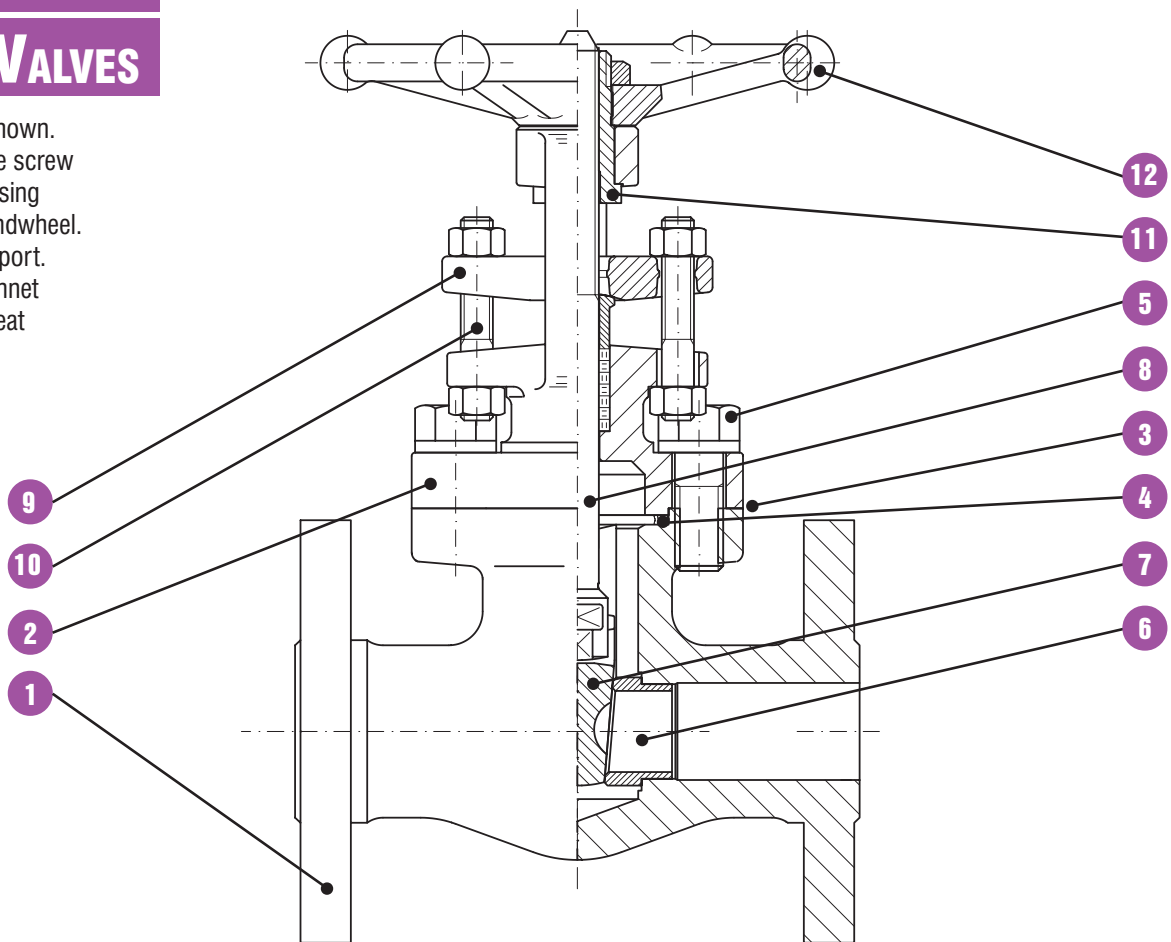

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INTEGRAL FLANGED VALVES



INTEGRAL FLANGED VALVES

Typical gate valve shown.
 Forged steel, outside screw
 and yoke (OS&Y), rising
 stem, non-rising handwheel.
 Full or conventional port.
 Bolted or welded bonnet
 joint. Integral backseat
 Integral end flanges.



- 1. BODY.** The body is forged steel and designed to the basic dimensional requirements of the applicable specifications such as API 602, ASME B16.34, ASME B16.10 and ASME B16.5. The body is available in both the full or conventional port design. End flanges are forged integral with the body.
- 2. BONNET.** The bonnet is forged steel, has an integral backseat and incorporates the stuffing box, which has dimensions per the applicable specifications such as API 602.
- 3. BODY-BONNET JOINT.** Two different bonnet joint designs are available. These are either the bolted bonnet or the threaded and seal welded type.
- 4. GASKET.** The bolted bonnet joint design valve uses a contained, controlled compression, spiral wound type gasket.
- 5. BONNET BOLTING.** The bonnet bolting is manufactured of alloy steel in accordance with the requirements of the applicable specifications such as API 602 and ASME B16.34.
- 6. SEAT RINGS.** The seat rings are steel and make up part of the valve trim. They are pressed into the valve body and wedged into place, forming a seal with the body. The seating surfaces are ground and lapped.
- 7. WEDGE.** The wedge, which is a solid design, is forged or investment cast steel and is part of the valve trim. The seating surfaces are ground and lapped.
- 8. STEM.** The stem is forged steel and part of the valve trim. It contains an integral back seat shoulder, which mates with the integral backseat of the bonnet. The stem is designed to the basic dimensional requirements of the applicable specifications such as API 602.
- 9. GLAND AND FLANGE.** The gland, gland flange assembly utilizes a separate, two piece design. This self aligning design allows the flange to be unevenly tightened while the gland maintains its parallel alignment with the stem and stuffing box.
- 10. GLAND BOLTS AND NUTS.** The steel/stainless steel gland bolt and nut assembly is a stud, double nut arrangement. This design allows complete removal from the valve when service is required. The use of industry standard thread full length studs and nuts also allows easy replacement should these items be lost or in need of replacement.
- 11. YOKE SLEEVE.** The yoke sleeve is of forged stainless steel material having a high melting point and is resistant to wear and corrosion.
- 12. HANDWHEEL.** The handwheel is forged carbon steel of an open spoke design. This robust construction along with appropriate sizing allows for ease of operation.

INTEGRAL FLANGED VALVES- GATE TYPE- BOLTED BONNET- FULL & REDUCED PORT

150 LB.

300 LB.

Design construction:

API 602 - ASME B16.34 - BS 5352

Testing according to API 598

Marking MSS SP25

Outside Screw and Yoke (OS&Y)

Self aligning two piece packing gland

Spiral-wound gasket

Integral backseat

Integral body flanges

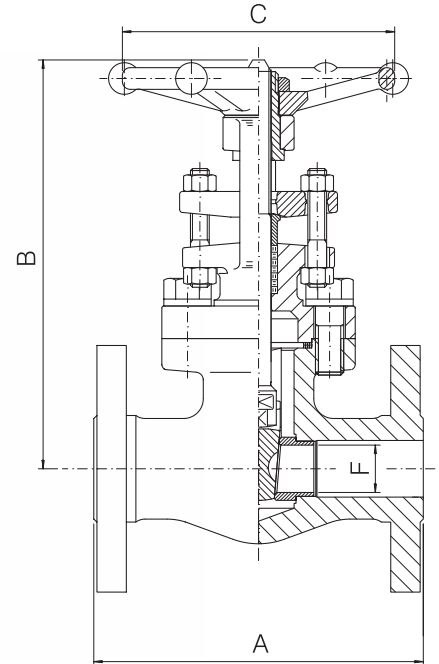
Face to face according to ASME B16.10

Flanges according to ASME B16.5

Ratings:

-carbon steel class 150 285 psig@ 100°F
20 bar + 38°C

-carbon steel class 300 740 psig@ 100°F
51 bar + 38°C



150 LB.							
FULL PORT – FIG. 1 10							
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50	
A	inch mm	4.25 108	4.62 117,5	5 127	6.50 165	7 178	
B open	inch mm	6.88 175	8.26 210	9.05 230	11.41 290	13.39 340	
C	inch mm	3.46 88	3.82 97	5.43 138	5.43 138	6.77 172	
F	inch mm	.55 14	.71 18	.94 24	1.44 36,6	1.89 48	
Weight	lb. kg	7 3,2	10.25 4,7	13.25 6,1	25 11,4	39.5 18	
PACKING		BH2	BH4	BH5	BY5	BY7	
GASKET		G2	G3	G4	G7	G8	

150 LB.							
REDUCED PORT – FIG. L1 10							
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50	3 75
A	inch mm	4.25 108	4.62 117,5	5 127	6.50 165	7 178	8 203
B open	inch mm	6.88 175	7.16 182	8.35 212	10.04 255	11.41 290	13.58 345
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138	6.77 172
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	1.44 36,6	1.89 48
Weight	lb. kg	6.25 2,9	8 3,7	11.25 5,2	21 9,6	29 13,2	46.75 21,2
PACKING		BH2	BH2	BH4	BH6	BY5	BH8
GASKET		G2	G2	G3	G5	G7	G8

