)	(20)
A	1.16 (29)	1.53 (39)	1.78 (45)	2.03 (52)	2.28 (58)	A	0.58 (15)	0.78 (20)	0.91 (23)	1.06 (27)	1.23 (31)
B	2.94 (73)	2.88 (73)	3.06 (78)	3.56 (91)	4.12 (105)	B	2.85 (73)	2.88 (73)	3.06 (78)	3.56 (91)	4.20 (106)
C	1.75 (44)	1.75 (44)	1.75 (44)	2.06 (52)	2.56 (65)	C	1.75 (44)	1.75 (44)	1.75 (44)	2.06 (52)	2.50 (64)
WTS.	0.30 (0.14)	0.30 (0.14)	0.50 (0.22)	0.60 (0.27)	1.0 (0.45)	WTS.	0.23 (0.11)	0.30 (0.14)	0.50 (0.22)	0.60 (0.27)	0.96 (0.44)

Class 200 • Union Bonnet • Plug Type Disc • Threaded Ends

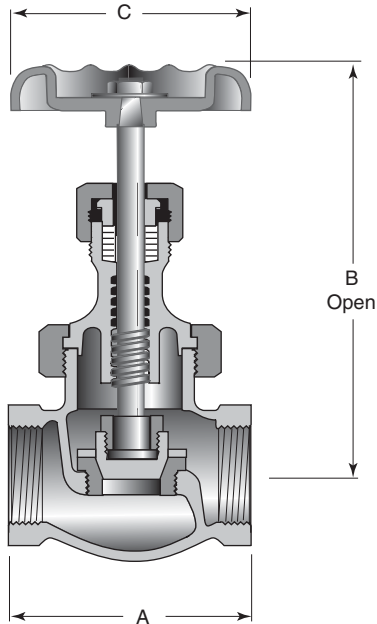


Figure 2050J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

200 psi Steam, Basic Rating

400 psi Cold Working Pressure

Features

- Rising Stem
- Union Bonnet
- Ideal for severe services such as throttling, soot blower, blow-off, boiler feed, drip and drain lines and is recommended for non-shock water, oil, gas, or air applications.
- Tapered Plug Type Disc
- Threaded Ends
- Stainless Steel Seat Ring
- Disc and seat ring are renewable.
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Principal Parts & Materials

Part	Material	ASTM
Body & bonnet	Bronze	B61 alloy C92200
Stem	Brass	B371 alloy C69400
Disc & seat ring	Stainless Steel	A276 S42000

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.56 (65)	2.96 (75)	3.50 (89)	4.02 (102)	4.58 (116)	5.70 (145)	7.28 (185)	8.70 (221)
B	4.39 (112)	4.39 (112)	4.09 (104)	4.18 (106)	5.45 (138)	6.36 (162)	6.95 (177)	7.55 (192)	8.44 (214)	9.79 (249)
C	2.75 (70)	2.75 (70)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)	6.97 (177)	7.00 (178)
WTS.	0.8 (0.36)	1.10 (0.45)	1.80 (0.90)	2.40 (1.08)	3.80 (1.72)	6.00 (2.71)	8.20 (4.1)	13.20 (5.96)	25.10 (11.37)	40.50 (18.38)

Class 300 • Union Bonnet • Plug Type Disc • Renewable Stainless Steel Seats

Features

- Rising Stem
- Union Bonnet
- Plug Type Disc
- 450 Brinell hardened Stainless Steel Seat Ring
- Wide Seating Surface
- Valves 2" (50mm) and smaller have compact union bonnet; 2 ½" (65mm) and 3" (80mm) use bolted bonnet. Both types can be dismantled and reassembled without danger of damage to valve.
- Threaded Ends
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Figure 592J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating

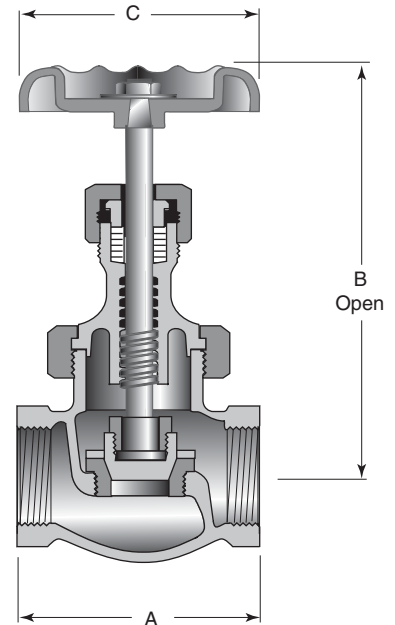
¼" to 2" - (6mm-50mm)

1000 psi Cold Working Pressure

¼" to 2" - (6mm-50mm)

600 psi Cold Working Pressure

2 ½" to 3" - (65mm-80mm)



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B61 C92200
Bonnet	¼" - ⅜"	Brass	B16 H02
Bonnet	½" - 3"	Bronze	B61 C92200
Disc & seat ring	All	Stainless Steel	A276 S42000
Stem	All	Bronze	B371 C69400

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.56 (65)	2.96 (75)	3.50 (89)	4.02 (102)	4.58 (116)	5.70 (145)	7.25 (184)	8.50 (216)
B	4.39 (112)	4.39 (112)	4.09 (104)	4.18 (106)	5.45 (138)	6.36 (162)	6.95 (177)	7.55 (192)	8.92 (227)	10.16 (258)
C	2.13 (54)	2.13 (54)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)	7.00 (178)	7.00 (178)
WTS.	1.40 (0.63)	1.50 (0.68)	2.30 (1.04)	2.80 (1.27)	4.30 (194)	8.10 (3.66)	10.90 (4.92)	19.20 (8.67)	34.40 (15.54)	48.10 (21.72)

Class 300 • Union Bonnet • Plug Type Disc • Renewable Stainless Steel Seats

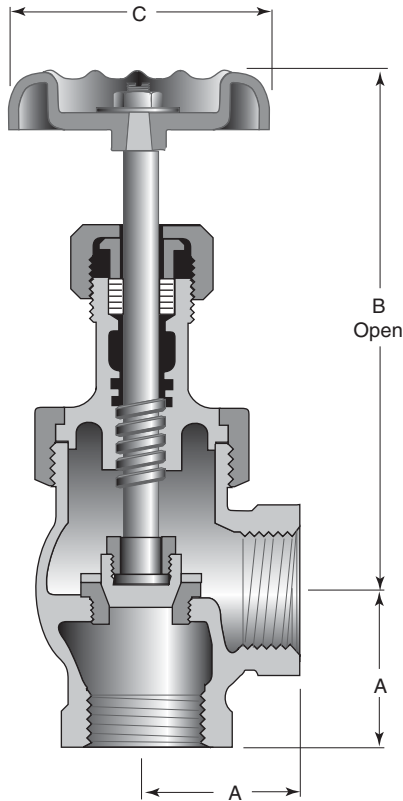


Figure 594J

Size Range:

¼ through 2 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating

1000 psi Cold Working Pressure

Features

- Rising Stem
- All sizes are air tested and reliable for exceptionally severe services such as throttling, blow-off, boiler feed, drip, and drain lines. Recommended for non-shock water, oil, gas or air.
- Plug Type Disc
- Union Bonnet
- Threaded Ends
- Wide Seating Surfaces
- 450 Brinell Hardened Stainless Steel Seat Ring
- Backseat
- MSS Specification SP-80

For more detailed features, refer to Page 20.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B61 C92200
Bonnet	¼" - ¾"	Brass	B16 H02
Bonnet	½" - 2"	Bronze	B61 C92200
Disc	All	Stainless Steel	A276 S42000
Stem	All	Bronze	B371 C69400
Seat Ring	All	Stainless Steel	A276 S42000

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	1.13 (29)	1.13 (29)	1.15 (29)	1.39 (35)	1.64 (42)	2.00 (50)	2.18 (55)	2.69 (69)
B	4.27 (108)	4.27 (108)	3.97 (101)	4.03 (103)	5.30 (135)	6.11 (155)	6.82 (173)	7.30 (185)
C	2.13 (54)	2.13 (54)	2.13 (54)	3.03 (77)	3.03 (77)	3.72 (95)	4.72 (120)	5.28 (134)
WTS.	1.40 (0.63)	1.40 (0.63)	2.10 (0.95)	3.30 (1.49)	5.00 (2.26)	7.70 (3.47)	10.90 (4.92)	18.00 (8.13)

Swing and Lift Check Valve Features

Swing and Lift Check Valve Features

Check valves permit flow in one direction only and close automatically when flow reverses. They are entirely automatic in action, depending upon pressure and velocity of flow within the line to perform their functions of opening and closing.

The discs and any associated moving parts may be in a constant state of movement if the velocity pressure is not sufficient to hold the disc in a wide open and stable position. Premature wear and noisy operation or vibration can be avoided by selecting the size of the check valve on the basis of flow conditions rather selecting the check valve according to the size of the pipeline.

Each valve in this section is classified by its pressure rating. All valves designated as Class 125, 150, 200 or 300 comply with MSS SP-80 Standard Practice.

Horizontal Lift Check Valves have an internal construction similar to globe valves. The flow follows a turning course through a horizontal bridge wall on which the disc is seated. The disc is equipped with guides either above or below the seat which move vertically in integral guides in the cap and bridge wall. The disc is seated by backflow or by gravity when there is no flow. It operates in horizontal lines only, the disc being free to rise and fall depending on the pressure under it.

Vertical Lift Check Valves are designed to operate on upward flow only. They must always be installed vertically with pressure below the seat. The disc is seated by backflow or by gravity when there is no flow.

Swing Check Valves with straight-through body design and wide hinge support provide turbulence-free flow and accurate seating. There is no tendency for the seating surfaces to gall or score because the disc meets the flat seat squarely without rubbing. Also, some types of swing check valves are furnished with soft faced discs backed

up by solid metal which provides even more positive seating.

Below are two formulas that can be used to determine the minimum velocity necessary to hold a check valves in a wide open and stable position. v is equal to velocity in feet per second and V is the specified volume of fluid in cubic feet per pound.

$$\text{Swing Check Formula } v = \beta^2 35 \sqrt{V}$$

$$\text{Lift Check Formula } v = \beta^2 40 \sqrt{V}$$

$$\text{where } \beta^2 = \left(\frac{\text{Port Diameter}}{\text{Nominal Pipe Diameter}} \right)^2$$

Sizing check valves on this basis may often result in the use of valves that are smaller than the pipe in which they are used, necessitating the use of reducers for installation. The pressure drop will be no greater than that of a larger valve that is partially open. Valve life will be greatly extended, and the added bonus, of course, is the lower cost of the smaller valves.

Note These Superior Features

Positive Seating - The 45° seat angle in relation to direction of flow and the two piece swivel disc combine to provide full seating whether installed horizontally or vertically, regardless of pipeline pitch. Seat leakage from hinge distortion is virtually eliminated. For installations requiring it, the composition disc versions give the extra positive shut-off inherent in a soft seating disc.

Longer Life - The sturdy, sensible body design will give years of satisfactory service under rugged operating conditions. The swivel hinge-disc

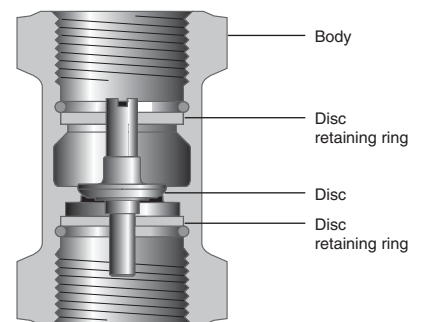
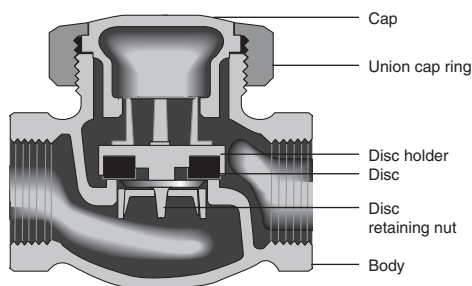
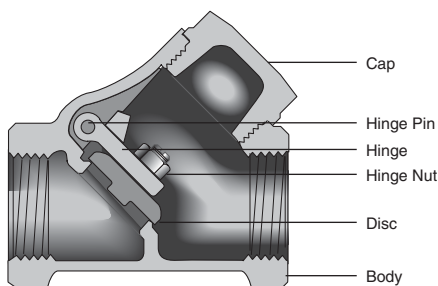
connection permits the disc to rotate in service, virtually eliminating concentrated or "spot" seat wear. Easy seat regrinding or composition disc replacement adds years to the service life of these valves.

Easy Maintenance - Easy access via the large cap and the Y pattern body permits quick regrinding of the seating surfaces on the metal seated valves by means of the rotating disc. Similarly, it is quick and easy to replace discs on the composition disc valves. By removing the hinge pin plug, hinge pin and cap, the hinge-disc assembly can be removed to permit replacing the disc.

Parts Interchangeability - Among class 125, 150, 200 and 300 swing check valves, the disc and hinge assembly is fully interchangeable; Jenkins metal or composition disc seating valves have this great advantage of using the same disc/hinge assembly within their respective seating categories.

Body is made of bronze conforming to requirements of ASTM B62 or B61 depending on valve pressure class. Like all parts, bodies are designed to withstand high internal pressures and line strains...and are proportioned to assure a high safety factor under recommended working pressures.

Disc and hinge are made from high grade materials especially selected to perform dependably in the services for which the valve is recommended.



Class 125 • Brass/Bronze Disc • Threaded Ends

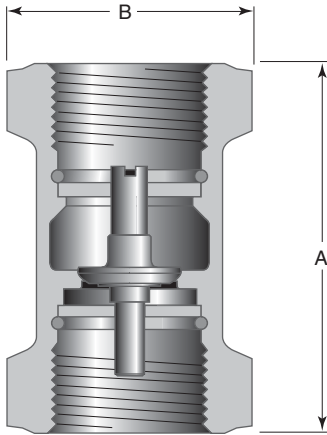


Figure 119J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

Features

- These lift check valves have a one piece body with a bronze disc. The design is conceived for operation on upward flow only. Always install vertically with pressure below the seat and inlet end down.
- Recommended for general services on non-shock cold water, oil or gas; also for use in water-suction lines.
- Seats are integral with body. Disc is precisely guided at top and bottom, assuring accurate seating.
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Disc	¼" - ½"	Brass	B16 H02
Disc	¾"	Bronze	B505 C83600
Disc	1" - 2"	Bronze	B62 C83600
Disc guide	All	Brass	B36 C26000 H04
Retaining ring	All	Brass	B134 C26000

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.95 (50)	1.95 (50)	2.15 (55)	2.32 (59)	2.92 (74)	3.28 (83)	3.58 (91)	4.00 (102)	4.94 (126)	5.42 (138)
B	1.09 (28)	1.09 (28)	1.29 (33)	1.57 (40)	1.92 (49)	2.40 (61)	2.63 (67)	3.30 (84)	3.97 (101)	4.78 (121)
WTS.	0.30 (0.14)	0.40 (0.18)	0.60 (0.27)	0.80 (0.36)	1.40 (0.64)	2.10 (0.95)	2.80 (1.27)	4.80 (2.18)	8.10 (3.66)	12.00 (5.42)

Bronze Swing Check Valve

Figure 4037J



Class 125 • Threaded Cap • Brass/Bronze Disc • Threaded Ends

Features

- Recommended for oil or gas. Can be reground while the valve remains in the line.
- Y-Pattern Body with Integral Seat
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- Screwed Cap
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Figure 4037J

Size Range:

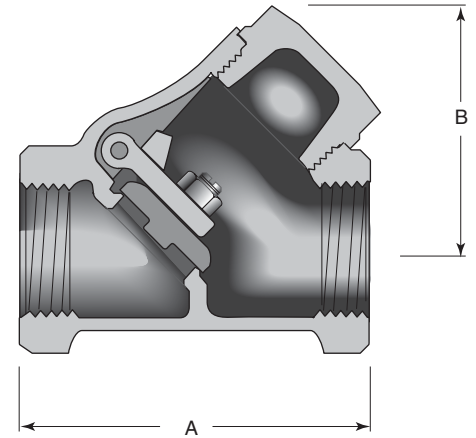
¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating

200 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Cap	All	Bronze	B16 alloy C83600
Disc	¼" - ¾"	Brass	B16 H02
Disc	1" - 3"	Bronze	B62 alloy C83600
Hinge	All	Bronze	B62 alloy C83600
Hinge pin	All	Bronze	B-150 alloy 64200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.15 (55)	2.71 (69)	3.18 (81)	3.81 (97)	4.38 (111)	5.13 (130)	6.12 (155)	7.25 (184)
B	1.50 (38)	1.50 (38)	1.59 (40)	1.97 (50)	2.43 (62)	3.00 (76)	3.50 (89)	4.00 (102)	4.76 (121)	5.57 (141)
WTS.	0.50 (0.23)	0.50 (0.23)	0.60 (0.27)	1.00 (0.45)	1.60 (0.72)	2.60 (1.17)	3.50 (1.58)	5.60 (2.53)	8.60 (3.88)	12.00 (5.42)

Class 125 • Threaded Cap • PTFE Disc • Threaded Ends

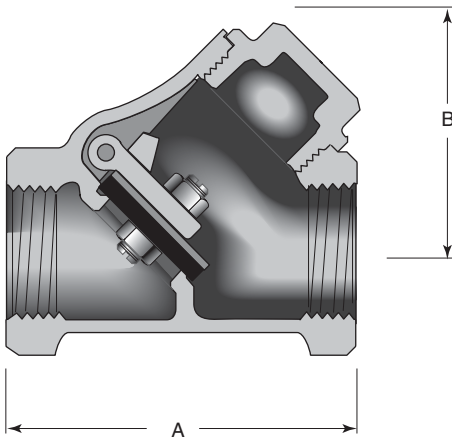


Figure 4041TJ

Size Range:

½ through 2 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

Features

- Recommended for oil or gas. Can be reground while the valve remains in the line.
- Screwed Cap
- Y-Pattern Body
- PTFE Disc
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Cap	All	Bronze	B16 alloy C92200
Disc	All	PTFE	
Hinge	All	Bronze	B584 alloy 87600
Hinge pin	All	Bronze	B-150 alloy 64200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	2.15 (55)	2.71 (69)	3.18 (81)	3.81 (97)	4.34 (195)	5.13 (130)
B	1.59 (40)	1.97 (50)	2.43 (62)	3.00 (76)	3.50 (89)	4.00 (102)
WTS.	0.60 (0.27)	1.00 (0.45)	1.60 (0.72)	2.60 (1.17)	3.50 (1.58)	5.30 (2.39)

Bronze Swing Check Valve

Figure 4092J



Class 150 • Threaded Cap • Brass/Bronze Disc • Threaded Ends

Features

- Two piece disc hinge assembly, with regrindable seating, and rotating disc.
- Easy access cap permits quick regrinding.
- Free to rotate disc design allows the disc to close in a different position on the integral seat each time it operates.
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- Y-Pattern Body
- Screwed Cap
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Figure 4092J

Size Range:

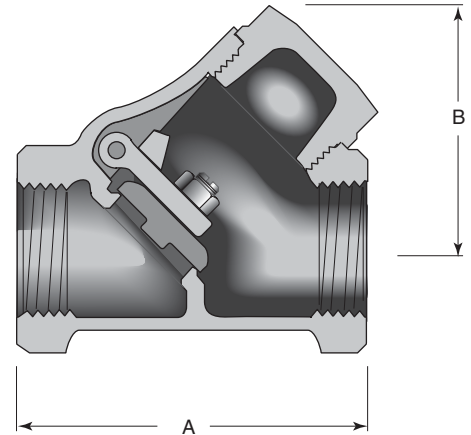
¼ through 3 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body & cap	All	Bronze	B62 alloy C83600
Hinge	All	Bronze	B584 alloy C87600
Disc	¼" - ¾"	Brass	B16 H02
Disc	1" - 3"	Bronze	B62 alloy C83600
Hinge Pin	All	Bronze	B150 alloy 64200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.94 (49)	1.94 (49)	2.15 (55)	2.71 (69)	3.18 (81)	3.81 (97)	4.34 (110)	5.13 (130)	6.12 (155)	7.25 (184)
B	1.50 (38)	1.50 (38)	1.59 (40)	1.97 (50)	2.43 (62)	3.00 (76)	3.50 (89)	4.00 (102)	4.76 (121)	5.57 (142)
WTS.	0.50 (0.23)	0.50 (0.23)	0.60 (0.27)	1.00 (0.45)	1.50 (0.68)	2.20 (1.00)	3.40 (1.54)	5.40 (2.44)	9.00 (4.09)	14.50 (6.59)

300 CWP • Threaded Cap • Brass/Bronze Disc • Solder Ends

Figure 4093J

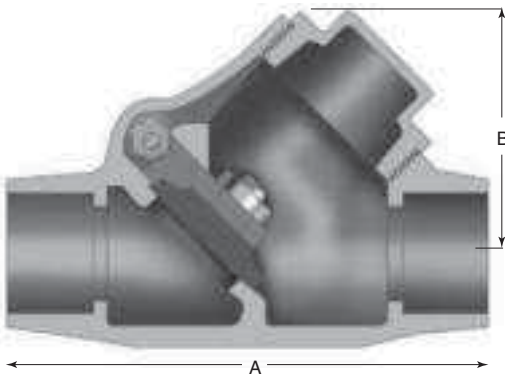
Size Range:

½ through 3 inches

Working Pressures

Non-Shock:

300 psi Cold Working Pressure



Features

- Y-Pattern Body
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- Screwed Cap
- MSS Specification SP-80

Caution: Before installing solder-joint valves, be sure the solder or brazing alloy is compatible with the fluid media and the alloy melting point is high enough to withstand the pressure and temperature conditions.

For more detailed features, refer to Page 29.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body & cap	All	Bronze	B62 alloy C83600
Disc	½" - ¾"	Brass	B16 H02
Disc	1" - 3"	Bronze	B62 alloy C83600
Hinge	All	Bronze	B584 alloy 87600
Hinge Pin	All	Bronze	B150 alloy 64200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.69 (68)	3.63 (92)	4.25 (108)	4.81 (122)	5.56 (141)	6.87 (174)	7.78 (198)	9.19 (233)
B	1.63 (41)	2.00 (52)	2.50 (62)	3.00 (73)	3.50 (86)	4.00 (106)	4.75 (122)	5.63 (149)
WTS.	0.60 (0.27)	1.00 (0.45)	1.50 (0.68)	2.20 (1.00)	3.30 (1.50)	5.40 (2.45)	9.20 (4.16)	14.30 (6.46)

Bronze Swing Check Valve

Figure 4475TJ



Class 150 • Threaded Cap • PTFE Disc • Threaded Ends

Features

- An excellent choice where quick disc replacement and easy maintenance are essential.
- Screwed Cap permits quick inspection of internal parts.
- Y-Pattern Body
- PTFE Disc
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Figure 4475TJ

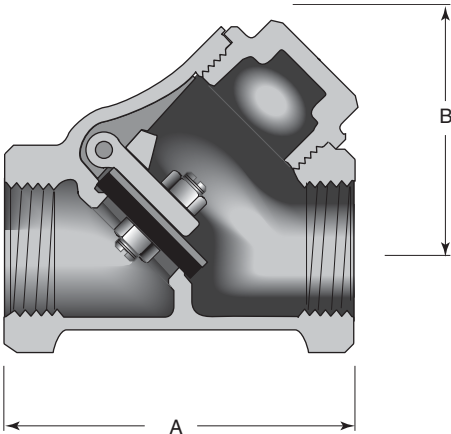
Size Range:

½ through 2 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating
300 psi Cold Working Pressure



Principal Parts & Materials

Part	Material	ASTM
Body & cap	Bronze	B62 alloy C83600
Hinge	Bronze	B564 alloy C87600
Disc	PTFE	
Hinge Pin	Bronze	B150 alloy C64200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	2.15 (55)	2.71 (69)	3.18 (81)	3.81 (97)	4.34 (110)	5.13 (130)
B	1.59 (40)	1.97 (50)	2.43 (62)	3.00 (76)	3.50 (89)	4.00 (102)
WTS.	0.60 (0.27)	1.10 (0.50)	1.70 (0.77)	2.70 (1.22)	3.70 (1.68)	5.90 (2.68)

Figure 117ATJ Bronze Horizontal Lift Check Valve

Class 150 • Union Cap • PTFE Disc • Threaded Ends

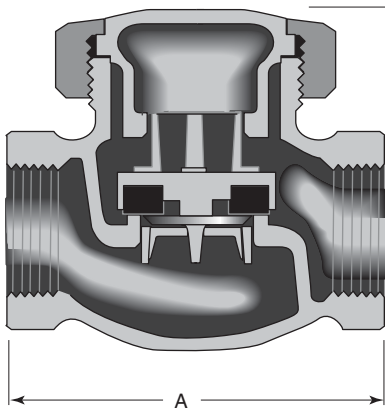


Figure 117ATJ

Size Range:

¼ through 2 inches

Working Pressures

Non-Shock:

150 psi Steam, Basic Rating

300 psi Cold Working Pressure

Features

- Rugged and proven dependable on general services.
- Union Cap construction is an excellent feature for fast, simple maintenance.
- Disc holder is guided top and bottom on sizes ½" and larger.
- PTFE disc suitable for steam service.
- MSS Specification SP-80

Note:

For horizontal installation only.

