



上海常浩高压管件有限公司

SHANGHAI CHANGHAO HIGH PRESSURE PIPEFITTINGS CO.,LTD.



超声波探伤仪
Ultrasonic Flaw Detector



万能材料试验机
Universal Testing Machine



布洛维光学硬度计
Brinell Rockwell & Vickers
optical hardness Tester



低温冲击试验机
Low Temperature Impact Testing Machine



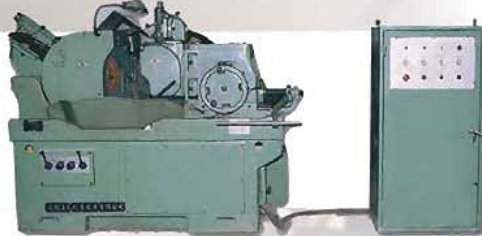
滚丝机
Screw Rolling Machine



金相分析仪
Metallographic Analysis Instrument



电火花数控切割机
Numerical Control wire Cutting Machine



无心磨床
Centerless Grinding Machine



盐雾腐蚀试验箱
Salt-spray Corrosion Tester



下料车间
Cutting workshop



锻造车间
Forging workshop



机加工车间
Machining workshop



数控机床
CNC Lathe

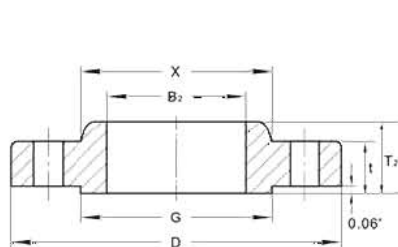


钻孔车间
Drilling workshop

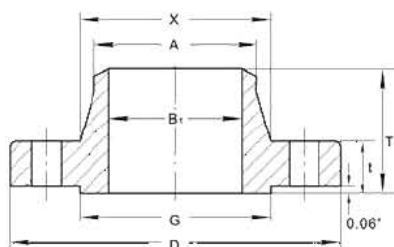


紧固件车间
Fasteners workshop

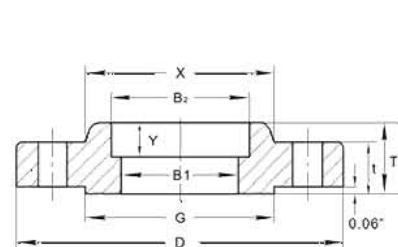
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Slip-On
平焊法兰



Welding Neck
高颈对焊法兰



Socket Welding
承插法兰

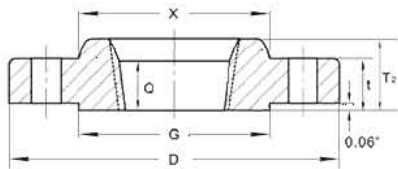
ANSI B16.5

150 磅 法 兰

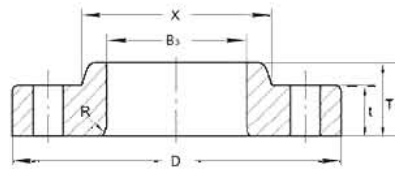
Dimensions In. mm

Nominal Pipe Size	Outside Diam.	Thickness min.	Thickness of Lap Joint min.	O.D. of Raised Face	Diam. at Base of Hub	Bore			Length Thru. Hub			Diam. of Hub at Bevel	Radius of Fillet	Thread Length min
						Welding Neck/ Socket Welding	Slip-on/ Socket Welding min.	Lap-Joint min.	Welding Neck	Slip-on/ Threaded/ Socket Welding	Lap-Joint			
	D	t	t	G	X	B1	B2	B3	T1	T2	T3	A	R	Q
1/2	3.50	0.38	0.44	1.38	1.19	0.62	0.88	0.90	1.81	0.56	0.62	0.84	0.12	0.62
	90.0	9.6	11.2	34.9	30.0	15.8	22.2	22.9	46.0	14.0	16.0	21.3	3.0	16.0
3/4	3.88	0.44	0.50	1.69	1.50	0.82	1.09	1.11	2.00	0.56	0.62	1.05	0.12	0.62
	100.0	11.2	12.7	42.9	38.0	20.9	27.7	28.2	51.0	14.0	16.0	26.7	3.0	16.0
1	4.25	0.50	0.56	2.00	1.94	1.05	1.36	1.38	2.12	0.62	0.69	1.32	0.12	0.69
	110.0	12.7	14.3	50.8	49.0	26.6	34.5	34.9	54.0	16.0	17.0	33.4	3.0	17.0
1 1/4	4.62	0.56	0.62	2.50	2.31	1.38	1.70	1.72	2.19	0.75	0.81	1.66	0.19	0.81
	115.0	14.3	15.9	63.5	59.0	35.1	43.2	43.7	56.0	19.0	21.0	42.2	5.0	21.0
1 1/2	5.00	0.62	0.69	2.88	2.56	1.61	1.95	1.97	2.38	0.81	0.88	1.90	0.25	0.88
	125.0	15.9	17.5	73.0	65.0	40.9	49.5	50.0	60.0	21.0	22.0	48.3	6.0	22.0
2	6.00	0.69	0.75	3.62	3.06	2.07	2.44	2.46	2.44	0.94	1.00	2.38	0.31	1.00
	150.0	17.5	19.1	92.1	78.0	52.5	61.9	62.5	62.0	24.0	25.0	60.3	8.0	25.0
2 1/2	7.00	0.81	0.88	4.12	3.56	2.47	2.94	2.97	2.69	1.06	1.12	2.88	0.31	1.12
	180.0	20.7	22.3	104.8	90.0	62.7	74.6	75.4	68.0	27.0	29.0	73.0	8.0	29.0
3	7.50	0.88	0.94	5.00	4.25	3.07	3.57	3.60	2.69	1.12	1.19	3.50	0.38	1.19
	190.0	22.3	23.9	127.0	108.0	77.9	90.7	91.4	68.0	29.0	30.0	88.9	10.0	30.0
3 1/2	8.50	0.88	0.94	5.50	4.81	3.55	4.07	4.10	2.75	1.19	1.25	4.00	0.38	1.25
	215.0	22.3	23.9	139.7	122.0	90.1	103.4	104.1	70.0	30.0	32.0	101.6	10.0	32.0
4	9.00	0.88	0.94	6.19	5.31	4.03	4.57	4.60	2.94	1.25	1.31	4.50	0.44	1.31
	230.0	22.3	23.9	157.2	135.0	102.3	116.1	116.8	75.0	32.0	33.0	114.3	11.0	33.0
5	10.00	0.88	0.94	7.31	6.44	5.05	5.66	5.69	3.44	1.38	1.44	5.56	0.44	1.44
	255.0	22.3	23.9	185.7	164.0	128.2	143.8	144.4	87.0	35.0	36.0	141.3	11.0	36.0
6	11.00	0.94	1.00	8.50	7.56	6.07	6.72	6.75	3.44	1.50	1.56	6.63	0.50	1.56
	280.0	23.9	25.4	215.9	192.0	154.1	170.7	171.4	87.0	38.0	40.0	168.3	13.0	40.0
8	13.50	1.06	1.12	10.62	9.69	7.98	8.72	8.75	3.94	1.69	1.75	8.63	0.50	1.75
	345.0	27.0	28.6	269.9	246.0	202.7	221.5	222.2	100.0	43.0	44.0	219.1	13.0	44.0
10	16.00	1.12	1.19	12.75	12.00	10.02	10.88	10.92	3.94	1.88	1.94	10.75	0.50	1.94
	405.0	28.6	30.2	323.8	305.0	254.6	276.2	277.4	100.0	48.0	49.0	273.0	13.0	49.0
12	19.00	1.19	1.25	15.00	14.38	12.00	12.88	12.92	4.44	2.12	2.19	12.75	0.50	2.19
	485.0	30.2	31.8	381.0	365.0	304.8	327.0	328.2	113.0	54.0	56.0	323.8	13.0	56.0
14	21.00	1.31	1.38	16.25	15.75		14.14	14.18	4.94	2.19	3.12	14.00	0.50	2.25
	535.0	33.4	35.0	412.8	400.0		359.2	360.2	125.0	56.0	79.0	355.6	13.0	57.0
16	23.50	1.38	1.44	18.50	18.00		16.16	16.19	4.94	2.44	3.44	16.00	0.50	2.50
	595.0	35.0	36.6	469.9	457.0		410.5	411.2	125.0	62.0	87.0	406.4	13.0	64.0
18	25.00	1.50	1.56	21.00	19.88		18.18	18.20	5.44	2.62	3.81	18.00	0.50	2.69
	635.0	38.1	39.7	533.4	505.0		461.8	462.3	138.0	67.0	97.0	457.0	13.0	68.0
20	27.50	1.62	1.69	23.00	22.00		20.20	20.25	5.62	2.81	4.06	20.00	0.50	2.88
	700.0	41.3	42.9	584.2	559.0		513.1	514.4	143.0	71.0	103.0	508.0	13.0	73.0
24	32.00	1.81	1.88	27.25	26.12		24.25	24.25	5.94	3.19	4.38	24.00	0.50	3.25
	815.0	46.1	47.7	692.2	663.0		616.0	616.0	151.0	81.0	111.0	610.0	13.0	83.0

