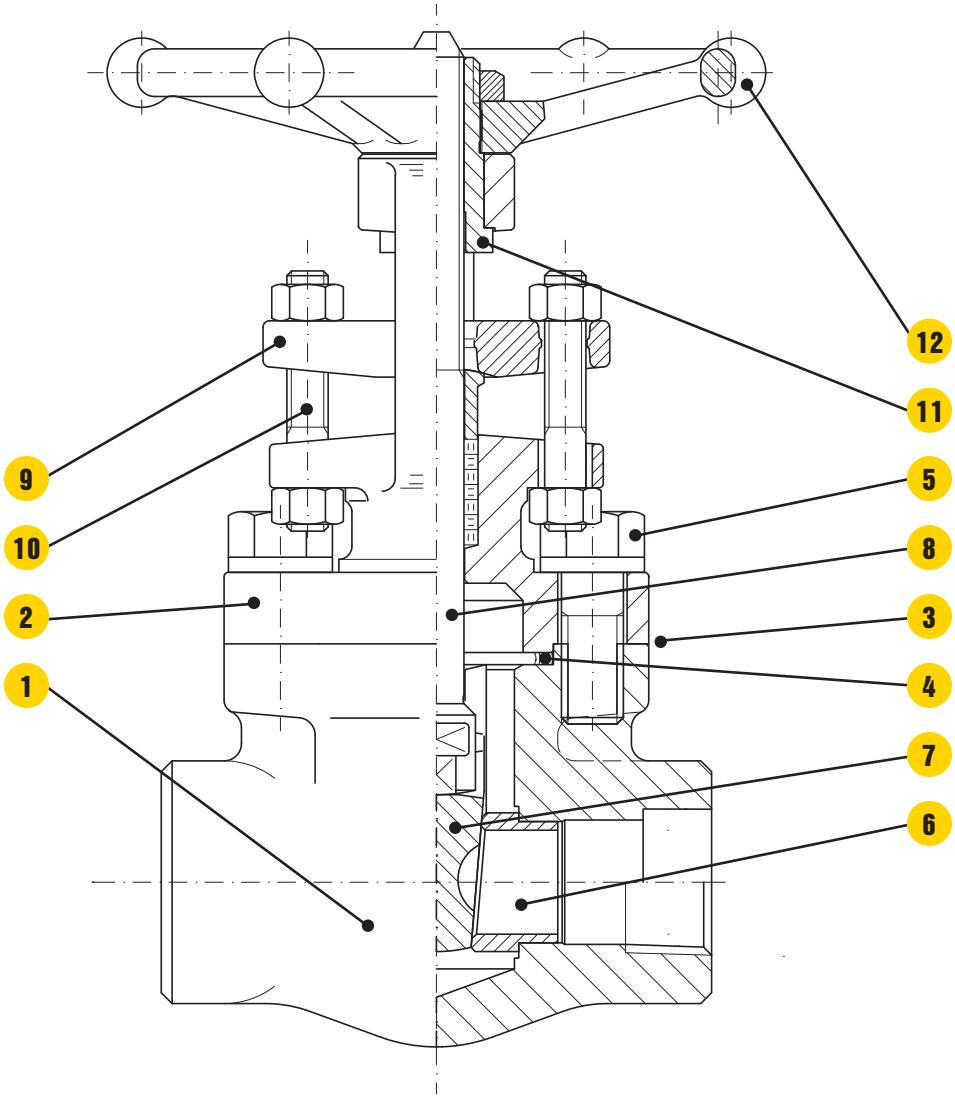
GATE VALVES

Gate Valves

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

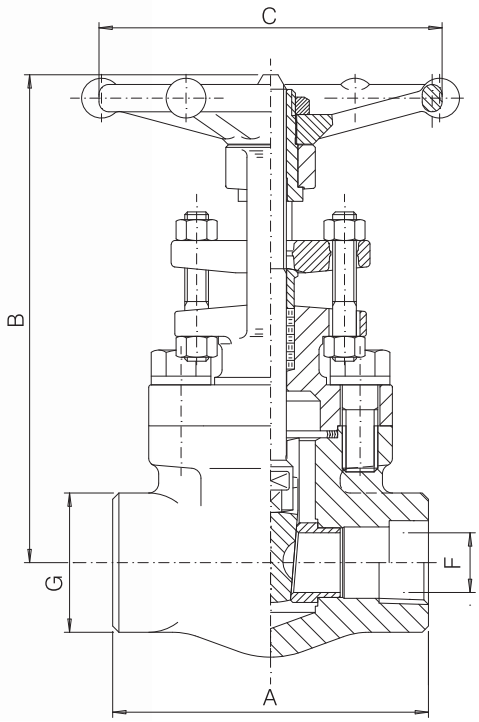


1. **BODY.** The body is forged steel and designed to the basic dimensional requirements of the applicable specifications such as API 602 and ASME B16.34. The body is available in both the full or conventional port design.
2. **BONNET.** The bonnet is forged steel, has an integral backseat and incorporates the stuffing box, which has dimensions per the applicable specifications such as API 602.
3. **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 makeup 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 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 it's 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- BOLTED BONNET- FULL & REDUCED PORT