For more detailed features, refer to Page 29.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Cap	¼" - ¾"	Brass	B16 H02
Cap	½" - 2"	Bronze	B62 alloy C83600
Union bonnet ring	All	Bronze	B62 alloy C83600
Disc	All	PTFE	
Disc holder	¼" - ¾"	Brass	B16 H02
Disc holder	1" - 2"	Bronze	B62 alloy C83600

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	1.94 (49)	1.94 (49)	2.56 (65)	2.96 (75)	3.50 (89)	4.02 (102)	4.58 (116)	5.70 (145)
B	1.31 (33)	1.31 (33)	1.39 (35)	1.64 (42)	2.28 (58)	2.65 (67)	2.72 (69)	3.48 (88)
WTS.	0.50 (0.22)	0.50 (0.22)	0.90 (0.41)	1.40 (0.63)	2.30 (1.04)	3.40 (1.54)	5.00 (2.26)	8.70 (3.93)

Bronze Swing Check Valve

Figure 4449J



Class 200 • Threaded Cap • Brass/Bronze Disc • Threaded Ends

Features

- Y-Pattern Body
- Regrindable Seat
- Screwed cap permits quick regrinding
- Rotating disc virtually eliminates “spot” seat wear.
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Figure 4449J

Size Range:

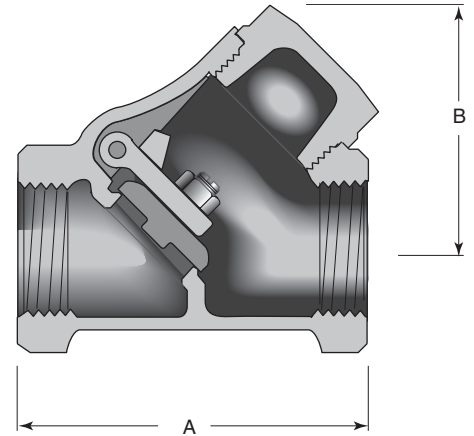
¼ through 3 inches

Working Pressures

Non-Shock:

200 psi Steam, Basic Rating

400 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body & cap	All	Bronze	B61 alloy C92200
Hinge	All	Bronze	B584 alloy C87600
Disc	¼" - ¾"	Brass	B16 H02
Disc	1" - 3"	Bronze	B61 alloy C92200
Hinge Pin	¼" - 2"	Stainless	A276 S42000
Hinge Pin	2 ½" - 3"	Stainless Steel	A276 Type 304

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.14 (54)	2.14 (54)	2.15 (55)	2.71 (69)	3.18 (81)	3.81 (97)	4.34 (110)	5.11 (130)	6.87 (174)	8.19 (208)
B	1.50 (38)	1.50 (38)	1.76 (45)	2.00 (51)	2.50 (64)	3.00 (76)	3.50 (89)	4.00 (102)	5.00 (127)	6.00 (152)
WTS.	0.50 (0.23)	0.50 (0.23)	0.80 (0.36)	1.40 (0.63)	2.10 (0.95)	3.90 (1.76)	4.40 (1.99)	7.00 (3.16)	14.80 (6.68)	21.20 (9.57)

Class 300 • Threaded Cap • Brass/Bronze Disc • Threaded Ends

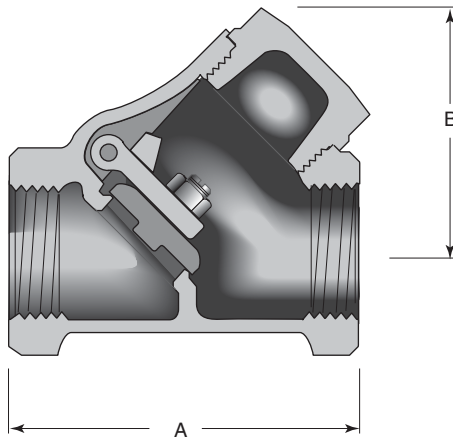


Figure 4962J

Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating

1000 psi Cold Working Pressure

¼" to 2" - (6mm - 50mm)

600 psi Cold Working Pressure

2 ½" to 3" - (65mm - 80mm)

Features

- Rugged body, conforming to ASTM B61 bronze, provides extra strength and safety.
- Regrindable Seat
- Screwed cap permits quick regrinding
- Y-Pattern body with integral seat
- 45° seat angle assures positive seating
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- MSS Specification SP-80

For more detailed features, refer to Page 29.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body & cap	All	Bronze	B61 alloy C92200
Hinge	All	Bronze	B584 alloy C87600
Disc	¼" - ¾"	Brass	B16 H02
Disc	1" - 3"	Bronze	B61 alloy C92200
Hinge Pin	¼" - 2"	Stainless	A276 S42000
Hinge Pin	2 ½" - 3"	Stainless Steel	A276 Type 304

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.14 (54)	2.14 (54)	2.15 (55)	2.71 (69)	3.44 (87)	4.06 (103)	4.59 (117)	5.36 (136)	7.11 (181)	8.39 (213)
B	1.50 (38)	1.50 (38)	1.76 (45)	2.00 (51)	2.50 (63)	3.20 (81)	3.73 (95)	4.20 (107)	5.00 (127)	6.00 (152)
WTS.	0.60 (0.27)	0.60 (0.27)	1.00 (0.45)	1.50 (0.68)	2.60 (1.17)	3.80 (1.72)	6.10 (2.76)	11.10 (5.01)	16.60 (7.50)	24.50 (11.06)



Class 300 • Union Cap • Bronze Disc • Threaded Ends

- Features
- Lift Check Design
 - Threaded Ends
 - Union Cap

Figure 518AJ

Size Range:

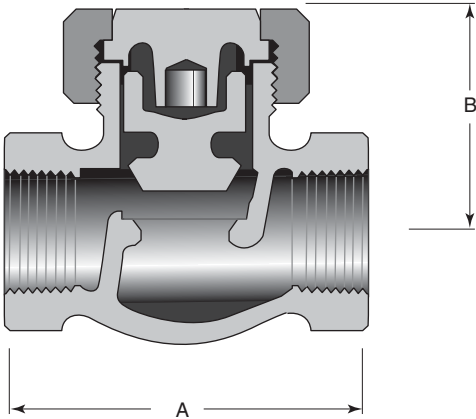
½ through 2 inches

Working Pressures

Non-Shock:

300 psi Steam, Basic Rating
at 450°F

1000 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Disc	All	Bronze	B62 alloy C83600
Cap	½"	Bronze	B138 alloy C67500
Cap	¾" - 2"	Bronze	B62 alloy C83600
Union ring	All	Bronze	B62 alloy C83600

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	½	¾	1	1 ¼	1 ½	2
	(15)	(20)	(25)	(32)	(40)	(50)
A	2.50 (64)	2.94 (75)	3.50 (89)	4.06 (103)	4.62 (117)	5.75 (146)
B	1.46 (37)	1.88 (48)	2.00 (51)	2.38 (60)	2.62 (68)	3.25 (83)
WTS.	1.00 (0.45)	1.70 (0.77)	2.60 (1.20)	4.10 (1.88)	5.60 (2.56)	10.00 (4.55)

Commercial/ Light Industrial Series

Quality and Performance in a Competitively – Priced Bronze Line

Jenkins line of Class 125 bronze valves is designed and priced to meet the needs of the building industry. This complete line of gate, globe and check valves conforms to the specifications set by the Manufacturers Standardization Society (MSS).* And, in addition, you get Jenkins quality at a price that every cost-conscious builder can appreciate.

Jenkins valves have long been recognized in the building trades for their quality and dependability. From castings to components, these valves are manufactured to Jenkins exacting designs and specifications. Rigid quality control during and after manufacture is your assurance that you'll get a perfect Jenkins valve every time.

These valves are especially suited for air, water, steam, gas and fuel oil applications in domestic and commercial heating, plumbing and air conditioning installations. In addition to commercial use, these valves are so well constructed that they may be used in many industrial applications.

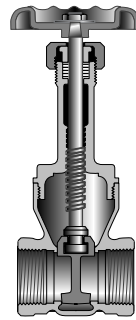
Here's why Jenkins valves keep your costs down when your building goes up:

- Engineered to the design and quality standards of the Manufacturers Standardization Society (MSS)
- Economically priced
- Uncompromising quality
- Distributor stocking to reduce your costs
- Application assistance from trained representatives
- Backed by Jenkins product performance warranty

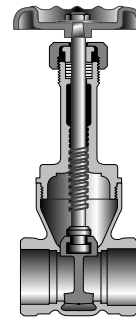
**All valves conform to MSS SP-80.*

Thread ends conform to ASME B1.20.1

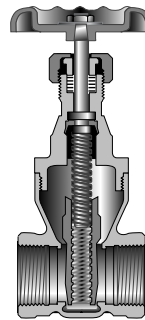
Solder joint ends conform to ASME B16.18.



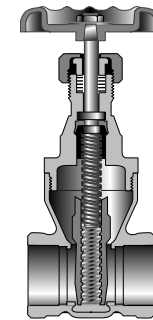
No. 990AJ
Rising Stem Gate
Threaded



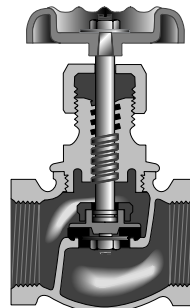
No. 991AJ
Rising Stem Gate
Solder End



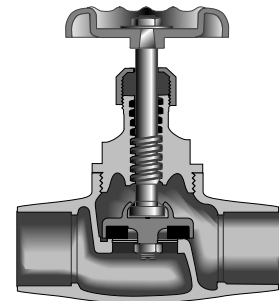
No. 992AJ
Non-rising Stem Gate
Threaded



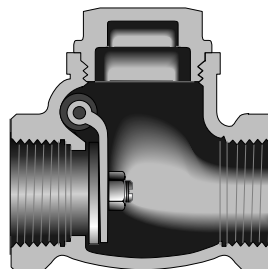
No. 993AJ
Non-Rising Stem Gate
Solder End



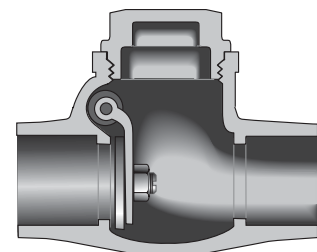
No. 994AJ
Globe, Screwed



No. 995AJ
Globe, Solder Joint



No. 996 AJ
Check, Bronze Disc, Threaded



No. 997AJ
Check, Bronze Disc, Solder End

Class 125 • Inside Screw • Rising Stem • Solid Disc • Threaded Ends

Features

- Recommended for 200 psi steam, water, oil or gas in commercial and light industrial applications.
- Screwed Bonnet
- Solid Wedge Disc
- Threaded Ends
- Full Ports
- PTFE Packing

For more detailed features, refer to Page 40.

Figure 990AJ

Size Range:

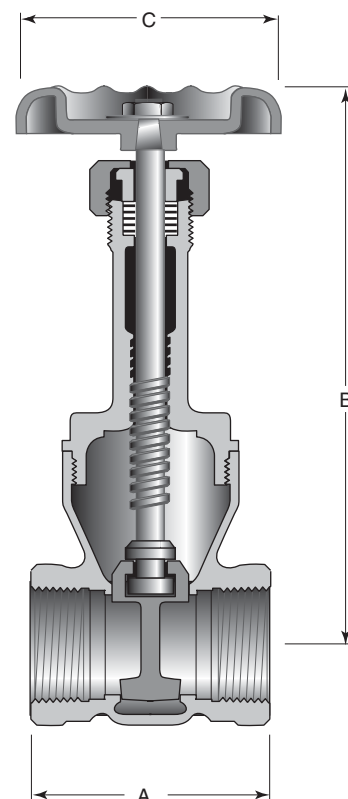
¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Water, Oil or Gas

200 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Bonnet	All	Bronze	B62 C83600
Disc	All	Bronze	B62 C83600
Stem	All	Bronze	B584 C83600 or B21C C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.65 (42)	1.65 (42)	1.97 (50)	2.00 (51)	2.36 (60)	2.68 (68)	2.78 (71)	3.07 (78)	4.00 (102)	4.57 (116)
B	4.33 (109)	4.33 (109)	4.29 (108)	4.88 (124)	5.98 (152)	6.81 (173)	7.80 (198)	9.53 (242)	11.18 (284)	12.83 (326)
C	1.97 (50)	1.97 (50)	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	3.54 (90)	3.54 (90)	4.72 (120)	5.12 (130)
WTS.	0.50 (0.02)	0.50 (0.02)	0.80 (0.36)	1.10 (0.50)	1.80 (0.81)	2.40 (1.08)	3.20 (1.44)	5.00 (2.25)	10.70 (4.83)	16.80 (7.59)

200 CWP • Inside Screw • Rising Stem • Solid Disc • Solder Ends

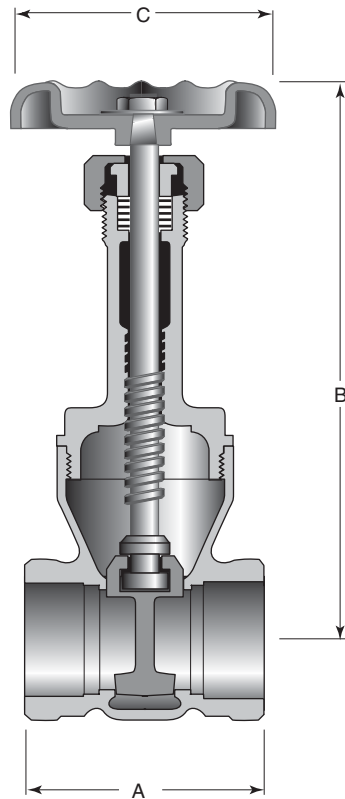


Figure 991AJ

Size Range:

$\frac{3}{8}$ through 3 inches

Working Pressures

Non-Shock:

200 psi Cold Working Pressure

Features

- Screwed Bonnet
- Rising Stem
- Solid Wedge Disc
- Solder Joint Ends
- Full Ports
- PTFE Packing
- ASME B16.18

For more detailed features, refer to Page 40.

Caution: Before installing solder joint valves, be sure solder or brazing alloy melting point is high enough to withstand line pressure, temperature conditions, and is compatible with fluid medium.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Bonnet	All	Bronze	B16 C83600
Disc	All	Bronze	B16 C83600
Stem	All	Bronze	B584 C83600 or B21 C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	$\frac{3}{8}$ (10)	$\frac{1}{2}$ (15)	$\frac{3}{4}$ (20)	1 (25)	1 $\frac{1}{4}$ (32)	1 $\frac{1}{2}$ (40)	2 (50)	2 $\frac{1}{2}$ (65)	3 (80)
A	1.57 (40)	1.89 (48)	2.36 (60)	2.80 (71)	3.15 (80)	3.46 (88)	4.09 (104)	4.72 (120)	5.35 (136)
B	3.51 (89)	4.29 (108)	4.88 (124)	5.98 (152)	6.81 (173)	7.80 (198)	9.53 (242)	11.18 (284)	12.83 (326)
C	2.12 (54)	2.12 (54)	2.40 (61)	2.64 (67)	3.27 (83)	3.27 (83)	3.74 (95)	4.41 (112)	5.12 (130)
WTS.	0.50 (0.22)	0.70 (0.32)	1.00 (0.45)	1.60 (0.72)	2.70 (1.22)	3.50 (1.58)	5.30 (2.39)	10.70 (4.83)	15.10 (6.82)

Class 125 • Inside Screw • Non-Rising Stem • Bronze Disc • Threaded Ends

Features

- Threaded Ends
- Non-Rising Stem
- Solid Wedge Disc
- Screwed Bonnet
- PTFE Packing
- Full Ports

For more detailed features, refer to Page 40.

Figure 992AJ

Size Range:

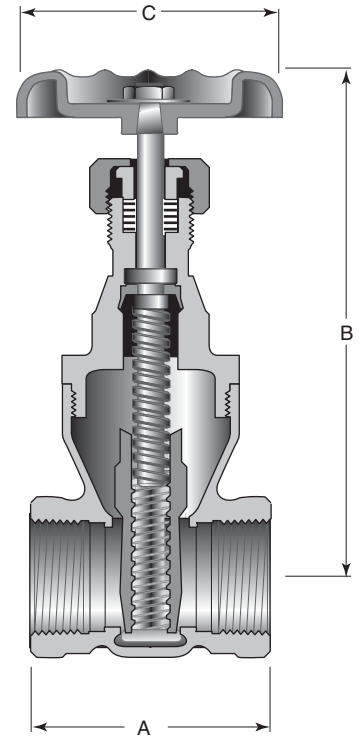
¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Water, Oil or Gas

200 psi, Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Bonnet	All	Bronze	B62 C83600
Disc	All	Bronze	B62 C83600
Stem	All	Bronze	B584 C83600 or B21 C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	1.65 (41)	1.65 (41)	1.97 (50)	2.00 (50)	2.36 (60)	2.68 (68)	2.78 (71)	3.07 (80)	4.00 (101)	4.57 (116)
B	2.95 (75)	2.95 (75)	3.03 (77)	3.46 (88)	4.17 (106)	4.60 (117)	5.35 (136)	7.60 (193)	7.75 (197)	8.36 (212)
C	2.12 (54)	2.12 (54)	2.12 (54)	2.40 (61)	2.64 (67)	3.27 (83)	3.27 (83)	3.74 (95)	4.41 (112)	5.12 (130)
WTS.	0.50 (0.22)	0.50 (0.22)	0.70 (0.32)	1.00 (0.45)	1.50 (0.68)	2.10 (0.94)	2.70 (1.22)	4.50 (2.03)	10.60 (4.88)	15.80 (7.13)

200 CWP • Inside Screw • Non-Rising Stem • Bronze Disc • Solder Ends

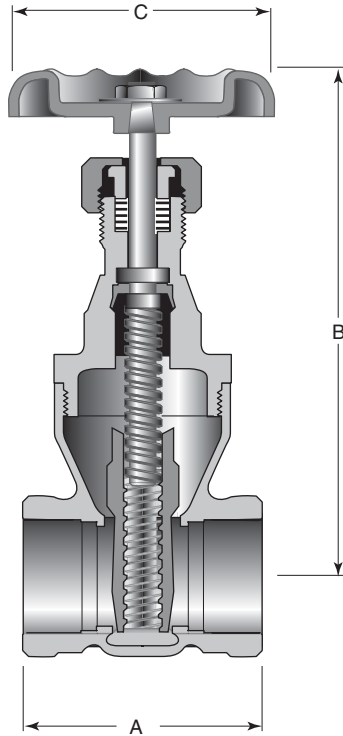


Figure 993AJ

Size Range:

$\frac{3}{8}$ through 3 inches

Working Pressures

Non-Shock:

200 psi Cold Working Pressure

Features

- Non-Rising Stem
- Screwed Bonnet
- Solder Joint Ends
- PTFE Packing
- Full Ports
- ASME B16.18

For more detailed features, refer to Page 40.

Caution: Before installing solder-joint valves, be sure solder or brazing alloy melting point is high enough to withstand line pressure, temperature conditions, and is compatible with fluid medium.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Bonnet	All	Bronze	B62 C83600
Disc	All	Bronze	B62 C83600
Stem	All	Bronze	B584 C83600 or B21 C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	$\frac{3}{8}$ (10)	$\frac{1}{2}$ (15)	$\frac{3}{4}$ (20)	1 (25)	1 $\frac{1}{4}$ (32)	1 $\frac{1}{2}$ (40)	2 (50)	2 $\frac{1}{2}$ (65)	3 (80)
A	1.57 (40)	1.89 (48)	2.36 (60)	2.80 (71)	3.15 (80)	3.76 (96)	4.09 (104)	4.72 (120)	5.35 (136)
B	2.75 (70)	3.03 (77)	3.46 (88)	4.17 (106)	4.80 (122)	5.85 (149)	7.00 (178)	7.75 (197)	8.36 (212)
C	2.12 (54)	2.12 (54)	2.40 (61)	2.64 (67)	3.27 (83)	3.27 (83)	3.74 (95)	4.41 (112)	5.12 (130)
WTS.	0.50 (0.22)	0.70 (0.32)	1.00 (0.45)	1.50 (0.68)	2.10 (0.94)	2.70 (1.22)	4.50 (2.03)	10.60 (4.88)	15.80 (7.13)

Class 125 • Inside Screw • Rising Stem • Brass Disc • Threaded Ends

Features

- Rising Stem
- Threaded Ends
- PTFE Disc
- Back Seat
- Integral Bronze Seat
- Recommended for WOG
- MSS Specification SP-80
- Threaded Ends conform to ASME B1.20.1 Standards

For more detailed features, refer to Page 40.

Figure 994AJ

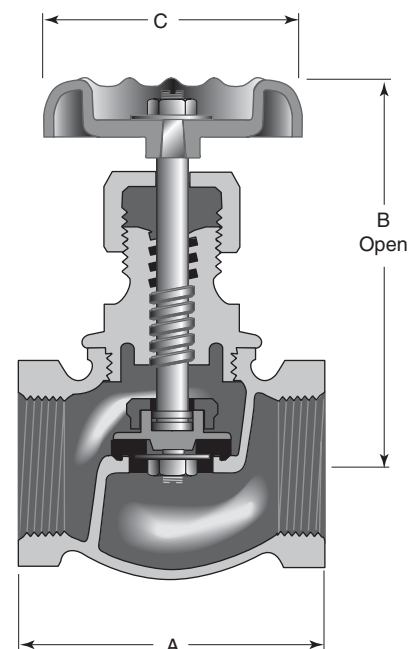
Size Range:

¼ through 2 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating
200 psi Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	All	Bronze	B62 alloy C83600
Disc	All	PTFE	-
Stem	All	Bronze	B21 alloy C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)
A	1.85 (47)	1.85 (47)	2.28 (58)	2.83 (72)	3.46 (88)	4.02 (102)	4.57 (116)	5.35 (136)
B	2.87 (73)	2.87 (73)	3.62 (92)	4.25 (108)	4.65 (118)	5.24 (133)	6.06 (154)	6.54 (166)
C	2.13 (54)	2.13 (54)	2.40 (61)	3.03 (77)	3.03 (77)	3.70 (94)	4.72 (120)	5.28 (134)
WTS.	0.70 (0.32)	0.70 (0.32)	0.96 (0.43)	1.43 (0.65)	2.15 (0.98)	3.20 (1.45)	4.18 (1.90)	4.78 (2.17)

200 CWP • Inside Screw • Rising Stem • Brass Disc • Solder Ends

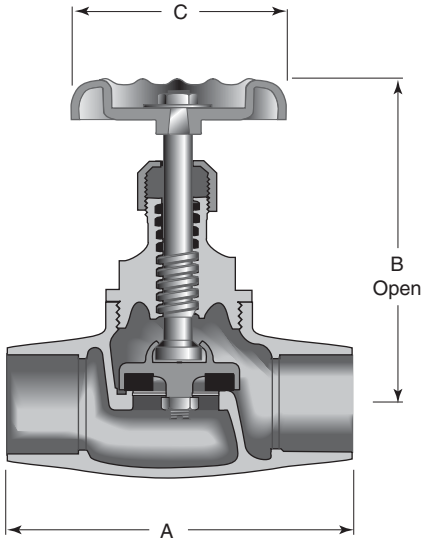


Figure 995AJ

Size Range:

$\frac{3}{8}$ through 2 inches

Working Pressures

Non-Shock:

200 psi Cold Working Pressure

Features

- Recommended for 200 psi CWP
- Screwed Bonnet
- PTFE Packing
- ASME B16.18
- MSS Specification SP-80

For more detailed features, refer to Page 40.

Caution: Before installing solder joint valves, be sure solder or brazing alloy melting point is high enough to withstand line pressure/temperature conditions, and is compatible with fluid medium.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 alloy C83600
Bonnet	All	Bronze	B62 alloy C83600
Disc	All	PTFE	—
Stem	All	Bronze	B21 C48200

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	$\frac{3}{8}$ (10)	$\frac{1}{2}$ (15)	$\frac{3}{4}$ (20)	1 (25)	1 $\frac{1}{4}$ (32)	1 $\frac{1}{2}$ (40)	2 (50)
A	1.85 (65)	2.28 (72)	2.83 (92)	3.46 (108)	4.02 (128)	4.57 (146)	5.35 (176)
B	2.87 (73)	3.62 (92)	4.25 (108)	4.65 (118)	5.24 (133)	6.06 (154)	6.54 (166)
C	2.13 (54)	2.40 (61)	3.03 (77)	3.03 (77)	3.70 (94)	4.72 (120)	5.28 (134)
WTS.	0.61 (0.28)	0.88 (0.40)	1.36 (0.62)	2.15 (0.98)	3.25 (1.48)	4.30 (1.95)	4.30 (1.95)

Class 125 • Bronze Cap • Brass/Bronze Disc • Threaded Ends

Features

- Recommended for 125 psi steam, water, oil or gas in commercial and light industrial applications.
- T-Type Swing Disc
- Free-to-rotate disc design allows the disc to close in a different position on the integral seat each time it operates.
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- MSS Specification SP-80

For more detailed features, refer to Page 40.

Figure 996AJ

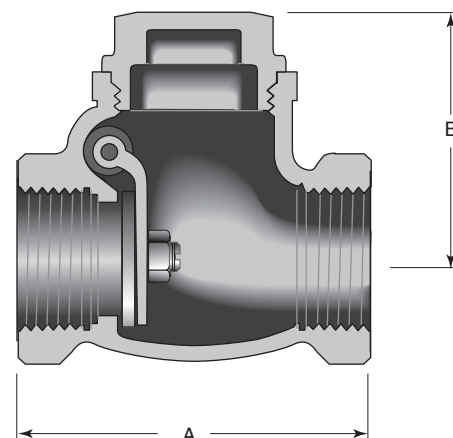
Size Range:

¼ through 3 inches

Working Pressures

Non-Shock:

125 psi Steam, Basic Rating
200 psi, Cold Working Pressure



Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Cap	All	Bronze	B16 C83600
Disc	¼" - ¾"	Bronze	B16 alloy 360
Disc	1" - 3"	Bronze	B62 C83600

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	¼ (6)	⅜ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)
A	2.12 (54)	2.12 (54)	2.60 (66)	2.76 (70)	3.27 (83)	3.78 (96)	4.25 (108)	5.04 (128)	6.30 (160)	7.08 (180)
B	1.50 (38)	1.50 (38)	1.77 (45)	1.93 (49)	2.28 (58)	2.56 (65)	2.86 (73)	3.50 (89)	4.25 (108)	4.84 (123)
WTS.	0.70 (0.32)	0.70 (0.32)	0.80 (0.36)	1.00 (0.45)	1.40 (0.63)	2.70 (1.22)	2.90 (1.31)	4.40 (1.98)	7.60 (3.42)	9.30 (4.19)

200 CWP • Bronze Cap • Brass/Bronze Disc • Solder Ends

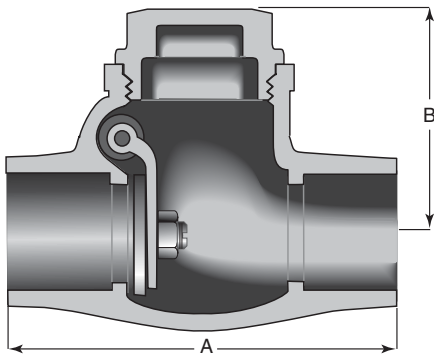


Figure 997AJ

Size Range:

$\frac{3}{8}$ through 3 inches

Working Pressures

Non-Shock:

200 psi Cold Working Pressure

Features

- T-Type Swing Disc
- Free to rotate disc design allows the disc to close in a different position on the integral seat each time it operates.
- Screwed Cap
- Always install with pressure under the disc in vertical or horizontal position. An arrow cast on the body indicates the correct direction of flow.
- MSS Specification SP-80

For more detailed features, refer to Page 40.

Caution: Before installing solder joint valves, be sure the solder or brazing alloy is compatible with the fluid media and the alloy melting point is high enough to withstand the pressure and temperature conditions.

Principal Parts & Materials

Part	Sizes	Material	ASTM
Body	All	Bronze	B62 C83600
Cap	All	Bronze	B16 C83600
Disc	$\frac{3}{8}$ " - $\frac{3}{4}$ "	Bronze	B16 alloy 360
Disc	1" - 3"	Bronze	B62 C83600

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

	$\frac{3}{8}$ (10)	$\frac{1}{2}$ (15)	$\frac{3}{4}$ (20)	1 (25)	1 $\frac{1}{4}$ (32)	1 $\frac{1}{2}$ (40)	2 (50)	2 $\frac{1}{2}$ (65)	3 (80)
A	2.28 (58)	2.60 (66)	3.23 (82)	3.86 (98)	4.49 (114)	5.12 (130)	6.14 (156)	7.25 (184)	8.07 (205)
B	1.50 (38)	1.77 (45)	1.93 (49)	2.28 (58)	2.56 (65)	2.86 (73)	3.50 (89)	4.25 (108)	4.84 (123)
WTS.	0.60 (0.27)	0.80 (0.36)	0.90 (0.41)	1.40 (0.63)	2.50 (1.13)	2.80 (1.26)	4.20 (1.90)	7.20 (3.25)	8.80 (3.97)



Notes



Bronze Valves

Notes

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Cast Steel Valves

VALVE SERVICES

Certified Valve Repair Services

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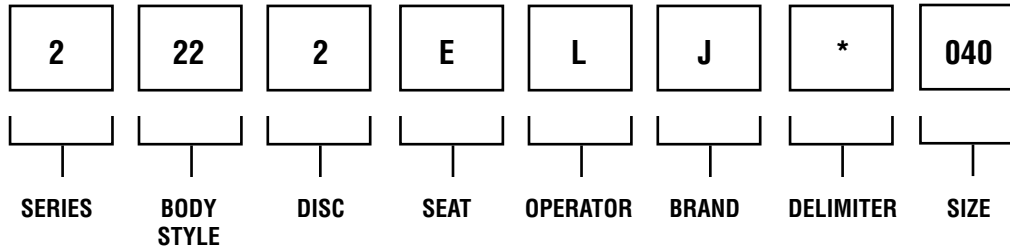
Butterfly Valves

Jenkins Valves

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CRANE®
Energy Flow Solutions
A Crane Co. Company

Ordering Information



SERIES	CODE
200	2
225	3
Contractor	C

BODY STYLE	CODE
Wafer	22
Lug	23

DISC	CODE
316 Stainless Steel*	1
Aluminum Bronze	2
Ductile Iron	3

SEAT	CODE
Buna-N	B
E.P.D.M.	E

OPERATOR	CODE
Lever	L
Gear	G

BRAND	CODE
Jenkins	J

SIZE	CODE
2"	020
2 ½"	024
3"	030
4"	040
6"	060
8"	080
10"	100
12"	120
14"	140
16"	160
18"	180
20"	200
24"	240
30"	300
36"	360

Notes:

- * A 316 S.S. stem is supplied when 316 S.S. disc is ordered.
- See Bill of Materials pages in each section for standard construction materials and optional materials.