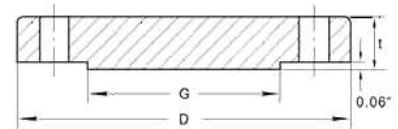
锻造法兰尺寸 Dimensions of Forged Flanges



Threaded
螺纹法兰



Lap-Joint
松套法兰



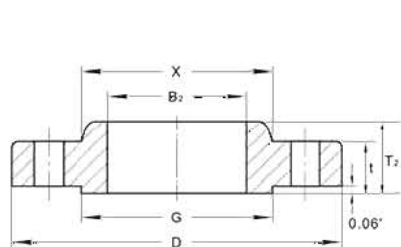
Blind
盲板法兰

ANSI B16.5

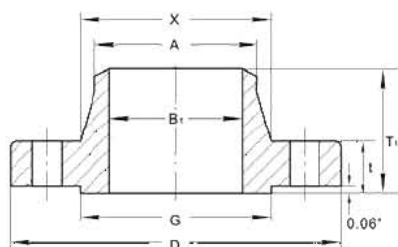
CLASS 150 FLANGES

Dimensions In.
mm

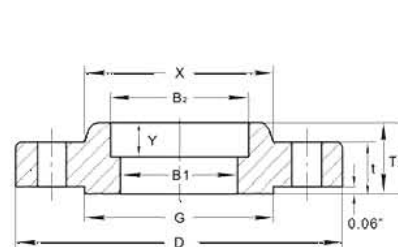
Depth of Socket Y	Drilling				Bolting			Approximate Weight					Nominal Pipe Size
	Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. of Bolts	Machine Bolt Length		Stud Bolt Length	Welding Neck	Slip-on and Threaded	Lap-Joint	Blind	Socket Welding	
					Raised Face	Raised Face		Kg lb	Kg lb	Kg lb	Kg lb	Kg lb	
0.38 10.0	2.38 60.3	4	5/8	1/2	2.00 50.00	2.25 55.0		0.51 1.10	0.47 1.00	0.51 1.00	0.47 1.00	0.47 1.00	1/2
0.44 11.0	2.75 69.9				2.00 50.00	2.50 65.0		0.73 1.60	0.58 1.30	0.64 1.40	0.63 1.40	0.59 1.30	3/4
0.50 13.0	3.12 79.4	4	5/8	1/2	2.25 55.00	2.50 65.0	3.00 75.0	1.07 2.40	0.86 1.90	0.93 1.80	0.94 2.10	0.87 1.90	1
0.56 14.0	3.50 88.9				2.25 55.00	2.75 70.0	3.25 85.0	1.40 3.10	1.08 2.40	1.16 2.00	1.23 2.70	1.11 2.40	1 1/4
0.62 16.00	3.88 98.40	4	5/8	1/2	2.50 65.00	2.75 70.0	3.25 85.0	1.81 4.00	1.41 3.10	1.51 3.30	1.62 3.60	1.45 3.20	1 1/2
0.69 17.0	4.75 120.7				2.75 70.00	3.25 85.0	3.75 95.0	2.59 5.70	2.26 5.00	2.38 5.20	2.64 5.80	2.33 5.00	2
0.75 19.0	5.50 139.7	4	3/4	5/8	3.00 75.00	3.50 90.0	4.00 100.0	4.28 9.40	3.43 7.60	3.60 7.90	4.06 9.00	3.55 7.80	2 1/2
0.81 21.0	6.00 152.4				3.00 75.00	3.50 90.0	4.00 100.0	5.18 11.40	3.87 8.50	4.04 8.90	4.90 10.80	4.02 8.90	3
...	7.00 177.8	8	3/4	5/8	3.00 75.00	3.50 90.0	4.00 100.0	5.45 12.00	4.99 11.00	4.99 11.00	5.90 13.00	4.99 11.00	3 1/2
...	7.50 190.5				3.00 75.00	3.50 90.0	4.00 100.0	7.32 16.10	5.75 12.70	5.96 13.00	7.41 16.30	5.99 13.20	4
...	8.50 215.9	8	7/8	3/4	3.25 85.00	3.75 95.0	4.25 110.0	8.91 19.60	6.22 13.70	6.44 14.00	8.76 19.30	6.68 14.70	5
...	9.50 241.3				3.25 85.00	4.00 100.0	4.50 115.0	11.26 24.80	7.38 16.30	7.59 16.70	11.31 24.90	7.99 17.60	6
...	11.75 298.5	8	7/8	3/4	3.50 90.00	4.25 110.0	4.75 120.0	17.68 39.00	12.36 27.30	12.66 27.90	19.92 43.90	13.29 29.30	8
...	14.25 362.0				4.00 100.00	4.50 115.0	5.00 125.0	24.79 54.70	17.10 37.70	16.78 37.00	29.39 64.80	19.50 43.00	10
...	17.00 431.8	12	1	7/8	4.00 100.00	4.75 120.0	5.25 135.0	38.98 85.90	27.68 61.00	28.30 62.40	43.70 96.30	29.03 64.00	12
...	18.75 476.3				4.50 115.00	5.25 135.0	5.75 145.0	51.71 114.00	35.20 77.60	41.50 91.50	59.42 140.00	38.56 85.00	14
...	21.25 539.8	16	1 1/8	1	4.50 115.00	5.25 135.0	5.75 145.0	64.41 142.00	42.18 93.00	52.98 116.80	77.11 170.00	44.49 98.00	16
...	22.75 577.9				5.00 125.00	5.75 145.0	6.25 160.0	74.84 165.00	49.71 109.60	59.00 130.00	94.80 209.00	54.43 120.00	18
...	25.00 635.0	20	1 1/4	1 1/8	5.50 140.00	6.25 160.0	6.75 170.0	89.36 197.00	65.50 140.00	72.12 159.00	123.38 272.00	70.31 155.00	20
...	29.50 749.3				6.00 150.00	6.75 170.0	7.25 185.0	119.66 263.80	90.50 199.50	99.02 218.30	188.24 415.00	95.25 210.00	24



Slip-On
平焊法兰



Welding Neck
高颈对焊法兰



Socket Welding
承插法兰

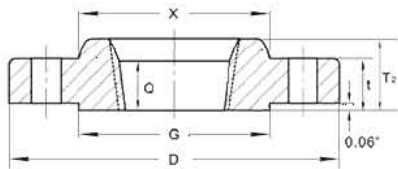
ANSI B16.5

300 磅 法 兰

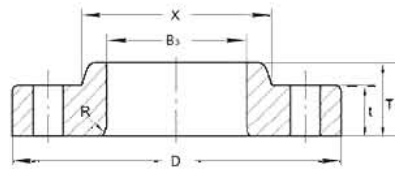
Dimensions In. mm

Nominal Pipe Size	Outside Diam.	Thickness min.	Thickness of Lap Joint min.	O.D. of Raised Face	Diam. at Base of Hub	Bore			Counter bore Threaded min.	Length Thru. Hub			Diam. of Hub at Bevel	Radius of Fillet	Thread Length min
						Welding Neck/ Socket Welding	Slip-on/ Socket Welding min.	Lap-Joint min.		Welding Neck	Slip-on/ Threaded/ Socket Welding	Lap-Joint			
	D	t	t	G	X	B1	B2	B3		T1	T2	T3	A	R	Q
1/2	3.75	0.50	0.56	1.38	1.50	0.62	0.88	0.90	0.93	2.00	0.81	0.88	0.84	0.12	0.62
	95.0	12.7	14.3	34.9	38.0	15.8	22.2	22.9	23.6	51.0	21.0	22.0	21.3	3.0	16.0
3/4	4.62	0.56	0.62	1.69	1.88	0.82	1.09	1.11	1.14	2.19	0.94	1.00	1.05	0.12	0.62
	115.0	14.3	15.9	42.9	48.0	20.9	27.7	28.2	29.0	56.0	24.0	25.0	26.7	3.0	16.0
1	4.88	0.62	0.69	2.00	2.12	1.05	1.36	1.38	1.41	2.38	1.00	1.06	1.32	0.12	0.69
	125.0	15.9	17.5	50.8	54.0	26.6	34.5	34.9	35.8	60.0	25.0	27.0	33.4	3.0	18.0
1 1/4	5.25	0.69	0.75	2.50	2.50	1.38	1.70	1.72	1.75	2.50	1.00	1.06	1.66	0.19	0.81
	135.0	17.5	19.1	63.5	64.0	35.1	43.2	43.7	44.4	64.0	25.0	27.0	42.2	5.0	21.0
1 1/2	6.12	0.75	0.81	2.88	2.75	1.61	1.95	1.97	1.98	2.63	1.13	1.19	1.90	0.25	0.88
	155.0	19.1	20.7	73.0	70.0	40.9	49.5	50.0	50.3	67.0	29.0	30.0	48.3	6.0	23.0
2	6.50	0.81	0.88	3.62	3.31	2.07	2.44	2.46	2.50	2.69	1.25	1.31	2.38	0.31	1.12
	165.0	20.7	22.3	92.1	84.0	52.5	61.9	62.5	63.5	68.0	32.0	33.0	60.3	8.0	29.0
2 1/2	7.50	0.94	1.00	4.12	3.94	2.47	2.94	2.97	3.00	2.94	1.44	1.50	2.88	0.31	1.25
	190.0	23.9	25.4	104.8	100.0	62.7	74.6	75.4	76.2	75.0	37.0	38.0	73.0	8.0	32.0
3	8.25	1.06	1.12	5.00	4.62	3.07	3.57	3.60	3.63	3.06	1.63	1.69	3.50	0.38	1.25
	210.0	27.0	28.6	127.0	117.0	77.9	90.7	91.4	92.2	78.0	41.0	43.0	88.9	10.0	32.0
3 1/2	9.00	1.12	1.19	5.50	5.25	3.55	4.07	4.10	4.13	3.13	1.69	1.75	4.00	0.38	1.44
	230.0	28.6	30.2	139.7	133.0	90.1	103.4	104.1	104.9	79.0	43.0	44.0	101.6	10.0	37.0
4	10.00	1.19	1.25	6.19	5.75	4.03	4.57	4.60	4.63	3.32	1.82	1.88	4.50	0.44	1.44
	255.0	30.2	31.8	157.2	146.0	102.3	116.1	116.8	117.6	84.0	46.0	48.0	114.3	11.0	37.0
5	11.00	1.31	1.38	7.31	7.00	5.05	5.66	5.69	5.69	3.82	1.94	2.00	5.56	0.44	1.69
	280.0	33.4	35.0	185.7	178.0	128.2	143.8	144.4	144.4	97.0	49.0	51.0	141.3	11.0	43.0
6	12.50	1.38	1.44	8.50	8.12	6.07	6.72	6.75	6.75	3.82	2.00	2.06	6.63	0.50	1.81
	320.0	35.0	36.6	215.9	206.0	154.1	170.7	171.4	171.4	97.0	51.0	52.0	168.3	13.0	47.0
8	15.00	1.56	1.62	10.62	10.25	7.98	8.72	8.75	8.75	4.32	2.38	2.44	8.63	0.50	2.00
	380.0	39.7	41.3	269.9	260.0	202.7	221.5	222.2	222.2	110.0	60.0	62.0	219.1	13.0	51.0
10	17.50	1.81	1.88	12.75	12.62	10.02	10.88	10.92	10.87	4.56	2.56	3.75	10.75	0.50	2.19
	445.0	46.1	47.7	323.8	321.0	254.6	276.2	277.4	276.2	116.0	65.0	95.0	273.0	13.0	56.0
12	20.50	1.94	2.00	15.00	14.75	12.00	12.88	12.92	12.94	5.06	2.82	4.00	12.75	0.50	2.38
	520.0	49.3	50.8	381.0	375.0	304.8	327.0	328.2	328.6	129.0	71.0	102.0	323.80	13.0	61.0
14	23.00	2.06	2.12	16.25	16.75	To be specified by Purchaser	14.14	14.18	14.19	5.56	2.94	4.38	14.00	0.50	2.50
	585.0	52.4	54.0	412.8	425.0		359.2	360.2	360.4	141.0	75.0	111.0	355.6	13.0	64.0
16	25.50	2.19	2.25	18.50	19.00		16.16	16.19	16.19	5.69	3.19	4.75	16.00	0.50	2.69
	650.0	55.6	57.2	469.9	483.0		410.5	411.2	411.2	144.0	81.0	121.0	406.4	13.0	69.0
18	28.00	2.31	2.38	21.00	21.00		18.18	18.20	18.19	6.19	3.44	5.12	18.00	0.50	2.75
	710.0	58.8	60.4	533.4	533.0		461.8	462.3	462.0	157.0	87.0	130.0	457.0	13.0	70.0
20	30.50	2.44	2.50	23.00	23.12		20.20	20.25	20.19	6.32	3.69	5.50	20.00	0.50	2.88
	775.0	62.0	63.5	584.2	587.0		513.1	514.4	512.8	160.0	94.0	140.0	508.0	13.0	74.0
24	36.00	2.69	2.75	27.25	27.62		24.25	24.25	24.19	6.56	4.13	6.00	24.00	0.50	3.25
	915.0	68.3	69.9	692.2	702.0		616.0	616.0	614.4	167.0	105.0	152.0	610.0	13.0	83.0