300 LB.							
FULL PORT – FIG. 3 10							
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50	
A	inch mm	5.51 140	6 152,5	6.50 165	7.51 191	8.50 216	
B open	inch mm	6.89 175	8.26 210	9.05 230	11.42 290	13.39 340	
C	inch mm	3.46 88	3.82 97	5.43 138	5.43 138	6.77 172	
F	inch mm	.55 14	.71 18	.94 24	1.44 36,6	1.89 48	
Weight	lb. kg	8.25 3,8	12.25 5,6	15.5 7,1	29.75 13,5	41.75 19	
PACKING		BH2	BH4	BH5	BY5	BY7	
GASKET		G2	G3	G4	G7	G8	

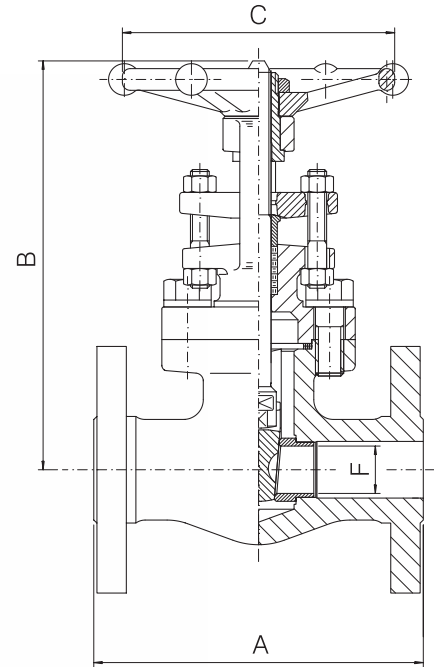
300 LB.							
REDUCED PORT – FIG. L3 10							
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50	
A	inch mm	5.51 140	6 152,5	6.50 165	7.51 191	8.5 216	
B open	inch mm	6.89 175	7.17 182	8.35 212	9.84 250	11.42 290	
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138	
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	1.44 36,6	
Weight	lb. kg	7.75 3,6	11.25 5,2	14.75 6,7	28.5 13	33.5 15,3	
PACKING		BH2	BH2	BH4	BH6	BY5	
GASKET		G2	G2	G3	G5	G7	

INTEGRAL FLANGED VALVES- GATE TYPE- BOLTED BONNET- FULL & REDUCED PORT

600 LB.

Design construction:

- API 602 - ASME B16.34 - BS 5352
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral-wound gasket
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 600 1480 psig @ 100°F
- 102 bar + 38°C



600 LB. FULL PORT – FIG. 6 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B open	inch mm	6.89 175	8.46 215	9.45 240	11.62 295	14.17 360
C	inch mm	3.46 88	3.82 97	5.43 138	5.43 138	6.77 172
F	inch mm	.55 14	.71 18	.94 24	1.44 36.6	1.88 48
Weight	lb. kg	9.25 4,3	15.25 7	22 10	39.5 18	63.5 28
PACKING		BH2	BH4	BH5	BY5	BH8
GASKET		G2	G3	G4	G7	G9

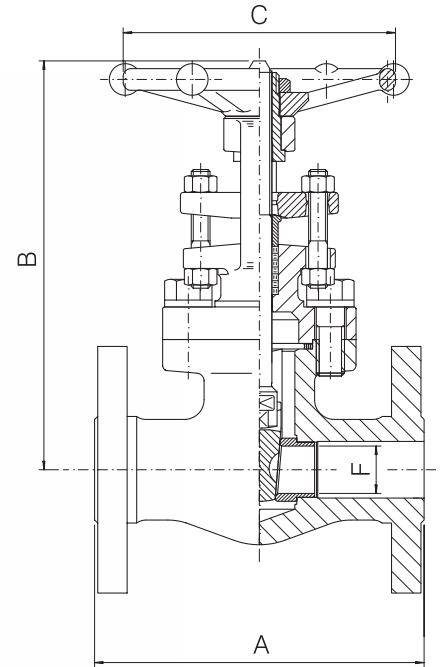
600 LB. REDUCED PORT – FIG. L6 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B open	inch mm	6.65 169	7.28 185	8.46 215	10.04 255	12.01 305
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	1.44 36,6
Weight	lb. kg	9.25 4,3	15.25 7	22 10	39.5 18	63.5 28
PACKING		BH2	BH2	BH4	BH6	BY5
GASKET		G2	G2	G3	G6	G7

INTEGRAL FLANGED VALVES- GATE TYPE- BOLTED BONNET- FULL PORT

1500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full port type
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral wound gasket
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ring joint type gasket available on request
- Ratings:
- carbon steel class 1500 3705 psig @ 100°F
- 255 bar + 38°C



FULL PORT – FIG. 15F 10						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	8.50	9.02	10	12.01	14.5
	mm	216	229	254	305	368.5
B open	inch	8.46	9.84	10.63	13.78	17.52
	mm	215	250	270	350	445
C	inch	3.82	5.43	5.43	6.77	9.21
	mm	97	138	138	172	234
F	inch	.55	.71	.94	1.44	1.89
	mm	14	18	24	36.6	48
Weight	lb.	18	28.5	35.5	63.75	121.25
	kg	8,2	13	16,2	29	55
PACKING		BH5	BH6	2B4	BH8	9B8
GASKET		G2	G3	G4	G7	G8



BONNEY FORGE

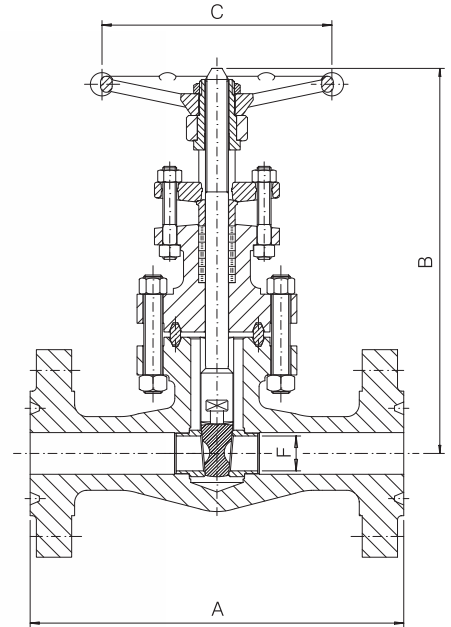
INTEGRAL FLANGED VALVES- GATE TYPE- BOLTED BONNET- FULL PORT

2500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full port type
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Body Bonnet Gasket ring joint type
- Spiral wound type gasket on request
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5

Ratings:
 - carbon steel class 2500 6170 psig @ 100°F
 425 bar + 38°C



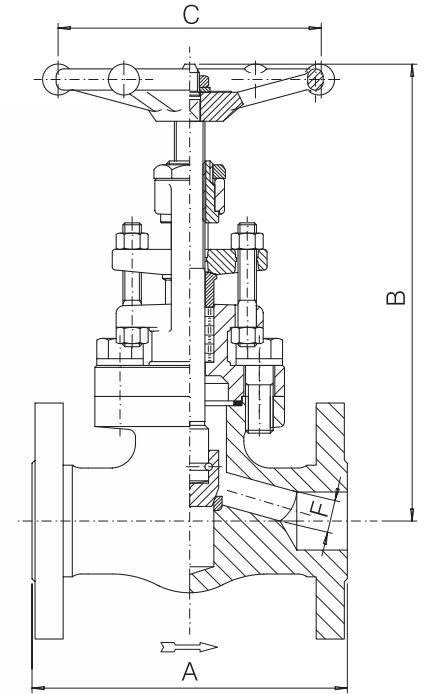
FULL PORT – FIG. 25FR 10						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	10.39	10.75	12.13	15.25	17.87
	mm	264	273	308	387,5	454
B open	inch	11.10	11.42	13.19	15.98	16.34
	mm	282	290	335	406	415
C	inch	5.43	5.43	6.77	9.21	12.60
	mm	138	138	172	234	320
F	inch	.45	.59	.76	1.10	1.50
	mm	11,5	15	19,5	28	38
Weight	lb.	35.5	38.75	63.75	132.25	143.25
	kg	16,2	17,6	29	60	65
PACKING		2B4	2B4	BH8	2B8	25B8
GASKET		R16	R16	R16	R19	R22



BONNEY FORGE

INTEGRAL FLANGED VALVES- GLOBE TYPE- BOLTED BONNET- FULL & REDUCED PORT

600 LB.



Design construction:

- ASME B16.34 - BS 5352
- Testing according to API 598
- Marking MSS SP25
- Loose disc stem assembly
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral wound gasket
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 600 1480 psig @ 100°F
- 102 bar + 38°C

FULL PORT – FIG. 6 30						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B open	inch mm	7.72 196	9.06 230	10.55 268	12.40 315	14.57 370
C	inch mm	3.46 88	3.82 97	5.43 138	6.77 172	6.77 172
F	inch mm	.51 13	.68 17,5	.88 22,5	1.38 35	1.77 45
Weight	lb. kg	13 5,9	17,5 8	23 10,5	43 19,5	62,75 28,5
PACKING		BH3	BH5	BY5	BY7	BH8
GASKET		G2	G3	G4	G7	G9