Butterfly Valves

Table of Contents

Series 200 Butterfly Valves

Features.....4

Valve Seating Torques5

Seat Temperature Ratings6

CV Valves.....6

Dimensions.....7

Bill of Materials8

36" Valve9

Series 225 Butterfly Valves

Features.....10

Valves Seating Torques.....11

Seat Temperature Ratings11

CV Valves.....11

Dimensions.....12

Bill of Materials13

Series 800 Butterfly Valves

Features.....14

Liner Temperature Ratings.....15

CV Valves.....15

Dimensions.....16

Bill of Materials17

Contractor Butterfly Valves

Materials of Construction18-21

Dimensions.....18-21

Options & Accessories

Handles.....22-23

Gear Operators22-23

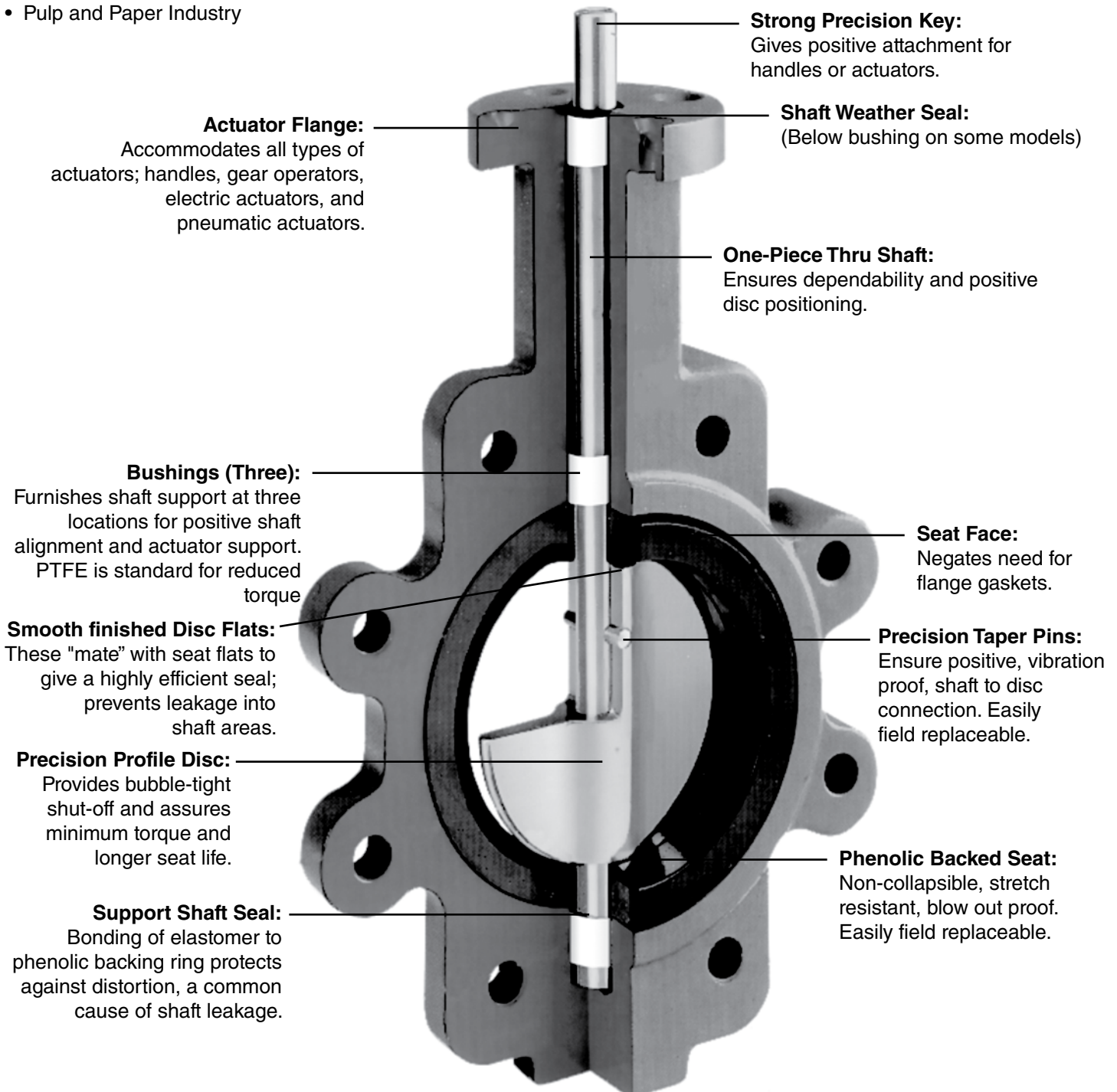
Actuators.....22-23

Wide Range of Material Choices • Wafer or Lug

For nearly 30 years, Jenkins has manufactured resilient seated butterfly valves. Industries using our resilient seat valve products include:

- HVAC/ATC
- Chemical/Petrochemical Processing
- Food and Beverage Industry
- Power and Utilities
- Pulp and Paper Industry

Quality is apparent in the design of the Series 200 butterfly valve, which utilizes the phenolic-backed cartridge seat pioneered by Jenkins. These valves feature precision-machined parts insuring years of dependable operation. With many body/trim combinations, there is a Series 200 valve to meet your application.



2 through 48 inches • Wafer or Lug

Series 200 Butterfly Valves

- Available in sizes 2" to 48".
- Available in Wafer or Lug style body (2" to 30").
- Full flange style body available for 36" to 48" valves.
- Wafer body features four alignment holes.
- Pressure ratings for tight shut-off at temperatures up to the maximum limit of the seat material:
 - 2" to 12" – 200 psi, 125 psi for PTFE seat.
 - 14" to 48" –150 psi.
- Ideal for on-off or throttling services.
- Available with handles (2" to 12"), manual gear operators (2" to 48"), and electric or pneumatic actuators (2" to 48").
- Operator can be mounted parallel or perpendicular to pipe-line.
- Designed to comply with MSS SP-67 and API 609. For exact valve measurements, see dimension table.
- Compatible with ASME 125/150 flanges.
- Valves 2" to 20" meet the intent and have passed the AWWA C-504-87 Section 5 proof of design tests.
- Dead-end capability to 200 psi (2" to 12") and 150 psi (14" to 24") is an available modification for the disc.

Valve Seating Torques (In-Lbs.)

Valve Size	Standard Disc Differential Pressure				Undercut Diff. Press.
	50 PSI ΔP Bushing	100 PSI ΔP Bushing	150 PSI ΔP Bushing	200 PSI ΔP Bushing	75 PSI ΔP Bushing
2"	100	106	111	117	N/A
2½"	150	163	176	189	N/A
3"	207	220	232	244	N/A
4"	290	323	357	390	N/A
5"	423	481	540	598	N/A
6"	599	691	783	875	N/A
8"	1,060	1,183	1,307	1,430	819
10"	1,671	1,872	2,074	2,275	909
12"	2,568	2,795	3,023	3,250	1,445
14"	2,640	3,070	3,500	N/A	2,300
16"	4,260	4,880	5,500	N/A	3,600
18"	6,287	7,243	8,200	N/A	5,500
20"	8,360	9,180	10,000	N/A	6,700
24"	15,427	16,813	18,200	N/A	12,100
30"	27,313	29,407	31,500	N/A	21,100

All torque values shown on chart are for non-lubricating media (like water) & on-off service.

For dry services use 160% of the published data.

For lubricating services use 85% of the published data.

For sizing of actuators use 125% of published data.

Flow and Temperature Data

Seat Temperature Ratings

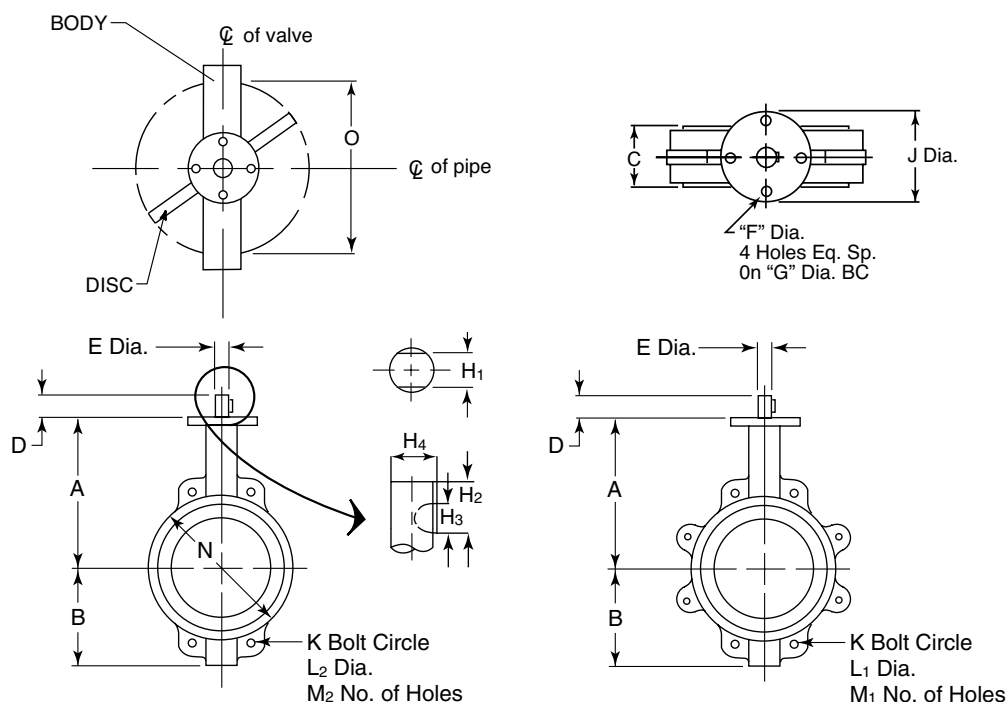
Material	Temperature Ratings °F
Buna-N	+10 to 180
Abrasive Resistant Buna-N	+10 to 180
Neoprene	+20 to 200
EPDM (2"-16")	-30 to 275
EPDM, Food Grade (2"-12")	-30 to 225
Hypalon	0 to 275
Viton®	+10 to 400
PTFE over Buna-N (125 psi, 2"-12")	+40 to 250
PTFE over Buna-N (75 psi, 2"-12")	+40 to 275

Seat materials are capable of withstanding lower temperatures without damage. However, the elastomer becomes hard and torques increase. Some flow media may further restrict the published temperature limits and/or significantly reduce seat life.

C_v Values – Valve Sizing Coefficients (US-GPM @1ΔP)

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.06	3	7	15	27	44	70	105	115
2½"	0.10	6	12	25	45	75	119	178	196
3"	0.20	9	18	39	70	116	183	275	302
4"	0.30	17	36	78	139	230	364	546	600
5"	0.50	29	61	133	237	392	620	930	1022
6"	0.80	45	95	205	366	605	958	1437	1579
8"	2	89	188	408	727	1202	1903	2854	3136
10"	3	151	320	694	1237	2047	3240	4859	5340
12"	4	234	495	1072	1911	3162	5005	7507	8250
14"	6	338	715	1549	2761	4568	7230	10844	11917
16"	8	464	983	2130	3797	6282	9942	14913	16388
18"	11	615	1302	2822	5028	8320	13168	19752	21705
20"	14	791	1674	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116
30"	37	2080	4406	9546	17010	28147	44545	66818	73426

Dimensional Data



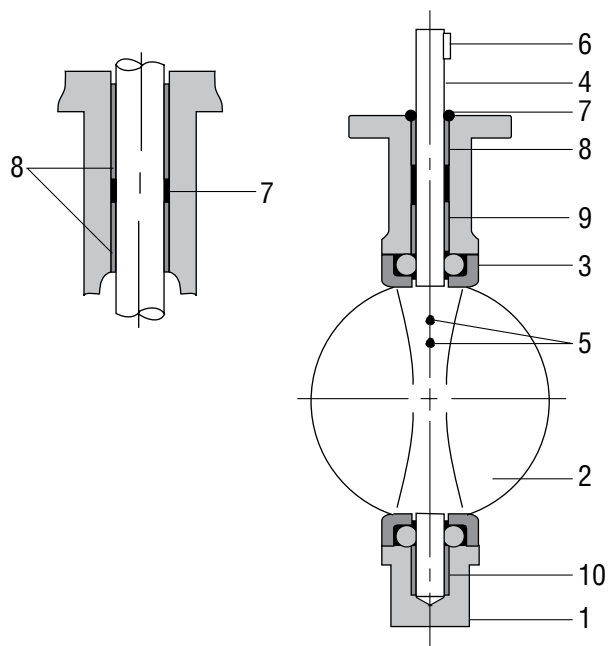
Dimensions

Valve Size		A	B	C	D	E	F	G	H ₁	H ₂	H ₃	H ₄	J	K	300# K	L ₁ *	300# L ₁ *	L ₂ *	M ₁ *	300# M ₁ *	M ₂ *	N	WAFER	300# LUG	LUG	O
2"	in.	6 3/8	3 1/4	1 3/4	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	4 3/4	5	5/8-11	5/8-11	11/16	4	8	4	4	6 lbs.	9 lbs.	9 lbs.	1.26
50	mm	161.93	82.55	44.45	31.75	12.70	6.75	57.15					82.55	120.65	127.00			17.46				101.60	2.72 kg	4.09 kg	4.09 kg	32.0
2 1/2"	in.	6 7/8	3 3/4	1 7/8	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	5 1/2	5 7/8	5/8-11	3/4-10	11/16	4	8	4	4 3/4	7 lbs.	13 lbs.	13 lbs.	1.83
65	mm	174.63	95.25	47.63	31.75	12.70	6.75	57.15					82.55	139.70	149.23			17.46				120.65	3.18 kg	5.90 kg	5.90 kg	46.5
3"	in.	7 1/8	4	1 7/8	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	6	6 5/8	5/8-11	3/4-10	11/16	4	8	4	5 1/8	10 lbs.	14 lbs.	14 lbs.	2.54
75	mm	180.98	101.60	47.63	31.75	12.70	6.75	57.15					82.55	152.40	168.28			17.46				130.18	4.54 kg	6.36 kg	6.36 kg	64.5
4"	in.	7 7/8	4 7/8	2 1/8	1 1/4	5/8	13/32	2 3/4	3/16	7/8	3/4	3/4	3 7/8	7 1/2	7 7/8	5/8-11	3/4-10	1 1/16	8	8	4	6 3/4	13 lbs.	19 lbs.	24 lbs.	3.54
100	mm	200.03	123.83	53.98	31.75	15.88	10.32	69.85					98.43	190.50	200.03			17.46				171.45	5.90 kg	8.63 kg	10.90 kg	89.9
5"	in.	8 3/8	5 3/8	2 1/4	1 1/4	3/4	13/32	2 3/4	3/16	1	3/4	13/16	3 7/8	8 1/2	9 1/4	3/4-10	3/4-10	13/16	8	8	4	7 3/4	18 lbs.	22 lbs.	29 lbs.	4.36
125	mm	212.73	136.53	57.15	31.75	19.05	10.32	69.85					98.43	215.90	234.95			20.64				196.85	9.99 kg	9.99 kg	13.17 kg	110.7
6"	in.	8 7/8	5 7/8	2 1/4	1 1/4	3/4	13/32	2 3/4	3/16	1	3/4	13/16	3 7/8	9 1/2	10 5/8	3/4-10	3/4-10	13/16	8	12	4	8 5/8	21 lbs.	31 lbs.	38 lbs.	5.74
150	mm	225.43	149.23	57.15	31.75	19.05	10.32	69.85					98.43	241.30	269.88			20.64				219.08	9.53 kg	14.07 kg	17.25 kg	145.8
8"	in.	10 1/4	7 3/4	2 1/2	1 3/4	7/8	9/16	3 1/2	3/16	1	3/4	1	4 3/4	11 3/4	13	3/4-10	7/8-9	13/16	8	12	4	10 9/16	34 lbs.	49 lbs.	67 lbs.	7.63
200	mm	260.35	196.85	63.50	44.45	22.23	14.29	88.90					120.65	298.45	330.20			20.64				268.29	15.44 kg	22.25 kg	30.42 kg	193.8
10"	in.	11 1/2	8 1/4	2 3/4	1 3/4	1 1/8	9/16	3 1/2	1/4	1 3/8	1	1 1/4	5	14 1/4	15 1/4	7/8-9	1-8	15/16	12	16	4	13 1/16	45 lbs.	72 lbs.	100 lbs.	9.54
250	mm	292.10	209.55	69.85	44.45	28.58	14.29	88.90					127.00	361.95	387.35			23.81				331.79	20.43 kg	32.69 kg	45.40 kg	242.3
12"	in.	13 1/4	9 3/4	3 1/8	1 3/4	1 1/4	9/16	4 1/4	1/4	1 3/8	1	1 3/8	6	17	17 3/4	7/8-9	1 1/8-7	15/16	12	16	4	16 1/8	74 lbs.	105 lbs.	144 lbs.	11.5
300	mm	336.55	247.65	79.38	44.45	31.75	14.29	107.95					152.40	431.80	431.80			23.81				409.58	33.60 kg	47.67 kg	65.38 kg	292.1
14"	in.	14 1/2	11	3 1/8	1 3/4	1 1/4	9/16	4 1/4	1/4	1 3/8	1	1 3/8	5 1/2	18 3/4	-	1-8	-	-	12	-	-	17 1/8	109 lbs.	178 lbs.	-	12.81
350	mm	368.30	279.40	79.38	44.45	31.75	14.29	107.95					139.70	476.25	-			-				434.98	49.49 kg	80.81 kg	-	325.4
16"	in.	15 3/4	12	3 1/2	2	1 5/16	13/16	6 1/4	5/16	1 7/8	1 1/2	1 7/16	8 1/8	21 1/4	-	1-8	-	-	16	-	-	20	135 lbs.	224 lbs.	-	15
400	mm	400.05	304.80	88.90	50.80	33.34	20.64	158.75					206.38	539.75	-			-				508.00	61.29 kg	101.70 kg	-	381.0
18"	in.	16 5/8	15	4 1/4	2	1 5/8	13/16	6 1/4	3/8	1 5/8	1 1/2	1 5/8	8	22 3/4	-	1 1/8-7	-	-	16	-	-	21 3/8	190 lbs.	265 lbs.	-	16.87
450	mm	422.28	381.00	107.95	50.80	41.28	20.64	158.75					203.20	577.85	-			-				542.93	86.27 kg	120.31 kg	-	428.5
20"	in.	18 7/8	15 1/4	5 1/16	2 3/4	1 5/8	13/16	6 1/4	3/8	1 5/8	1 1/2	1 3/4	8	25	-	1 1/8-7	-	-	20	-	-	23 5/16	316 lbs.	455 lbs.	-	18.69
500	mm	479.43	387.35	128.95	63.50	41.28	20.64	158.75					203.20	635.00	-			-				592.14	143.47 kg	206.57 kg	-	474.7
24"	in.	22 1/8	18	6 1/8	2 3/4	3	7/8	8 1/2	1/2	2 1/2	2 1/4	2 1/4	11 1/4	29 1/2	-	1 1/4-7	-	-	20	-	-	27 7/8	506 lbs.	702 lbs.	-	22.57
600	mm	561.98	457.20	155.58	69.85	76.20	22.23	215.90					285.75	749.30	-			-				708.03	229.74 kg	318.71 kg	-	573.3

*L₁ and *M₁ refer to Lug style valves, L₂ and M₂ refer to Wafer style. "C" Dimension is listed with elastomer in the relaxed condition. Approximately 1/8" total compression is required for proper sealing with pipe flanges. Valves are designed for installation between ASME B16.1 Class 125 (Iron) and B16.5 Class 150 (Steel) flanges. Gaskets are not needed, and should not be used, since the seat face seals against the mating flange. If the valve is to be installed in plastic or fiberglass flanges, flange rings, or Van Stone style flanges, consult your Jenkins agent or the factory for additional information. "O" dimension is the disc clearance dimension.

Jenkins recommends that a blind flange be used on end of line service applications.

Materials of Construction



Top bushing detail for 8" and larger valves

Bill of Materials 2"– 30"

Item	Description	Materials	Optional Materials
1	Body	Cast Iron	Ductile Iron
2	Disc	Ductile Iron	Aluminum Bronze, SS, Monel
3*	Seat	Buna-N or EPDM	Neoprene, Hypalon, Viton, PTFE
4	Shaft	416 Stainless Steel	316 Stainless Steel, Monel
5*	Taper Pin	316 Stainless Steel	Monel
6	Key	Carbon Steel	No option available
7*	O-Ring	Buna-N	No option available
8	Bushing	PTFE	Luberized Bronze
9	Bushing	PTFE	Luberized Bronze
10	Bushing	PTFE	Luberized Bronze

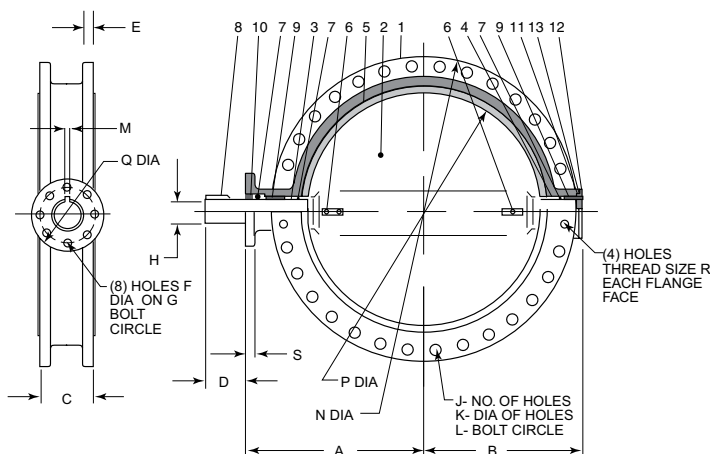
¹ENP plated for 2" - 12" valves.

*Recommended spare parts.

Technical Data: 36 through 48 Inches

Dimensions

	36"		42"		48"	
	inches	mm	inches	mm	inches	mm
A	26 7/8	682.63	11 3/4	806.45	37	940.70
B	24 3/4	628.65	28 1/4	717.55	34	864.00
C	8 1/8	206.38	10	254.00	10.88	276.40
D	5 5/8	142.88	6 1/2	165.10	5.90	150.00
E	1 5/8	41.28	2	50.80	2.76	70.00
F	1 3/16	20.64	13/16	20.64	0.87	22.00
G	8 1/2	215.90	12 1/2	317.50	11.73	298
H	4	101.60	4 1/2	114.30	4.13	105.00
J	28	812.80	36	1045.03	44	1277.26
K	1 5/8	41.28	1 5/8	41.28	1.62	41.30
L	42 3/4	1,058.85	49 1/2	1257.75	56	1422.40
M	1" Sq.	25.4 Sq.	1" Sq.	25.4 Sq.	1.1 Sq.	28 Sq.
N	46	1,168.40	53	1346.58	59.49	1511
P	35 3/4	908.05	41 1/4	1047.75	45.67	1160
Q	10 7/8	276.23	18 3/4	476.25	13.78	350
R	1 1/2-6	—	1/2-6	—	1/2-6	—
S	1 1/4	31.75	1 1/4	31.75	—	—



Weights

Size		Wafer	Lug
2"	lbs. kg.	6 2.72	7 3.18
2 1/2"	lbs. kg.	7 3.18	8 3.63
3"	lbs. kg.	10 4.54	14 6.35
4"	lbs. kg.	13 5.90	26 11.79
5"	lbs. kg.	18 8.16	28 12.70
6"	lbs. kg.	20 9.07	31 14.06
8"	lbs. kg.	32 14.51	49 22.23
10"	lbs. kg.	42 19.05	72 32.66
12"	lbs. kg.	70 31.75	105 47.63
14"	lbs. kg.	95 43.09	155 70.31
16"	lbs. kg.	117 53.07	195 88.45
18"	lbs. kg.	165 74.84	230 104.33
20"	lbs. kg.	275 124.74	396 179.62
24"	lbs. kg.	440 199.58	610 276.70
30"	lbs. kg.	740 335.66	1050 476.27
36"	lbs. kg.	1660 754	— —
42"	lbs. kg.	— —	— —

C_v Valves - Valve Sizing Coefficients (US-1@ΔP)

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
36"	260	3050	6730	12740	20220	32500	52500	79600	87500
42"	350	4095	9040	17108	27150	43640	70500	106890	117500

Valve Seating Torques (In-Lbs)

Valve Size	Standard Disc Differential Pressure			Undercut Diff. Press. 75 PSI
	50 PSI	100 PSI	150 PSI	
36"	54,667	57,035	59,400	39,600
42"	82,460	86,034	89,600	60,000
48"	Consult factory			

Bill of Materials 36"***

Item	Description	Materials	Optional Materials
1	Body	Ductile iron	No option available
2	Disc	Ductile Iron	Aluminum Bronze, 316 Stainless Steel, Monel
3	Upper Shaft	416 Stainless Steel	316 Stainless Steel, Monel
4	Lower Shaft	416 Stainless Steel	316 Stainless Steel, Monel
5	Seat	Buna-N or EPDM	Viton, Hypalon
6	Taper Pin	316 Stainless Steel	316 Stainless Steel, Monel
7*	O-Ring	Buna-N	No option available
8	Key	Carbon Steel	No option available
9	Bushing	PTFE	No option available
10	Bushing	Luberized Bronze	No option available
11	Thrust Washer	Luberized Bronze	No option available
12	End Plate	Ductile	No option available
13*	O-Ring	Buna-N	No option available

*Recommended spare parts.

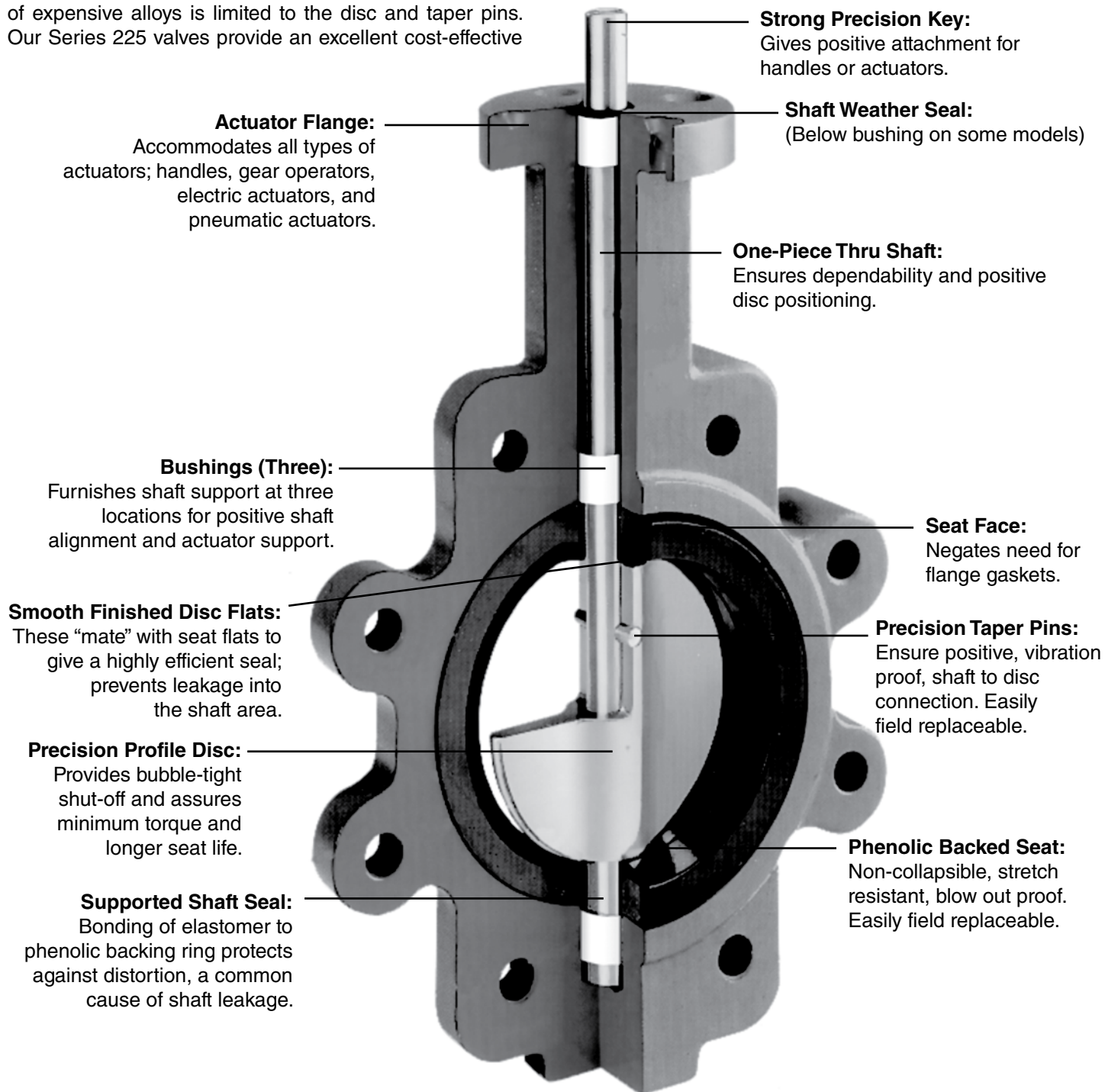
**Consult factory for 42" & 48" technical data.