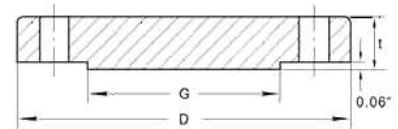
锻造法兰尺寸 Dimensions of Forged Flanges



Threaded
螺纹法兰



Lap-Joint
松套法兰



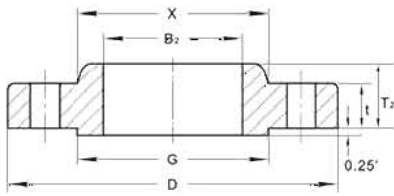
Blind
盲板法兰

ANSI B16.5

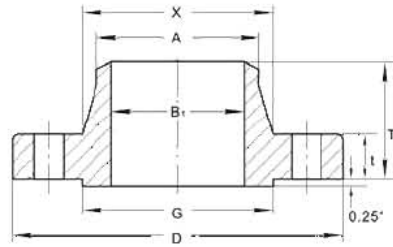
CLASS 300 FLANGES

Dimensions In.
mm

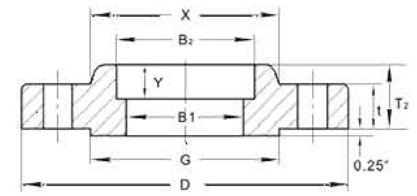
Depth of Socket	Drilling			Bolting				Approximate Weight					Nominal Pipe Size
	Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. Of Bolts	Machine Bolt Length	Stud Bolt Length		Welding Neck	Slip-on and Threaded	Lap-Joint	Blind	Socket Welding	
					Raised Face	Raised Face	Ring Joint	Kg	Kg	Kg	Kg	Kg	
								lb	lb	lb	lb	lb	
Y													
0.38	2.62	4	5/8	1/2	2.25	2.50	3.00	0.78	0.62	0.61	0.62	0.62	1/2
10.0	66.7				55.0	65.0	75.0	1.70	1.40	1.30	1.40	1.40	
0.44	3.25	4	3/4	5/8	2.50	3.00	3.50	1.34	1.15	1.15	1.16	1.19	3/4
11.0	82.6				65.0	75.0	90.0	3.00	2.50	2.50	2.50	2.60	
0.50	3.50	4	3/4	5/8	2.50	3.00	3.50	1.64	1.39	1.38	1.42	1.44	1
13.0	88.9				65.0	75.0	90.0	3.60	3.10	3.00	3.00	3.20	
0.56	3.88	4	3/4	5/8	2.75	3.25	3.75	2.06	1.67	1.66	1.79	1.73	1 1/4
14.0	98.4				70.0	85.0	95.0	4.50	3.70	3.70	3.90	3.80	
0.62	4.50	4	7/8	3/4	3.00	3.50	4.00	3.06	2.53	2.52	2.68	2.62	1 1/2
16.0	114.3				75.0	90.0	100.0	6.70	5.60	5.60	5.90	5.80	
0.69	5.00	8	3/4	5/8	3.00	3.50	4.00	3.40	2.80	2.79	3.09	2.94	2
17.0	127.0				75.0	90.0	100.0	7.50	6.20	6.20	6.80	6.50	
0.75	5.88	8	7/8	3/4	3.25	4.00	4.50	5.31	4.25	4.22	4.75	4.49	2 1/2
19.0	149.2				85.0	100.0	115.0	11.70	9.40	9.30	10.50	9.90	
0.81	6.62	8	7/8	3/4	3.50	4.25	4.75	7.32	5.81	5.78	6.79	6.20	3
21.0	168.3				90.0	110.0	120.0	16.10	12.80	12.70	14.90	13.70	
	7.25	8	7/8	3/4	3.75	4.25	5.00	8.17	7.72	7.72	9.53		3 1/2
	184.2				95.0	110.0	125.0	18.00	17.00	17.00	21.00		
	7.88	8	7/8	3/4	3.75	4.50	5.00	11.30	10.13	10.07	12.00		4
	200.0				95.0	115.0	125.0	24.90	22.30	22.20	26.50		
	9.25	8	7/8	3/4	4.25	4.75	5.25	15.12	12.58	12.52	15.96		5
	235.0				110.0	120.0	135.0	33.30	27.70	27.60	35.20		
	10.62	12	7/8	3/4	4.25	4.75	5.50	19.68	16.04	15.95	21.20		6
	269.9				110.0	120.0	140.0	43.40	35.40	35.20	46.70		
	13.00	12	1	7/8	4.75	5.50	6.00	30.48	24.50	24.37	34.60		8
	330.2				120.0	140.0	150.0	67.20	54.00	53.70	76.30		
	15.25	16	1 1/8	1	5.50	6.25	6.75	43.74	34.16	39.92	55.34		10
	387.4				140.0	160.0	170.0	96.40	75.30	88.00	122.00		
	17.75	16	1 1/4	1 1/8	5.75	6.75	7.25	64.41	51.26	58.70	78.90		12
	450.8				145.0	170.0	185.0	142.00	113.00	129.40	174.00		
	20.25	20	1 1/4	1 1/8	6.25	7.00	7.50	88.30	72.12	83.46	107.05		14
	514.4				160.0	180.0	190.0	194.70	159.00	184.00	236.00		
	22.50	20	1 3/8	1 1/4	6.50	7.50	8.00	112.94	90.40	106.14	139.25		16
	571.5				165.0	190.0	205.0	249.00	199.30	234.00	307.00		
	24.75	24	1 3/8	1 1/4	6.75	7.75	8.25	138.34	109.00	133.95	176.90		18
	628.6				170.0	195.0	210.0	305.00	240.30	295.30	396.00		
	27.00	24	1 3/8	1 1/4	7.25	8.00	8.75	167.37	136.00	157.65	223.17		20
	685.8				185.0	205.0	220.0	369.00	300.00	347.60	492.00		
	32.00	24	1 5/8	1 1/2	8.00	9.00	10.00	235.41	204.00	240.40	342.00		24
	812.8				205.0	230.0	255.0	519.00	449.70	530.00	754.00		



Slip-On
平焊法兰



Welding Neck
高颈对焊法兰



Socket Welding
承插法兰

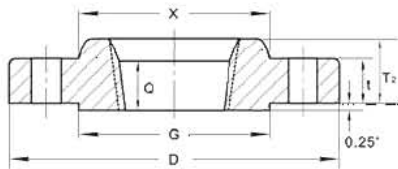
ANSI B16.5

600 磅 法 兰

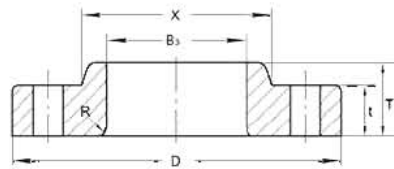
Dimensions In. mm

Nominal Pipe Size	Outside Diam.	Thickness min.	O.D. of Raised Face	Diam. of Hub	Bore			Counter- bore Threaded min.	Length Thru. Hub			Diam. of Hub at Bevel	Radius of Fillet	Thread Length min.
					Welding Neck/ Socket Welding	Slip-on/ Socket Welding min.	Lap-Joint min.		Welding Neck	Slip-on/ Threaded/ Socket Welding	Lap-Joint			
					B1	B2	B3		T1	T2	T3	A	R	Q
1/2	3.75	0.56	1.38	1.50	To be specified by purchaser	0.88	0.90	0.93	2.06	0.88	0.88	0.84	0.12	0.62
	95.0	14.3	34.9	38.0		22.2	22.9	23.6	52.0	22.0	22.0	21.3	3.0	16.0
3/4	4.62	0.62	1.69	1.88		1.09	1.11	1.14	2.25	1.00	1.00	1.05	0.12	0.62
	115.0	15.9	42.9	48.0		27.7	28.2	29.0	57.0	25.0	25.0	26.7	3.0	16.0
1	4.88	0.69	2.00	2.12		1.36	1.38	1.41	2.44	1.06	1.06	1.32	0.12	0.69
	125.0	17.5	50.8	54.0		34.5	34.9	35.8	62.0	27.0	27.0	33.4	3.0	18.0
1 1/4	5.25	0.81	2.50	2.50		1.70	1.72	1.75	2.62	1.12	1.12	1.66	0.19	0.81
	135.0	20.7	63.5	64.0		43.2	43.7	44.4	67.0	29.0	29.0	42.2	5.0	21.0
1 1/2	6.12	0.88	2.88	2.75		1.95	1.97	1.99	2.75	1.25	1.25	1.90	0.25	0.88
	155.0	22.3	73.0	70.0		49.5	50.0	50.6	70.0	32.0	32.0	48.3	6.0	23.0
2	6.50	1.00	3.62	3.31		2.44	2.46	2.50	2.88	1.44	1.44	2.38	0.31	1.12
	165.0	25.4	92.1	84.0		61.9	62.5	63.5	73.0	37.0	37.0	60.3	8.0	29.0
2 1/2	7.50	1.12	4.12	3.94		2.94	2.97	3.00	3.12	1.62	1.62	2.88	0.31	1.25
	190.0	28.6	104.8	100.0		74.6	75.4	76.2	79.0	41.0	41.0	73.0	8.0	32.0
3	8.25	1.25	5.00	4.62		3.57	3.60	3.63	3.25	1.81	1.81	3.50	0.38	1.38
	210.0	31.8	127.0	117.0		90.7	91.4	92.2	83.0	46.0	46.0	88.9	10.0	35.0
3 1/2	9.00	1.38	5.50	5.25		4.07	4.10	4.13	3.38	1.94	1.94	4.00	0.38	1.56
	230.0	35.0	139.7	133.0		103.4	104.1	104.9	86.0	49.0	49.0	101.6	10.0	40.0
4	10.75	1.50	6.19	6.00		4.57	4.60	4.63	4.00	2.12	2.12	4.50	0.44	1.62
	275.0	38.1	157.2	152.0		116.1	116.8	117.6	102.0	54.0	54.0	114.3	11.0	42.0
5	13.00	1.75	7.31	7.44		5.66	5.69	5.69	4.50	2.38	2.38	5.56	0.44	1.88
	330.0	44.5	185.7	189.0		143.8	144.4	144.4	114.0	60.0	60.0	141.3	11.0	48.0
6	14.00	1.88	8.50	8.75		6.72	6.75	6.75	4.62	2.62	2.62	6.63	0.50	2.00
	355.0	47.7	215.9	222.0		170.7	171.4	171.4	117.0	67.0	67.0	168.3	13.0	51.0
8	16.50	2.19	10.62	10.75		8.72	8.75	8.75	5.25	3.00	3.00	8.63	0.50	2.25
	420.0	55.6	269.9	273.0		221.5	222.2	222.2	133.0	76.0	76.0	219.1	13.0	58.0
10	20.00	2.50	12.75	13.50		10.88	10.92	10.88	6.00	3.38	4.38	10.75	0.50	2.56
	510.0	63.5	323.8	343.0		276.2	277.4	276.2	152.0	86.0	111.0	273.0	13.0	66.0
12	22.00	2.62	15.00	15.75		12.88	12.92	12.94	6.12	3.62	4.62	12.75	0.50	2.75
	560.0	66.7	381.0	400.0		327.0	328.2	328.6	156.0	92.0	117.0	323.8	13.0	70.0
14	23.75	2.75	16.25	17.00		14.14	14.18	14.19	6.50	3.69	5.00	14.00	0.50	2.88
	605.0	69.9	412.8	432.0		359.2	360.2	360.4	165.0	94.0	127.0	355.6	13.0	74.0
16	27.00	3.00	18.50	19.50		16.16	16.19	16.19	7.00	4.19	5.50	16.00	0.50	3.06
	685.0	76.2	469.9	495.0		410.5	411.2	411.2	178.0	106.0	140.0	406.4	13.0	78.0
18	29.25	3.25	21.00	21.50		18.18	18.20	18.19	7.25	4.62	6.00	18.00	0.50	3.12
	745.0	82.6	533.4	546.0		461.8	462.3	462.0	184.0	117.0	152.0	457.0	13.0	80.0
20	32.00	3.50	23.00	24.00		20.20	20.25	20.19	7.50	5.00	6.50	20.00	0.50	3.25
	815.0	88.9	584.2	610.0		513.1	514.4	512.8	190.0	127.0	165.0	508.0	13.0	83.0
24	37.00	4.00	27.25	28.25		24.25	24.25	24.19	8.00	5.50	7.25	24.00	0.50	3.62
	940.0	101.6	692.2	718.0		616.0	616.0	614.4	203.0	140.0	184.0	610.0	13.0	93.0