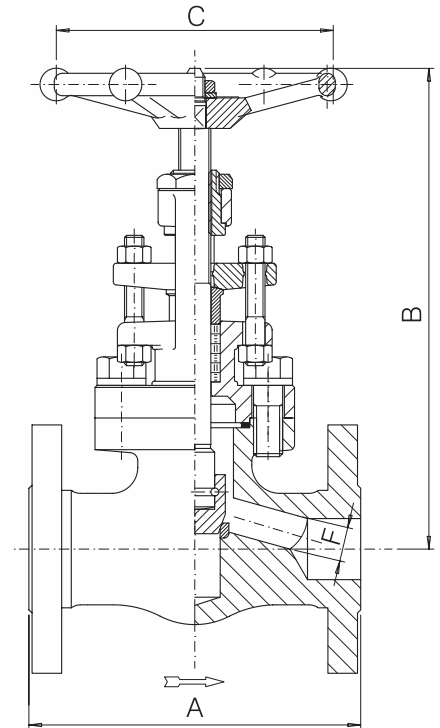
REDUCED PORT – FIG. L6 30						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B open	inch mm	7.72 196	7.95 202	9.21 234	10.63 270	12.64 321
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	6.77 172
F	inch mm	.35 9	.51 13	.67 17,5	1.16 29,5	1.38 35
Weight	lb. kg	9.5 4,4	13,5 6,2	19 8,7	36,25 16,5	52 23,6
PACKING		BH3	BH3	BH5	BY5	BY7
GASKET		G2	G2	G3	G6	G7

INTEGRAL FLANGED VALVES- GLOBE TYPE- BOLTED BONNET- FULL PORT

1500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full port type
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Loose Disc Stem Assembly
- Ring joint type gasket available on request
- Self aligning two piece packing gland
- Spiral wound gasket
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 1500 3705 psig @ 100°F
- 255 bar + 38°C



FULL PORT – FIG. 15F 30						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	8.50	9.02	10	12.01	14.51
	mm	216	229	254	305	368.5
B open	inch	9.45	11.02	11.61	14.57	18.31
	mm	240	280	295	370	465
C	inch	3.82	5.43	6.77	6.77	9.21
	mm	97	138	172	172	234
F	inch	.47	.57	.75	1.22	1.57
	mm	12	14.5	19	31	40
Weight	lb.	18.5	28.25	37.25	66	127.75
	kg	8,5	12,9	17	30	58
PACKING		BH5	2B4	2B4	BH8	9B8
GASKET		G2	G3	G4	G7	G8



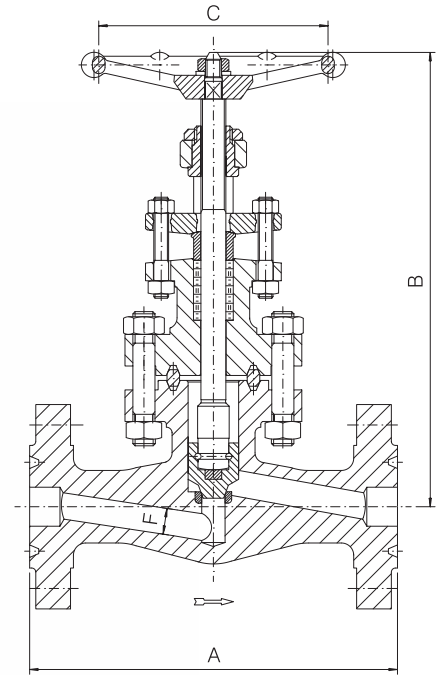
BONNEY FORGE

INTEGRAL FLANGED VALVES- GLOBE TYPE- BOLTED BONNET- FULL PORT

2500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full port type
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Loose Disc Stem Assembly
- Body Bonnet Gasket ring joint type
- Spiral wound type gasket on request
- Self aligning two piece packing gland
- Integral backseat
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 2500 6170 psig @ 100°F
- 425 bar + 38°C



FULL PORT – FIG. 25FR 30						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	10.39	10.75	12.13	15.25	17.87
	mm	264	273	308	387,5	454
B open	inch	12.20	12.40	13.78	17.72	18.11
	mm	310	315	350	450	460
C	inch	5.43	5.43	6.77	9.21	12.6
	mm	138	138	172	234	320
F	inch	.43	.57	.75	1.10	1.38
	mm	11	14,5	19	28	35
Weight	lb.	36,25	40,75	66	135,5	147,5
	kg	16,5	18,5	30	61,5	67
PACKING		2B4	2B4	BH8	9B8	4B8
GASKET		R16	R16	R16	R19	R20



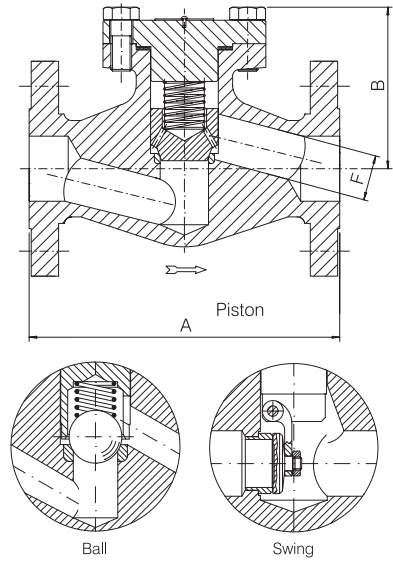
BONNEY FORGE

INTEGRAL FLANGED VALVES- CHECK TYPE- BOLTED BONNET- FULL & REDUCED PORT

600 LB.

Design construction:

- ASME B16.34 - BS 5352
- Testing according to API 598
- Marking MSS SP25
- Spring available on request for Piston and Ball Check Valves
- Spiral wound gasket
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 600 1480 psig @ 100°F
102 bar + 38°C



600 LB. FULL PORT – FIG. 6 40, 6 50, 6 60						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B	inch mm	2.95 75	3.54 90	3.94 100	4.72 120	5.91 150
F Piston/ F Ball	inch mm	.51 13	.68 17,5	.88 22,5	1.38 35	1.77 45
F Swing	inch mm	.55 14	.71 18	.94 24	1.46 36,6	1.89 48
Weight	lb. kg	8,25 3,8	14,25 6,5	18,5 8,5	35,25 16	50,5 23
GASKET		G2	G3	G4	G7	G9

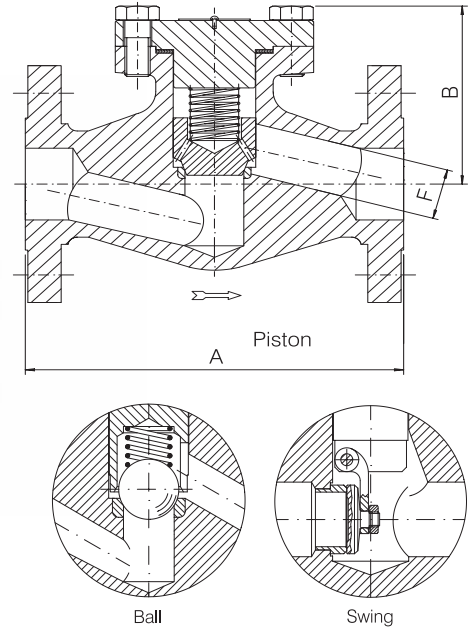
600 LB. REDUCED PORT – FIG. L6 40, L6 50, L6 60						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	6.50 165	7.51 191	8.50 216	9.50 241	11.50 292
B	inch mm	2.83 72	3.15 80	3.35 85	4.53 115	5.12 130
F Piston/ F Ball	inch mm	.35 9	.51 13	.68 17,5	1.16 29,5	1.38 35
F Swing	inch mm	.39 9,6	.55 14	.68 17,5	1.16 29,5	1.46 36,6
Weight	lb. kg	7,5 3,5	12,5 5,7	17,5 8	31,75 14,5	43 19,5
GASKET		G2	G2	G3	G6	G7

INTEGRAL FLANGED VALVES- CHECK TYPE- BOLTED BONNET- FULL PORT

1500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full Port Type
- Testing according to API 598
- Marking MSS SP25
- Spring available on request for Piston and Ball Check Valves
- Ring joint type gasket available on request
- Spiral wound gasket
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 1500 3705 psig @ 100°F
- 255 bar + 38°C



FULL PORT — FIG. 15F 40, 15F 50, 15F 60						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	8.50	9.02	10	12.01	14.50
	mm	216	229	254	305	368,5
B	inch	4.13	4.92	5.31	6.10	7.68
	mm	105	125	135	155	195
F Piston/ F Ball	inch	.47	.57	.75	1.22	1.57
	mm	12	14,5	19	31	40
F Swing	inch	.55	.71	.94	1.46	1.89
	mm	14	18	24	36,6	48
Weight	lb.	16.5	24.5	31.75	58.25	110
	kg	7,5	11,2	14,5	26,5	50
GASKET		G2	G3	G4	G7	G8