Designed for High Pressure Applications

The Series 225 utilizes the same proven design features as our Series 200, but is rated to 285 psi. These design features include a phenolic-backed cartridge seat, precision profile disc, one-piece shaft, and three shaft support bearings. Series 225 heavy-duty butterfly valves are designed for the severe operating conditions and high pressures encountered in many piping systems today. With the fully-line body isolated from the flow stream, the use of expensive alloys is limited to the disc and taper pins. Our Series 225 valves provide an excellent cost-effective

alternative for ASME Class 150 valves used in the following industries:

- HVAC/TAC
- Food and Beverage Industry
- Power and Utilities
- Pulp and Paper Industry



Torque, Flow and Temperature Data

- Available in sizes 2" to 24".
- Pressure Rating: 285 psi at 100°F. Pressure/Temperature rating above 100°F corresponds to ASME B16.5 Class 150 for steel flanges.
- Available in Wafer or Lug style body.
- Wafer body features four alignment holes.
- Available in ASME Class 300 Lug Body bolt pattern (2" to 12").
- Ideal for on-off or throttling services.
- Available with handles (2" to 6"), manual gear operators, electric actuators and pneumatic actuators (2" to 24").
- Compatible with ASME B16.1 Class 125 (Iron) and ASME B16.5 Class 150/300 (Steel) flanges.
- Dead-end capability to 200 psi (2" to 12") and 150 psi (14" to 24") is an available option.

Valve Seating Torques (In-Lbs.)

Valve Size	Standard Disc Differential Pressure				
	50 PSI	100 PSI	150 PSI	200 PSI	285 PSI
2"	139	148	156	164	178
2 ½"	195	207	218	230	250
3"	264	278	293	307	331
4"	371	401	431	461	512
5"	579	627	676	725	808
6"	875	946	1016	1087	1206
8"	1476	1559	1642	1726	1867
10"	2451	2613	2775	2937	3213
12"	3900	4111	4323	4534	4893
14"	5189	5467	5744	6022	6494
16"	10,985	11,569	12,154	12,738	13,732
18"	13,946	14,688	15,431	16,173	17,434
20"	14,695	15,478	16,260	17,043	18,373
24"	29,738	31,321	32,903	34,486	37,176

Seat Temperature Ratings

Material	Temperature Rating °F
Buna-N	+10 to 180
EPDM (2"-16")	-30 to 275
EPDM (18"-24")	-30 to 275
Abrasive Resistant Buna-N	+10 to 180
Neoprene	+20 to 200
Hypalon	0 to 275
Viton	+10 to 275
High Temperature Viton	+10 to 400

Seat materials are capable of withstanding lower temperatures without damage. However, the elastomer becomes hard and torques increase. Some flow media may further restrict the published temperature limits and/or significantly reduce seat life.

All torque values shown on chart are for "wet" (water and other non-lubricating media) on-off service. For "dry" service (non-lubricating, dry gas media), multiply values by 1.15. For "lubed" service (clean, non-abrasive lubricating media), multiply values by 0.85. For sizing valves with actuators, use 285PSI Torque valves and multiply by 1.25.

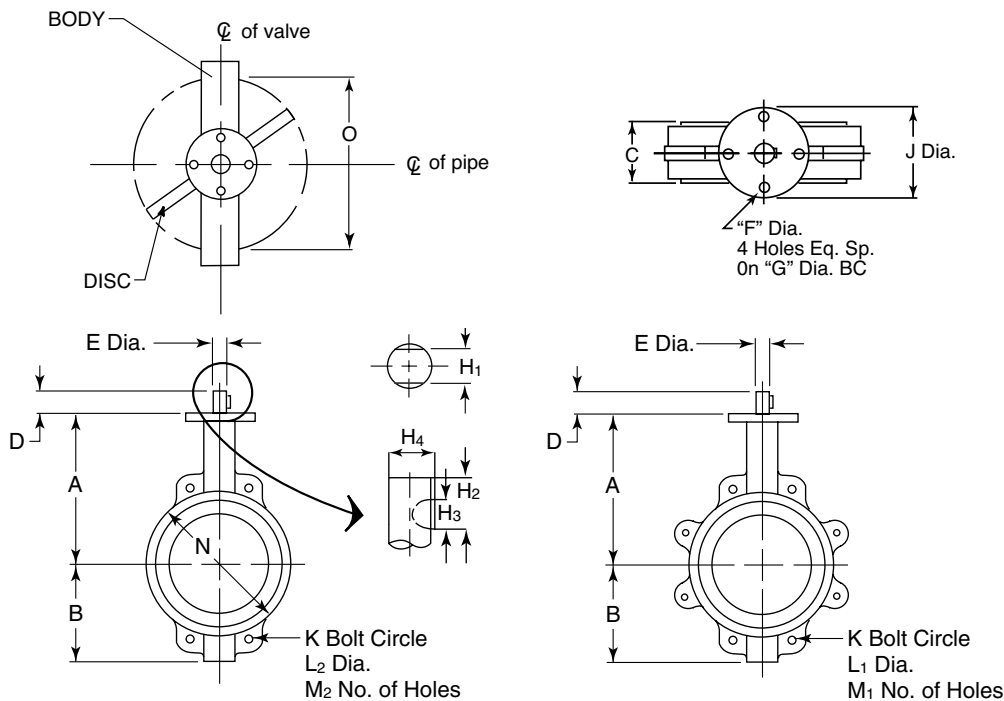
C_v Values – Valve Sizing Coefficients (US-GPMTM 1ΔP)

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.06	3	7	15	27	44	70	105	115
2 ½"	0.10	6	12	25	45	75	119	178	196
3"	0.20	9	18	39	70	116	183	275	302
4"	0.30	17	36	78	139	230	364	546	600
5"	0.50	29	61	133	237	392	620	930	1022
6"	0.80	34	94	153	257	422	706	1154	1320
8"	2	56	154	251	422	693	1158	1892	2165
10"	3	87	238	385	654	1073	1794	2931	3353
12"	4	153	417	681	1145	1879	3142	5132	5827
14"	6	183	500	816	1372	2252	3765	6150	7037
16"	8	271	740	1208	2031	3333	5573	9104	10,416
18"	11	318	867	1417	2382	3909	6535	10,676	12,215
20"	14	415	1133	1851	3112	5107	8538	13,948	15,959
24"	22	543	1482	2421	4069	6678	11,165	18,240	20,869

¹ENP plated for 2" - 12" valves.

*Recommended spare parts.

Dimensional Data

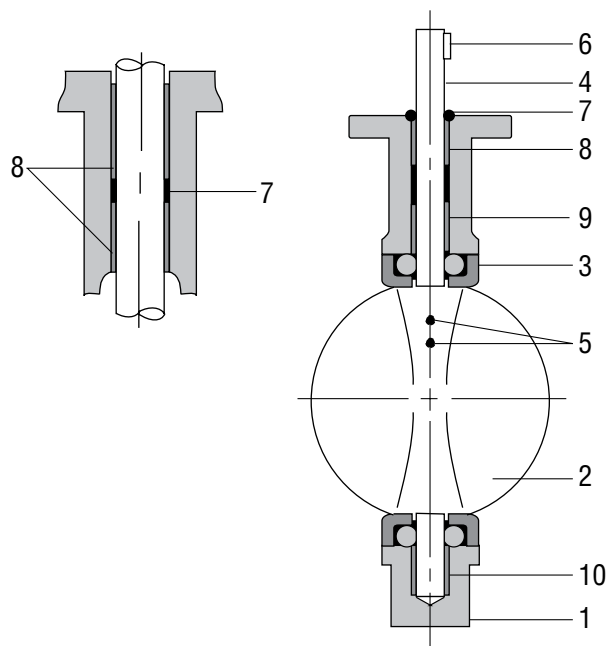


Dimensions

Valve Size		A	B	C	D	E	F	G	H ₁	H ₂	H ₃	H ₄	J	K	300# K	L ₁ *	300# L ₁ *	L ₂ *	M ₁ *	300# M ₁ *	M ₂ *	N	WAFER	300# LUG	LUG	O
2"	in.	6 3/8	3 1/4	1 3/4	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	4 3/4	5	5/8-11	5/8-11	11/16	4	8	4	4	6 lbs.	9 lbs.	9 lbs.	1.26
50	mm	161.93	82.55	44.45	31.75	12.70	6.75	57.15					82.55	120.65	127.00			17.46				101.60	2.72 kg	4.09 kg	4.09 kg	32.0
2 1/2"	in.	6 7/8	3 3/4	1 7/8	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	5 1/2	5 7/8	5/8-11	3/4-10	11/16	4	8	4	4 3/4	7 lbs.	13 lbs.	13 lbs.	1.83
65	mm	174.63	95.25	47.63	31.75	12.70	6.75	57.15					82.55	139.70	149.23			17.46				120.65	3.18 kg	5.90 kg	5.90 kg	46.5
3"	in.	7 1/8	4	1 7/8	1 1/4	1/2	17/64	2 1/4	1/8	5/8	1/2	9/16	3 1/4	6	6 5/8	5/8-11	3/4-10	11/16	4	8	4	5 1/8	10 lbs.	14 lbs.	14 lbs.	2.54
75	mm	180.98	101.60	47.63	31.75	12.70	6.75	57.15					82.55	152.40	168.28			17.46				130.18	4.54 kg	6.36 kg	6.36 kg	64.5
4"	in.	7 7/8	4 7/8	2 1/8	1 1/4	5/8	13/32	2 3/4	3/16	7/8	3/4	3/4	3 7/8	7 1/2	7 7/8	5/8-11	3/4-10	11/16	8	8	4	6 3/4	13 lbs.	19 lbs.	24 lbs.	3.54
100	mm	200.03	123.83	53.98	31.75	15.88	10.32	69.85					98.43	190.50	200.03			17.46				171.45	5.90 kg	8.63 kg	10.90 kg	89.9
5"	in.	8 3/8	5 3/8	2 1/4	1 1/4	3/4	13/32	2 3/4	3/16	1	3/4	13/16	3 7/8	8 1/2	9 1/4	3/4-10	3/4-10	13/16	8	8	4	7 3/4	18 lbs.	22 lbs.	29 lbs.	4.36
125	mm	212.73	136.53	57.15	31.75	19.05	10.32	69.85					98.43	215.90	234.95			20.64				196.85	8.17 kg	9.99 kg	13.17 kg	110.7
6"	in.	8 7/8	5 7/8	2 1/4	1 1/4	3/4	13/32	2 3/4	3/16	1	3/4	13/16	3 7/8	9 1/2	10 5/8	3/4-10	3/4-10	13/16	8	12	4	8 5/8	21 lbs.	31 lbs.	38 lbs.	5.74
150	mm	225.43	149.23	57.15	31.75	19.05	10.32	69.85					98.43	241.30	269.88			20.64				219.08	9.53 kg	14.07 kg	17.25 kg	145.8
8"	in.	10 1/4	7 3/4	2 1/2	1 3/4	7/8	9/16	3 1/2	3/16	1	3/4	1	4 3/4	11 3/4	13	3/4-10	7/8-9	13/16	8	12	4	10 9/15	34 lbs.	49 lbs.	67 lbs.	7.63
200	mm	260.35	196.85	63.50	44.45	22.23	14.29	88.90					120.65	298.45	330.20			20.64				268.29	15.44 kg	22.25 kg	30.42 kg	193.8
10"	in.	11 1/2	8 1/4	2 3/4	1 3/4	1 1/8	9/16	3 1/2	1/4	1 3/8	1	1 1/4	5	14 1/4	15 1/4	7/8-9	1-8	15/16	12	16	4	13 1/18	45 lbs.	72 lbs.	100 lbs.	9.54
250	mm	292.10	209.55	69.85	44.45	28.58	14.29	88.90					127.00	361.95	387.35			23.81				331.79	20.43 kg	32.69 kg	45.40 kg	242.3
12"	in.	13 1/4	9 3/4	3 1/8	1 3/4	1 1/4	9/16	4 1/4	1/4	1 3/8	1	1 3/8	6	17	17 3/4	7/8-9	1 1/8-7	15/16	12	16	4	16 1/8	74 lbs.	105 lbs.	144 lbs.	11.5
300	mm	336.55	247.65	79.38	44.45	31.75	14.29	107.95					152.40	431.80	431.80			23.81				409.58	33.60 kg	47.67 kg	65.38 kg	292.1
14"	in.	14 1/2	11	3 1/8	1 3/4	1 1/4	9/16	4 1/4	1/4	1 3/8	1	1 3/8	5 1/2	18 3/4	-	1-8	-	-	12	-	-	17 1/8	109 lbs.	178 lbs.	-	12.81
350	mm	368.30	279.40	79.38	44.45	31.75	14.29	107.95					139.70	476.25	-			-				434.98	49.49 kg	80.81 kg	-	325.4
16"	in.	15 3/4	12	3 1/2	2	1 5/8	13/16	6 1/4	5/16	1 7/8	1 3/4	1 7/16	8 1/8	21 1/4	-	1-8	-	-	16	-	-	20	135 lbs.	224 lbs.	-	15
400	mm	400.05	304.80	88.90	50.80	33.34	20.64	158.75					206.38	539.75	-			-				508.00	61.29 kg	101.70 kg	-	381.0
18"	in.	16 5/8	15	4 1/4	2	1 5/8	13/16	6 1/4	3/8	1 5/8	1 1/2	1 5/8	8	22 3/4	-	1 1/8-7	-	-	16	-	-	21 3/8	190 lbs.	265 lbs.	-	16.87
450	mm	422.28	381.00	107.95	50.80	41.28	20.64	158.75					203.20	577.85	-			-				542.93	86.27 kg	120.31 kg	-	428.5
20"	in.	18 7/8	15 1/4	5 1/16	2 3/4	1 5/8	13/16	6 1/4	3/8	1 3/16	1 1/2	1 3/4	8	25	-	1 1/8-7	-	-	20	-	-	23 5/18	316 lbs.	455 lbs.	-	18.69
500	mm	479.43	387.35	128.95	63.50	41.28	20.64	158.75					203.20	635.00	-			-				592.14	143.47 kg	206.57 kg	-	474.7
24"	in.	22 1/8	18	6 1/8	2 3/4	3	7/8	8 1/2	1/2	2 1/2	2 1/4	2 1/4	11 1/4	29 1/2	-	1 1/4-7	-	-	20	-	-	27 7/8	506 lbs.	702 lbs.	-	22.57
600	mm	561.98	457.20	155.58	69.85	76.20	22.23	215.90					285.75	749.30	-			-				708.03	229.74 kg	318.71 kg	-	573.3

*L₁ and *M₁ refer to Lug style valves, L₂ and M₂ refer to Wafer style. "C" Dimension is listed with elastomer in the relaxed condition. Approximately 1/8" total compression is required for proper sealing with pipe flanges. Valves are designed for installation between ASME B16.1 Class 125 (Iron) and B16.5 Class 150 (Steel) flanges. Gaskets are not needed, and should not be used, since the seat face seals against the mating flange. If the valve is to be installed in plastic or fiberglass flanges, flange rings, or Van Stone style flanges, consult your Jenkins agent or the factory for additional information. "O" dimension is the disc clearance dimension. Jenkins recommends that a blind flange be used on end of line service applications.

Materials of Construction



Top bushing detail for 8" and larger valves

Bill of Materials

Item	Description	Materials	Optional Materials
1	Body	Ductile Iron	No option available
2	Disc	Ductile Iron	Aluminum Bronze, 316 Stainless Steel, Monel with Abranox Coating
3	Seat	Buna-N or EPDM	Neoprene, Hypalon, Abrasion Resistant Buna-N, Viton (2"-24"), High Temperature Viton (2"-12")
4	Shaft	416 Stainless Steel	2"-12": 17-4 PH, Monel 14"-24": 316 Stainless Steel, Monel
5	Taper Pin	316 Stainless Steel	Monel
6	Key	Carbon Steel	No option available
7	O-Ring	Buna-N	No option available
8	Bushing	PTFE	No option available
9	Bushing	PTFE	No option available
10	Bushing	PTFE	No option available

Series 800 Elastomer-Lined Check Valves

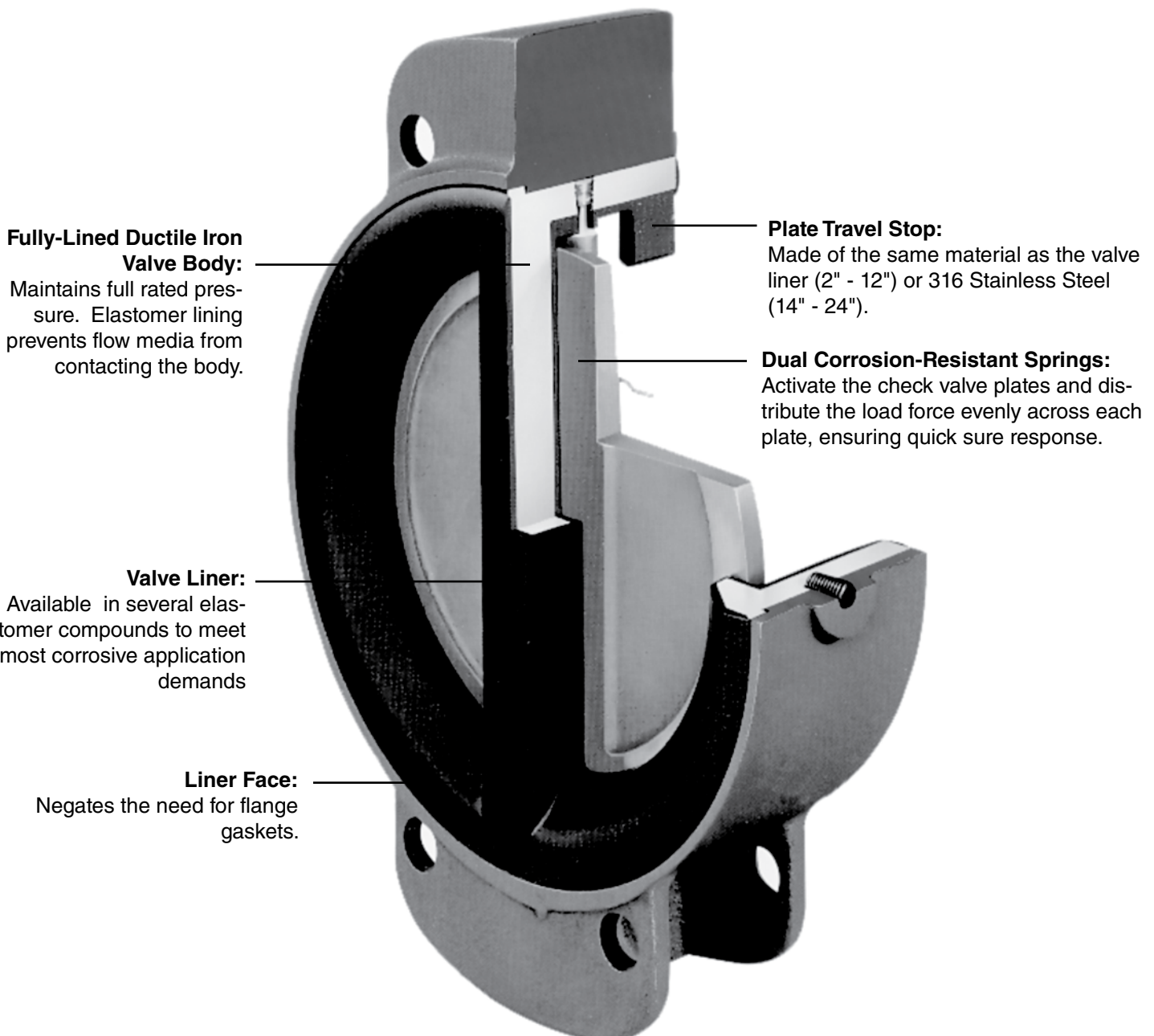


Features

If you want cost-effective backflow protection for your piping systems, look at what the Series 800 from Jenkins has to offer. It's the only fully elastomer-lined insert check valve available. The ductile iron valve body is completely isolated from line media which can extend the service life of the Series 800 for most applications. It's an especially economical alternative in applications which would otherwise require check valves made of expensive alloys. The availability of a variety of elastomers means the Series 800 is ideal for a broad range of services including:

- HVAC
- Chemical/Petrochemical processing
- Food and Beverage industries
- Power and Utilities
- Pulp and Paper industries
- Other general industries

If you need backflow protection, you won't find a more cost-effective solution.



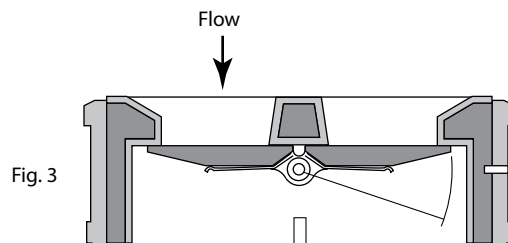
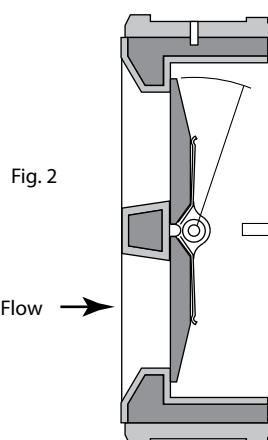
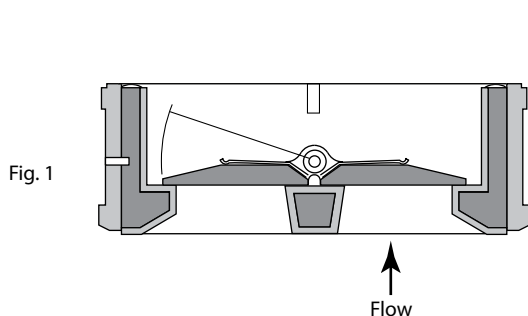
Flow and Temperature Data

- Available in sizes 2" to 24".
- Only fully elastomer lined check valve available.
- Bubble-tight shutoff from 25 to 150 psi ΔP . Lower minimum pressure available on request.
- Wide range of available elastomers; Buna-N or EPDM standard.
- Check valves compatible with ASME B16.1, Class 125 (Iron) or B16.5, Class 150 (Steel) flanges.
- Use of dual springs distributes the load force evenly across each plate, resulting in quick response to flow reversal.

Liner Temperature Ratings

Material	Temperature Ratings °F
Buna-N (Standard)	+10 to 180
EPDM (Standard)	-30 to 275
Neoprene	+20 to 200
Viton	+10 to 400
Hypalon	0 to 275

Some flow media may further restrict the published temperature limits and/or significantly reduce seat life. Consult Jenkins factory for additional information.



Note: Valve should be installed with shaft in the vertical position in a horizontal pipe. This view rotated 90° for pictorial clarity.

C_v Values – Valve Sizing Coefficients (US-GPM @ 1 ΔP)

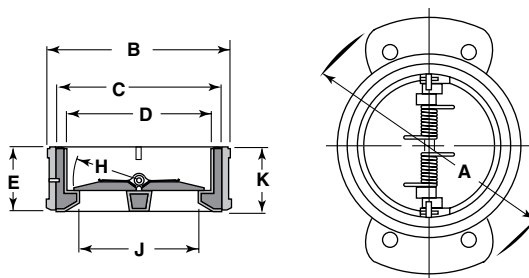
Valve Size	C_v	Cracking Pressure To Open Valve (Inches of Water Column)*		
		Figure 1	Figure 2	Figure 3
2"	36	14	10	5
2 1/2"	62	18	12	6
3"	123	11	7	2
4"	281	10	6	2
5"	522	14	10	6
6"	1033	12	8	5
8"	2158	12	9	5
10"	3368	14	13	8
12"	5068	15	10	6
14"	6465	20	12	6
16"	9172	20	12	6
18"	12,853	16	10	8
20"	17,398	24	16	8
24"	28,794	22	15	7

*Figures are approximate. 1" of water column = .036 psi.