BONNEY FORGE

800 LB.
1500 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
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 – FIG. H 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	3.15	3.15	3.54	4.33	5	5	5.28	6
	mm	80	80	90	110	127	127	134	152
B open	inch	5.98	5.98	6.22	7.72	8.86	10.04	11.42	14.09
	mm	152	152	158	196	225	255	290	358
C	inch	3.46	3.46	3.46	3.82	5.43	5.43	5.43	6.77
	mm	88	88	88	97	138	138	138	172
F	inch	.31	.38	.55	.71	.94	1.18	1.48	1.83
	mm	8	9,6	14	18	24	30	36,5	46,5
G	inch	1.26	1.26	1.50	1.89	2.20	2.52	3.07	3.35
	mm	32	32	38	48	56	64	78	85
Weight	lb.	4.5	4.5	5	8.25	13	16.25	18.3	27.5
	kg	2,1	2,1	2,3	3,7	5,9	7,4	8,3	12,5
PACKING		BH2	BH2	BH2	BH4	BH5	BH6	BY5	BH8
GASKET		G2	G2	G2	G3	G4	G6	G11	G10

800 LB. — REDUCED PORT – FIG. HL 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	3.15	3.54	4.33	5	5.28
	mm	80	90	110	127	134
B open	inch	5.98	6.22	7.72	10.04	11.42
	mm	152	158	196	255	290
C	inch	3.46	3.46	3.82	5.43	5.43
	mm	88	88	97	138	138
F	inch	.38	.55	.71	1.18	1.48
	mm	9,6	14	18	30	36,5
G	inch	1.26	1.5	1.89	2.52	3.07
	mm	32	38	48	64	78
Weight	lb.	4.25	5	7.75	16	16.75
	kg	1,9	2,3	3,6	7,3	7.6
PACKING		BH2	BH2	BH4	BH6	BY5
GASKET		G2	G2	G3	G6	G11

1500 LB. — FULL PORT – FIG. 9H 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	3.54	3.54	4.33	5	5	5	5	8.27
	mm	90	90	110	127	127	127	127	210
B open	inch	6.02	6.02	7.48	8.66	9.84	11.10	11.42	13.58
	mm	153	153	190	220	250	282	290	345
C	inch	3.46	3.46	3.82	5.43	5.43	5.43	5.43	6.77
	mm	88	88	97	138	138	138	138	172
F	inch	.31	.38	.55	.71	.94	1.18	1.48	1.89
	mm	8	9,6	14	18	24	30	36,5	48
G	inch	1.50	1.50	1.89	2.20	2.52	3.07	3.07	3.35
	mm	38	38	48	56	64	78	78	85
Weight	lb.	5.25	5.25	9	13.75	17.5	23	24.25	44
	kg	2,4	2,4	4,1	6,2	8	10,5	11	20
PACKING		BH3	BH3	BH5	BH6	2B4	BY7	2B5	9B8
GASKET		G1	G1	G2	G3	G4	G5	G7	G8

1500 LB. — REDUCED PORT – FIG. 9HL 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	3.54	4.33	5	5	8.27
	mm	90	110	127	127	210
B open	inch	5.98	7.48	8.66	11.10	13.58
	mm	152	190	220	282	345
C	inch	3.46	3.82	5.43	5.43	5.43
	mm	88	97	138	138	138
F	inch	.38	.55	.71	1.18	1.48
	mm	9,6	14	18	30	36,5
G	inch	1.5	1.89	2.20	3.07	3.35
	mm	38	48	56	78	85
Weight	lb.	5.25	8.5	13.25	23.75	45.25
	kg	2,4	3,9	6,1	10,8	20,5
PACKING		BH3	BH5	BH6	2B5	BH8
GASKET		G1	G2	G3	G5	G7