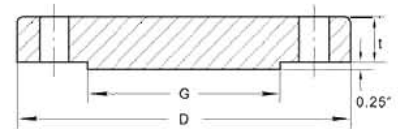
锻造法兰尺寸 Dimensions of Forged Flanges



Threaded
螺纹法兰



Lap-Joint
松套法兰



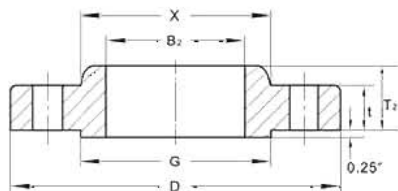
Blind
盲板法兰

ANSI B16.5

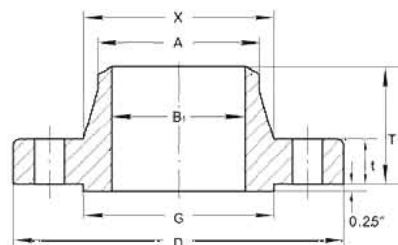
CLASS 600 FLANGES

Dimensions In.
mm

Depth of Socket	Drilling				Bolting			Approximate Weight					Nominal Pipe Size
	Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. of Bolts	Length of Bolts			Welding Neck	Slip-on and Threaded	Lap-Joint	Blind	Socket Welding	
					7mm Raised Face	Male-Female/Tongue-Groove	Ring Joint						
					Q							Kg	
lb							lb	lb	lb	lb	lb		
0.38	2.62	4	5/8	1/2	3.00	2.75	3.00	0.90	0.91	0.80	0.91	0.91	1/2
10.0	66.7				75.0	70.0	75.0	2.00	2.00	1.80	2.00	2.00	
0.44	3.25	4	3/4	5/8	3.50	3.25	3.50	1.59	1.40	1.36	1.40	1.36	3/4
11.0	82.6				90.0	85.0	90.0	3.50	3.00	3.00	3.00	3.00	
0.50	3.50	4	3/4	5/8	3.50	3.25	3.50	1.90	1.70	1.59	1.81	1.81	1
13.0	88.9				90.0	85.0	90.0	4.00	3.70	3.50	4.00	4.00	
0.56	3.88	4	3/4	5/8	3.75	3.50	3.75	2.49	2.27	2.04	2.40	2.60	1 1/4
14.0	98.4				95.0	90.0	95.0	5.50	5.00	4.50	5.30	5.70	
0.62	4.50	4	7/8	3/4	4.25	4.00	4.25	3.63	3.10	2.95	3.40	3.18	1 1/2
16.0	114.3				110.0	100.0	110.0	8.00	6.80	6.50	7.50	7.00	
0.69	5.00	8	3/4	5/8	4.25	4.00	4.25	4.54	3.63	3.63	4.40	3.90	2
17.0	127.0				110.0	100.0	110.0	10.00	8.00	8.00	9.70	8.60	
0.75	5.88	8	7/8	3/4	4.75	4.50	4.75	6.35	5.44	4.99	6.80	5.90	2 1/2
19.0	149.2				120.0	115.0	120.0	14.00	12.00	11.00	15.00	13.00	
0.81	6.62	8	7/8	3/4	5.00	4.75	5.00	8.16	7.26	6.35	8.90	7.40	3
21.0	168.3				125.0	120.0	125.0	18.00	16.00	14.00	19.60	16.30	
	7.25	8	1	7/8	5.50	5.25	5.50	11.80	9.53	9.08	13.17		3 1/2
	184.2				140.0	135.0	140.0	26.00	21.00	20.00	29.00		
	8.50	8	1	7/8	5.75	5.50	5.75	16.78	14.97	14.06	18.60		4
	215.9				145.0	140.0	145.0	37.00	33.00	31.00	41.00		
	10.50	8	1 1/8	1	6.50	6.25	6.50	30.87	28.50	27.50	30.84		5
	266.7				165.0	160.0	165.0	68.00	62.80	60.60	68.00		
	11.50	12	1 1/8	1	6.75	6.50	6.75	36.77	36.32	35.38	38.00		6
	292.1				170.0	165.0	170.0	80.00	80.00	78.00	83.80		
	13.75	12	1 1/4	1 1/8	7.50	7.25	7.75	50.80	44.00	50.80	62.20		8
	349.2				190.0	185.0	195.0	112.00	97.00	112.00	137.00		
	17.00	16	1 3/8	1 1/4	8.50	8.25	8.50	86.26	76.20	74.00	102.00		10
	431.8				215.0	210.0	215.0	190.00	168.00	163.00	224.90		
	19.25	20	1 3/8	1 1/4	8.75	8.50	8.75	102.51	97.52	108.86	132.00		12
	489.0				220.0	215.0	220.0	226.00	215.00	240.00	291.00		
	20.75	20	1 1/2	1 3/8	9.25	9.00	9.25	121.56	102.00	111.00	158.00		14
	527.0				235.0	230.0	235.0	268.00	224.80	244.70	348.30		
	23.75	20	1 5/8	1 1/2	10.00	9.75	10.00	177.06	149.82	165.71	224.73		16
	603.2				255.0	250.0	255.0	290.00	330.20	365.30	495.40		
	25.75	20	1 3/4	1 5/8	10.75	10.50	10.75	215.65	180.10	194.00	285.00		18
	654.0				275.0	265.0	275.0	475.40	412.30	427.70	628.30		
	28.50	24	1 3/4	1 5/8	11.25	11.00	11.50	267.86	231.54	258.80	365.00		20
	723.9				285.0	280.0	290.0	590.50	510.50	570.50	804.7		
	33.00	24	2	1 7/8	13.00	12.75	13.25	372.00	330.00	362.00	533.45		24
	838.2				330.0	325.0	335.0	820.00	725.50	798.0	1176.0		



Slip-On
平焊法兰



Welding Neck
高颈对焊法兰

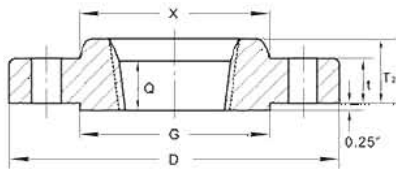
ANSI B16.5

900 磅 法 兰

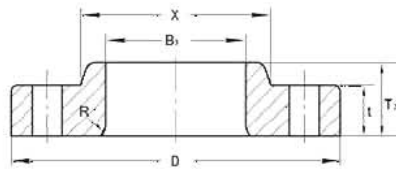
Dimensions ^{In.}_{mm}

Nominal Pipe Size	Outside Diam.	Thickness min.	O.D.of Raised Face	Diam. at Base of Hub	Bore			Counter- bore Threaded min.	Length Thru. Hub			Diam.of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck	Slip-on	Lap-Joint min.		Welding Neck	Slip-on/ Threaded	Lap-Joint			
1/2	4.75	0.88	1.38	1.50	To be specified by purchaser	0.88	0.90	0.93	2.38	1.25	1.25	0.84	0.12	0.88
	120.0	22.3	34.9	38.0		22.2	22.9	23.6	60.0	32.0	32.0	21.3	3.0	23.0
3/4	5.12	1.00	1.69	1.75		1.09	1.11	1.14	2.75	1.38	1.38	1.05	0.12	1.00
	130.0	25.4	42.9	44.0		27.7	28.2	29.0	70.0	35.0	35.0	26.7	3.0	26.0
1	5.88	1.12	2.00	2.06		1.36	1.38	1.41	2.88	1.62	1.62	1.32	0.12	1.12
	150.0	28.6	50.8	52.0		34.5	34.9	35.8	73.0	41.0	41.0	33.4	3.0	29.0
1 1/4	6.25	1.12	2.50	2.50		1.70	1.72	1.75	2.88	1.62	1.62	1.66	0.19	1.19
	160.0	28.6	63.5	64.0		43.2	43.7	44.4	73.0	41.0	41.0	42.2	5.0	31.0
1 1/2	7.00	1.25	2.88	2.75		1.95	1.97	1.99	3.25	1.75	1.75	1.90	0.25	1.25
	180.0	31.8	73.0	70.0		49.5	50.0	50.6	83.0	44.0	44.0	48.3	6.0	32.0
2	8.50	1.50	3.62	4.12		2.44	2.46	2.50	4.00	2.25	2.25	2.38	0.31	1.50
	215.0	38.1	92.1	105.0		61.9	62.5	63.5	102.0	57.0	57.0	60.3	8.0	39.0
2 1/2	9.62	1.62	4.12	4.88		2.94	2.97	3.00	4.12	2.50	2.50	2.88	0.31	1.88
	245.0	41.3	104.8	124.0		74.6	75.4	76.2	105.0	64.0	64.0	73.0	8.0	48.0
3	9.50	1.50	5.00	5.00		3.57	3.60	3.63	4.00	2.12	2.12	3.50	0.38	1.62
	240.0	38.1	127.0	127.0		90.7	91.4	92.2	102.0	54.0	54.0	88.9	10.0	42.0
4	11.50	1.75	6.19	6.25		4.57	4.60	4.63	4.50	2.75	2.75	4.50	0.44	1.88
	290.0	44.5	157.2	159.0		116.1	116.8	117.6	114.0	70.0	70.0	114.3	11.0	48.0
5	13.75	2.00	7.31	7.50		5.66	5.69	5.69	5.00	3.12	3.12	5.56	0.44	2.12
	350.0	50.8	185.7	190.0		143.8	144.4	144.4	127.0	79.0	79.0	141.3	11.0	54.0
6	15.00	2.19	8.50	9.25		6.72	6.75	6.75	5.50	3.38	3.38	6.63	0.50	2.25
	380.0	55.6	215.9	235.0		170.7	171.4	171.4	140.0	86.0	86.0	168.3	13.0	58.0
8	18.50	2.50	10.62	11.75		8.72	8.75	8.75	6.38	4.00	4.50	8.63	0.50	2.50
	470.0	63.5	269.9	298.0		221.5	222.2	222.2	162.0	102.0	114.0	219.1	13.0	64.0
10	21.50	2.75	12.75	14.50		10.88	10.92	10.88	7.25	4.25	5.00	10.75	0.50	2.81
	545.0	69.9	323.8	368.0		276.2	277.4	276.2	184.0	108.0	127.0	273.0	13.0	72.0
12	24.00	3.12	15.00	16.50		12.88	12.92	12.94	7.88	4.62	5.62	12.75	0.50	3.00
	610.0	79.4	381.0	419.0		327.0	328.2	328.6	200.0	117.0	143.0	323.8	13.0	77.0
14	25.25	3.38	16.25	17.75		14.14	14.18	14.19	8.38	5.12	6.12	14.00	0.50	3.25
	640.0	85.8	412.8	451.0		359.2	360.2	360.4	213.0	130.0	156.0	355.6	13.0	83.0
16	27.75	3.50	18.50	20.00		16.16	16.19	16.19	8.50	5.25	6.50	16.00	0.50	3.38
	705.0	88.9	469.9	508.0		410.5	411.2	411.2	216.0	133.0	165.0	406.4	13.0	86.0
18	31.00	4.00	21.00	22.25		18.18	18.20	18.19	9.00	6.00	7.50	18.00	0.50	3.50
	785.0	101.6	533.4	565.0		461.8	462.3	462.0	229.0	152.0	190.0	457.0	13.0	89.0
20	33.75	4.25	23.00	24.50		20.20	20.25	20.19	9.75	6.25	8.25	20.00	0.50	3.62
	855.0	108.0	584.2	622.0		513.1	514.4	512.8	248.0	159.0	210.0	508.0	13.0	93.0
24	41.00	5.50	27.25	29.50		24.25	24.25	24.19	11.50	8.00	10.50	24.00	0.50	4.00
	1040.0	139.7	692.2	749.0		616.0	616.0	614.4	292.0	203.0	267.0	610.0	13.0	102.0