Series 800 Elastomer-Lined Check Valves



Dimensional Data

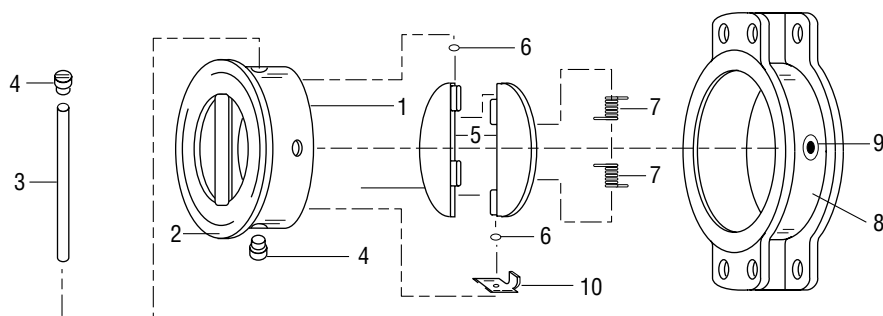


Dimensions

Valve Size		A	B	C	D	E	F	G	H	J	K	Weight
2"	in.	6 1/4	4	3 5/16	2 5/8	2 1/16	4 3/4	11/16	1 1/8	1 7/8	2 1/8	5 lbs
50	mm	158.75	101.60	84.14	66.68	52.39	120.65	17.46	47.63	47.63	53.98	2.27 kg
2 1/2"	in.	7	4 3/4	3 7/8	3 1/8	2 1/16	5 1/2	11/16	1 7/16	2 5/16	2 1/8	6 lbs
65	mm	177.80	120.65	98.43	79.38	52.39	139.70	17.46	36.51	58.74	53.98	2.72 kg
3"	in.	7 1/2	5 1/4	4 9/16	3 5/8	2 1/16	6	11/16	1 5/8	2 3/4	2 1/8	8 lbs
80	mm	190.50	133.35	115.89	92.08	52.39	152.40	17.46	41.28	69.85	53.98	3.63 kg
4"	in.	9 1/4	6 3/4	5 5/8	4 5/8	2 7/16	7 1/2	11/16	2 1/8	3 7/16	2 1/2	15 lbs
100	mm	234.95	171.45	142.88	117.48	61.91	190.50	17.46	53.98	87.31	63.50	6.81 kg
5"	in.	10 5/8	7 5/8	6 3/4	5 11/16	2 9/16	8 1/2	13/16	2 21/32	4 7/16	2 5/8	20 lbs
125	mm	269.88	193.68	171.45	144.46	19.05	215.90	20.64	67.47	112.71	66.68	9.08 kg
6"	in.	12	8 3/4	7 7/8	6 3/4	3 1/16	9 1/2	13/16	3 5/32	5 9/16	3 1/8	26 lbs
150	mm	304.80	222.25	200.03	171.45	77.79	241.30	20.64	80.17	141.29	79.38	11.80 kg
8"	in.	14 1/2	10 5/8	10	8 3/4	3 13/16	11 3/4	13/16	4 5/32	7 9/16	3 7/8	43 lbs
200	mm	368.30	269.88	254.00	222.25	96.84	298.45	20.64	105.57	192.09	98.43	19.52 kg
10"	in.	16 7/8	13 1/4	12 1/8	10 7/8	3 15/16	14 1/4	15/16	5 1/8	9 1/16	4	58 lbs
250	mm	428.63	336.55	307.98	276.23	100.01	361.95	23.81	130.18	230.19	101.60	26.33 kg
12"	in.	19 1/2	16	14 3/8	12 7/8	5 1/16	17	15/16	6 1/4	10 13/16	5 1/8	100 lbs
300	mm	495.30	406.40	365.13	327.03	128.59	431.80	23.81	158.75	274.64	130.18	45.40 kg
14"	in.	22 1/2	17 5/8	15 5/8	14 1/8	7	18 3/4	1 1/16	6 3/4	12 1/16	7 1/8	135 lbs
350	mm	571.50	447.68	396.88	358.78	177.80	476.25	26.99	171.45	306.39	180.98	61.29 kg
16"	in.	24 7/8	20 1/8	17 3/4	16 1/8	6 1/4	21 1/4	1 1/16	7 3/4	14	6 3/8	170 lbs
400	mm	631.83	511.18	450.85	409.58	158.75	539.75	26.99	196.85	355.60	161.93	77.18 kg
18"	in.	25 1/4	21 1/2	20	18 1/8	7 1/8	22 3/4	1 3/16	8 3/4	16	7 1/4	220 lbs
450	mm	641.35	546.10	508.00	460.37	180.97	577.85	30.16	222.25	406.14	184.15	99.88 kg
20"	in.	27 1/2	23 1/2	21 7/8	20 1/8	8 3/8	25	1 3/16	9 3/4	18 1/8	8 1/2	287 lbs
500	mm	698.50	596.90	555.62	511.17	212.72	635.00	30.16	247.65	469.90	215.90	130.30 kg
24"	in.	32 1/4	28 1/8	25 7/8	24 1/8	8 3/8	29 1/2	1 15/16	11 3/4	22 1/4	8 1/2	335 lbs
600	mm	819.15	714.37	657.22	612.77	212.72	749.30	33.34	298.45	565.15	215.90	152.09 kg

Note: Preferred mounting of check valves of any manufacturer is 8 pipe diameters downstream from the pump discharge or pipe elbow. If this is not feasible, the valve should be mounted downstream as far as possible. This recommendation is not exclusive to Jenkins valves, but common practice in valve and piping engineering. Its purpose is to reduce the likelihood of turbulent flow through the valve, which could shorten valve life due to component vibration.

Materials of Construction



Bill of Materials

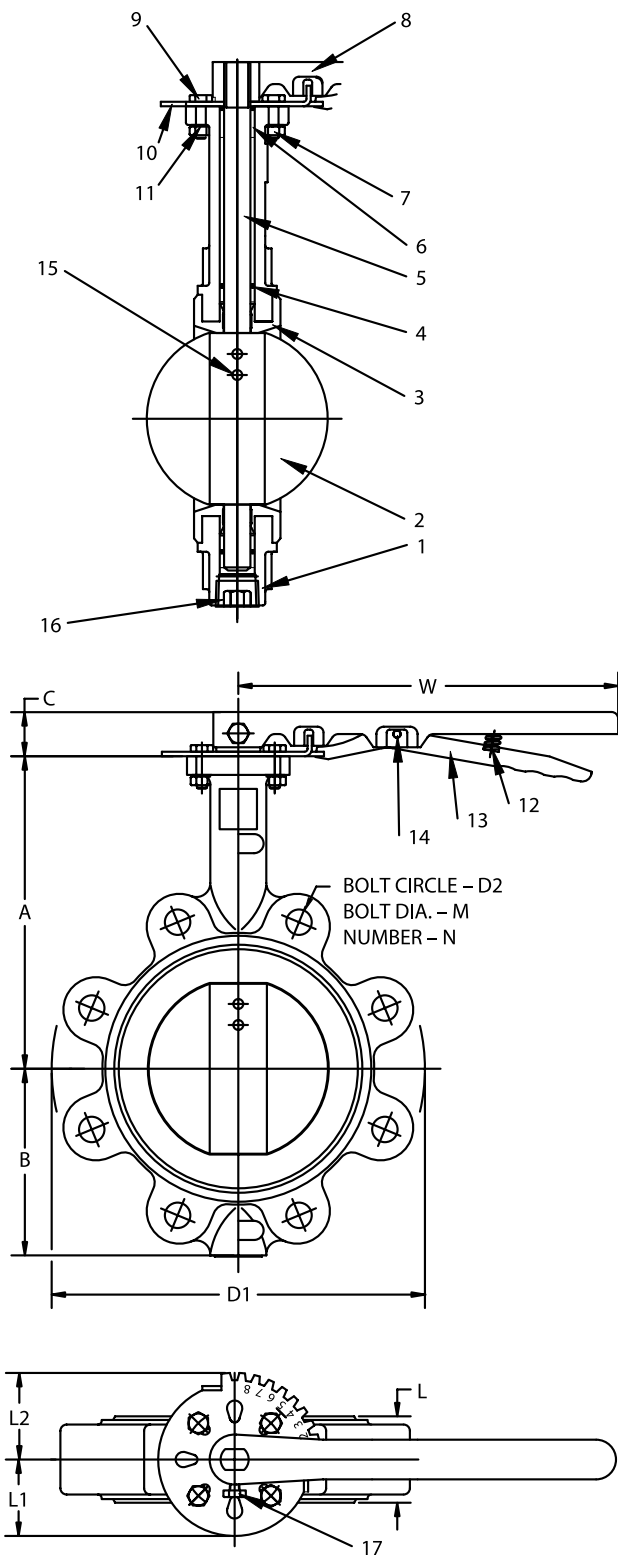
Item	Description	Materials	Optional Materials
1*	Valve Body	Ductile Iron	No option available
2*	Liner (Molded to Item 1)	Buna-N or EPDM	Neoprene, Hypalon, Viton
3	Shaft	316 Stainless Steel	Monel
4	Shaft Plug (Qty. 2)	316 Stainless Steel	Monel
5	Plate (Qty. 2)	2" 316 Stainless Steel 2½"-5" Aluminum Bronze 6"-24" Ductile Iron	2"-12" Monel 2½"-12" 316 Stainless Steel 6"-24" Aluminum Bronze
6	Thrust Washer (Qty. 4)	PTFE	No option available
7	Spring (Qty. 2)	Nitronic 50 (2"-6") 316 Stainless Steel (8"-24")	No option available No option available
8	Alignment Body	Cast Iron	No option available
9	Set Screw	Carbon Steel	No option available
10	Plate Travel Stop	316 Stainless Steel (14"-24")	No option available

* Items 1 and 2 must be ordered together.

Figure C232ELJ Contractor Butterfly Valves



200 CWP • Lug Body • Lever Operated



Materials of Construction

No.	Description	Material	ASTM Spec.
1	Body	Cast Iron	A-126 CL. B
2	Disc	Aluminum Bronze	B-148 Alloy C95400
3	Molded-In Liner	EPDM	
4	O-Ring	Buna-N	
5	Shaft	416SS	A-582 Type 416
6	Bushing	PTFE	
7	Nut	Carbon Steel	A-575 AISI 1018
8	Handle	DI	
9	Bolt	Carbon Steel	
10	Indicator Plate	Carbon Steel	
11	Washer	Carbon Steel	
12	Spring	SS	
13	Latch	DI	
14	Roll Pin	Carbon Steel	
15	Taper Pin	SS	
16	Plug	Carbon Steel	
17	Screw	Carbon Steel	

NOTES:

1. "L" dimension is elastomer shown is relaxed condition.
Approximately 1/8" total compression required for seal.
2. Line flange dimensions comply with ASME B16.1.
3. Body's mounting flange complies with ISO5211.
4. Order parts by item number, valve size and figure number.
5. Meets MSS SP-25, API 609, MSS SP-67.

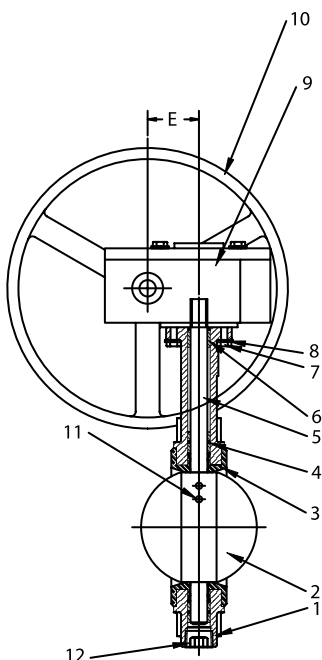
Dimensions

Size	A	B	C	L	L1	L2	W
2	6.37	3.15	1.25	1.815	2	2.50	10.50
2½	6.87	3.50	1.25	1.933	2	2.50	10.50
3	7.12	3.75	1.25	1.929	2	2.50	10.50
4	7.12	4.50	1.25	2.177	2	2.50	10.50
5	8.37	5.00	1.25	2.315	2	2.50	10.50
6	8.87	5.46	1.25	2.327	2	2.50	10.50
8	10.25	7.77	1.75	2.524	3	3.681	14.00
10	11.50	8.00	1.75	2.799	3	3.681	14.00
12	13.25	9.53	1.75	3.189	3	3.681	14.00

Size	D1	D2	M	N
2	6.09	4.75	0.69	4
2½	7.06	5.50	0.69	4
3	7.50	6.00	0.69	4
4	8.65	7.50	0.69	8
5	10.00	8.50	0.81	8
6	11.25	9.50	0.81	8
8	13.37	11.75	0.81	8
10	16.00	14.25	0.94	12
12	18.81	17.00	0.94	12

Inches

200 CWP • Lug Body • Handwheel Gear Operated

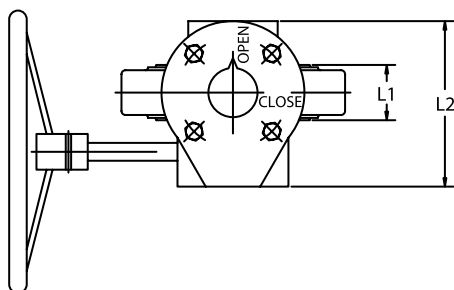
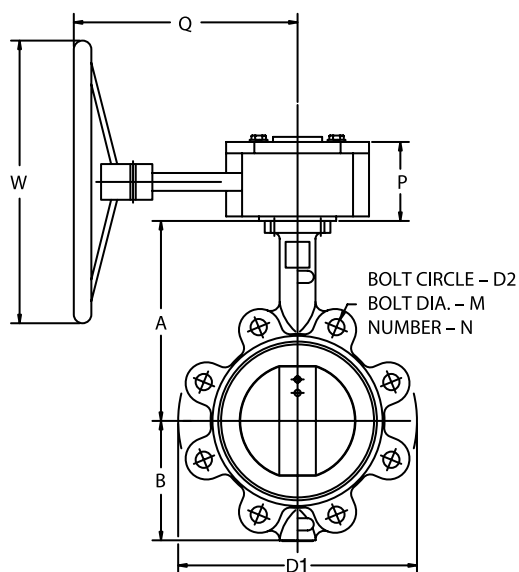


Materials of Construction

No.	Description	Material	ASTM Spec.
1	Body	Cast Iron	A-126 CL. B
2	Disc	Aluminum Bronze	B-148 Alloy C95400
3	Molded-In Liner	EPDM	
4	O-Ring	Buna-N	
5	Shaft	416 SS	A-582 Type 416
6	Bushing	PTFE	
7	Bolt	Carbon Steel	
8	Washer	Carbon Steel	
9	Gear Box		
10	Handwheel	CI	
11	Taper Pin	316 SS	
12	Plug	Carbon Steel	

NOTES:

1. "L" dimension is elastomer shown in relaxed condition.
Approximately 1/8" total compression required for seal.
2. Line flange dimensions comply with ASME B16.1.
3. Body's mounting flange complies with ISO5211.
4. Order parts by item number, valve size and figure number.
5. Meets MSS SP-25, API 609, MSS SP-67.



Dimensions

Size	A	B	D1	D2	E	L1	L2
2	6.37	3.15	4.00	4.75	1.77	1.815	5
2½	6.87	3.50	4.75	5.50	1.77	1.933	5
3	7.12	3.75	5.12	6.00	1.77	1.929	5
4	7.12	4.50	6.75	7.50	1.77	2.177	5
5	8.37	5.00	7.75	8.50	2.14	2.315	6.016
6	8.87	5.46	8.62	9.50	2.14	2.327	6.016
8	10.25	7.77	10.56	11.75	2.67	2.524	6.732
10	11.50	8.00	13.06	14.25	2.67	2.799	6.732
12	13.25	9.53	16.12	17.00	2.67	3.189	6.732

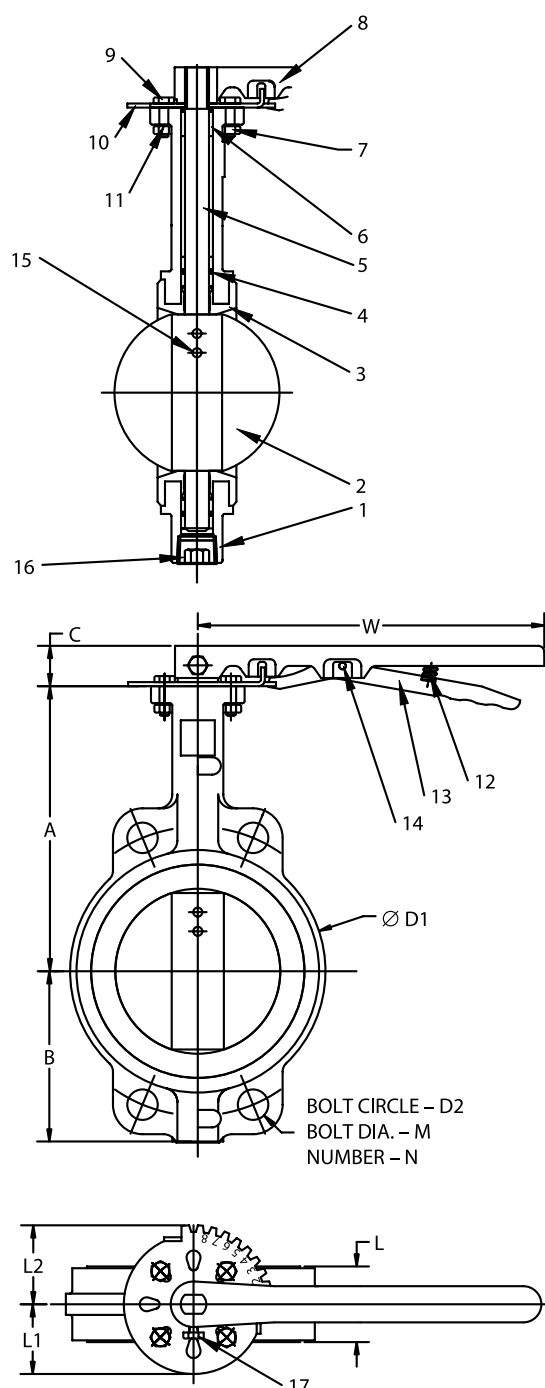
Size	M	N	P	Q	W
2	0.69	4	2.953	9.370	11.81
2½	0.69	4	2.953	9.370	11.81
3	0.69	4	2.953	9.370	11.81
4	0.69	8	2.953	9.370	11.81
5	0.81	8	3.307	9.370	11.81
6	0.81	8	3.307	9.370	11.81
8	0.81	8	3.307	8.898	11.81
10	0.94	12	3.307	8.898	11.81
12	0.94	12	3.307	8.898	11.81

Inches

Figure C222ELJ Contractor Butterfly Valves



200 CWP • Wafer Body • Lever Operated



Materials of Construction

No.	Description	Material	ASTM Spec.
1	Body	Cast Iron	A-126 CL. B
2	Disc	Aluminum Bronze	B-148 Alloy C95400
3	Molded-In Liner	EPDM	
4	O-Ring	Buna-N	
5	Shaft	416 SS	A-582 Type 416
6	Bushing	PTFE	
7	Nut	Carbon Steel	A-575 AISI 1018
8	Handle	DI	
9	Bolt	Carbon Steel	
10	Indicator Plate	Carbon Steel	
11	Washer	Carbon Steel	
12	Spring	SS	
13	Latch	DI	
14	Roll Pin	Carbon Steel	
15	Taper Pin	300 Series SS	
16	Plug	Carbon Steel	
17	Screw	Carbon Steel	

NOTES:

1. "L" dimension is elastomer shown in relaxed condition.
Approximately $\frac{1}{8}$ " total compression required for seal.
2. Line flange dimensions comply with ASME B16.1.
3. Body's mounting flange complies with ISO5211.
4. Order parts by item number, valve size and figure number.
5. Meets MSS SP-25, API 609, MSS SP-67.

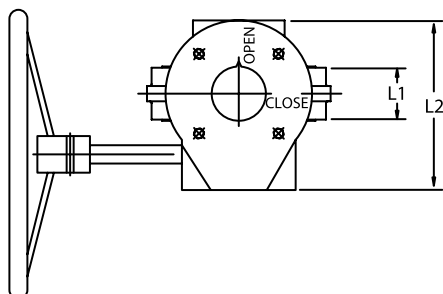
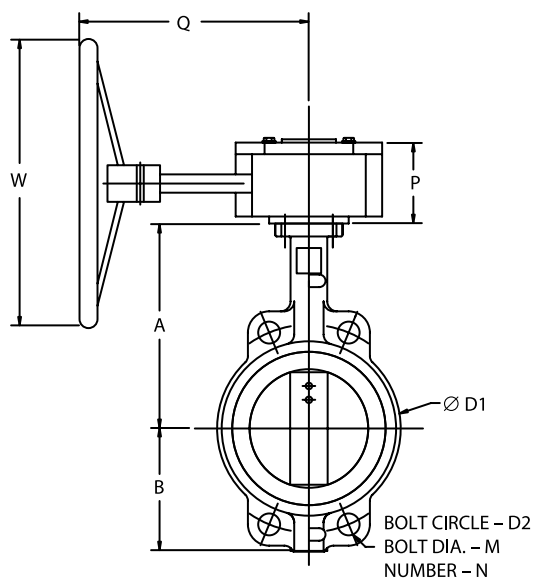
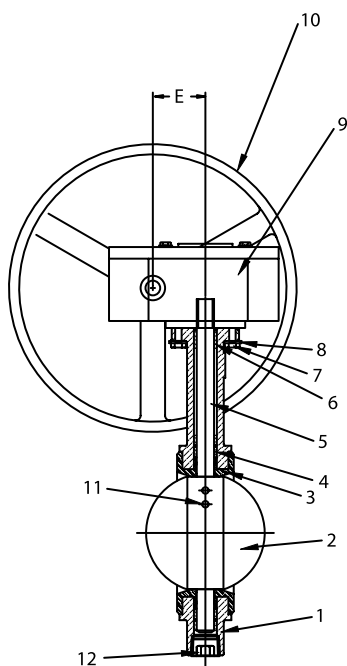
Dimensions

Size	A	B	C	L	L1	L2	W
2	6.37	3.15	1.25	1.815	2	2.50	10.50
2½	6.87	3.50	1.25	1.933	2	2.50	10.50
3	7.12	3.75	1.25	1.929	2	2.50	10.50
4	7.12	4.50	1.25	2.177	2	2.50	10.50
5	8.37	5.00	1.25	2.315	2	2.50	10.50
6	8.87	5.46	1.25	2.327	2	2.50	10.50
8	10.25	7.77	1.75	2.524	3	3.681	14.00
10	11.50	8.00	1.75	2.799	3	3.681	14.00
12	13.25	9.53	1.75	3.189	3	3.681	14.00

Size	D1	D2	M	N
2	4.00	4.75	0.69	4
2½	4.75	5.50	0.69	4
3	5.12	6.00	0.69	4
4	6.75	7.50	0.69	8
5	7.75	8.50	0.81	8
6	8.62	9.50	0.81	8
8	10.56	11.75	0.81	8
10	13.06	14.25	0.94	12
12	16.12	17.00	0.94	12

Inches

200 CWP • Wafer Body • Handwheel Gear Operated



Materials of Construction

No.	Description	Material	ASTM Spec.
1	Body	Cast Iron	A-126 CL. B
2	Disc	Aluminum Bronze	B-148 Alloy C95400
3	Molded-In Liner	EPDM	
4	O-Ring	Buna-N	
5	Shaft	416 SS	A-582 Type 416
6	Bushing	PTFE	
7	Bolt	Carbon Steel	
8	Washer	Carbon Steel	
9	Gear Box		
10	Handwheel	CI	
11	Taper Pin	300 Series SS	
12	Plug	Carbon Steel	

NOTES:

1. "L" dimension is elastomer shown in relaxed condition.
Approximately 1/8" total compression required for seal.
2. Line flange dimensions comply with ASME B16.1.
3. Body's mounting flange complies with ISO5211.
4. Order parts by item number, valve size and figure number.
5. Meets MSS SP-25, API 609, MSS SP-67.

Dimensions

Size	A	B	D1	D2	E	L1	L2
2	6.37	3.15	4.00	4.75	1.77	1.815	5
2½	6.87	3.50	4.75	5.50	1.77	1.933	5
3	7.12	3.75	5.12	6.00	1.77	1.929	5
4	7.12	4.50	6.75	7.50	1.77	2.177	5
5	8.37	5.00	7.75	8.50	2.14	2.315	6.016
6	8.87	5.46	8.62	9.50	2.14	2.327	6.016
8	10.25	7.77	10.56	11.75	2.67	2.524	6.732
10	11.50	8.00	13.06	14.25	2.67	2.799	6.732
12	13.25	9.53	16.12	17.00	2.67	3.189	6.732

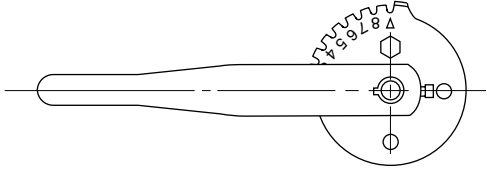
Size	M	N	P	Q	W
2	0.69	4	2.953	6.220	5.906
2½	0.69	4	2.953	6.220	5.906
3	0.69	4	2.953	6.220	5.906
4	0.69	4	2.953	6.220	5.906
5	0.81	4	3.307	9.375	11.81
6	0.81	4	3.307	9.375	11.81
8	0.81	4	3.307	8.898	11.81
10	0.94	4	3.307	8.898	11.81
12	0.94	4	3.307	8.898	11.81

Inches

Options and Accessories

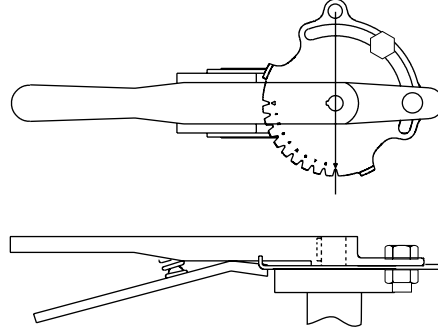
Handle Features/Options:

Standard



The standard handle functions with a ten-position indicator plate to assist in throttling or to provide shutoff.

Memory Stop



Extended plates with radial slots are optional for memory stop applications. In these cases, bolts and nuts are furnished and special handles are used as shown.

Gear Operator Options:

1. MEMORY STOP FOR GEAR OPERATORS

A memory stop suitable for visual position indication may be provided; however, a more positive stop on the input side of the gear operator is available in the traveling nut stop for nonvisual position indication.

2. OPERATING NUT FOR GEAR OPERATOR

An operating nut may be supplied on the gear shaft, in place of a handwheel.

3. CHAINWHEELS

Some overhead installations require the convenience of chainwheels to enable operation from a lower elevation level.

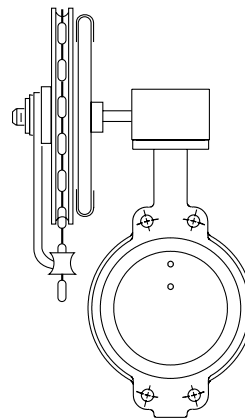
Direct-mounted chainwheels are available. Another option, utilizing an adjustable sprocket rim and guide which is fastened to a round handwheel, may be furnished.

4. EXTENSION STEMS

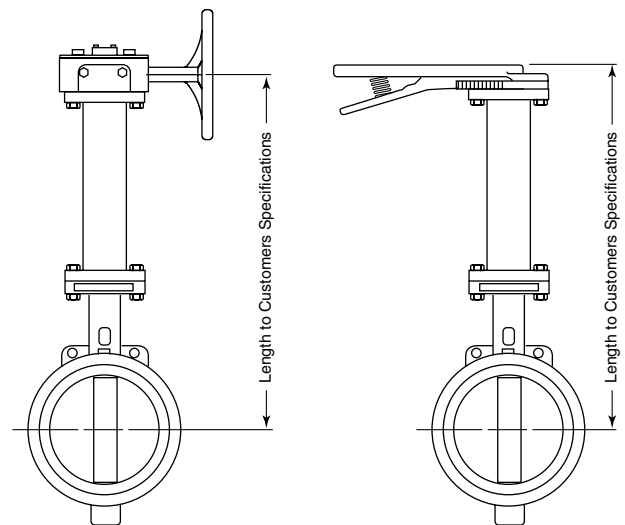
Installations may require extension stems to elevate the operating location of a valve.

Extension stems as illustrated may be supplied for operation by either lever, gear, or actuator.

CHAINWHEELS



EXTENSION STEMS



Accessories/Actuators

ELECTRIC ACTUATORS

All butterfly valves can be furnished with factory-mounted electric actuators, or the actuators and linkage kits may be furnished for field mounting.

Standard actuator features include:

- Several Basic Models of Electric Actuation are available in torques ranging from 45 to 250,000 in-lbs.
- Permanent lubrication-no maintenance program required.
- Can be mounted at any angle.
- Precision cut, hardened steel gears.
- Reversible and non-reversible motors.
- Standard electrical voltage 115/1/60, other voltages available.
- Manual override in the event of power failure.
- Literature, data sheets, wiring diagrams and sizing charts are available upon request.

INFORMATION REQUIRED WITH ORDER OR INQUIRY:

1. Valve size and figure number.
2. Service conditions—media, temperature, and maximum differential pressure.
3. Required closing or opening time.
4. Duty cycle—continuous or intermittent duty.
5. Electrical supply—AC or DC, phase and cycles if AC voltage.
6. Type of motor—weatherproof, dust-tight, or explosion-proof.
7. Accessories—switches, potentiometers, or other special requirements such as a control station. Please include the number, type and electrical ratings you require.
8. Cycling requirement—on/off or modulating.



PNEUMATIC ACTUATORS

All butterfly valves can be furnished with pneumatic actuators fully mounted and tested at the factory, or actuators and linkage kits may be furnished for field mounting.

- Both direct mount and bracketed rack-and-pinion designs are readily available. In either case, both double acting and spring return models can be furnished.
- Please refer to the specific actuator bulletin for details on the materials of construction of the required actuator.
- Range of torque output is from 70 to 100,000 inch-pounds.
- Accessories such as solenoid valves, limit switches, positioners and manual override can also be furnished.
- Literature, data sheets and valve sizing charts are available upon request.

INFORMATION REQUIRED WITH ORDER OR INQUIRY:

1. Valve size and figure number.
2. Service conditions—media, temperature, and maximum differential pressure.
3. Cycling requirements—on/off or modulating.
4. Air pressure available to operate actuator.
5. Need for solenoid valves, NEMA requirements, and optional speed controls.
6. Need for limit switches, NEMA requirements.
7. Accessories—switches, potentiometers, or other special requirements, such as a control station. Please include the number, type and electrical ratings you require.