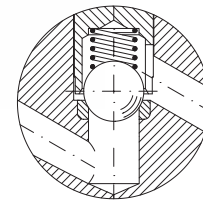
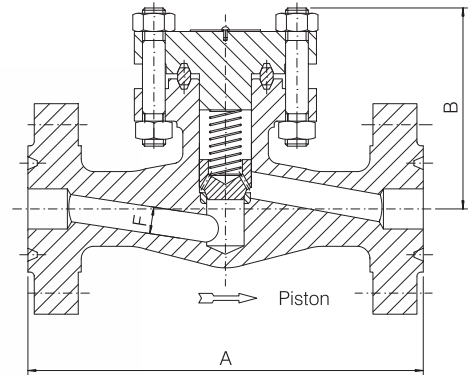
BONNEY FORGE

INTEGRAL FLANGED VALVES- CHECK TYPE- BOLTED BONNET- FULL PORT

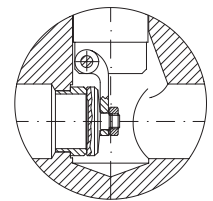
2500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Full Port Type
- Testing according to API 598
- Marking MSS SP25
- Body Bonnet Gasket ring joint type
- Spiral wound type gasket on request
- Spring available on request for Piston and Ball Check Valves
- Integral body flanges
- Face to face according to ASME B16.10
- Flanges according to ASME B16.5
- Ratings:
- carbon steel class 2500 6170 psig @ 100°F
- 425 bar + 38°C



Ball



Swing

FULL PORT — FIG. 25FR 40, 25FR 50, 25FR 60						
SIZE	inch	1/2	3/4	1	1 1/2	2
	mm	15	20	25	40	50
A	inch	10.39	10.75	12.13	15.25	17.87
	mm	264	273	308	387,5	454
B	inch	5.04	5.12	5.98	7.40	7.48
	mm	128	130	152	188	190
F Piston/ F Ball	inch	.43	.57	.75	1.10	1.38
	mm	11	14,5	19	28	35
F Swing	inch	.45	.59	.76	1.10	1.38
	mm	11,5	15	19,5	28	35
Weight	lb.	31.5	35.25	57.75	119	123.25
	kg	14,3	16	26,3	54	56
GASKET		R16	R16	R16	R19	R20*

Overview 56

Gate Type- Bolted & Welded Bonnet-
800 lb. & 1500 lb. valves 57

Gate Type- Welded Bonnet-
2500 lb. valves 58

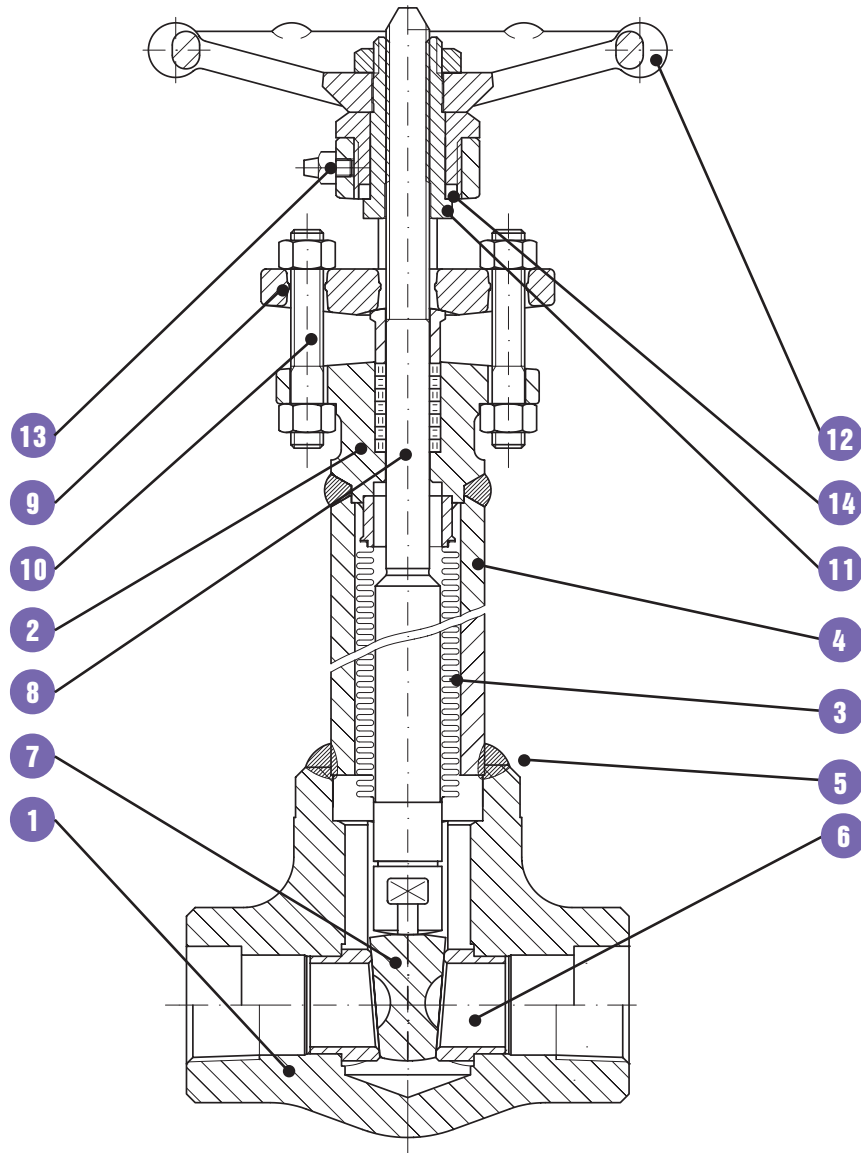
Globe Type- Bolted & Welded Bonnet-
800 lb. & 1500 lb. valves 59

BELLOWS SEALED VALVES



BELLOWS SEALED VALVES

Typical forged steel, outside screw and yoke (OS&Y), rising stem, non-rising handwheel. Full or conventional port. Bolted or welded bonnet joint. Integral backseat.



- 1. BODY.** The body is forged steel and designed to the basic dimensional requirements of the applicable specifications such as API 602 and ASME B16.34. The body is available in both the full or conventional port design.
- 2. BONNET.** The bonnet is forged steel, has an integral backseat and incorporates the stuffing box, which has dimensions per the applicable specifications such as API 602.
- 3. BELLOWS.** The hydroformed bellows design is in accordance with specifications API 602, and MSS-SP-117.
- 4. BONNET EXTENSION.** The bonnet extension is forged steel and of similar material as the body and bonnet and attached by a welded connection.
- 5. BODY-BONNET JOINT.** Two different bonnet joint designs are available. These are either the welded or the bolted bonnet type. The bolted bonnet joint design valve uses a contained, controlled compression, spiral wound type gasket. The bonnet bolting is manufactured of alloy steel in accordance with the requirements of the applicable specifications such as API 602 and ASME B16.34.
- 6. SEAT RINGS.** The seat rings are steel and make up part of the valve trim. They are pressed into the valve body and wedged into place, forming a seal with the body. The seating surfaces are ground and lapped.
- 7. WEDGE.** The wedge, which is a solid design, is forged or investment cast steel and is part of the valve trim. The seating surfaces are ground and lapped.
- 8. STEM.** The stem is forged steel and part of the valve trim. It contains an integral back seat shoulder, which mates with the integral backseat of the bonnet. The stem is designed to the basic dimensional requirements of the applicable specifications such as API 602.
- 9. GLAND AND FLANGE.** The gland, gland flange assembly utilizes a separate, two piece design. This self aligning design allows the flange to be unevenly tightened while the gland maintains its parallel alignment with the stem and stuffing box.
- 10. GLAND BOLTS AND NUTS.** The steel/stainless steel gland bolt and nut assembly is a stud, double nut arrangement. This design allows complete removal from the valve when service is required. The use of industry standard thread full length studs and nuts also allows easy replacement should these items be lost or in need of replacement.
- 11. YOKE SLEEVE.** The yoke sleeve is of forged stainless steel material having a high melting point and is resistant to wear and corrosion.
- 12. HANDWHEEL.** The handwheel is forged carbon steel of an open spoke design. This robust construction along with appropriate sizing allows for ease of operation.
- 13. GREASE FITTING.** The grease fitting is incorporated in the bonnet for stem and yoke sleeve lubrication to ensure smooth operation.
- 14. THRUST WASHER.** The thrust washer is between the bonnet and yoke sleeve to help prevent excessive wear of the yoke bushing and reduce operating torque.