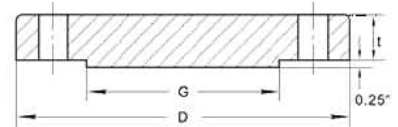
锻造法兰尺寸 Dimensions of Forged Flanges



Threaded
螺纹法兰



Lap-Joint
松套法兰



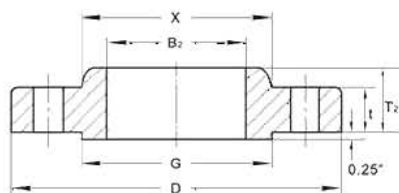
Blind
盲板法兰

ANSI B16.5

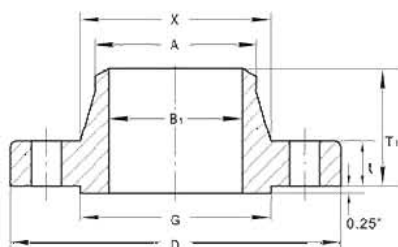
CLASS 900 FLANGES

Dimensions In.
mm

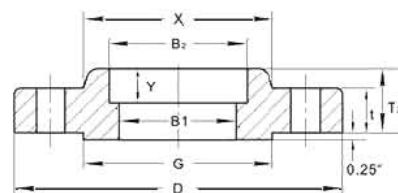
Drilling			Bolting				Approximate Weight				Nominal Pipe Size
Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. Of Bolts	Length of Bolts			Welding Neck	Slip-on and Threaded	Lap-Joint	Blind	
				7mm Raised Face	Male and Female/ Tongue and Groove	Ring Joint					
							Kg	Kg	Kg	Kg	
							lb	lb	lb	lb	
3.25	4	7/8	3/4	4.25	4.00	4.25	2.10	1.81	1.81	1.90	1/2
82.6				110.0	100.0	110.0	4.60	4.00	4.00	4.20	
3.50	4	7/8	3/4	4.50	4.25	4.50	2.72	2.40	2.30	2.70	3/4
88.9				115.0	110.0	115.0	6.00	5.30	5.00	6.00	
4.00	4	1	7/8	5.00	4.75	5.00	3.86	3.41	3.40	4.09	1
101.6				125.0	120.0	125.0	8.50	7.50	7.50	9.00	
4.38	4	1	7/8	5.00	4.75	5.00	4.54	4.10	4.09	4.54	1 1/4
111.1				125.0	120.0	125.0	10.00	9.00	9.00	10.00	
4.88	4	1 1/8	1	5.50	5.25	5.50	5.90	5.45	5.40	5.90	1 1/2
123.8				140.0	135.0	140.0	13.00	12.00	11.90	13.00	
6.50	8	1	7/8	5.75	5.50	5.75	10.89	9.98	9.53	11.34	2
165.1				145.0	140.0	145.0	24.00	22.00	21.00	25.00	
7.50	8	1 1/8	1	6.25	6.00	6.25	16.33	15.80	13.15	16.00	2 1/2
190.5				160.0	150.0	160.0	36.00	34.80	29.00	35.30	
7.50	8	1	7/8	5.75	5.50	5.75	15.00	11.80	11.34	13.17	3
190.5				145.0	140.0	145.0	33.00	26.00	25.00	29.00	
9.25	8	1 1/4	1 1/8	6.75	6.50	6.75	23.13	23.20	22.60	24.50	4
235.0				170.0	165.0	170.0	51.00	51.00	48.50	54.00	
11.00	8	1 3/8	1 1/4	7.50	7.25	7.50	38.50	37.65	36.74	39.46	5
279.4				190.0	185.0	190.0	84.90	83.00	81.00	87.00	
12.50	12	1 1/4	1 1/8	7.50	7.25	7.75	49.89	48.30	47.50	51.50	6
317.5				190.0	185.0	195.0	110.00	106.50	104.70	113.50	
15.50	12	1 1/2	1 3/8	8.75	8.50	8.75	79.45	75.00	86.00	89.00	8
393.7				220.0	215.0	220.0	175.00	166.30	189.60	106.20	
18.50	16	1 1/2	1 3/8	9.25	9.00	9.25	118.04	111.13	125.64	131.54	10
469.9				235.0	230.0	235.0	260.00	245.00	277.00	290.00	
21.00	20	1 1/2	1 3/8	10.00	9.75	10.00	157.00	146.00	167.00	187.00	12
533.4				255.0	250.0	255.0	346.00	321.80	368.00	412.30	
22.00	20	1 5/8	1 1/2	10.75	10.50	11.00	181.60	172.36	180.07	224.07	14
558.8				275.0	265.0	280.0	400.40	380.0	397.00	494.00	
24.25	20	1 3/4	1 5/8	11.25	11.00	11.50	224.73	192.95	211.11	272.40	16
616.0				285.0	280.0	290.0	495.50	425.40	465.40	600.50	
27.00	20	2	1 7/8	12.75	12.50	13.25	308.72	272.40	295.10	385.90	18
685.8				325.0	320.0	335.0	680.60	600.50	650.60	850.80	
29.50	20	2 1/8	2	13.75	13.50	14.25	376.82	331.42	367.74	488.00	20
749.3				350.0	345.0	360.0	830.70	730.60	810.70	1076.0	
35.50	20	2 5/8	2 1/2	17.25	17.00	18.00	685.00	632.00	700.00	905.00	24
901.7				440.0	430.0	455.0	1510.0	1393.3	1543.0	1995.0	



Slip-On
平焊法兰



Welding Neck
高颈对焊法兰



Socket Welding
承插法兰

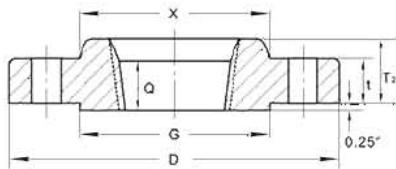
ANSI B16.5

1500 磅 法 兰

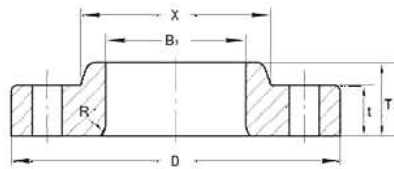
Dimensions In. mm

Nominal Pipe Size	Outside Diam.	Thickness min.	O.D. of Raised Face	Diam. at Base of Hub	Bore			Counter- bore min.	Length Thru. Hub			Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck/ Socket Welding	Slip-on/ Socket Welding	Lap-Joint		Welding Neck	Slip-on/ Threaded/ Socket Welding	Lap-Joint			
	D	t	G	X	B1	B2	B3		T1	T2	T3	A	R	Q
1/2	4.75	0.88	1.38	1.50	To be specified by purchaser	0.88	0.90	0.93	2.38	1.25	1.25	0.84	0.12	0.88
	120.0	22.3	34.9	38.0		22.2	22.9	23.6	60.0	32.0	32.0	21.3	3.0	23.0
3/4	5.12	1.00	1.69	1.75		1.09	1.11	1.14	2.75	1.38	1.38	1.05	0.12	1.00
	130.0	25.4	42.9	44.0		27.7	28.2	29.0	70.0	35.0	35.0	26.7	3.0	26.0
1	5.88	1.12	2.00	2.06		1.36	1.38	1.41	2.88	1.62	1.62	1.32	0.12	1.12
	150.0	28.6	50.8	52.0		34.5	34.9	35.8	73.0	41.0	41.0	33.4	3.0	29.0
1 1/4	6.25	1.12	2.50	2.50		1.70	1.72	1.75	2.88	1.62	1.62	1.66	0.19	1.19
	160.0	28.6	63.5	64.0		43.2	43.7	44.4	73.0	41.0	41.0	42.2	5.0	31.0
1 1/2	7.00	1.25	2.88	2.75		1.95	1.97	1.99	3.25	1.75	1.75	1.90	0.25	1.25
	180.0	31.8	73.0	70.0		49.5	50.0	50.6	83.0	44.0	44.0	48.3	6.0	32.0
2	8.50	1.50	3.62	4.12		2.44	2.46	2.50	4.00	2.25	2.25	2.38	0.31	1.50
	215.0	38.1	92.1	105.0		61.9	62.5	63.5	102.0	57.0	57.0	60.3	8.0	39.0
2 1/2	9.62	1.62	4.12	4.88		2.94	2.97	3.00	4.12	2.50	2.50	2.88	0.31	1.88
	245.0	41.3	104.8	124.0		74.6	75.4	76.2	105.0	64.0	64.0	73.0	8.0	48.0
3	10.50	1.88	5.00	5.25		...	3.60	...	4.62	...	2.88	3.50	0.38	...
	265.0	47.7	127.0	133.0		...	91.4	...	117.0	...	73.0	88.9	10.0	...
4	12.25	2.12	6.19	6.38		...	4.60	...	4.88	...	3.56	4.50	0.44	...
	310.0	54.0	157.2	162.0		...	116.8	...	124.0	...	90.0	114.3	11.0	...
5	14.75	2.88	7.31	7.75		...	5.69	...	6.12	...	4.12	5.56	0.44	...
	375.0	73.1	185.7	197.0		...	144.4	...	156.0	...	105.0	141.3	11.0	...
6	15.50	3.25	8.50	9.00		...	6.75	...	6.75	...	4.69	6.63	0.50	...
	395.0	82.6	215.9	229.0		...	171.4	...	171.0	...	119.0	168.3	13.0	...
8	19.00	3.62	10.62	11.50		...	8.75	...	8.38	...	5.62	8.63	0.50	...
	485.0	92.1	269.9	292.0		...	222.2	...	213.0	...	143.0	219.1	13.0	...
10	23.00	4.25	12.75	14.50		...	10.92	...	10.00	...	7.00	10.75	0.50	...
	585.0	108.0	323.8	368.0		...	277.4	...	254.0	...	178.0	273.0	13.0	...
12	26.50	4.88	15.00	17.75		...	12.92	...	11.12	...	8.62	12.75	0.50	...
	675.0	123.9	381.0	451.0		...	328.2	...	283.0	...	219.0	323.8	13.0	...
14	29.50	5.25	16.25	19.50		...	14.18	...	11.75	...	9.50	14.00	0.50	...
	750.0	133.4	412.8	495.0		...	360.2	...	298.0	...	241.0	355.6	13.0	...
16	32.50	5.75	18.50	21.75		...	16.19	...	12.25	...	10.25	16.00	0.50	...
	825.0	146.1	469.9	552.0		...	411.2	...	311.0	...	260.0	406.4	13.0	...
18	36.00	6.38	21.00	23.50		...	18.20	...	12.88	...	10.88	18.00	0.50	...
	915.0	162.0	533.4	597.0		...	462.3	...	327.0	...	276.0	457.0	13.0	...
20	38.75	7.00	23.00	25.25		...	20.25	...	14.00	...	11.50	20.00	0.50	...
	985.0	177.8	584.2	641.0		...	514.4	...	356.0	...	292.0	508.0	13.0	...
24	46.00	8.00	27.25	30.00		...	24.25	...	16.00	...	13.00	24.00	0.50	...
	1170.0	203.2	692.2	762.0		...	616.0	...	406.0	...	330.0	610.0	13.0	...