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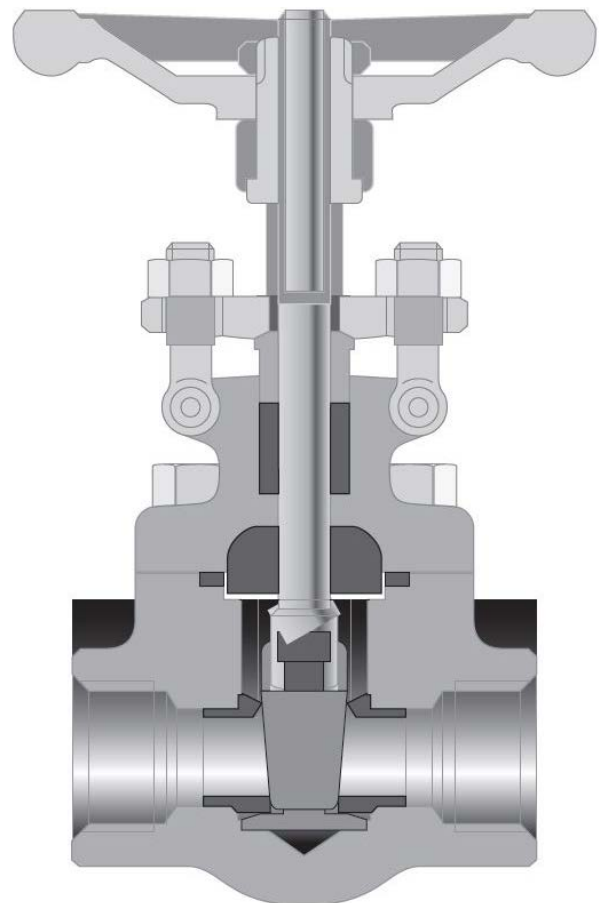
Jenkins® Forged Steel Class 800 Gate, Globe, and Check Valves are tested and ideal for General Industrial, Oil and Gas, Power, and Commercial Applications.

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- 2 **Temperature and Pressure:**
Class 800 (1975psig @ 100 Degrees F)
- 3 **Certifications:**
API 602, API 598, ASME B16.34

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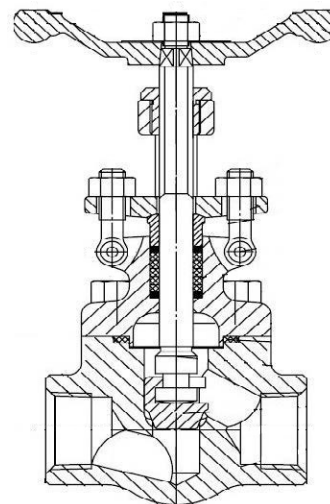
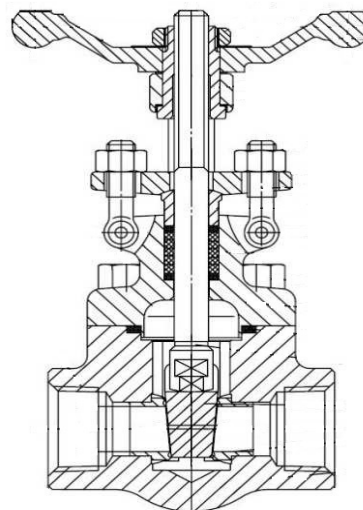
Jenkins® Forged Steel

Gate Valve, Conventional Port, Bolted Bonnet, OS&Y

- 8800 Threaded 1/4" -2"
- 8800W Socket Weld 1/4" -2"

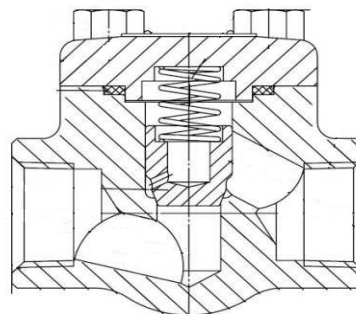
Gate Valve, Full Port, Bolted Bonnet, OS&Y

- 8888 Threaded 1/2" -2"
- 8888W Socket Weld 1/2" -2"



Globe Valve, Conventional Port, Bolted Bonnet, OS&Y

- 8G80 Threaded 1/4" -2"
- 8G80W Socket Weld 1/4"-2"



Piston Check Valve, Conventional Port, Bolted Cap

- 8C80 Threaded 1/4" -2"
- 8C80W Socket Weld 1/4"-2"

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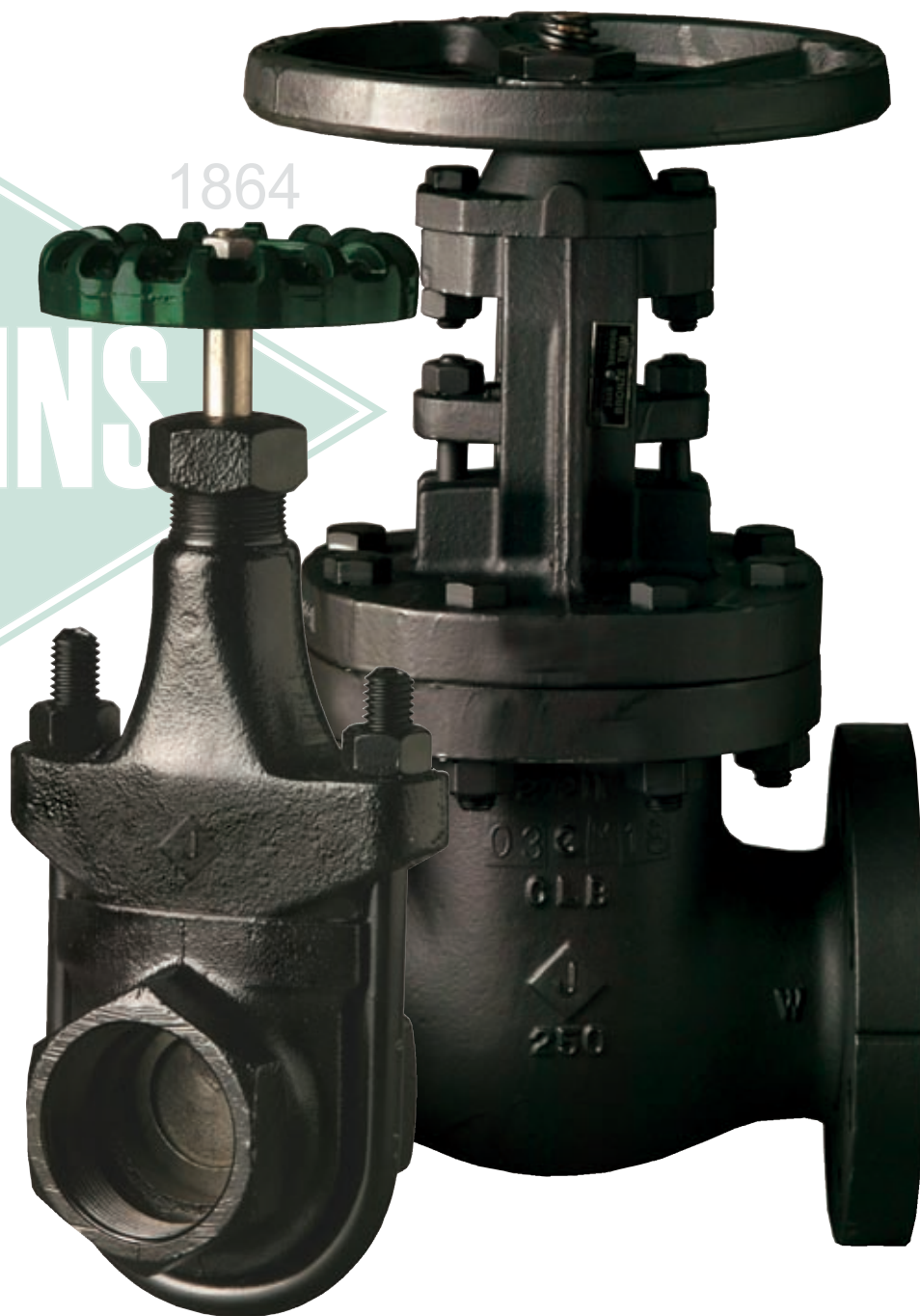
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Jenkins Iron Valves

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General Index

General Data	4
Iron Alloys	5
Ratings Introduction	6
Pressure/Temperature Ratings	6
Gate Valve Features	7
Globe and Angle Valve Features	17
Swing Check Valve Features	21
Stop-Check Valve Features	26
Technical Data	27
Installation Recommendations	28

Figure Number Index

Canada Fig No. (US Fig No.)	Page
40BJ (40BJ).....	14
41J (41J).....	14
162J (923J).....	20
203J (203J).....	15
204J (204J).....	16
339RJ (339J)	24
451J (325J).....	8
452J (326J).....	9
453J (650J).....	11
454J (651J).....	12
477LJ (477LJ).....	22
523J (523J).....	10
525J (100J).....	13
540J (540J).....	25
541J (541J).....	25
587J (624J).....	22
588J (623J).....	22
590J (85J).....	23
2342J (613J).....	18
2344J (615J).....	19

General Data

Advanced manufacturing techniques and equipment, ongoing engineering research and product development, skilled craftsman, and over fourteen decades of experience in flow control are behind the quality and dependability built into every Jenkins product.

This catalog presents some of these products, namely: Jenkins' line of industrial iron gate, globe and check valves. The information is presented in a comprehensive manner and includes material, construction, rating, principal dimensions, and weight data.

Hydrostatic and Shock Working Pressures

Jenkins valves are suitable for liquid working pressures specified on catalog pages only when used in hydraulic installations in which shock is absent or negligible. The sudden closure of a valve in a hydraulic system causes the body of liquid, which may be moving at a rate generally in excess of one foot per second, to stop instantaneously. As liquids are relatively incompressible, the sudden cessation of flow effects a rise in pressure considerably greater than the static working pressure. This pressure increase is termed "SHOCK" and may, in some cases, be sufficient to cause valves or piping to fail.

Pressure increase due to shock is not dependent upon the working pressure in the system but upon the velocity at which the liquid is flowing. This pressure surge, or shock, severely limits design velocities...a fact readily understandable if it is remembered that pressure rise resulting from arrest of flow may be as high as 60 psi for each foot per second initial velocity. For example, installations of 100 psi and 1000 psi working pressures, with the same initial velocity of 10 feet per second, will be subject to the same increase in pressure (approximately 600 psi) due to instantaneous closure of a valve.

Shock generally prevails in lines equipped with check or quick-closing valves, or in lines supplied by reciprocating pumps. It may also be produced, to a lesser degree, by rapid closure of gate and globe valves. Therefore, care should be exercised when closing valves installed in liquid lines.

Where shock is likely to occur, the maximum shock pressure should be added to the working pressure of the line to determine working pressure of products in the line...also, hydraulic installations should be equipped with air chambers or other types of shock absorbers to eliminate, as much as possible, increase in pressure due to shock.

Testing

Iron valves described in this section meet or exceed the MSS SP-82, MSS SP-70, MSS SP-71 and MSS SP-85 specifications for testing.

Materials

The selection of materials for components of Jenkins valves is based upon expert metallurgical, engineering, foundry and fabrication knowledge as well as on many years of usage experience. Considerations affecting materials of parts which come in contact with the conveyed fluid include pressure, temperature and chemical composition of the fluid. The materials of moving parts that are subject to rubbing contact are selected on the basis of their resistance to wear, corrosion, seizing or galling, and on their frictional characteristics.

Utilization of materials to their full capability is assured by the use of stress analysis techniques that include extensive laboratory testing as well as the application of analytical theory. Stress levels for all materials used are maintained within the levels established by applicable codes, standards and specifications.

Metrication

This catalog shows equivalent metric values to the customary imperial units. The "soft" conversion was arrived at by following MSS SP-86 guidelines.

Illustrations, Weights and Material & Designs

Illustrations – Catalog illustrations are representative of a certain size of each line of product but do not necessarily represent all sizes in all details.

Material & Design – We reserve the right to institute changes in materials, designs, dimensions and specifications without notice in keeping with our policy of continuing product development.

Weights – shown are approximate and are not guaranteed. They represent the average weight of Jenkins Valve products as made from patterns in use at time weights were compiled.

Iron Alloys

Cast Iron

Used primarily for valve pressure retaining parts.
Recommended to 450 °F (232 °C).

ASTM A126, Class B

Chemical Requirements

	Minimum	Maximum
Sulphur	—	0.15
Phosphorus	—	0.75

Tensile Requirements

	Minimum	Maximum
Tensile Strength, psi	31,000	—
Transverse Strength, lbs.	3,300	—
Deflection @ Center, in.		

Ni-Resist Iron

A copper-free alloy used where physical properties of cast iron suffice but where greater corrosion resistance is required. Castings are marked "2NR."

Ni-Resist is a registered trademark of the International Nickel Company, Inc.

ASTM A436, Type 2

Chemical Requirements

	Minimum	Maximum
Carbon	—	3.00
Manganese	0.50	1.50
Sulphur	—	0.12
Silicon	1.00	2.80
Chromium	1.50	2.50
Nickel	18.00	22.00
Copper	—	0.50
Iron	remainder	

Tensile Requirements

	Minimum	Maximum
Tensile Strength, psi	25,000	—
Brinell Hardness (3000 Kg)	118	174

Malleable Iron

Used for valves subjected to expansion and contraction stresses and shock.

ASTM A338. Supplementary: ASTM A47, Grade 32510

Tensile Requirements

	Minimum	Maximum
Tensile Strength, psi	50,000	—
Yield Point, psi	32,500	—
elongation in 2 inches, %	10	—

Introduction to Rating

The pressure-temperature ratings shown below apply to class 125 and 250 iron valves covered in this catalog.

A. Ratings for Class 125 and 250 iron valves are indicated on the relevant catalog page in this manner:

...PSI Steam, Basic Rating: i.e.: is the nominal steam rated pressure of the valve.

...Cold Working Pressure: where "Cold Working Pressure" is the maximum rated pressure of the valve at a temperature up to 150 °F (65 °C).

The full range of allowable pressure and temperature is determined by referring to the main pressure-temperature chart below.

B. Ratings for iron valves falling outside Class 125 and 250 are indicated in various ways on the relevant catalog page.

All ratings represent the maximum allowable non-shock pressure at the indicated temperature. If the operating temperature of your system is not shown, the allowable pressure may be interpolated.

The operating temperature of the valve is considered as the temperature of the media flowing through it. This temperature must not exceed the maximum allowable temperature as stated in the pressure-temperature chart below.

Pressure-Temperature Ratings

Jenkins Cast Iron Gate, Globe, Angle and Check Valves

Imperial Units					
Class	125			250	
Temp. °F	Non-Shock-PSI				
	NPS 2"-12"	NPS 14"-24"	NPS 30"-48"	NPS 2"-12"	NPS 14"-24"
-20 to 150	200	150	150	500	300
200	190	135	115	460	280
225	180	130	100	440	270
250	175	125	85	415	260
275	170	120	65	395	250
300	165	110	50	375	240
325	155	105	—	355	230
350	150	100	—	335	220
375	145	—	—	315	210
400	140	—	—	290	200
425	130	—	—	270	—
450	125	—	—	250	—

Metric Units					
Class	125			250	
Temp. °C	Non-Shock-kPa				
	NPS 2"-12"	NPS 14"-24"	NPS 30"-48"	NPS 2"-12"	NPS 14"-24"
-29 to 66	1380	1030	1030	3480	2070
90	1310	930	790	3170	1930
110	1240	900	670	3030	1860
120	1210	860	570	2860	1790
140	1170	830	450	2720	1720
150	1140	760	340	2590	1650
160	1070	720	—	2450	1590
180	1030	690	—	2310	1520
190	1000	—	—	2170	1450
200	970	—	—	2000	1380
220	900	—	—	1860	—
230	860	—	—	1720	—

Manufacturers Standardization Society (MSS)
Standard Practice SP-70, SP-71, SP-85

Gate Valve Features

Gate Valve Features

Jenkins gate valves offer the ultimate in dependable service wherever minimum pressure drop is important. They serve as efficient stop valves with fluid flow in either direction.

The straight through design offers little resistance to flow and reduces pressure drop to a minimum. A disc actuated by a stem and handwheel moves up and down at right angles to the path of flow, and seats against two seat faces to shut off flow.

Gate valves are best for services that require infrequent valve operation, and where disc is kept either fully opened or closed. They are not recommended for throttling. With the usual type of gate valve, close flow regulation is impossible. Velocity of flow against a partly opened disc may cause vibration and chattering and result in damage to the seating surfaces. Also, when throttled, the disc is subjected to severe wire-drawing erosive effects.

Each valve in this section is classified by its pressure rating. All valves designated as Class 125 and 250 comply with MSS SP-70 Industry Specifications.

Bronze trimmed valves are recommended for steam, water, air and non-corrosive oil or gas. All have bronze screwed-in seat rings and the discs are solid bronze in sizes 3" (80 mm) and smaller. In larger sizes, bronze rings are rolled into cast iron discs.

All-iron valves have integral seats, some valves have screwed in seat rings (discs are cast iron) and nickel-plated steel stems. They are recommended for oil, gas, gasoline, or fluids that corrode bronze but not iron or steel.

Features

Face-to-Face Dimensions of flanged end valves conform to ASME B16.10 in their pressure class. (See note re MSS SP-70 for flanged clamp gate valves.)

Flanged End Valves adhere to ASME Specification B16.1 for their pressure class.

Body and Bonnet Components are cast with rigorous control to ASTM A126 Class B Specification for cast-iron.

Handwheels are furnished on all valves. Manual gear, hydraulic or motor operators and chainwheels can be supplied when specified.

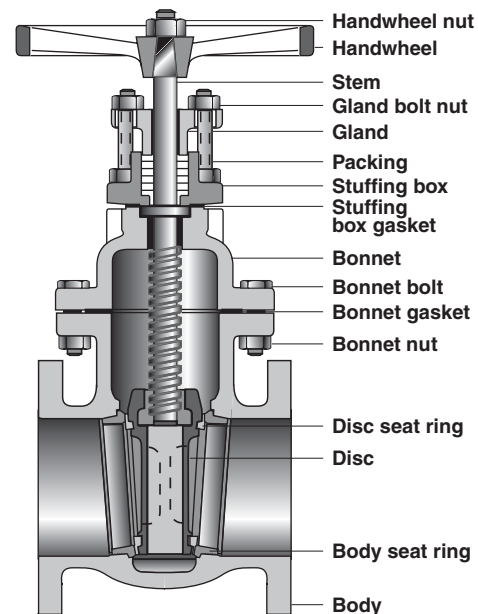
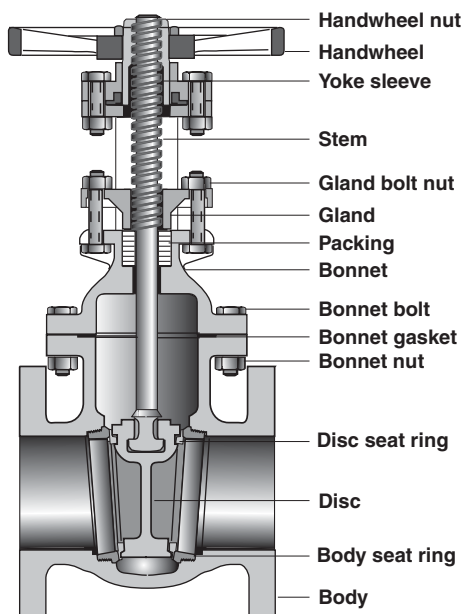
Backseating - Rising stem valves are equipped with backseats. It is recommended that the backseat be used as a means for determining the full open valve position. For normal operation in the open position, the stem should be backed off so that the backseat is not in contact. This permits the stem packing to assume its intended sealing function and not conceal unsatisfactory stem packing. In the event of stem packing

leakage, the backseat can be used to stop stem leakage until circumstances permit a system shutdown and time for packing replacement. Stem packing replacement with the valve under pressure and back-seated represents a hazard and should not be undertaken. The hazard is magnified as fluid pressure or temperature increases or when the fluid is toxic.

Solid Wedge Gate Valve Discs - The strong, simple, single piece design with long disc guides is a proven performer for all service conditions, particularly suitable for conditions of severe turbulence and stem vibration. Seat and disc surfaces are accurately machined and tapered for shut-off without undue strain.

Threaded End Valves have precision cut threads in accordance with ASME B1.20.1.

Jenkins Iron Gate Valves have an identification tag which indicates the valve catalog number and other pertinent data. It provides easy and accurate field reference.



Class 125 • Bolted Bonnet • Non-Rising Stem • Bronze Trim

Figure 451J

Threaded with Bronze Trim

Size Range:

2 through 4 inches

Working Pressures Non-Shock

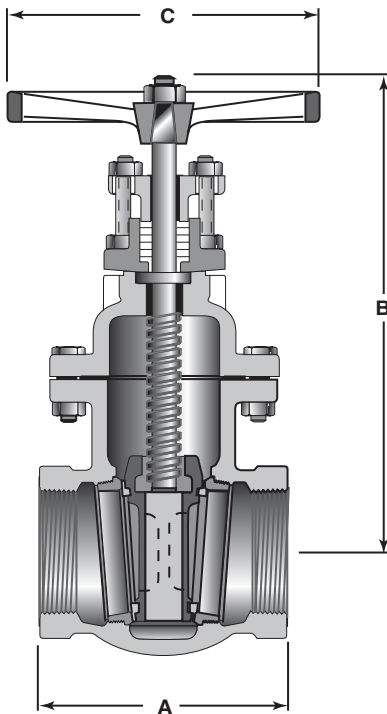
125 psi Steam, Basic Rating

200 psi Cold Working Pressure

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Renewable Bronze Seat Rings
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B1.20.1

For more detailed features,
refer to Page 7.



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
451J	2" - 4"	Bronze	Bronze	Threaded

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)
A	5.38 (137)	6.62 (168)	7.00 (178)	8.00 (203)
B	11.31 (287)	12.40 (315)	13.25 (337)	16.31 (414)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)
Wt.	25 (11)	31 (14)	44 (20)	71 (32)

Iron Body Gate Valve

Figure 452J (326J)

Class 125 • Bolted Bonnet • Non-Rising Stem • Bronze Trim

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Renewable Bronze Seat Rings
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B16.10, ASME B16.1,
- Valves can be equipped with by-passes when specified.

For more detailed features, refer to Page 7.

Figure 452J

Flanged with Bronze Trim

Size Range:

2 through 30 inches

Working Pressures Non-Shock

2" – 12"

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

14" – 24"

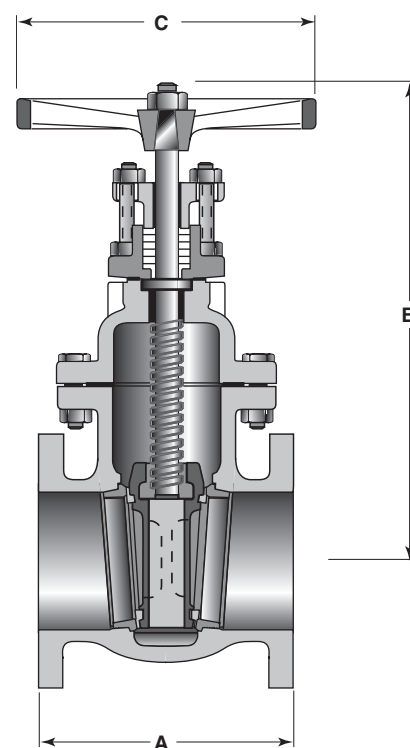
100 psi Steam, Basic Rating

14" – 30"

150 psi Cold Working Pressure

30"

50 psi Steam, Basic Rating



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
452J	2" - 30"	Bronze	Bronze	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)	30 (750)
A	7.00 (178)	7.50 (191)	8.00 (203)	9.00 (229)	10.00 (254)	10.50 (267)	11.50 (292)	13.00 (330)	14.00 (356)	15.00 (381)	16.00 (406)	17.00 (432)	18.00 (457)	20.00 (508)	24.00 (610)
B	11.31 (287)	12.40 (315)	13.25 (337)	16.31 (414)	18.00 (457)	20.69 (526)	24.12 (613)	32.25 (819)	36.00 (914)	40.50 (1029)	48.00 (1219)	50.25 (1276)	56.12 (1426)	64.00 (1626)	86.63 (2200)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)	10.00 (254)	12.00 (305)	14.00 (356)	16.00 (406)	18.00 (457)	20.00 (508)	22.00 (559)	22.00 (559)	24.00 (610)	30.00 (762)	30.00 (762)
Wt.	30 (14)	40 (180)	56 (25)	90 (41)	126 (57)	152 (68)	260 (117)	490 (222)	672 (304)	968 (440)	1180 (535)	1701 (772)	2188 (993)	3150 (1432)	6009 (2728)

Class 125 • Bolted Bonnet • Non-Rising Stem • All Iron

Figure 523J

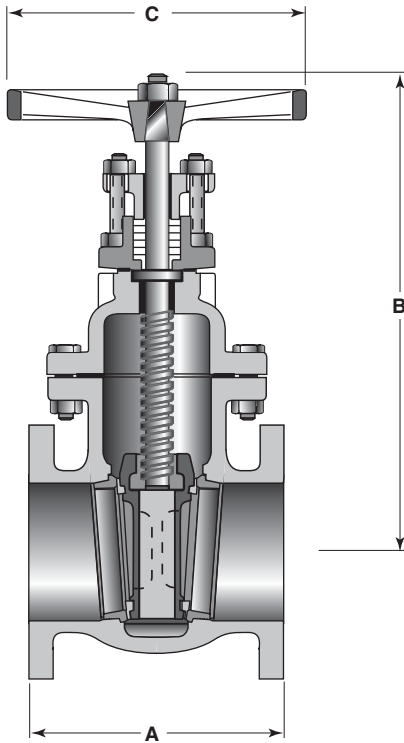
Flanged – All Iron

Size Range:

2 through 12 inches

Working Pressures Non-Shock

200 psi Cold Working Pressure



Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Integral Seats
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B16.10, ASME B16.1,
- Valves can be equipped with by-passes when specified.

For more detailed features, refer to Page 7.

Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
523J	2" - 12"	Steel	Iron	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)
A	7.00 (178)	7.50 (191)	8.00 (203)	9.00 (229)	10.00 (254)	10.50 (267)	11.50 (292)	13.00 (330)	14.00 (355)
B	11.31 (287)	12.40 (315)	13.25 (337)	16.31 (414)	18.00 (457)	20.69 (526)	24.12 (613)	33.00 (838)	36.50 (927)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)	10.00 (254)	12.00 (305)	14.00 (356)	20.00 (508)	20.00 (508)
Wt.	30 (14)	44 (20)	56 (25)	91 (41)	126 (57.2)	152 (69)	260 (118)	490 (222)	672 (304)

Iron Body Gate Valve

Figure 453J (650J)

Class 125 • Bolted Bonnet • OS&Y • Bronze Trim

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Renewable Bronze Seat Rings
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B1.20.1

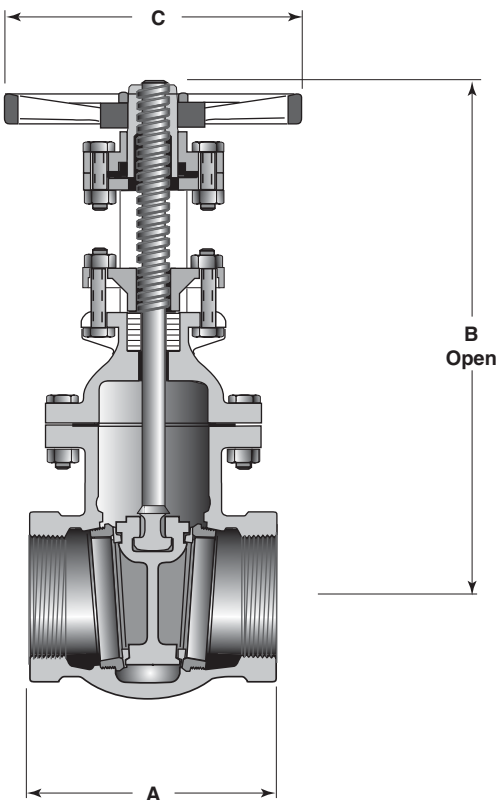
For more detailed features,
refer to Page 7.