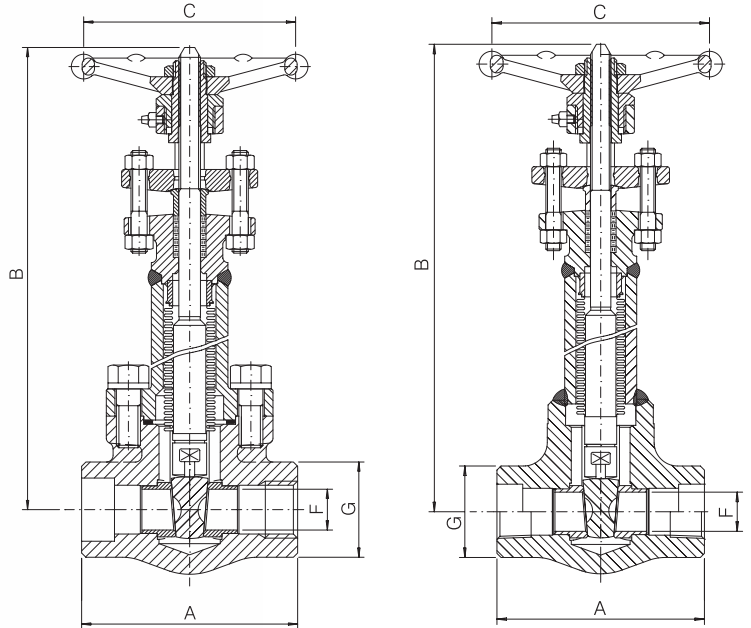
GATE VALVES- BELLOWS SEALED- WELDED & BOLTED BONNET- FULL & REDUCED PORT

800 LB.

1500 LB.

Design construction:

- API 602, ASME B16.34, MSS-SP-117, BS 5352
- Testing according to API 598
- Marking MSS-SP-25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral wound gasket
- Body Bonnet Weld to ASME IX
- Integral Backseat
- Hydroformed bellows
- Grease nipple for stem
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25
- Ratings:
 - carbon steel class 800 1975 psig @ 100°F
138 bar + 38°C
 - carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C



800 LB.									
FULL PORT — BOLTED BONNET FIG. S 10 - WELDED BONNET FIG. SHW 10									
SIZE	inch mm	1/4 6	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
A	inch mm	3.15 80	3.15 80	3.54 90	4.33 110	5 127	5 127	5 127	8.27 210
B open	inch mm	9.05 230	9.05 230	9.64 245	11.22 285	13.19 335	14.96 380	16.42 417	20.87 530
C	inch mm	3.46 88	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138	5.43 138	6.77 172
F	inch mm	.31 8	.38 9.6	.55 14	.71 18	.94 24	1.18 30	1.44 36.6	1.89 48
G	inch mm	1.26 32	1.26 32	1.50 38	1.89 48	2.20 56	2.52 64	3.07 78	3.35 85
Weight Bolted B.	lb. kg	6 2.7	6 2.7	6.25 2.9	10 4.6	15.75 7.2	22 10	28.25 12.8	48.5 22
Weight Welded B.	lb. kg	5 2.3	5 2.3	5.5 2.5	8.25 3.8	13.5 6.2	18.5 8.4	24.5 11.2	44 20
PACKING		BH2	BH2	BH2	BH4	BH5	BH6	BY5	BH8
GASKET*		G2	G2	G2	G3	G4	G6	G7	G9

800 LB.						
REDUCED PORT — BOLTED BONNET FIG. SL 10 - WELDED BONNET FIG. SHWL 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	3.15 80	3.54 90	4.33 110	5 127	5 127
B open	inch mm	9.05 230	9.64 245	11.22 285	14.96 380	16.42 417
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138
F	inch mm	.38 9.6	.55 14	.71 18	1.18 30	1.44 36.6
G	inch mm	1.26 32	1.50 38	1.89 48	2.52 64	3.07 78
Weight Bolted B.	lb. kg	6 2.7	6.5 3	9.75 4.4	20.75 9.4	27 12.3
Weight Welded B.	lb. kg	4.5 2.1	5.25 2.4	8.5 3.9	19 8.6	24.25 11
PACKING		BH2	BH2	BH4	BH6	BY5
GASKET*		G2	G2	G3	G6	G7

1500 LB.						
FULL PORT — BOLTED BONNET FIG. 9S 10 - WELDED BONNET FIG. 9SHW 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	4.33 110	5 127	5 127	8.27 210	9.05 230
B open	inch mm	13.98 355	14.96 380	17.72 450	21.65 550	23.23 590
C	inch mm	5.43 138	5.43 138	6.77 172	9.21 234	12.6 320
F	inch mm	.55 14	.71 18	.94 24	1.44 36.6	1.89 48
G	inch mm	1.89 48	2.20 56	2.52 64	3.35 85	3.74 95
Weight Bolted B.	lb. kg	11 5	15.5 7	21 9.5	51.75 23.5	88 40
Weight Welded B.	lb. kg	10 4.5	14.25 6.5	18.25 8.3	48.5 22	81.5 37
PACKING		BH5	BH6	2B4	2B5	9B8
GASKET*		G2	G3	G4	G7	G8

1500 LB.						
REDUCED PORT — BOLTED BONNET FIG. 9SL 10 - WELDED BONNET FIG. 9SHWL 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	3.54 90	4.33 110	5 127	5 127	8.27 210
B open	inch mm	12.60 320	13.98 355	14.96 380	17.72 450	21.65 550
C	inch mm	5.43 138	5.43 138	5.43 138	9.21 234	9.21 234
F	inch mm	.38 9.6	.55 14	.71 18	1.18 30	1.44 36.6
G	inch mm	1.50 38	1.89 48	2.20 56	3.07 78	3.35 85
Weight Bolted B.	lb. kg	6.5 3	11 5	15.5 7	22 10	53 24
Weight Welded B.	lb. kg	6 2.8	10 4.6	14.25 6.5	19.75 9	48.5 22
PACKING		BH3	BH5	BH6	2B5	BH8
GASKET*		G1	G2	G3	G5	G7



GATE VALVES- BELLOWS SEALED- WELDED BONNET- FULL PORT

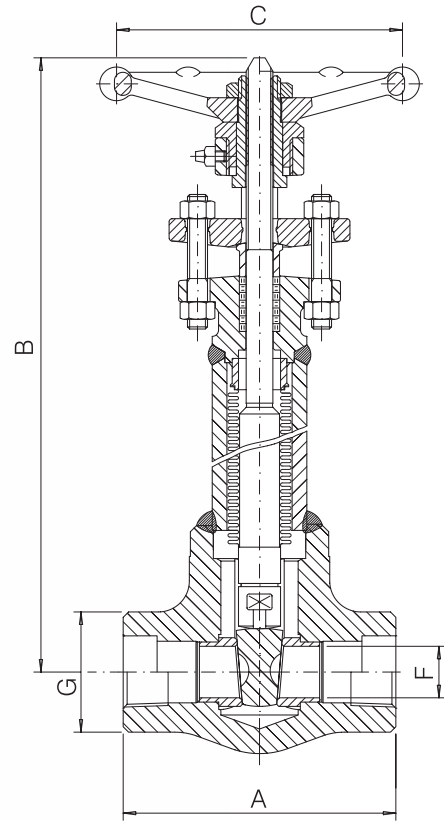
BONNEY FORGE

2500 LB.

Design construction:

- ASME B16.34, MSS-SP-117, BS 5352
- Testing according to API 598
- Marking MSS-SP-25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral wound gasket
- Body Bonnet Weld to ASME IX
- Integral Backseat
- Hydroformed bellows
- Grease nipple for stem
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25

Ratings:
-carbon steel class 2500 6170 psig @ 100°F
425 bar + 38°C



		FULL PORT – FIG. 25SHW 10								
2500 LB.	SIZE	inch mm	1/4 6	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
	A	inch mm	4.33 110	4.33 110	5 127	5 127	5 127	5 127	8.27 210	9.05 230
	B open	inch mm	14.96 380	14.96 380	16.93 430	17.72 450	20.08 510	24.41 620	24.80 630	27.95 710
	C	inch mm	5.43 138	5.43 138	5.43 138	6.77 172	9.21 234	9.21 234	12.60 320	15.75 400
	F	inch mm	.31 8	.31 8	.45 11.5	.59 15	.77 19.5	.98 25	1.10 28	1.38 35
	G	inch mm	1.89 48	1.89 48	2.20 56	2.52 64	3.07 78	3.07 78	3.35 85	3.74 95
	Weight	lb. kg	13.5 6.2	13.5 6.2	14.25 6.5	23 10.5	35.25 16	37.5 17	63.75 29	99.25 45
	PACKING		BH6	BH6	2B4	2B4	BH8	BH8	9B8	25B8



GLOBE VALVES- BELLOWS SEALED- WELDED & BOLTED BONNET- FULL & REDUCED PORT

800 LB.

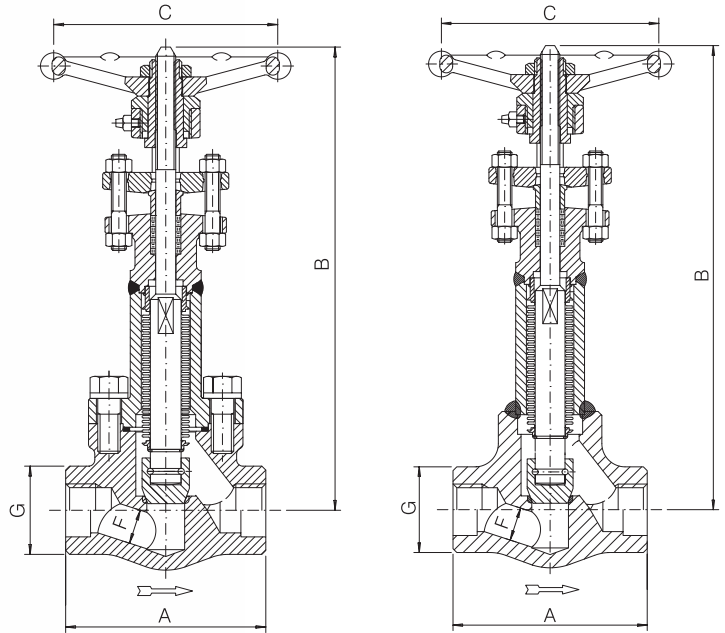
1500 LB.