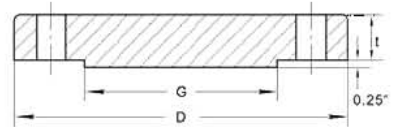
锻造法兰尺寸 Dimensions of Forged Flanges



Threaded
螺纹法兰



Lap-Joint
松套法兰



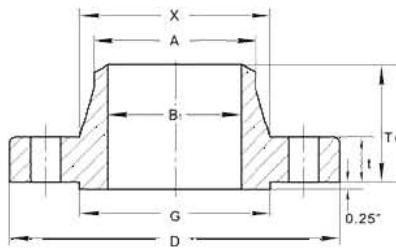
Blind
盲板法兰

ANSI B16.5

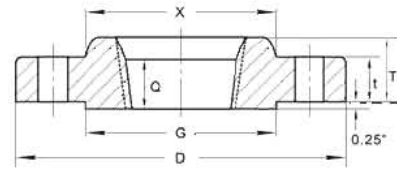
CLASS 1500 FLANGES

Dimensions In.
mm

Depth of Socket Y	Drilling			Bolting				Approximate Weight					Nominal Pipe Size
	Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. of Bolts	Length of Bolts			Welding Neck	Slip-on and Threaded	Lap-Joint	Blind	Socket Welding	
					7mm Raised Face	Male and Female/Tongue and Groove	Ring Joint	Kg lb	Kg lb	Kg lb	Kg lb	Kg lb	
0.38	3.25	4	7/8	3/4	4.25	4.00	4.25	2.10	1.80	1.80	1.90	1.81	1/2
10.0	82.6				110.0	100.0	110.0	4.60	4.00	4.00	4.00	4.00	
0.44	3.50	4	7/8	3/4	4.50	4.25	4.50	2.72	2.27	2.27	2.72	2.81	3/4
11.0	88.9				115.0	110.0	115.0	6.00	5.00	5.00	6.00	6.20	
0.50	4.00	4	1	7/8	5.00	4.75	5.00	3.86	3.40	3.40	4.08	3.61	1
13.0	101.6				125.0	120.0	125.0	8.50	7.50	7.50	9.00	8.00	
0.56	4.38	4	1	7/8	5.00	4.75	5.00	4.54	4.10	4.09	4.30	4.99	1 1/4
14.0	111.1				125.0	120.0	125.0	10.00	9.00	10.80	9.50	11.00	
0.62	4.88	4	1 1/8	1	5.50	5.25	5.50	5.90	5.45	5.40	5.90	6.76	1 1/2
16.0	123.8				140.0	135.0	140.0	13.00	12.00	11.90	13.00	14.90	
0.69	6.50	8	1	7/8	5.75	5.50	5.75	10.89	10.50	9.53	11.30	10.89	2
17.0	165.1				145.0	140.0	145.0	24.00	23.00	21.00	25.00	24.00	
0.75	7.50	8	1 1/8	1	6.25	6.00	6.25	16.34	15.80	13.15	16.00	16.34	2 1/2
19.0	190.5				160.0	150.0	160.0	36.00	34.80	29.00	35.30	36.00	
...	8.00	8	1 1/4	1 1/8	7.00	6.75	7.00	21.79	21.77	17.24	21.79	...	3
...	203.2				180.0	170.0	180.0	48.00	48.00	38.00	48.00	...	
...	9.50	8	1 3/8	1 1/4	7.75	7.50	7.75	31.30	31.00	29.00	33.11	...	4
...	241.3				195.0	190.0	195.0	69.00	68.40	63.90	73.00	...	
...	11.50	8	1 5/8	1 1/2	9.75	9.50	9.75	59.02	58.80	54.00	60.00	...	5
...	292.1				250.0	240.0	250.0	130.00	129.60	119.00	132.30	...	
...	12.50	12	1 1/2	1 3/8	10.25	10.00	10.50	74.91	74.00	62.00	75.00	...	6
...	317.5				260.0	255.0	265.0	165.00	163.00	136.70	165.30	...	
...	15.50	12	1 3/4	1 5/8	11.50	11.25	12.75	123.83	117.73	129.73	136.98	...	8
...	393.7				290.0	285.0	325.0	273.00	258.00	236.00	302.00	...	
...	19.00	12	2	1 7/8	13.25	13.00	13.50	205.93	197.49	220.19	229.97	...	10
...	482.6				335.0	330.0	345.0	454.00	435.40	485.40	507.00	...	
...	22.50	16	2 1/8	2	14.75	14.50	15.25	306.00	264.00	286.02	316.00	...	12
...	571.5				375.0	370.0	385.0	674.60	582.00	630.60	696.70	...	
...	25.00	16	2 3/8	2 1/4	16.00	15.75	16.75	416.00	...	404.06	421.00	...	14
...	635.0				405.0	400.0	425.0	917.00	...	890.80	928.00	...	
...	27.75	16	2 5/8	2 1/2	17.50	17.25	18.50	567.50	...	522.10	559.00	...	16
...	704.8				445.0	440.0	470.0	1250.0	...	1151.0	1232.7	...	
...	30.50	16	2 7/8	2 3/4	19.50	19.25	20.75	736.00	...	669.65	761.00	...	18
...	774.7				495.0	490.0	525.0	1622.6	...	1476.3	1677.7	...	
...	32.75	16	3 1/8	3	21.25	21.00	22.25	929.00	...	805.85	967.00	...	20
...	831.8				540.0	535.0	565.0	2048.0	...	1776.6	2131.8	...	
...	39.00	16	3 5/8	3 1/2	24.25	24.00	25.50	1504.0	...	1285.6	1568.0	...	24
...	990.6				615.0	610.0	650.0	3315.7	...	2834.0	3456.8	...	



Welding Neck
高颈对焊法兰



Threaded
螺纹法兰

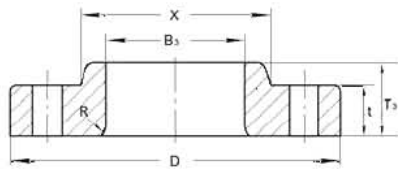
ANSI B16.5

2500 磅 法 兰

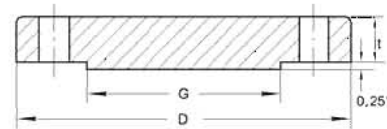
Dimensions In.
mm

Nominal Pipe Size	Outside Diam.	Thickness min	O.D.of Raised Face	Diam. at Base of Hub	Bore		Counter- bore min.	Length Thru. Hub			Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck	Lap-Joint		Welding Neck	Threaded	Lap-Joint			
D	t	G	X	B1	B3	B	T1	T2	T3	A	R	Q	
1/2	5.25	1.19	1.38	1.69	To be specified by purchaser	0.90	0.93	2.88	1.56	1.56	0.84	0.12	1.12
	135.0	30.2	34.9	43.0		22.9	23.6	73.0	40.0	40.0	21.3	3.0	29.0
3/4	5.50	1.25	1.69	2.00		1.11	1.14	3.12	1.69	1.69	1.05	0.12	1.25
	140.0	31.8	42.9	51.0		28.2	29.0	79.0	43.0	43.0	26.7	3.0	32.0
1	6.25	1.38	2.00	2.25		1.38	1.41	3.50	1.88	1.88	1.32	0.12	1.38
	160.0	35.0	50.8	57.0		34.9	35.8	89.0	48.0	48.0	33.4	3.0	35.0
1 1/4	7.25	1.50	2.50	2.88		1.72	1.75	3.75	2.06	2.06	1.66	0.19	1.50
	185.0	38.1	63.5	73.0		43.7	44.4	95.0	52.0	52.0	42.2	5.0	39.0
1 1/2	8.00	1.75	2.88	3.12		1.97	1.99	4.38	2.38	2.38	1.90	0.25	1.75
	205.0	44.5	73.0	79.0		50.0	50.6	111.0	60.0	60.0	48.3	6.0	45.0
2	9.25	2.00	3.62	3.75		2.46	2.50	5.00	2.75	2.75	2.38	0.31	2.00
	235.0	50.9	92.1	95.0		62.5	63.5	127.0	70.0	70.0	60.3	8.0	51.0
2 1/2	10.25	2.25	4.12	4.50		2.97	3.00	5.62	3.12	3.12	2.88	0.31	2.25
	265.0	57.2	104.8	114.0		75.4	76.2	143.0	79.0	79.0	73.0	8.0	58.0
3	12.00	2.62	5.00	5.25		3.60	...	6.62	...	3.62	3.50	0.38	...
	305.0	66.7	127.0	133.0		91.4	...	168.0	...	92.0	88.9	10.0	...
4	14.00	3.00	6.19	6.50		4.60	...	7.50	...	4.25	4.50	0.44	...
	355.0	76.2	157.2	165.0		116.8	...	190.0	...	108.0	114.3	11.0	...
5	16.50	3.62	7.31	8.00		5.69	...	9.00	...	5.12	5.56	0.44	...
	420.0	92.1	185.7	203.0		144.4	...	229.0	...	130.0	141.3	11.0	...
6	19.00	4.25	8.50	9.25		6.75	...	10.75	...	6.00	6.63	0.50	...
	485.0	108.0	215.9	235.0		171.4	...	273.0	...	152.0	168.3	13.0	...
8	21.75	5.00	10.62	12.00		8.75	...	12.50	...	7.00	8.63	0.50	...
	550.0	127.0	269.9	305.0		222.2	...	318.0	...	178.0	219.1	13.0	...
10	26.50	6.50	12.75	14.75		10.92	...	16.50	...	9.00	10.75	0.50	...
	675.0	165.1	323.8	375.0		277.4	...	419.0	...	229.0	273.0	13.0	...
12	30.00	7.25	15.00	17.38		12.92	...	18.25	...	10.00	12.75	0.50	...
	760.0	184.2	381.0	441.0		328.2	...	464.0	...	254.0	323.8	13.0	...