Figure 453J

Threaded with Bronze Trim

Size Range:
2 through 4 inches

Working Pressures Non-Shock
125 psi Steam, Basic Rating
200 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
453J	2" - 4"	Bronze	Bronze	Threaded

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)
A	5.38 (137)	6.62 (168)	7.00 (178)	8.00 (203)
B	14.75 (375)	16.06 (408)	17.38 (441)	21.44 (545)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)
Wt.	25 (11)	38 (17)	46 (21)	77 (35)

Class 125 • Bolted Bonnet • OS&Y • Bronze Trim

Figure 454J

Flanged with Bronze Trim

Size Range:

2 through 36 inches

Working Pressures Non-Shock

2" – 12"

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

14" – 24"

100 psi Steam, Basic Rating

14" – 36"

150 psi Cold Working Pressure

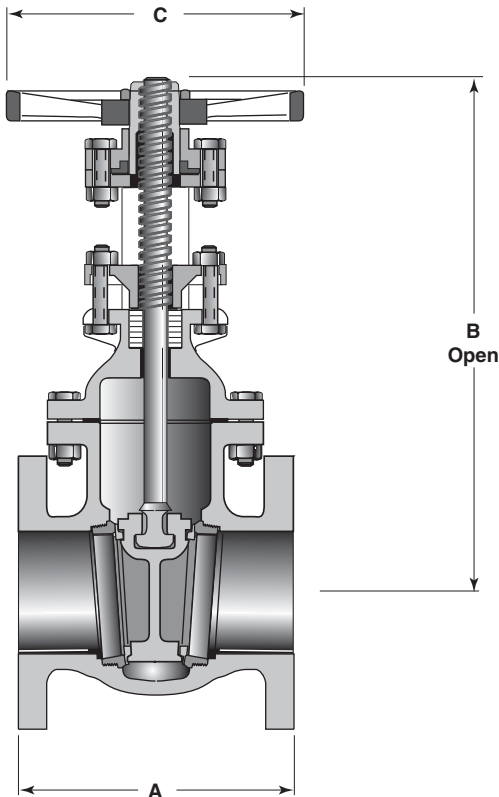
30" – 36"

50 psi Steam, Basic Rating

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Renewable Bronze Seat Rings
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B16.10, ASME B16.1,
- Valves can be equipped with by-passes when specified.

For more detailed features, refer to Page 7.



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
454J	2" - 36"	Bronze	Bronze	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)	30 (750)	36 (900)
A	7.00 (178)	7.50 (191)	8.00 (203)	9.00 (229)	10.00 (254)	10.50 (267)	11.50 (292)	13.00 (330)	14.00 (356)	15.00 (381)	16.00 (406)	17.00 (432)	18.00 (457)	20.00 (508)	24.00 (610)	28.00 (711)
B	14.75 (375)	16.06 (408)	17.38 (441)	21.44 (545)	25.81 (656)	30.31 (770)	37.75 (959)	44.94 (1141)	53.69 (1364)	64.38 (1635)	75.25 (1911)	82.00 (2083)	90.62 (2302)	105.38 (2677)	129.62 (3292)	155.62 (3953)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)	10.00 (254)	12.00 (305)	14.00 (356)	16.00 (406)	18.00 (457)	20.00 (508)	22.00 (559)	22.00 (559)	24.00 (610)	30.00 (762)	36.00 (914)	42.00 (1067)
Wt.	33 (15)	47 (21)	58 (26)	97 (44)	135 (61)	162 (73)	280 (126)	495 (225)	732 (333)	1093 (497)	1425 (647)	1738 (789)	2085 (946)	3183 (1445)	5795 (2360)	7522 (3417)

Iron Body Gate Valve

Figure 525J (100J)

Class 125 • Bolted Bonnet • OS&Y • All Iron

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- 2"-8" Integral Seats, 10" and Larger Renewable Cast Iron Seat Rings
- Stem with ACME Double Threads
- Non-Asbestos Packing and Gaskets
- MSS SP-70 and MSS SP-25
- ASME B16.10, ASME B16.1, ASME B1.20.1
- Valves can be equipped with by-passes when specified.

For more detailed features, refer to Page 7.

Figure 525J

Flanged – All Iron

Size Range:

2 through 36 inches

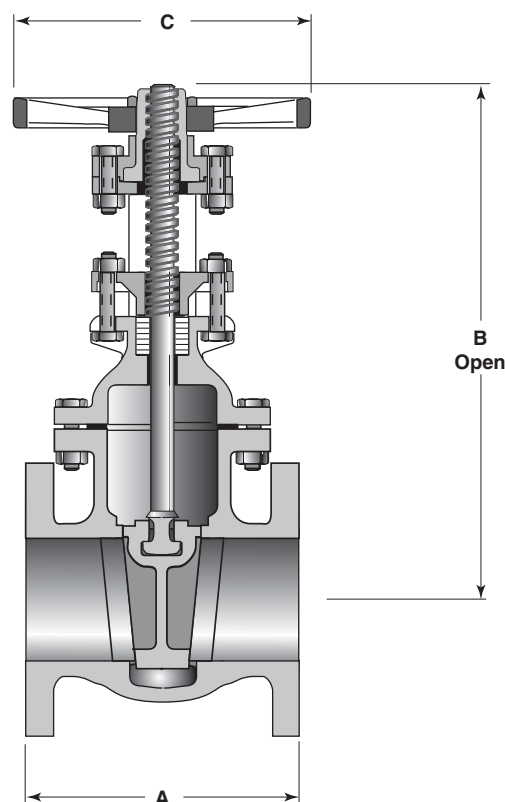
Working Pressures Non-Shock

2" – 12"

200 psi Cold Working Pressure

14" – 36"

150 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
525J	2" - 36"	Steel	Iron	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)	30 (750)	36 (900)
A	7.00 (178)	7.50 (191)	8.00 (203)	9.00 (229)	10.00 (254)	10.50 (267)	11.50 (292)	13.00 (330)	14.00 (356)	15.00 (381)	16.00 (406)	17.00 (432)	18.00 (457)	20.00 (508)	24.00 (610)	28.00 (711)
B	14.75 (375)	16.06 (408)	17.38 (441)	21.44 (545)	25.81 (656)	30.31 (770)	37.75 (959)	44.94 (1141)	53.69 (1364)	64.38 (1635)	75.25 (1911)	82.00 (2083)	90.62 (2302)	105.28 (2674)	129.62 (3292)	155.62 (3953)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)	10.00 (254)	12.00 (305)	14.00 (356)	16.00 (406)	18.00 (457)	20.00 (508)	22.00 (559)	22.00 (559)	24.00 (610)	30.00 (762)	36.00 (914)	42.00 (1067)
Wt.	35 (15)	47 (21)	58 (26)	97 (44)	135 (61)	162 (73)	280 (126)	495 (225)	732 (333)	1093 (497)	1425 (647)	1738 (790)	2085 (911)	3183 (1446)	5795 (2360)	7522 (3417)

Figures 40BJ (40BJ) 41J (41J)

Iron Body Gate Valve

Class 125 - 150 • U-Bolt Bonnet • Rising Stem • All Iron

Figure 40BJ

Threaded - All Iron

Size Range:

¼ through 4 inches

Figure 41J

Flanged - All Iron

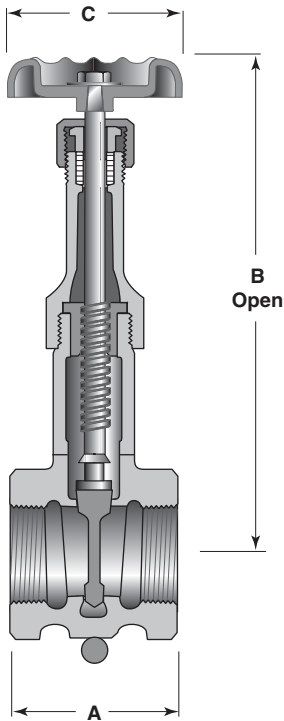
Size Range:

1-½ through 4 inches

Features

- Compact Design
- Easy Maintenance
- Steel U-Bolt Clamp
- Anti-Clogging Bonnet
- Integral Seats
- Malleable Iron Disc
- Nickel Plated Stem
- Non-Asbestos Packing & Gaskets
- Body and Bonnet Malleable Iron
- ASME B16.1, ASME B1.20.1

For more detailed features,
refer to Page 7.



TEMPERATURE		WORKING PRESSURES, NON-SHOCK					
		Threaded ¼" to 2" (6mm to 50mm)		Flanged 1 ½" to 2" (40mm to 50mm)		All 2 ½" to 4" (65mm to 100mm)	
Valve Ratings		150 psi, Sat. Steam 225 psi, CWP		125 psi, Sat. Steam 200 psi, CWP		125 psi, Sat. Steam 175 psi, CWP	
°F	°C	PSI	kPa	PSI	kPa	PSI	kPa
-20 to 150	-30 to 65	225	1550	200	1380	175	1210
200	93	210	1450	185	1280	165	1140
225	107	200	1380	175	1210	160	1100
250	121	190	1310	165	1140	150	1030
275	135	185	1280	155	1070	145	1000
300	149	175	1210	145	1000	140	970
325	163	165	1140	135	930	135	930
350	177	160	1100	130	900	125	860
375	191	150	1030	120	830	120	830

Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
40BJ	¼" - 4"	Steel	Iron	Threaded
41J	1 ½" - 4"	Steel	Iron	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves		¼ (6)	¾ (10)	½ (15)	¾ (20)	1 (25)	1 ¼ (32)	1 ½ (40)	2 (50)	2 ½ (65)	3 (80)	4 (100)
40BJ	A	3.00 (76)	3.00 (76)	2.06 (52)	2.32 (59)	2.56 (65)	2.87 (73)	3.15 (80)	3.62 (92)	4.13 (105)	4.57 (116)	5.55 (141)
41J	A	- (-)	- (-)	- (-)	- (-)	3.19 (81)	- (-)	3.74 (95)	4.25 (108)	4.92 (125)	5.08 (129)	6.77 (172)
All	B	5.08 (129)	5.08 (129)	5.08 (129)	6.18 (157)	7.40 (188)	8.90 (226)	9.96 (253)	11.61 (295)	12.91 (328)	15.35 (390)	19.76 (502)
All	C	2.06 (52)	2.06 (52)	2.06 (52)	2.56 (65)	2.76 (70)	3.06 (78)	3.62 (92)	4.06 (103)	4.76 (121)	5.98 (152)	9.02 (229)
40BJ	Wt.	1.4 (0.64)	1.4 (0.64)	1.86 (.84)	2.40 (1.09)	3.50 (1.59)	5.80 (2.63)	7.00 (3.17)	11.20 (5.08)	19.20 (8.71)	23.10 (10.47)	52.10 (23.61)
41J	Wt.	- (-)	- (-)	- (-)	- (-)	5.50 (2.49)	- (-)	10.40 (4.71)	14.30 (6.48)	22.00 (9.97)	32.0 (14.5)	60.0 (27.19)

Iron Body Gate Valve

Figure 203J (203J)

Class 250 • Bolted Bonnet • Non-Rising Stem • Bronze Trim

Features

- Renewable Bronze Seat Rings
- Non-Asbestos Packing & Gaskets
- Solid Wedge Disc
- Valves can be equipped with by-passes when specified
- Valves 6" and larger have bosses cast into the bodies and bonnets, and can be equipped with taps and drains to prevent fluids from accumulating and possibly causing damage. Orders must specify location of taps and drains.
- MSS SP-25, MSS SP-70, ASME B16.10, ASME B16.1

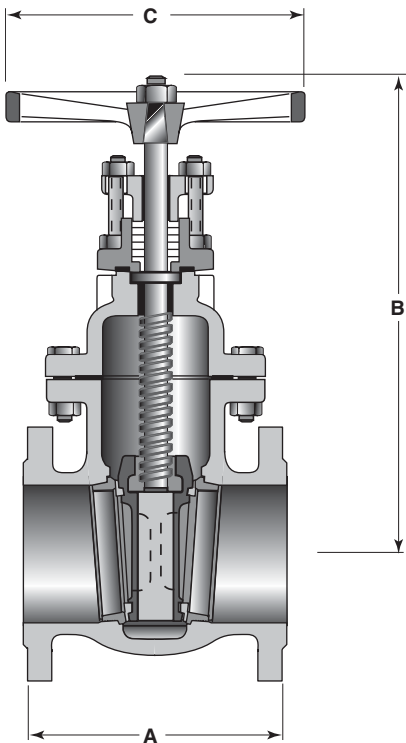
For more detailed features, refer to Page 7.

Figure 203J

Flanged with Bronze Trim

Size Range:
2 through 12 inches

Working Pressures Non-Shock
250 psi Steam, Basic Rating
500 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating
203J	2" - 12"	Bronze	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)
A	8.50 (216)	9.50 (241)	11.12 (282)	12.00 (305)	15.88 (403)	16.50 (419)	18.00 (457)	19.75 (502)
B	11.94 (303)	12.94 (329)	14.50 (368)	17.38 (441)	23.00 (584)	30.75 (781)	38.25 (914)	42.12 (1010)
C	8.00 (203)	8.00 (203)	10.00 (254)	12.00 (305)	16.00 (406)	20.00 (508)	22.00 (559)	24.00 (610)
Wt.	47 (21)	84 (39)	113 (51)	175 (79)	335 (151)	545 (246)	854 (387)	1250 (567)

Class 250 • Bolted Bonnet • OS&Y • Bronze Trim

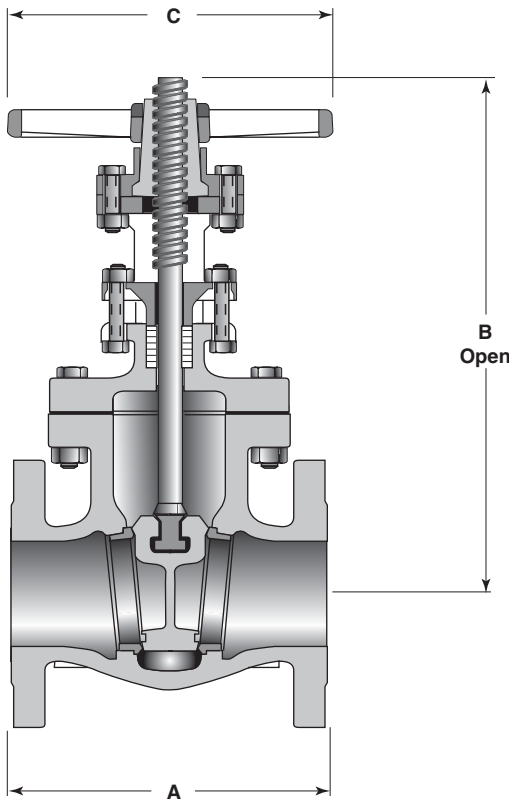


Figure 204J

Flanged with Bronze Trim

Size Range:

2 through 12 inches

Working Pressures Non-Shock

250 psi Steam, Basic Rating

500 psi Cold Working Pressure

Features

- Solid Wedge Disc
- Non Asbestos Packing and Gaskets
- Manganese Bronze Stem
- Renewable Bronze Seat Rings
- ACME Double Stem Threads
- Valves can be equipped with by-passes when specified.
- Valves 6" and larger have bosses cast into the bodies and bonnets, and can be equipped with taps and drains to prevent fluids from accumulating and possibly causing damage. Orders must specify location of taps and drains.
- MSS SP-25, MSS SP-70, ASME B16.10, ASME B16.1

For more detailed features, refer to Page 7.

Principal Parts & Materials

Fig. No.	Size	Stem	Seating
204J	2" - 12"	Bronze	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)
A	8.50 (216)	9.50 (241)	11.12 (282)	12.00 (305)	15.00 (381)	15.88 (403)	16.50 (419)	18.00 (457)	19.75 (502)
B	15.06 (382)	16.69 (424)	18.75 (476)	23.44 (595)	24.00 (609)	31.75 (806)	39.88 (1012)	41.75 (1060)	47.00 (1193)
C	8.00 (203)	8.00 (203)	10.00 (254)	12.00 (305)	14.00 (356)	16.00 (406)	18.00 (457)	22.00 (559)	24.00 (610)
Wt.	54 (24)	80 (36)	114 (52)	174 (79)	280 (127)	332 (152)	600 (270)	920 (417)	1400 (635)

Iron Globe and Angle Valve Features

Iron Globe and Angle Valve Features

Jenkins globe and angle valves are highly efficient for throttling service because disc and seat designs provide flow characteristics with proportionate relationships between valve lift and flow rate. This assures accurate regulated flow control. The additional advantage of an angle valve is that it provides a 90° turn in piping so fewer joints are required and make-up time and labor are reduced.

Body and Bonnet are cast with rigorous control to ASTM A126 Class B Specification for cast-iron.

Bolted Bonnet is used because there is practically no limitation on size. Multiple bolting permits equalized sealing pressure on the gasket against the highest pressures encountered in iron globe and angle valve applications.

Disc is fully guided throughout its travel, minimizing vibration of internal parts and assuring true seating. The disc stem connection is designed to securely hold the disc yet permit swivel action. Disc materials are bronze or iron faced with bronze.

Seats are screwed in and can be reground or replaced whenever necessary.

Stem material is matched to service recommendations for improved operating dependability and life.

Packing is non-asbestos rings.

Backseating: Rising stem valves are equipped with backseats. It is recommended that the backseat be used as a means for determining the full open valve position. For normal operation in the open position, the stem should be backed off so that the backseat is not in contact. This permits the stem packing to assume its intended sealing function and not conceal unsatisfactory stem packing. In the event of stem packing leakage, the backseat can be used to stop stem leakage until circumstances permit a system shutdown and time for packing replacement. Stem packing replacement with the valve under pressure and back-seated represents a hazard and should not be undertaken. The hazard is magnified as fluid pressure or temperature increases or when the fluid is toxic.

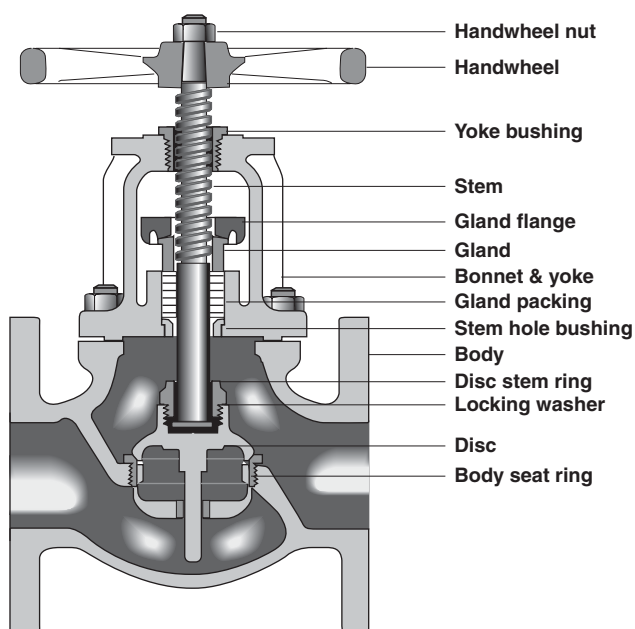
Handwheels are furnished on all valves. Manual gear, hydraulic or motor operators and chainwheels can be supplied when specified.

Face-to-Face Dimensions of flanged end valves conform to ASME B16.10 in their pressure class.

All Valves are clearly identified and marked to MSS SP-25 Specification.

Flanged End Valves adhere to ASME B16.1 for their pressure classes.

Each valve in this section is identified by its pressure rating. All valves designated as Class 125 and 250 comply with MSS SP-85 Standard Practice.



Class 125 • Bolted Bonnet • OS&Y • Bronze Trim

Figure 2342J

Flanged with Bronze Trim

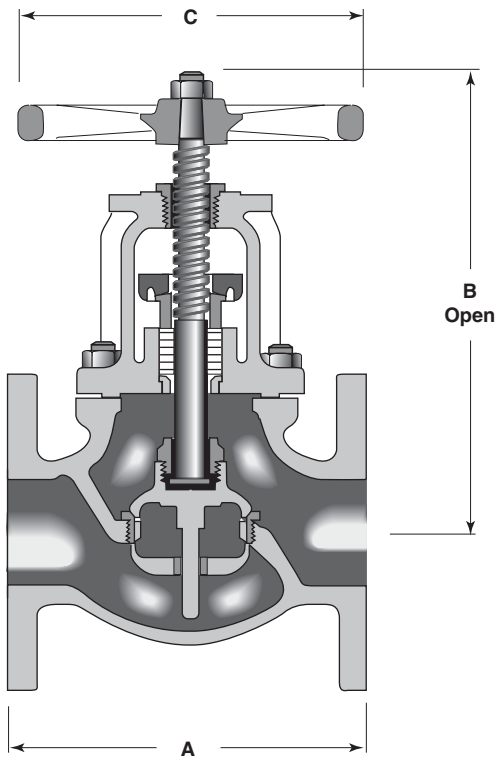
Size Range:

2 through 10 inches

Working Pressures Non-Shock

125 psi Steam, Basic Rating

200 psi Cold Working Pressure



Features

- Integral Yoke Bonnet with upper bronze bushing provides for centering of internal parts
- Non Galling Two-Piece Packing Gland
- Valves are provided with a Back Seat
- Renewable - Re grindable Screwed-in Seat Ring
- Bottom Guided Disc
- Manganese Bronze Stem
- Non-Asbestos Packing & Gasket
- Solid Bronze Disc 6" and smaller

For more detailed features, refer to Page 17.

Principal Parts & Materials

Fig. No.	Size	Stem	Seating
2342J	2" - 10"	Bronze	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)
A	8.00 (203)	8.50 (216)	9.50 (241)	11.50 (292)	13.00 (330)	14.00 (356)	19.50 (495)	24.50 (622)
B	11.12 (282)	11.50 (292)	13.25 (337)	15.50 (394)	17.50 (445)	19.50 (495)	25.00 (635)	30.50 (775)
C	8.00 (203)	8.00 (203)	9.00 (229)	10.00 (254)	10.00 (254)	12.00 (305)	16.00 (406)	18.00 (457)
Wt.	34 (15)	40 (18)	57 (26)	95 (43)	126 (57)	176 (80)	344 (156)	570 (259)

Iron Body Angle Valve

Figure 2344J (615J)

Class 125 • Bolted Bonnet • OS&Y • Bronze Trim

Features

- Integral Yoke Bonnet with upper bronze bushing provides for centering of internal parts
- Non Galling Two-Piece Packing Gland
- Valves are provided with a Back Seat
- Renewable - Re grindable Screwed-in Seat Ring
- Bottom Guided Disc
- Manganese Bronze Stem
- Non-Asbestos Packing & Gasket
- Solid Bronze Disc 6" and smaller

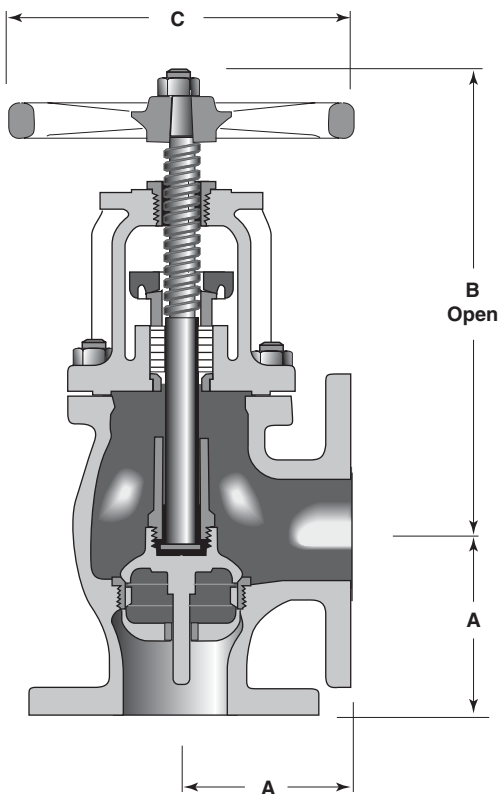
For more detailed features, refer to Page 17.

Figure 2344J

Size Range:
2 through 6 inches

Working Pressures Non-Shock

125 psi Steam, Basic Rating
200 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating
2344J	2" - 6"	Bronze	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	6 (150)
A	4.00 (102)	4.25 (108)	4.75 (121)	5.75 (146)	7.00 (178)
B	11.00 (279)	11.50 (292)	12.75 (324)	15.00 (381)	19.50 (495)
C	8.00 (203)	8.00 (203)	9.00 (229)	10.00 (254)	12.00 (305)
Wt.	32 (15)	38 (17)	54 (25)	88 (40)	158 (72)

Class 250 • Bolted Bonnet • OS&Y • Bronze Trim

Figure 162J

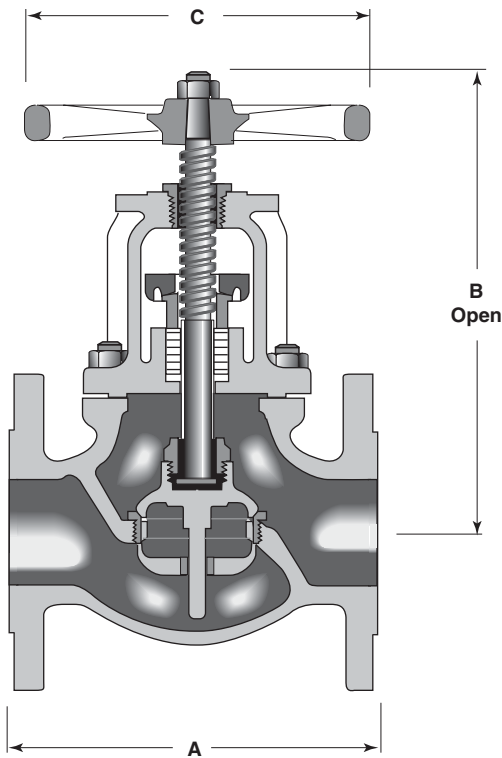
Size Range:

2 through 8 inches

Working Pressures Non-Shock

250 psi Steam, Basic Rating

500 psi Cold Working Pressure



Features

- Bronze Seat Ring, ASTM B61
- Disc Stem Ring
- Manganese Bronze Stem
- Non-Asbestos Packing and Gasket
- Valves are provided with a Back Seat
- Renewable - Re grindable, Screwed-in Seat Ring
- Bottom Guided Disc

For more detailed features, refer to Page 17.

Principal Parts & Materials

Fig. No.	Size	Stem	Seating
162J	2" - 8"	Bronze	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	6 (150)	8 (200)
A	10.50 (267)	11.50 (292)	12.50 (318)	14.00 (356)	17.50 (445)	21.00 (533)
B	13.75 (349)	14.75 (375)	16.50 (419)	18.50 (470)	23.25 (591)	28.50 (724)
C	9.00 (229)	10.00 (254)	10.00 (254)	12.00 (305)	16.00 (406)	20.00 (508)
Wt.	62 (28)	82 (37)	118 (54)	167 (76)	320 (145)	570 (259)

Iron Swing Check Valve Features

Iron Swing Check Valve Features

Check valves permit flow in one direction only and close automatically when flow reverses. They are entirely automatic in action, depending upon differential pressure and velocity of flow within the line to perform their functions of opening and closing.

The disc and any associated moving parts may be in a constant state of movement if the velocity pressure is not sufficient to hold the disc in a wide open and stable position. Premature wear and noisy operation or vibration can be avoided by selecting the size of the check valve on the basis of flow conditions rather than selecting the check valve according to the size of the pipeline.