Design construction:

- ASME B16.34, BS 5352, MSS-SP-117
- Testing according to API 598
- Marking MSS-SP-25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral wound gasket
- Body Bonnet Weld to ASME IX
- Integral Backseat
- Loose solid disc
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25

Ratings:

- carbon steel class 800 1975 psig @ 100°F
138 bar + 38°C
- carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C

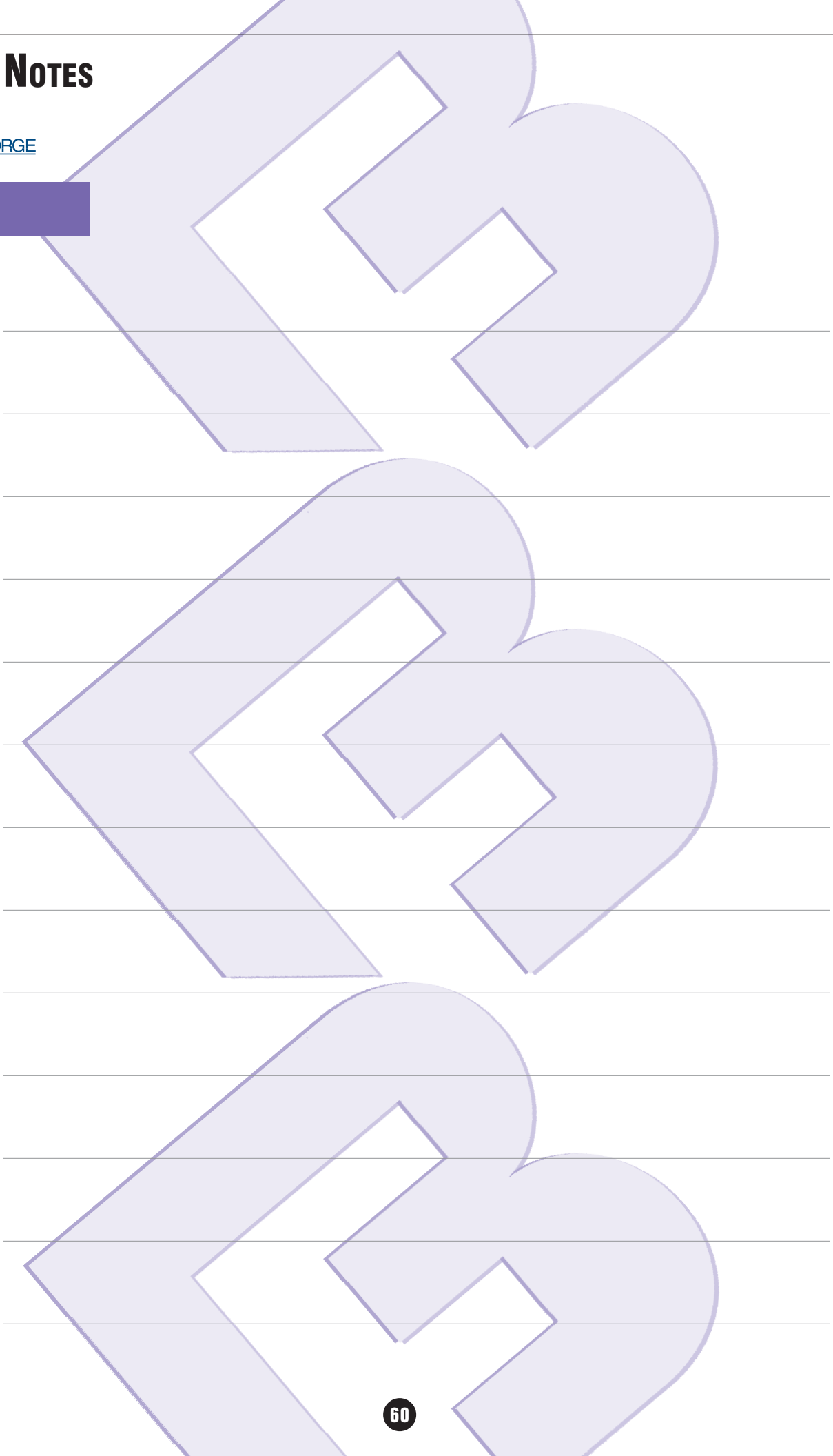


800 LB.									
FULL PORT — BOLTED BONNET FIG. S 30 - WELDED BONNET FIG. SHW 30									
SIZE	inch mm	1/4 6	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
A	inch mm	3.15 80	3.15 80	3.54 90	4.33 110	5 127	5.90 150	7.09 180	8.27 210
B open	inch mm	8.07 205	8.07 205	8.27 210	9.64 245	11.22 285	12.40 315	13.58 345	17.52 445
C	inch mm	3.46 88	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138	6.77 172	6.77 172
F	inch mm	.27 7	.35 9	.51 13	.69 17.5	.87 22.5	1.16 29.5	1.38 35	1.77 45
G	inch mm	1.26 32	1.26 32	1.50 38	1.89 48	2.20 56	2.52 64	3.07 78	3.35 85
Weight Bolted B.	lb. kg	5.5 2.5	5.5 2.5	7.75 3.5	11.5 5.2	19.25 8.7	22 10	40.75 18.5	67.25 30.5
Weight Welded B.	lb. kg	5 2.3	5 2.3	7 3.2	11 5	17.5 8	19.75 9	37.5 17	61.75 28
PACKING		BH2	BH2	BH2	BH4	BH5	BH6	BY5	BH8
GASKET*		G2	G2	G2	G3	G4	G6	G7	G9

800 LB.						
REDUCED PORT — BOLTED BONNET FIG. SL 30 - WELDED BONNET FIG. SHWL 30						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	3.15 80	3.54 90	4.33 110	5.90 150	7.09 180
B open	inch mm	8.07 205	8.27 210	9.64 245	12.40 315	13.58 345
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	6.77 172
F	inch mm	.35 9	.51 13	.69 17.5	1.16 29.5	1.38 35
G	inch mm	1.26 32	1.50 38	1.89 48	2.52 64	3.07 78
Weight Bolted B.	lb. kg	5.5 2.5	6 2.7	9.5 4.3	19.5 8.8	29.75 13.5
Weight Welded B.	lb. kg	4.75 2.2	5.25 2.4	7.75 3.5	17.75 8.1	26 11.8
PACKING		BH2	BH2	BH4	BH6	BY5
GASKET*		G2	G2	G3	G6	G7

1500 LB.						
FULL PORT — BOLTED BONNET FIG. 9S 30 - WELDED BONNET FIG. 9SHW 30						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	4.33 110	5 127	5.90 150	8.27 210	9.05 230
B open	inch mm	11.02 280	12.60 320	14.17 360	17.52 445	20.08 510
C	inch mm	5.43 138	6.77 172	9.21 234	12.60 320	12.60 320
F	inch mm	.47 12	.59 15	.79 20	1.26 32	1.57 40
G	inch mm	1.89 48	2.20 56	2.52 64	3.35 85	3.74 95
Weight Bolted B.	lb. kg	10 4.5	15.5 7	19.75 9	50.75 23	83.75 38
Weight Welded B.	lb. kg	8.75 4	14.25 6.5	18.25 8.3	48.5 22	80.5 36.5
PACKING		BH5	2B4	2B4	BH8	9B8
GASKET*		G2	G3	G4	G7	G8