锻造法兰尺寸 Dimensions of Forged Flanges



Lap-Joint
松套法兰



Blind
盲板法兰

ANSI B16.5

CLASS 2500 FLANGES

Dimensions In.
mm

Drilling				Bolting			Approximate Weight				Nominal Pipe Size
Diam. of Bolt Circle	Number of Holes	Diam. of Holes	Diam. Of Bolts	Length of Bolts			Welding Neck	Threaded	Lap-Joint	Blind	
				7mm Raised Face	Male and Female/ Tongue and Groove	Ring Joint					
							Kg	Kg	Kg	Kg	
lb	lb	lb	lb								
3.50	4	7/8	3/4	4.75	4.50	4.75	3.20	3.00	3.00	3.00	1/2
88.9				120.0	115.0	120.0	7.00	6.60	6.60	7.00	
3.75	4	7/8	3/4	5.00	4.75	5.00	3.60	4.00	4.00	4.50	3/4
95.2				125.0	120.0	125.0	8.00	8.80	8.80	10.00	
4.25	4	1	7/8	5.50	5.25	5.50	5.40	5.00	5.00	5.00	1
108.0				140.0	135.0	140.0	12.00	11.00	11.00	12.00	
5.12	4	1 1/8	1	6.00	5.75	6.00	7.80	8.00	8.00	8.00	1 1/4
130.2				150.0	145.0	150.0	17.20	17.60	17.60	18.00	
5.75	4	1 1/4	1 1/8	6.75	6.50	6.75	11.50	11.00	11.00	11.00	1 1/2
146.0				170.0	165.0	170.0	25.40	25.00	25.00	25.00	
6.75	8	1 1/8	1	7.00	6.75	7.00	19.00	17.00	17.00	17.00	2
171.4				180.0	170.0	180.0	42.00	38.00	38.00	38.00	
7.75	8	1 1/4	1 1/8	7.75	7.50	8.00	24.00	25.00	25.00	25.00	2 1/2
196.8				195.0	190.0	205.0	52.00	55.00	55.00	55.00	
9.00	8	1 3/8	1 1/4	8.75	8.50	9.00	42.60	38.00	38.00	39.00	3
228.6				220.0	215.0	230.0	94.00	83.00	83.00	86.00	
10.75	8	1 5/8	1 1/2	10.00	9.75	10.25	64.00	58.00	58.00	60.00	4
273.0				255.0	250.0	260.0	141.00	127.00	127.00	133.00	
12.75	8	1 7/8	1 3/4	11.75	11.50	12.25	111.00	95.00	95.00	101.00	5
323.8				300.0	290.0	310.0	244.00	210.00	210.00	233.00	
14.50	8	2 1/8	2	13.50	13.25	14.00	171.00	146.00	146.00	156.00	6
368.3				345.0	335.0	355.0	378.00	323.00	323.00	345.00	
17.25	12	2 1/8	2	15.00	14.75	15.50	261.00	220.00	220.00	242.00	8
438.2				380.0	375.0	395.0	576.00	485.00	485.00	533.00	
21.25	12	2 5/8	2 1/2	19.25	19.00	20.00	485.00	420.00	420.00	465.00	10
539.8				490.0	485.0	510.0	1068.00	925.00	925.00	1023.00	
24.38	12	2 7/8	2 3/4	21.25	21.00	22.00	698.00	590.00	590.00	665.00	12
619.1				540.0	535.0	560.0	1539.00	1300.00	1300.00	1463.00	

Pressure-Temperature Ratings for Group 1.1 Materials

Materials	A105 (1) A350 Gr. LF2 (1) A350 Gr. LF3 A350 Gr. LF6 Cl. (2)						
	Working Pressures by Classes, bar						
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.6	51.1	68.1	102.1	153.2	255.3	425.5
50	19.2	50.1	66.8	100.2	150.4	250.6	417.7
100	17.7	46.6	62.1	93.2	139.8	233.0	388.3
150	15.8	45.1	60.1	90.2	135.2	225.4	375.6
200	13.8	43.8	58.4	87.6	131.4	219.0	365.0
250	12.1	41.9	55.9	83.9	125.8	209.7	349.5
300	10.2	39.8	53.1	79.6	119.5	199.1	331.8
325	9.3	38.7	51.6	77.4	116.1	193.6	322.6
350	8.4	37.6	50.1	75.1	112.7	187.8	313.0
375	7.4	36.4	48.5	72.7	109.1	181.8	303.1
400	6.5	34.7	46.3	69.4	104.2	173.6	289.3
425	5.5	28.8	38.4	57.5	86.3	143.8	239.7
450	4.6	23.0	30.7	46.0	69.0	115.0	191.7
475	3.7	17.4	23.2	34.9	52.3	87.2	145.3
500	2.8	11.8	15.7	23.5	35.3	58.8	97.9
538	1.4	5.9	7.9	11.8	17.7	29.5	49.2

NOTES:

- Upon prolonged exposure to temperatures above 425°C, the carbide phase of steel may be converted to graphite. Permissible but not recommended for prolonged use above 425°C
- Not to be used over 260°C

Pressure-Temperature Ratings for Group 1.2 Materials

Materials	A350 Gr. LF6 Cl.2 (1)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.8	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.2	66.8	100.3	150.5	250.8	418.1
200	13.8	48.6	64.8	97.2	145.8	243.2	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.0	53.4	80.0	120.1	200.1	333.5
375	7.4	37.8	50.4	75.7	113.5	189.2	315.3
400	6.5	34.7	46.3	69.4	104.2	173.6	289.3
425	5.5	28.8	38.4	57.5	86.3	143.8	239.7
450	4.6	23.0	30.7	46.0	69.0	115.0	191.7
475	3.7	17.1	22.8	34.2	51.3	85.4	142.4
500	2.8	11.6	15.4	23.2	34.7	57.9	96.5
538	1.4	5.9	7.9	11.8	17.7	29.5	49.2

NOTES:

- Not to be used over 260°C

Pressure-Temperature Ratings for Group 1.4 Materials

Materials	A350 Gr. LF1, Cl.1 (1)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	16.3	42.6	56.7	85.1	127.7	212.8	354.6
50	16.0	41.8	55.7	83.5	125.3	208.9	348.1
100	14.9	38.8	51.8	77.7	116.5	194.2	323.6
150	14.4	37.6	50.1	75.1	112.7	187.8	313.0
200	13.8	36.4	48.5	72.8	109.2	182.1	303.4
250	12.1	34.9	46.6	69.8	104.7	174.6	291.0
300	10.2	33.2	44.2	66.4	99.5	165.9	276.5
325	9.3	32.2	43.0	64.5	96.7	161.2	268.6
350	8.4	31.2	41.7	62.5	93.7	156.2	260.4
375	7.4	30.4	40.5	60.7	91.1	151.8	253.0
400	6.5	29.3	39.1	58.7	88.0	146.7	244.5
425	5.5	25.8	34.4	51.5	77.3	128.8	214.7
450	4.6	21.4	28.5	42.7	64.1	106.8	178.0
475	3.7	14.1	18.8	28.2	42.3	70.5	117.4
500	2.8	10.3	13.7	20.6	30.9	51.5	85.9
538	1.4	5.9	7.9	11.8	17.7	29.5	49.2

NOTES:

- Upon prolonged exposure to temperatures above 425°C, the carbide phase of steel may be converted to graphite. Permissible, but not recommended for prolonged use above 425°C

Pressure-Temperature Ratings for Group 1.5 Materials

Materials	A182 Gr. F1 (1)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	18.4	48.0	64.0	96.0	144.1	240.1	400.1
50	18.4	48.0	64.0	96.0	144.1	240.1	400.1
100	17.7	47.9	63.9	95.9	143.8	239.7	399.5
150	15.8	47.3	63.1	94.7	142.0	236.7	394.5
200	13.8	45.8	61.1	91.6	137.4	229.0	381.7
250	12.1	44.5	59.3	89.0	133.5	222.5	370.9
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	24.1	32.1	48.1	72.2	120.3	200.5
538	1.4	11.3	15.1	22.7	34.0	56.7	94.6

NOTES:

- Upon prolonged exposure to temperatures above 465°C, the carbide phase of steel may be converted to graphite. Permissible, but not recommended for prolonged use above 465°C

压力-温度等级 Pressure-Temperature Ratings



Pressure-Temperature Ratings for Group 1.7 Materials

Materials	A182 Gr. F2 (1)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.8	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.3	66.8	100.3	150.6	250.8	418.2
200	13.8	48.6	64.8	97.2	145.8	243.4	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	26.7	35.6	53.4	80.1	133.4	222.4
538	1.4	13.9	18.6	27.9	41.8	69.7	116.2
550		12.6	16.8	25.2	37.8	63.0	105.0
575		7.2	9.6	14.4	21.5	35.9	59.8

NOTES:

- (1) Not to be used over 538°C

Pressure-Temperature Ratings for Group 1.9 Materials

Materials	A182 Gr. F11 Cl.2 (1) (2)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.8	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.6	103.0	154.4	257.4	429.0
150	15.8	49.7	66.3	99.5	149.2	248.7	414.5
200	13.8	48.0	63.9	95.9	143.9	239.8	399.6
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	25.7	34.3	51.5	77.2	128.6	214.4
538	1.4	14.9	19.9	29.8	44.7	74.5	124.1
550		12.7	16.9	25.4	38.1	63.5	105.9
575		8.8	11.7	17.6	26.4	44.0	73.4
600		6.1	8.1	12.2	18.3	30.5	50.9
625		4.3	5.7	8.5	12.8	21.3	35.5
650		2.8	3.8	5.7	8.5	14.2	23.6

NOTES:

- (1) Use normalized and tempered material only
(2) Permissible, but not recommended for prolonged use above 590°C