Below are three formulae that can be used to determine the minimum velocity necessary to hold a check valve in a wide open and stable position. μ is equal to flow in feet per second and v is the specific volume of the fluid in cubic feet per pound.

$$\text{Threaded } \mu = 35 \sqrt{v}$$

$$\text{Flanged } \mu = 60 \sqrt{v}$$

Sizing check valves on this basis may often result in the use of valves that are smaller than the pipe in which they are used, necessitating the use of reducers for installation. The pressure drop will be no greater than that of a larger valve that is partially open. Valve life will be greatly extended, and the added bonus, of course, is the lower cost of the smaller valves.

Each valve in this section is classified by its pressure rating. All valves designated as Class 125 and 250 comply with MSS SP-71 Standard Practice.

Swing Check Valves with straight-through body design and wide hinge support provide turbulence-free flow and accurate seating. There is no tendency for seating surfaces to gall or score because the disc meets the flat seat squarely without rubbing. When faster reaction to flow reversal is necessary, certain valves can be equipped with an outside lever and weight.

Jenkins Iron Check Valves have an identification tag which indicates the valve catalog number and other pertinent data. It provides easy and accurate field reference.

Features

Threaded Ends in accordance with ASME B1.20.1.

Flanged Valves conform to applicable requirements of ASME B16.10 in sizes 2" through 24". End flanges on valves conform to applicable requirements of B16.1 for classes 125 and 250.

Bronze Trim Valves are for steam, water, non-corrosive oil and gas and other fluids that do not corrode bronze.

All Iron Valves are for gases, oils and other fluids not corrosive to iron.

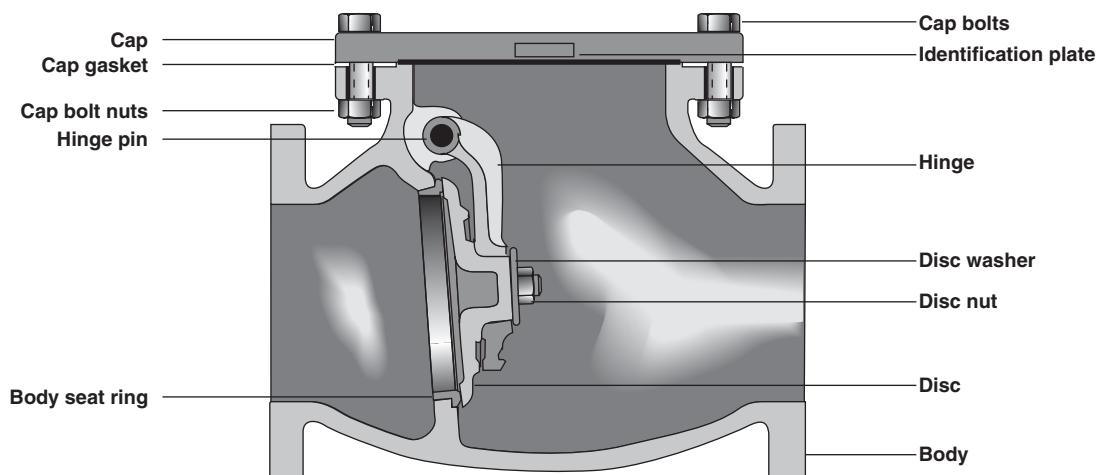
Valves May Be Installed in horizontal or vertical pipe lines. In vertical lines, or any angle from horizontal, they can be used for upward flow only.

Bronze Trim Valves - The disc is solid bronze in sizes 6" and smaller and bronze-faced in larger sizes, all have replaceable bronze seat rings. Hinge-pins are brass/stainless steel and replaceable. Hinges are solid bronze in sizes 6" and smaller and ductile iron in larger sizes.

All-Iron Trim Valves - The disc is solid iron with integral seat face. Body seat faces are integral with the body 8" and smaller, and, replaceable iron seat rings in larger sizes. Hinge pins are stainless steel and replaceable. Hinges are ductile iron.

Large Bolted-On Cover provides easy access to interior for routine maintenance.

Non-Asbestos Gaskets and Packings.



Figures 477LJ (477LJ) 588J (623J) 587J (624J)

Iron Body Swing Check

Class 125 • Bolted Cap • Bronze Trim

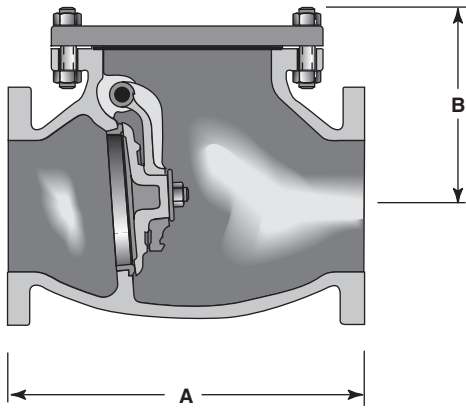


Figure 477LJ

Flanged outside lever and weight with bronze trim

Size Range:

2 through 24 inches

Figure 588J

Threaded with Bronze Trim

Size Range:

2 through 4 inches

Figure 587J

Flanged with Bronze Trim

Size Range:

2 through 24 inches

Figures 477LJ, 588J, 587J

Working Pressures Non-Shock 2"-12"

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

14"-24"

100 psi Steam, Basic Rating

150 psi Cold Working Pressure

Features

- Design prohibits galling or scoring of seating surfaces because the disc meets the flat seat squarely on closing with no rubbing action
- Replaceable Bronze Seat Rings
- Bronze Hinges in 6" and smaller, ductile iron in larger sizes
- Large Bolted-on Cover
- Fig. 447LJ with outside lever and weight is recommended where quick action is necessary to avoid sudden reversal of flow. Weight can be installed to balance the disc when applications require that it open under minimum pressure. Positioning and setting of lever and weight are easily accomplished in the field. Lever can be rotated through 360° and is adjustable in 15° increments. Valves may be installed in horizontal or vertical pipe lines. Basic design of Fig. 447LJ is identical to fig. 587J.

For more detailed features, refer to Page 21.

Principal Parts & Materials

Fig. No.	Size	Stem	Seating
477LJ	2" - 24"	Flanged	Bronze
588J	2" - 4"	Threaded	Bronze
587J	2" - 24"	Flanged	Bronze

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

588J	2 (50)	2 ½ (65)	3 (80)	4 (100)	477LJ	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)
A	6.12 (155)	7.25 (184)	8.00 (203)	9.25 (235)	A	8.00 (203)	8.50 (216)	9.50 (241)	11.50 (292)	13.00 (330)	14.00 (356)	19.50 (495)	24.50 (622)	27.50 (699)	31.00 (787)	36.00 (914)	36.00 (914)	42.00 (1067)	46.00 (1169)
B	4.50 (114)	5.38 (137)	5.88 (149)	6.62 (168)	B	4.50 (114)	5.38 (137)	5.88 (149)	6.62 (168)	7.75 (197)	8.25 (210)	10.25 (260)	12.00 (300)	13.75 (350)	15.50 (393)	17.63 (447)	19.25 (610)	19.50 (495)	20.50 (521)
Wt.	18 (8)	22 (10)	29 (13)	54 (25)	Wt.	25 (11)	34 (15)	44 (20)	74 (33)	103 (47)	127 (58)	230 (104)	440 (200)	660 (300)	794 (360)	1020 (462)	1304 (591)	2530 (1149)	3366 (1529)
Wt.	Add for lever & weight				Wt.	5 (3)	6 (3)	10 (5)	10 (5)	N/A (5)	10 (5)	10 (5)	35 (16)	50 (23)	Data on larger sizes available on request				

Iron Body Swing Check

Figure 590J (85J)

Class 125 • Bolted Cap • All Iron

Features

- Design prohibits galling or scoring of seating surfaces because the disc meets the flat seat squarely on closing with no rubbing action.
- Large Bolted On Cover

For more detailed features, refer to Page 21.

Figure 590J

Flanged, All Iron

Size Range:

2 through 24 inches

Figure 590J

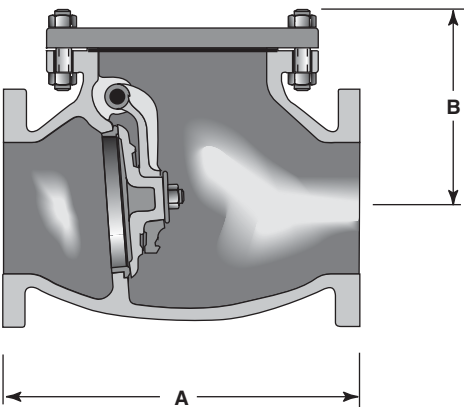
Working Pressures Non-Shock

2"-12"

200 psi Cold Working Pressure

14"-24"

100 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating
590J	2" - 24"	Flanged	All iron

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

590J	2 (50)	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)
A	8.00 (203)	8.50 (216)	9.50 (241)	11.50 (292)	13.00 (330)	14.00 (356)	19.50 (495)	24.50 (622)	27.50 (699)	31.00 (787)	36.00 (914)	36.00 (914)	42.00 (1067)	46.00 (1169)
B	4.50 (114)	5.38 (137)	5.88 (149)	6.62 (168)	7.75 (197)	8.25 (210)	10.25 (260)	12.00 (304)	13.75 (349)	15.75 (400)	17.00 (432)	17.40 (442)	19.50 (495)	20.50 (521)
Wt.	25 (11)	30 (13)	42 (19)	74 (33)	100 (45)	125 (56)	230 (104)	440 (199)	660 (299)	875 (397)	1410 (641)	1901 (864)	2530 (1149)	3366 (1529)
Wt.	30 (14)	40 (18)	54 (24)	85 (38)	N/A N/A	137 (62)	240 (108)	460 (208)	700 (317)	Data on larger sizes available on request				

Class 250 • Bolted Cap • Bronze Trim

Figure 339RJ

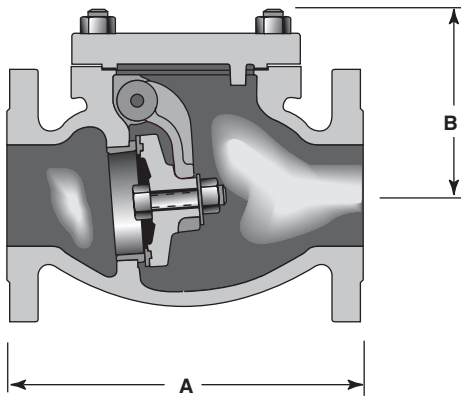
Size Range:

2 through 8 inches

Working Pressures Non-Shock

250 psi Steam, Basic Rating

500 psi Cold Working Pressure



Features

- For steam, water, oil, gas and similar high pressure-temperature conditions which do not warrant steel valves. Valves can be installed horizontally, or vertically for upward flow.
- Body and cap are high-strength cast iron conforming to ASTM A126, Class B.
- Disc is solid bronze in sizes 3" and smaller and iron faced with bronze in larger sizes. Body seat ring is screwed-in bronze.
- Disc moves freely for maximum flow with minimum pressure drop. A disc stop, integral with the cap, prohibits the disc from sticking open when flow is reversed.

For more detailed features, refer to Page 21.

Principal Parts & Materials

Fig. No.	Size	End Conn.	Seating	Body
339RJ	2" -8"	Flanged	Bronze	Iron

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 ½ (65)	3 (80)	4 (100)	6 (150)	8 (200)
A	10.50 (267)	11.50 (292)	12.50 (318)	14.00 (356)	17.50 (445)	21.00 (533)
B	5.25 (133)	6.00 (152)	6.25 (159)	7.25 (184)	9.00 (229)	11.00 (279)
Wt.	46 (21)	64 (29)	90 (41)	133 (60)	250 (113)	410 (185)

Iron Body Stop Check

**Figures 540J (540J)
541J (541J)**

Class 250 • Bolted Bonnet • OS&Y • Bronze Trim

Features

- For installation between boilers supplying the same steam header, and positioned with pressure under the disc. Straightway is for horizontal or vertical line with upward flow. Angle valves are for "horizontal-downward" or "upward-horizontal" flow.
- These valves will perform the four following important functions:
 1. Act as an automatic-non return valve applied as a containment device to prevent gross backflow of steam from main header to boiler in case the boiler fails.
 2. Assist in cutting out boiler, when ceasing to fire. In this case, valve disc automatically closes to restrict backflow of steam to the boiler.
 3. Assist in returning boiler after a shutdown.
 4. Restricts backflow of steam from header into boiler which has been shut down and accidentally opened. The check valve feature should not be relied upon for primary shut-off.
- Cylindrical shaped disc is the only pressure-actuated part, light in weight with ample guiding surface. It is specially designed to produce a maximum lift at minimum velocities. There are no wing guides to cause "spinning" with resultant rapid wear.
- Long throttling lip on disc retards flow when seating position is approached. Disc chattering is prevented and wiredrawing of seating surfaces is reduced.
- Flat Seats, accurately machined, facilitate true seating.
- Removable cast iron liner guides the disc throughout its full travel. Being entirely independent of the body, it is not subject to distortion by expansion strains.
- Piston Ring 6" and larger adds to dashpot's

Figure 540J

Flanged, Y-Pattern with Bolted Bonnet Straightway

Size Range:

2-½ through 10 inches

Figure 541J

Flanged, Y-Pattern with Bolted Bonnet Angle

Size Range:

2-½ through 10 inches

Working Pressures Non-Shock

250 psi Steam, Basic Rating

500 Cold Working Pressure

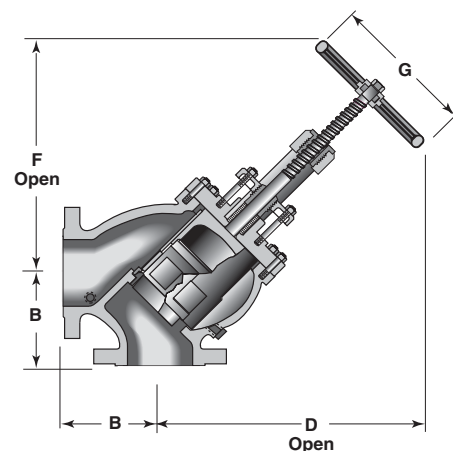


Figure 541J

ability to avoid rapid disc movements. Where pulsations are extremely severe, two rings can be installed.

- Dashpot is self-contained in the liner. It provides an effective cushion for the disc to prevent pipe line vibrations or hammering on the seat at low velocities or on pulsating loads.
- Flanges conform to ASME B16.1. Flanges have 1/16" raised face with concentric grooves.
- The body has integral bosses for drain connections. The bosses are tapped and plugged.
- Determining the proper valve size needed is important. The size of a stop check valve should be based on the boiler capacity and steam flow through the valve, rather than on the size of the boiler outlet or existing piping.

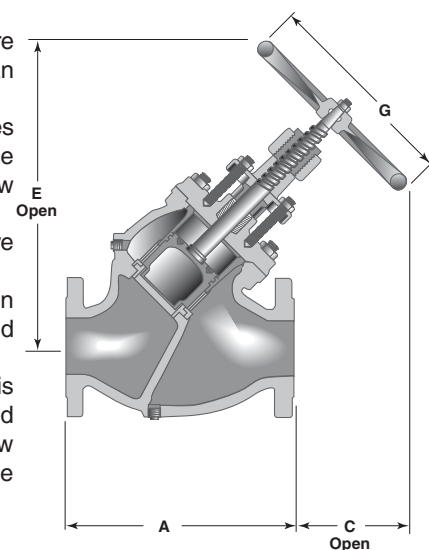


Figure 540J

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

541J	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	540J	2 ½ (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)
B	5.75 (146)	6.25 (159)	7.00 (178)	7.88 (200)	8.75 (222)	10.50 (267)	12.25 (311)	A	13.00 (330)	14.75 (375)	17.00 (432)	19.00 (483)	21.50 (546)	26.00 (660)	30.00 (762)
D*	14.50 (368)	16.50 (419)	18.50 (470)	22.00 (559)	25.50 (648)	33.25 (845)	37.75 (959)	C*	5.00 (127)	7.25 (184)	7.75 (197)	10.50 (267)	11.75 (298)	16.25 (413)	17.75 (451)
F*	13.25 (337)	14.75 (375)	16.25 (413)	19.50 (495)	22.50 (572)	28.75 (730)	32.50 (826)	E*	15.75 (400)	19.75 (502)	21.75 (552)	25.75 (654)	29.25 (743)	36.75 (933)	41.75 (1060)
G	9.00 (229)	10.00 (254)	10.00 (254)	14.00 (356)	16.00 (406)	20.00 (508)	20.00 (508)	G	9.00 (229)	10.00 (254)	10.00 (254)	14.00 (356)	16.00 (406)	20.00 (508)	20.00 (508)
Wt.	86 (39)	123 (56)	186 (84)	250 (113)	340 (154)	640 (291)	1025 (465)	Wt.	103 (47)	140 (64)	226 (103)	307 (139)	420 (191)	737 (335)	1250 (568)

* Valve Open

Bolted Bonnet Stop Check Valve

Technical Data

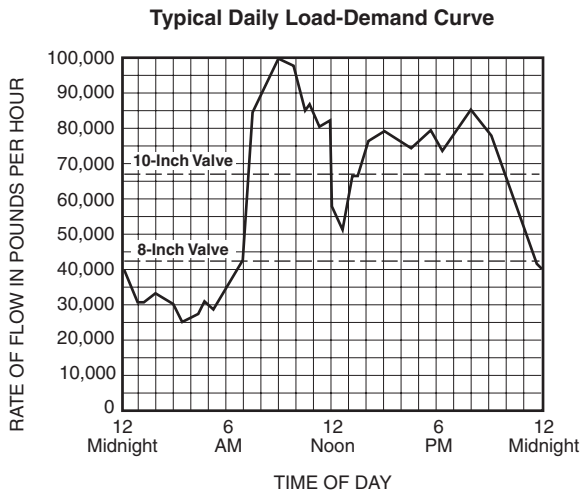
Selecting the Proper Size – Determining Pressure Drop

Since stop-check valves have a floating disc member, it is important the valve be sized to provide full disc lift under flow conditions prevailing during the major portion of the service life. If the valve is too large, the disc will float in a partially open position and may cause fluttering of the disc and rapid wear. Conversely, if the valve is too small, pressure drop will be excessive.

The chart on the following page is a graphic presentation of flow data determined by test. Its use offers a simple method of determining the best size stop-check valve, as well as the pressure drop under varying conditions of flow, without any computation.

How to Use the Chart Shown on the Following Page

Given: Steam Pressure-Temperature...250 psig 450°F
Flow Rate...Typical Daily Demand Curve



Find: Valve Catalog No. and the best size for above installation.

Solution:

1. Enter the Temperature chart at 450°F. Move vertically upward to the curved line for 250 psi, then horizontally to the right to establish a point on the specific volume scale. From this point, draw a line through the flow rate being investigated (100,000 Lb/H) and establish a point on Index 1.

2. From that point, draw another line through the valve size, for example the 8-inch size, and establish a point on Index 2. Now move horizontally to the diagonal pressure drop line on the right side. Where these lines intersect, the pressure drop is 7.5 psi for the 8-inch, Class 250 globe valve and 8.5 psi for the 8-inch Class 250 angle valve.

Chart solutions resulting in a point on Index 2 that falls below the Line A-A for Class 250 valves indicate the disc will not be fully lifted under the flow conditions used. Operation under such conditions is not recommended but, at times, must be tolerated for short periods during the low loads.

3. Enter the chart where Line A-A intersects Index 2 for Class 250 valves. Move diagonally upward through the size being investigated (8-inch) and establish a second point on Index 1. From this point, extend a line to the specific volume established in Step 1 and at its intersection with the flow rate line, read 48,000 Lb/H as the minimum flow rate at which the disc will be in the fully lifted position. The pressure drop at this flow rate is 1.9 psi for globe and 2.1 psi for angle valves.

4. Repeat Steps 2 and 3 for other possible valve sizes, tabulate results, and make size selection on basis of pressure drop and duration of partial disc lift considerations.

Valve Size (Inches)	Press drop @ Max.Min. Flow rate (100,000 #/Hr.), psi		Flow Rate for Wide open valve #/Hr.
	Globe	Angle	
6	20.5	22.5	26,500
8	7.5	8.5	48,000
10	3.3	3.6	68,000

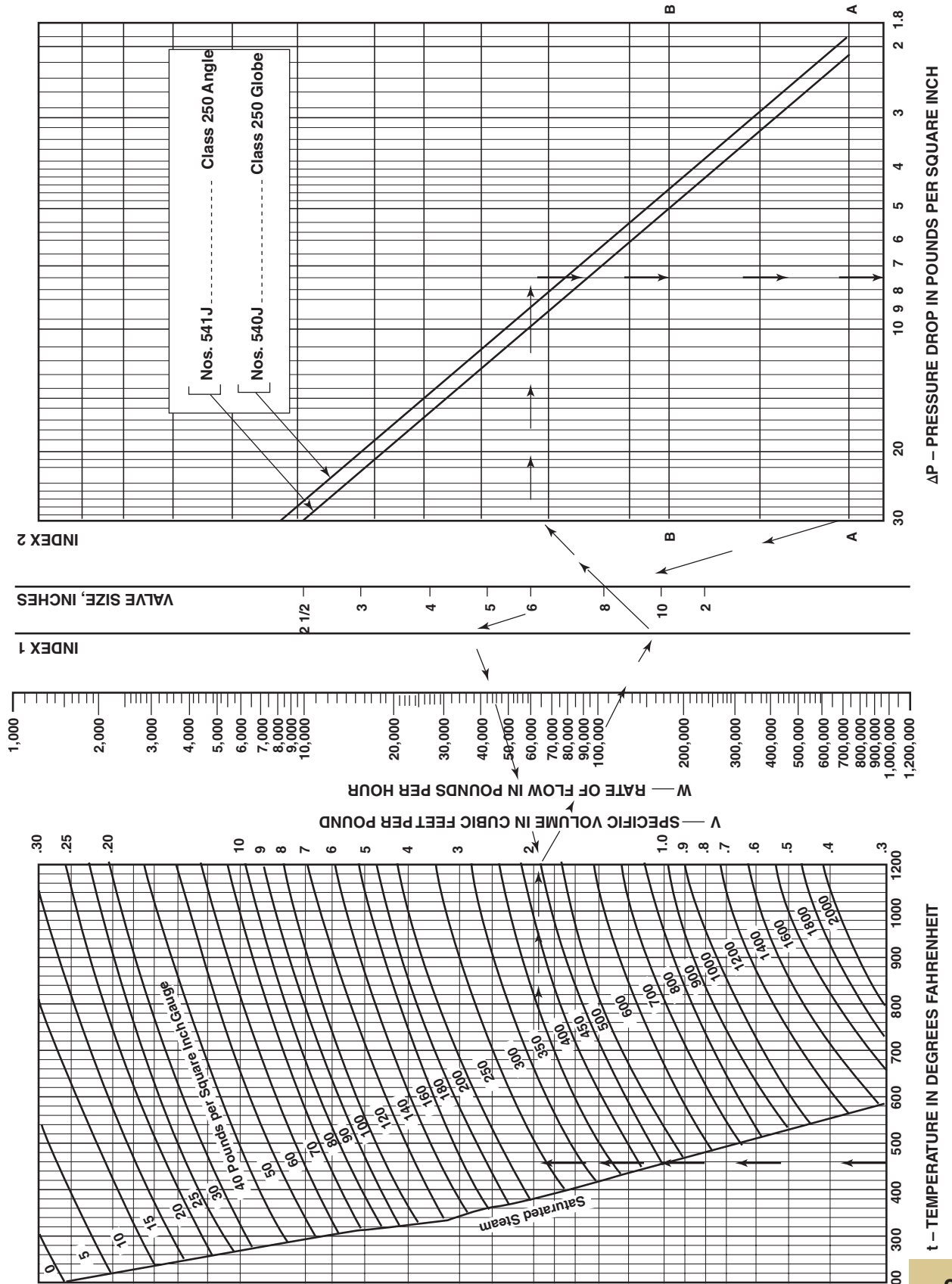
Dotted lines on Demand Curve indicate minimum flow rates for wide open 8" and 10" valves.

5. The best choice for this example would be the 10" size because pressure drop is much lower and duration of partially lifted disc is only slightly greater than for the 8" size.

6. Pressure drop for any intermediate flow condition can be determined as outlined in Steps 1 and 2.

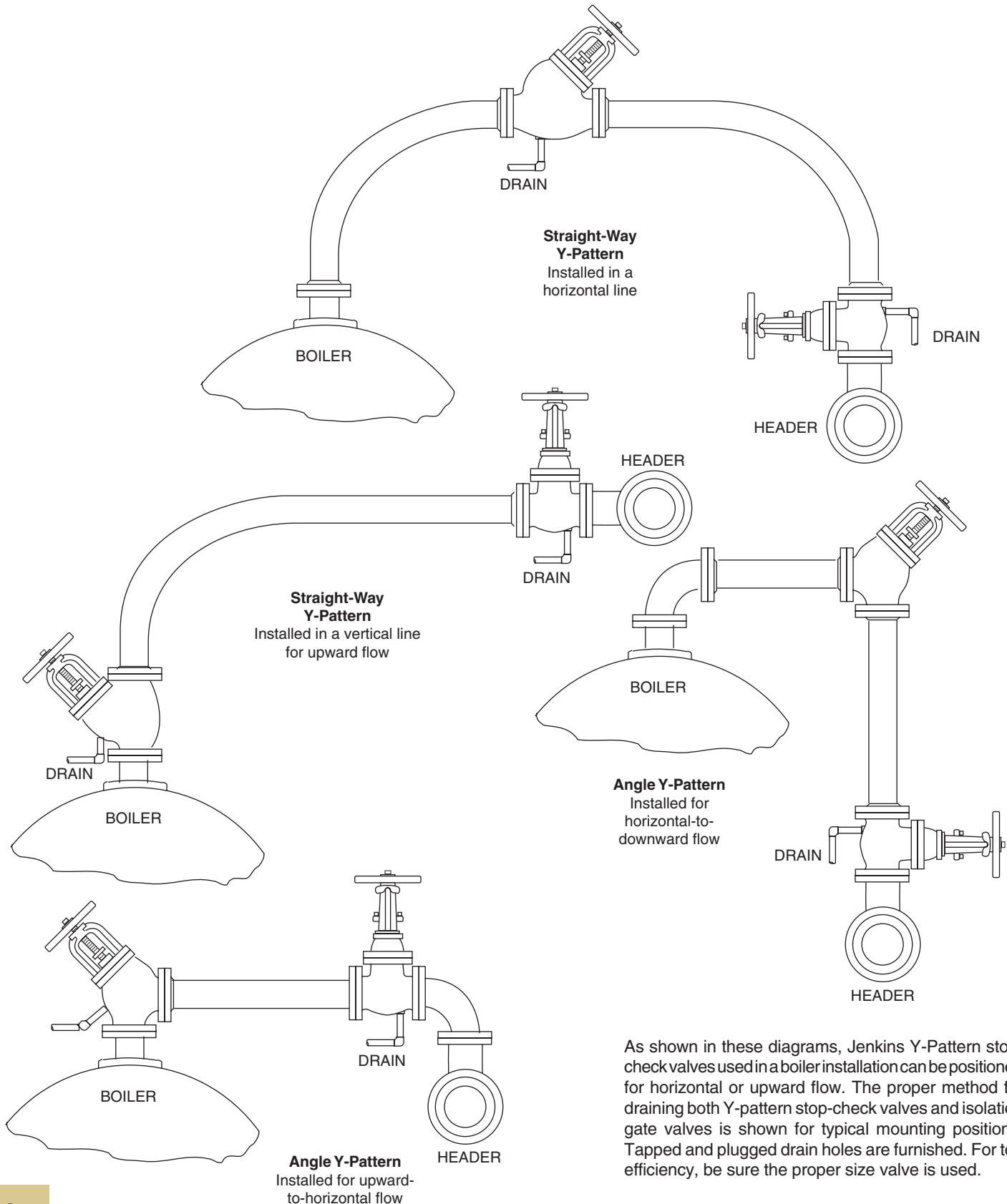
Technical Data

Jenkins Bolted Bonnet Stop-Check Valves Selecting the Proper Size – Determining Pressure Drop



Installation Recommendations

Y-Pattern Stop-Check and Isolation Gate Valves





Notes



Iron Valves

Notes

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