1500 LB.						
REDUCED PORT — BOLTED BONNET FIG. 9SL 30 - WELDED BONNET FIG. 9SHWL 30						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	3.54 90	4.33 110	5 127	7.09 180	8.27 210
B open	inch mm	9.45 240	11.02 280	12.60 320	14.17 360	17.52 445
C	inch mm	5.43 138	5.43 138	6.77 172	9.21 234	12.60 320
F	inch mm	.35 9	.47 12	.59 15	1.06 27	1.26 32
G	inch mm	1.50 38	1.89 48	2.20 56	3.07 78	3.35 85
Weight Bolted B.	lb. kg	7.75 3.5	10 4.5	15.5 7	19.75 9	50.75 23
Weight Welded B.	lb. kg	6.5 3	10 4.6	14.25 6.5	19.5 8.9	47.25 21.5
PACKING		BH3	BH5	2B4	2B5	BH8
GASKET*		G1	G2	G3	G5	G7



Overview 62

Valvolet® End- Bolted & Welded
Bonnet- 800 lb. & 1500 lb. valves... 63

Lip End- Bolted & Welded Bonnet-
800 lb. & 1500 lb. valves 63

Socket Weld End- Bolted & Welded
Bonnet- 800 lb. & 1500 lb. valves... 64

Butt Weld End- Bolted & Welded
Bonnet- 800 lb. & 1500 lb. valves... 64

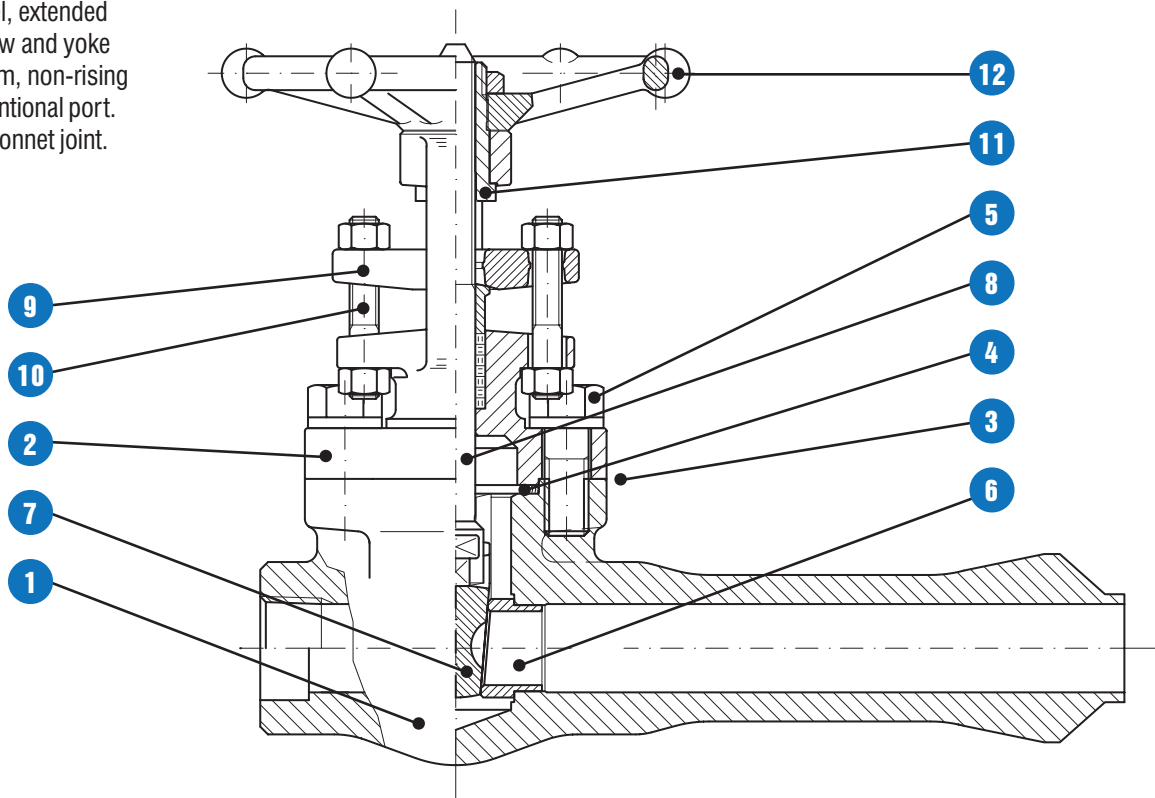
Threaded End- Bolted & Welded
Bonnet- 800 lb. & 1500 lb. valves... 64

EXTENDED BODY GATE VALVES



EXTENDED BODY GATE VALVES

Typical forged steel, extended body, outside screw and yoke (OS&Y), rising stem, non-rising handwheel. Conventional port. Bolted or welded bonnet joint. Integral backseat.



- 1. BODY.** The body is forged steel and designed to the basic dimensional requirements of the applicable specifications such as API 602 and ASME B16.34. The body is available in conventional port design with Plane End (Socket Weld), Threaded End, Lip End and Weld-O-Let End.
- 2. BONNET.** The bonnet is forged steel, has an integral backseat and incorporates the stuffing box, which has dimensions per the applicable specifications such as API 602.
- 3. BODY-BONNET JOINT.** Two different bonnet joint designs are available. These are either the threaded and seal welded or bolted bonnet type.
- 4. GASKET.** The bolted bonnet joint design valve uses a contained, controlled compression, spiral wound type gasket.
- 5. BONNET BOLTING.** The bonnet bolting is manufactured of alloy steel in accordance with the requirements of the applicable specifications such as API 602 and ASME B16.34.
- 6. SEAT RINGS.** The seat rings are steel and make up part of the valve trim. They are pressed into the valve body and wedged into place, forming a seal with the body. The seating surfaces are ground and lapped.
- 7. WEDGE.** The wedge, which is a solid design, is forged or investment cast steel and is part of the valve trim. The seating surfaces are ground and lapped.
- 8. STEM.** The stem is forged steel and part of the valve trim. It contains an integral back seat shoulder, which mates with the integral backseat of the bonnet. The stem is designed to the basic dimensional requirements of the applicable specifications such as API 602.
- 9. GLAND AND FLANGE.** The gland, gland flange assembly utilizes a separate, two piece design. This self aligning design allows the flange to be unevenly tightened while the gland maintains its parallel alignment with the stem and stuffing box.
- 10. GLAND BOLTS AND NUTS.** The steel/stainless steel gland bolt and nut assembly is a stud, double nut arrangement. This design allows complete removal from the valve when service is required. The use of industry standard thread full length studs and nuts also allows easy replacement should these items be lost or in need of replacement.
- 11. YOKE SLEEVE.** The yoke sleeve is of forged stainless steel material having a high melting point and is resistant to wear and corrosion.
- 12. HANDWHEEL.** The handwheel is forged carbon steel of an open spoke design. This robust construction along with appropriate sizing allows for ease of operation.

GATE VALVES- EXTENDED BODY- REDUCED PORT- INTEGRAL REINFORCED - VALVOLET® END & LIP END WELDED & BOLTED BONNET

800 LB.

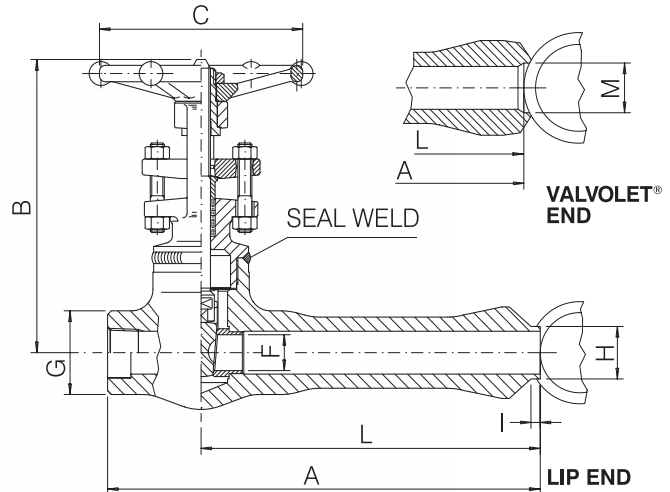
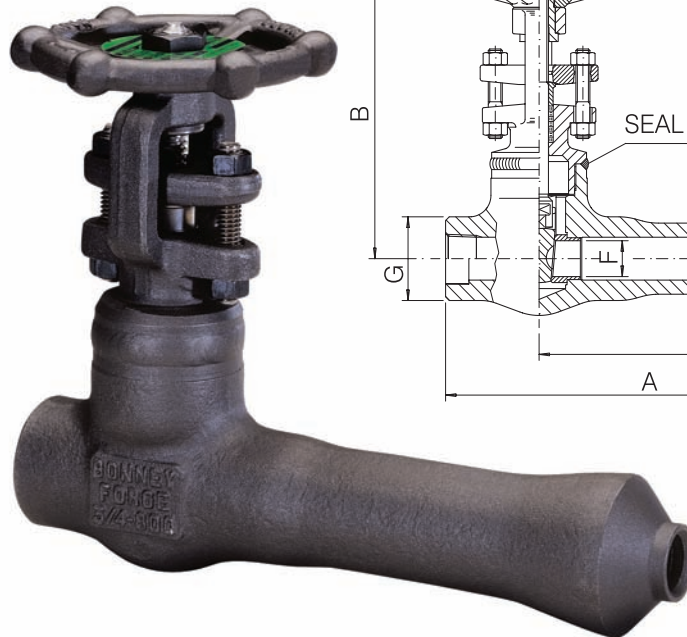
1500 LB.