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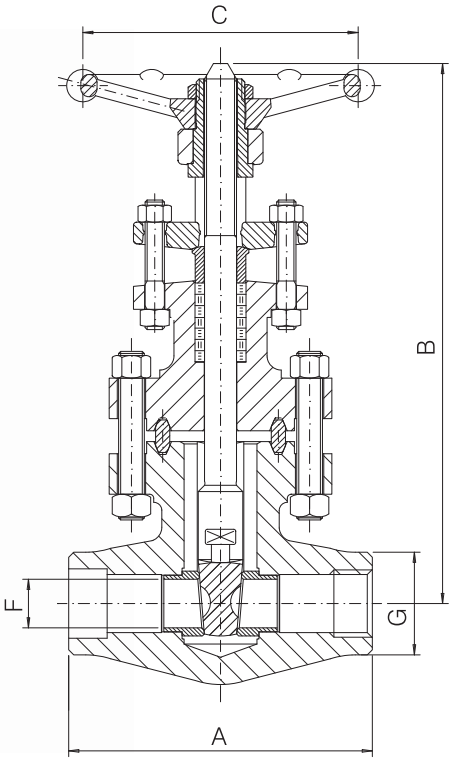
GATE VALVES- BOLTED BONNET- FULL PORT

BONNEY FORGE

1500 LB.
2500 LB.



Design construction:
ASME B16.34 - BS 5352
Outside Screw and Yoke (OS&Y)
Self aligning two piece packing gland
Integral backseat
Oval ring joint gasket
Socket Weld Ends to ASME B16.11
Screwed Ends (NPT) to ASME B1.20.1
Butt Welding Ends to ASME B16.25
Ratings standard class:
- carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C
- carbon steel class 2500 6170 psig @ 100°F
425 bar + 38°C

1500 LB.

FULL PORT – FIG. H9R 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
A	inch	4.33	5.91	5.91	8.27	8.27	9.06
	mm	110	150	150	210	210	230
B open	inch	9.17	11.38	11.54	14.06	14.41	17.76
	mm	233	289	293	357	366	451
C	inch	5.43	5.43	5.43	6.77	6.77	9.21
	mm	138	138	138	172	172	234
F	inch	.55	.71	.94	1.16	1.44	1.89
	mm	14	18	24	29,5	36,6	48
G	inch	1.5	2.17	2.17	2.95	2.95	3.62
	mm	38	55	55	75	75	92
Weight	lb.	11	20.25	20.25	44	44	79.25
	kg	5	9,2	9,2	20	20	36
PACKING		2B3	2B4	2B4	2B5	2B5	9B8
GASKET		R12	R17	R17	R20	R20	R24

2500 LB.

FULL PORT – FIG. 25HR 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	5.91	5.91	8.27	9.06	9.06
	mm	150	150	210	230	230
B open	inch	11.10	11.3	13.70	15.98	17.20
	mm	282	287	348	406	437
C	inch	5.43	5.43	6.77	9.21	9.21
	mm	138	138	172	234	234
F	inch	.45	.59	.77	1.10	1.38
	mm	11,5	15	19,5	28	35
G	inch	2.17	2.17	2.95	3.62	3.62
	mm	55	55	75	92	92
Weight	lb.	22	22	48.5	81.5	79.25
	kg	10	10	22	37	36
PACKING		2B4	BH8	BH8	9B8	25B8
GASKET		R16	R16	R17	R20	R22

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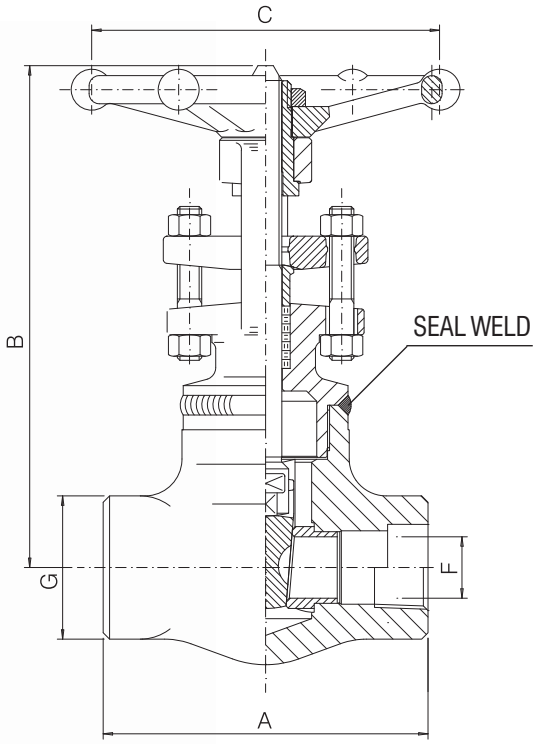
Gate Valves- Welded Bonnet- Full & Reduced Port

BONNEY FORGE

800 Lb.
1500 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
Integral backseat
Body Bonnet Weld to ASME IX
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 – FIG. W 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	3.15	3.15	3.54	4.33	5	5	5	8.27
	mm	80	80	90	110	127	127	127	210
B open	inch	5.98	5.98	6.22	7.72	8.86	10.04	11.42	14.09
	mm	152	152	158	196	225	255	290	358
C	inch	3.46	3.46	3.46	3.82	5.43	5.43	5.43	6.77
	mm	88	88	88	97	138	138	138	172
F	inch	.31	.38	.55	.71	.94	1.18	1.44	1.89
	mm	8	9,6	14	18	24	30	36,6	48
G	inch	1.26	1.26	1.5	1.89	2.20	2.52	3.07	3.35
	mm	32	32	38	48	56	64	78	85
Weight	lb.	3.25	3.25	4.25	7.75	11	14.25	20.75	35.25
	kg	1,5	1,5	2	3,5	5	6,5	9,5	16
PACKING		BH2	BH2	BH2	BH4	BH5	BH6	BY5	BH8

800 LB. — REDUCED PORT – FIG. WL 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	3.15	3.54	4.33	5	5
	mm	80	90	110	127	127
B open	inch	5.98	6.22	7.72	10.04	11.42
	mm	152	158	196	255	290
C	inch	3.46	3.46	3.82	5.43	5.43
	mm	88	88	97	138	138
F	inch	.38	.55	.71	1.18	1.44
	mm	9,6	14	18	30	36,6
G	inch	1.26	1.5	1.89	2.52	3.07
	mm	32	38	48	64	78
Weight	lb.	3.5	3.75	6.25	13.25	18
	kg	1,6	1,8	2,9	6,1	8,2
PACKING		BH2	BH2	BH4	BH6	BY5

1500 LB. — FULL PORT – FIG. 9W 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	3.54	3.54	4.33	5	5	5	5	8.27
	mm	90	90	110	127	127	127	127	210
B open	inch	6.02	6.02	7.48	8.66	9.84	11.10	11.42	13.58
	mm	153	153	190	220	250	282	290	345
C	inch	3.46	3.46	3.82	5.43	5.43	5.43	5.43	6.77
	mm	88	88	97	138	138	138	138	172
F	inch	.31	.38	.55	.71	.94	1.18	1.44	1.89
	mm	8	9,6	14	18	24	30	36,6	48
G	inch	1.5	1.5	1.89	2.20	2.52	3.07	3.07	3.35
	mm	38	38	48	56	64	78	78	85
Weight	lb.	4.25	4.25	7.5	11.25	15.25	22	23	41.75
	kg	2,0	2,0	3,4	5,1	7	10	10,5	19
PACKING		BH3	BH3	BH5	BH6	2B4	BY7	2B5	2B8

1500 LB. — REDUCED PORT – FIG. 9WL 10

SIZE	inch / mm	1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	3.54	4.33	5	5	8.27
	mm	90	110	127	127	210
B open	inch	6.02	7.48	8.66	11.10	13.58
	mm	153	190	220	282	345
C	inch	3.46	3.82	5.43	5.43	5.43
	mm	88	97	138	138	138
F	inch	.38	.55	.71	1.18	1.44
	mm	9,6	14	18	30	36,6
G	inch	1.5	1.89	2.20	3.07	3.35
	mm	38	48	56	78	85
Weight	lb.	4.25	7.25	11.5	21.5	40.25
	kg	2	3,3	5,3	9,8	18,3
PACKING		BH3	BH5	BH6	2B5	BH8