Design construction:

- API 602 - ASME B16.34
- Testing according to API 598
- Marking MSS-SP-25
- Integral extended body
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral-wound gasket
- Body-bonnet weld to ASME IX
- Integral backseat
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25

Rating:

- carbon steel class 800 1975 psig @ 100°F
138 bar + 38°C
- carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C



		BOLTED BONNET – FIG. VLL 10 / WELDED BONNET – FIG. VOLL 10					
SIZE	inch	1/2	3/4	1	1 1/2	2	
	mm	15	20	25	40	50	
A	inch mm	8.15 207	8.60 218,5	9.62 244,5	10.37 263,5	10.53 267,5	
B open	inch mm	5.98 152	6.22 158	7.72 196	10.04 255	11.42 290	
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138	
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	1.44 36,6	
G	inch mm	1.26 32	1.50 38	1.89 48	2.52 64	3.07 78	
H	inch mm	.69 17,5	.87 22	1.12 28,5	1.61 41	1.81 46	
I	inch mm	.16 4	.19 4,8	.19 4,8	.25 6,3	.31 8	
L	inch mm	6.57 167	6.81 173	7.48 190	7.87 200	8.03 204	
M	inch mm	.87 22	1.18 30	1.44 36,5	1.99 50,5	2.56 65	
Weight	lb.	5,75	6,75	11,25	21	28,5	
Bolted B.	kg	2,6	3,1	5,1	9,5	13	
Weight	lb.	5	6,25	9,5	19,5	25,75	
Welded B.	kg	2,3	2,9	4,3	8,8	11,7	
PACKING		BH2	BH2	BH4	BH6	BY5	
GASKET*		G2	G2	G3	G6	G7	

		BOLTED BONNET – FIG. 9VLL 10 / WELDED BONNET – FIG. 9VOLL 10				
SIZE	inch	1/2	3/4	1	1 1/2	
	mm	15	20	25	40	
A	inch mm	8.60 218,5	9.62 244,5	10.37 263,5	10.53 267,5	
B open	inch mm	6.02 153	7.48 190	8.66 220	11.10 282	
C	inch mm	3.46 88	3.82 97	5.43 138	5.43 138	
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	
G	inch mm	1.50 38	1.89 48	2.20 56	3.07 78	
H	inch mm	.69 17,5	.87 22	1.12 28,5	1.61 41	
I	inch mm	.16 4	.19 4,8	.19 4,8	.25 6,3	
L	inch mm	6.81 173	7.48 190	7.87 200	8.03 204	
M	inch mm	1.18 30	1.44 36,5	1.99 50,5	2.56 65	
Weight	lb.	8	12,25	23	32	
Bolted B.	kg	3,6	5,6	10,5	14,5	
Weight	lb.	6,25	10,25	19,75	27,5	
Welded B.	kg	2,9	4,7	9	12,5	
PACKING		BH3	BH5	BH6	2B5	
GASKET*		G1	G2	G3	G5	



GATE VALVES- EXTENDED BODY- REDUCED PORT- SOCKET WELDED- PLAIN END, SCREWED END & BUTT WELD END - WELDED & BOLTED BONNET

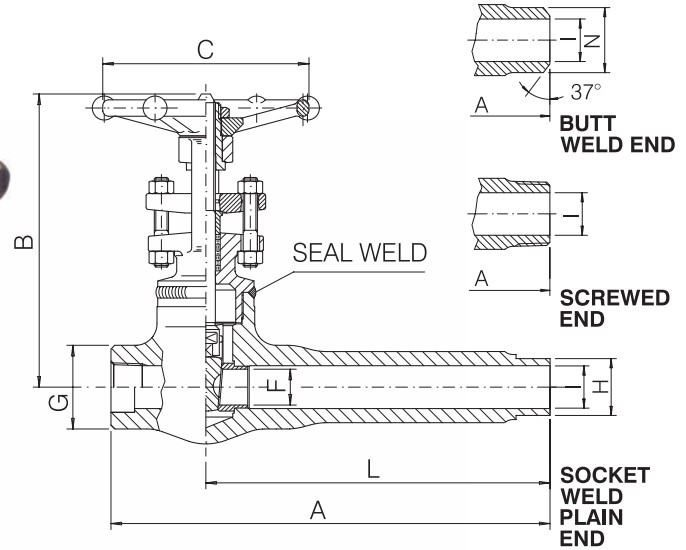
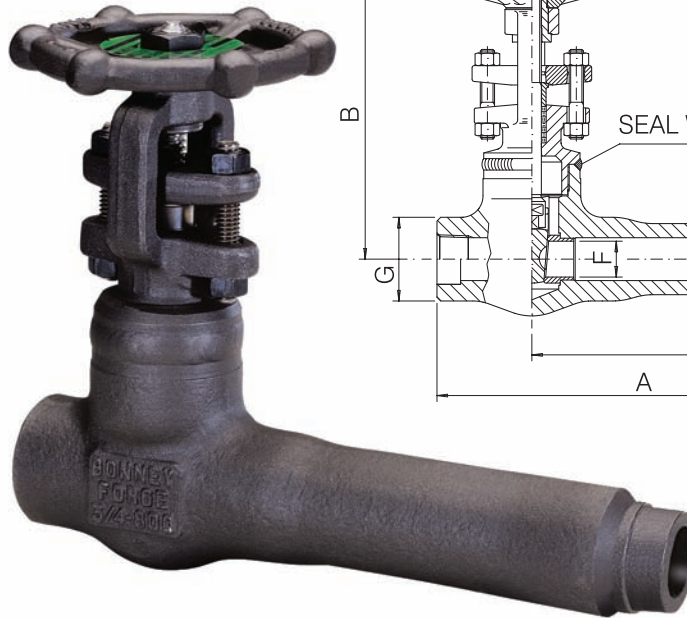
800 LB.

1500 LB.

Design construction:

- API 602 - ASME B16.34
- Testing according to API 598
- Marking MSS-SP-25
- Integral extended body
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral-wound gasket
- Body-bonnet weld to ASME IX
- Integral backseat
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25

- Rating:
- carbon steel class 800 1975 psig @ 100°F
138 bar + 38°C
 - carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C



BOLTED BONNET — FIG. ML 10 / WELDED BONNET — FIG. ML 10						
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch mm	5.57 141,5	5.77 146,5	6.53 166	7.50 190,5	8.50 216
B open	inch mm	5.98 152	6.14 156	7.72 196	10.08 256	11.42 290
C	inch mm	3.46 88	3.46 88	3.82 97	5.43 138	5.43 138
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30	1.44 36,6
G	inch mm	1.26 32	1.50 38	1.89 48	2.52 64	3.07 78
H	inch mm	.84 21,3	1.05 26,7	1.31 33,4	1.90 48,3	2.37 60,3
I	inch mm	.51 13	.63 16	.83 21	1.34 34	1.65 42
L	inch mm	4.01 102	4.01 102	4.37 111	5 127	6.02 153
N	inch mm	.90 23	1.10 28	1.42 36	2.05 52	2.44 62
Weight	lb.	5.25	5.75	9.25	17.75	26
Bolted B.	kg	2.4	2.6	4.2	8.1	11,8
Weight	lb.	3.75	4.5	7	15.75	22.75
Welded B.	kg	1,7	2,1	3,2	7,2	10,3
PACKING		BH2	BH2	BH4	BH6	BY5
GASKET*		G2	G2	G3	G6	G7

BOLTED BONNET — FIG. 9ML 10 / WELDED BONNET — FIG. 9MFL 10					
SIZE	inch mm	1/2 15	3/4 20	1 25	1 1/2 40
A	inch mm	5.77 146,5	6.53 166	7.50 190,5	8.50 216
B open	inch mm	6.02 153	7.48 190	8.66 220	11.10 282
C	inch mm	3.46 88	3.82 97	5.43 138	5.43 138
F	inch mm	.38 9,6	.55 14	.71 18	1.18 30
G	inch mm	1.50 38	1.89 48	2.52 64	3.35 85
H	inch mm	.84 21,3	1.05 26,7	1.31 33,4	1.90 48,3
I	inch mm	.51 13	.63 16	.83 21	1.34 34
L	inch mm	4.02 102	4.37 111	5 127	6.02 153
N	inch mm	.90 23	1.10 28	1.42 36	2.05 52
Weight	lb.	5.75	10	20	28.5
Bolted B.	kg	2,6	4,6	9,1	13
Weight	lb.	4.5	8.25	17.75	26.5
Welded B.	kg	2,1	3,8	8,1	12
PACKING		BH3	BH5	BH6	2B5
GASKET*		G1	G2	G3	G5