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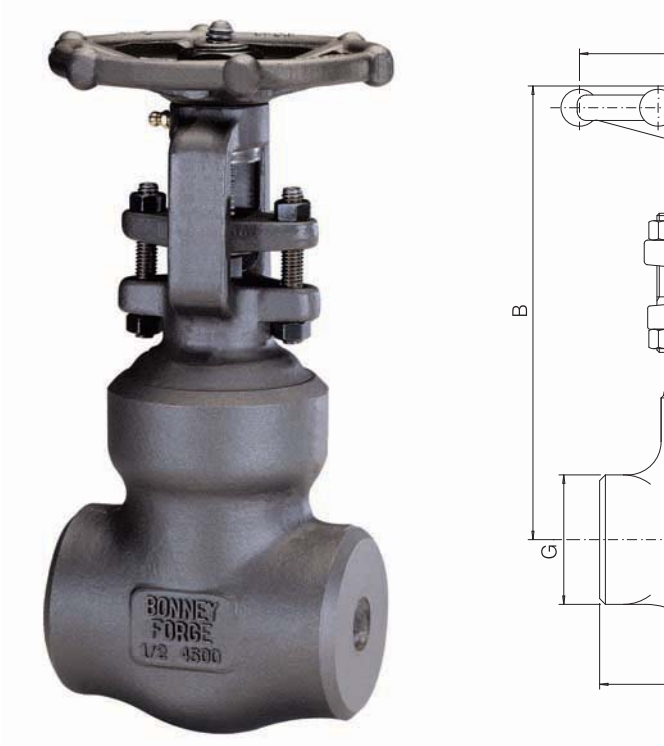
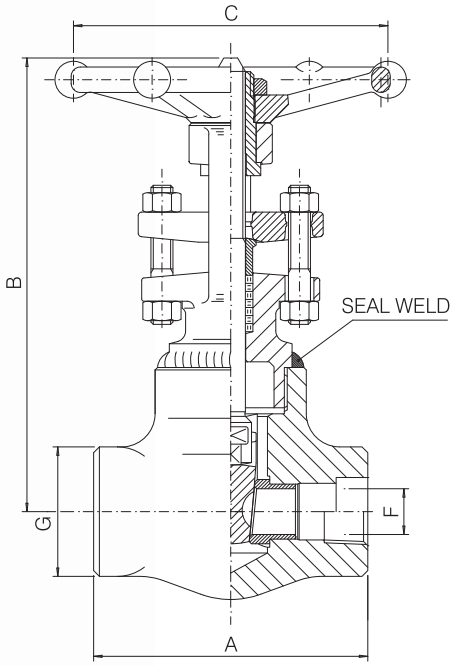
GATE VALVES- WELDED BONNET- FULL PORT

BONNEY FORGE

2500 LB.
4500 LB.





Design construction:
ASME B16.34
Outside Screw and Yoke (OS&Y)
Self aligning two piece packing gland
Integral backseat
Body Bonnet Weld to ASME IX
Socket Weld Ends to ASME B16.11
Screwed Ends (NPT) to ASME B1.20.1
Butt Welding Ends to ASME B16.25
Ratings standard class:
- carbon steel class 2500 6170 psig @ 100°F
425 bar + 38°C
- carbon steel class 4500 11100 psig @ 100°F
765 bar + 38°C

2500 LB.

FULL PORT – FIG. 25W 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	4.33	4.33	5	5	5	5	8.27	9.06
	mm	110	110	127	127	127	127	210	230
B open	inch	7.20	7.20	8.43	9.61	10.87	10.87	13.27	15.91
	mm	183	183	214	244	276	276	337	404
C	inch	3.82	3.82	5.43	5.43	5.43	5.43	6.77	9.21
	mm	97	97	138	138	138	138	172	234
F	inch	.31	.31	.45	.59	.77	.98	1.10	1.38
	mm	8	8	11,5	15	19,5	25	28	35
G	inch	1.89	1.89	2.20	2.52	3.07	3.07	3.35	3.74
	mm	48	48	56	64	78	78	85	95
Weight	lb.	11.25	11.5	11.75	15.75	21.5	21.5	43	63.75
	kg	5,2	5,3	5,4	7,2	9,8	9,8	19,5	29
PACKING		2B4	2B4	2B4	BH8	BH8	2B5	2B5	2B8

4500 LB.

FULL PORT – FIG. 45W 10						
SIZE inch / mm		1/2 15	3/4 20	1 25	1 1/2 40	2 50
A	inch	5	5	9.06	9.06	17.76
	mm	127	127	230	230	451
B open	inch	10.39	10.83	14.37	15.75	17.56
	mm	264	275	365	400	446
C	inch	5.43	6.61	9.21	12.60	12.60
	mm	138	168	234	320	320
F	inch	.30	.45	.59	1.02	1.02
	mm	7,5	11,5	15	26	26
G	inch	3.07	3.07	3.74	3.74	4.72
	mm	78	78	95	95	120
Weight	lb.	22	26.5	40.8	59.5	81.5
	kg	10	12	18,5	27	37
PACKING		2B3	BH6	BY7	2B8	4B8

Available with Socket Weld or Butt-Weld Ends Only.
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