Pressure-Temperature Ratings for Group 1.10 Materials

Materials	A182 Gr. F22 Cl.3 (1)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.8	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.3	66.8	100.3	150.6	250.8	418.2
200	13.8	48.6	64.8	97.2	145.8	243.4	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	18.4	24.6	36.9	55.3	92.2	153.7
550	...	15.6	20.8	31.3	46.9	78.2	130.3
575	...	10.5	14.0	21.1	31.6	52.6	87.7
600	...	6.9	9.2	13.8	20.7	34.4	57.4
625	...	4.5	6.0	8.9	13.4	22.3	37.2
650	...	2.8	3.8	5.7	8.5	14.2	23.6

NOTES:

- (1) Permissible, but not recommended for prolonged use above 590°C

Pressure-Temperature Ratings for Group 1.13 Materials

Materials	A182 Gr. F5a						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	20.0	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.3	66.8	100.3	150.6	250.8	418.2
200	13.8	48.6	64.8	97.2	145.8	243.4	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	27.9	37.1	55.7	83.6	139.3	232.1
500	2.8	21.4	28.5	42.8	64.1	106.9	178.2
538	1.4	13.7	18.3	27.4	41.1	68.6	114.3
550	...	12.0	16.1	24.1	36.1	60.2	100.4
575	...	8.9	11.8	17.8	26.7	44.4	74.0
600	...	6.2	8.3	12.5	18.7	31.2	51.9
625	...	4.0	5.3	8.0	12.0	20.0	33.3
650	...	2.4	3.2	4.7	7.1	11.8	19.7

Pressure-Temperature Ratings for Group 1.14 Materials

Materials	A182 Gr. F9						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	20.0	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.3	66.8	100.3	150.6	250.8	418.2
200	13.8	48.6	64.8	97.2	145.8	243.4	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	17.5	23.3	35.0	52.5	87.5	145.8
550		15.0	20.0	30.0	45.0	75.0	125.0
575		10.5	13.9	20.9	31.4	52.3	87.1
600		7.2	9.6	14.4	21.5	35.9	59.8
625		5.0	6.6	9.9	14.9	24.8	41.4
650		3.5	4.7	7.1	10.6	17.7	29.5

Pressure-Temperature Ratings for Group 1.15 Materials

Materials	A182 Gr. F91						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	20.0	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	51.5	68.7	103.0	154.6	257.6	429.4
150	15.8	50.3	66.8	100.3	150.6	250.8	418.2
200	13.8	48.6	64.8	97.2	145.8	243.4	405.4
250	12.1	46.3	61.7	92.7	139.0	231.8	386.2
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	25.2	33.4	50.0	75.2	125.5	208.9
550		25.0	33.3	49.8	74.8	124.9	208.0
575		24.0	31.9	47.9	71.8	119.7	199.5
600		19.5	26.0	39.0	58.5	97.5	162.5
625		14.6	19.5	29.2	43.8	73.0	121.7
650		9.9	13.2	19.9	29.8	49.6	82.7

Pressure-Temperature Ratings for Group 1.17 Materials

Materials	A182 Gr. F12 Cl.2 (1) (2) A182 Gr. F5						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.8	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.5	68.7	103.0	154.5	257.5	429.2
100	17.7	50.4	67.3	100.9	151.3	252.2	420.4
150	15.8	48.2	64.2	96.4	144.5	240.9	401.5
200	13.8	46.3	61.7	92.5	138.8	231.3	385.6
250	12.1	44.8	59.8	89.6	134.5	224.1	373.5
300	10.2	42.9	57.0	85.7	128.6	214.4	357.1
325	9.3	41.4	55.0	82.6	124.0	206.6	344.3
350	8.4	40.3	53.6	80.4	120.7	201.1	335.3
375	7.4	38.9	51.6	77.6	116.5	194.1	323.2
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9
425	5.5	35.2	46.5	70.0	105.1	175.1	291.6
450	4.6	33.7	45.1	67.7	101.4	169.0	281.8
475	3.7	27.9	37.1	55.7	83.6	139.3	232.1
500	2.8	21.4	28.5	42.8	64.1	106.9	178.2
538	1.4	13.7	18.3	27.4	41.1	68.6	114.3
550		12.0	16.1	24.1	36.1	60.2	100.4
575		8.8	11.7	17.6	26.4	44.0	73.4
600		6.1	8.1	12.1	18.2	30.3	50.4
625		4.0	5.3	8.0	12.0	20.0	33.3
650		2.4	3.2	4.7	7.1	11.8	19.7

NOTES:

- (1) Use normalized and tempered material only
- (2) Permissible, but not recommended for prolonged use above 590°C

Pressure-Temperature Ratings for Group 2.1 Materials

Materials	A182 Gr. F304 (1) A182 Gr. F304H						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.0	49.6	66.2	99.3	148.9	248.2	413.7
50	18.3	47.8	63.8	95.6	143.5	239.1	398.5
100	15.7	40.9	54.5	81.7	122.6	204.3	340.4
150	14.2	37.0	49.3	74.0	111.0	185.0	308.4
200	13.2	34.5	46.0	69.0	103.4	172.4	287.3
250	12.1	32.5	43.3	65.0	97.5	162.4	270.7
300	10.2	30.9	41.2	61.8	92.7	154.6	257.6
325	9.3	30.2	40.3	60.4	90.7	151.1	251.9
350	8.4	29.6	39.5	59.3	88.9	148.1	246.9
375	7.4	29.0	38.7	58.1	87.1	145.2	241.9
400	6.5	28.4	37.9	56.9	85.3	142.2	237.0
425	5.5	28.0	37.3	56.0	84.0	140.0	233.3
450	4.6	27.4	36.5	54.8	82.2	137.0	228.4
475	3.7	26.9	35.9	53.9	80.8	134.7	224.5
500	2.8	26.5	35.3	53.0	79.5	132.4	220.7
538	1.4	24.4	32.6	48.9	73.3	122.1	203.6
550	...	23.6	31.4	47.1	70.7	117.8	196.3
575	...	20.8	27.8	41.7	62.5	104.2	173.7
600	...	16.9	22.5	33.8	50.6	84.4	140.7
625	...	13.8	18.4	27.6	41.4	68.9	114.9
650	...	11.3	15.0	22.5	33.8	56.3	93.8
675	...	9.3	12.5	18.7	28.0	46.7	77.9
700	...	8.0	10.7	16.1	24.1	40.1	66.9
725	...	6.8	9.0	13.5	20.3	33.8	56.3
750	...	5.8	7.7	11.6	17.3	28.9	48.1
775	...	4.6	6.2	9.0	13.7	22.8	38.0
800	...	3.5	4.8	7.0	10.5	17.4	29.2
816	...	2.8	3.8	5.9	8.6	14.1	23.8

NOTES:

- (1) At temperatures over 538°C, use only when the carbon content is 0.04% or higher.
- (2) Not to be used over 425°C

压力-温度等级 Pressure-Temperature Ratings



Pressure-Temperature Ratings for Group 2.2 Materials

Materials	A182 Gr. F316 (1) A182 Gr. F316H A182 Gr. F317 (1)						
	Working Pressures by Classes, bar						
	Class Temp., °C	150	300	400	600	900	1500
-29 to 38	19.0	49.6	66.2	99.3	148.9	248.2	413.7
50	18.4	48.1	64.2	96.2	144.3	240.6	400.9
100	16.2	42.2	56.3	84.4	126.6	211.0	351.6
150	14.8	38.5	51.3	77.0	115.5	192.5	320.8
200	13.7	35.7	47.6	71.3	107.0	178.3	297.2
250	12.1	33.4	44.5	66.8	100.1	166.9	278.1
300	10.2	31.6	42.2	63.2	94.9	158.1	263.5
325	9.3	30.9	41.2	61.8	92.7	154.4	257.4
350	8.4	30.3	40.4	60.7	91.0	151.6	252.7
375	7.4	29.9	39.8	59.8	89.6	149.4	249.0
400	6.5	29.4	39.3	58.9	88.3	147.2	245.3
425	5.5	29.1	38.9	58.3	87.4	145.7	242.9
450	4.6	28.8	38.5	57.7	86.5	144.2	240.4
475	3.7	28.7	38.2	57.3	86.0	143.4	238.9
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	25.2	33.4	50.0	75.2	125.5	208.9
550	...	25.0	33.3	49.8	74.8	124.9	208.0
575	...	24.0	31.9	47.9	71.8	119.7	199.5
600	...	19.9	26.5	39.8	59.7	99.5	165.9
625	...	15.8	21.1	31.6	47.4	79.1	131.8
650	...	12.7	16.9	25.3	38.0	63.3	105.5
675	...	10.3	13.8	20.6	31.0	51.6	86.0
700	...	8.4	11.2	16.8	25.1	41.9	69.8
725	...	7.0	9.3	14.0	21.0	34.9	58.2
750	...	5.9	7.8	11.7	17.6	29.3	48.9
775	...	4.6	6.2	9.0	13.7	22.8	38.0
800	...	3.5	4.8	7.0	10.5	17.4	29.2
816	...	2.8	3.8	5.9	8.6	14.1	23.8

NOTES:

- (1) At temperatures over 538°C, use only when the carbon content is 0.04% or higher.

Pressure-Temperature Ratings for Group 2.4 Materials

Materials	A182 Gr. F321 (1) A182 Gr. F321 (2)						
	Working Pressures by Classes, bar						
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.0	49.6	66.2	99.3	148.9	248.2	413.7
50	18.6	48.6	64.7	97.1	145.7	242.8	404.6
100	17.0	44.2	59.0	88.5	132.7	221.2	368.7
150	15.7	41.0	54.6	82.0	122.9	204.9	341.5
200	13.8	38.3	51.1	76.6	114.9	191.5	319.1
250	12.1	36.0	48.0	72.0	108.1	180.1	300.2
300	10.2	34.1	45.5	68.3	102.4	170.7	284.6
325	9.3	33.3	44.4	66.6	99.9	166.5	277.6
350	8.4	32.6	43.5	65.2	97.8	163.0	271.7
375	7.4	32.0	42.7	64.1	96.1	160.2	266.9
400	6.5	31.6	42.1	63.2	94.8	157.9	263.2
425	5.5	31.1	41.5	62.3	93.4	155.7	259.5
450	4.6	30.8	41.1	61.7	92.5	154.2	256.9
475	3.7	30.5	40.7	61.1	91.6	152.7	254.4
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	25.2	33.4	50.0	75.2	125.5	208.9
550	...	25.0	33.3	49.8	74.8	124.9	208.0
575	...	24.0	31.9	47.9	71.8	119.7	199.5
600	...	20.3	27.0	40.5	60.8	101.3	168.9
625	...	15.8	21.1	31.6	47.4	79.1	131.8
650	...	12.6	16.9	25.3	37.9	63.2	105.4
675	...	9.9	13.2	19.8	29.6	49.4	82.3
700	...	7.9	10.5	15.8	23.7	39.5	65.9
725	...	6.3	8.5	12.7	19.0	31.7	52.8
750	...	5.0	6.7	10.0	15.0	25.0	41.7
775	...	4.0	5.3	8.0	11.9	19.9	33.2
800	...	3.1	4.2	6.3	9.4	15.6	26.1
816	...	2.6	3.5	5.2	7.8	13.0	21.7

NOTES:

- (1) Not to be used over 538°C.
(2) At temperatures over 538°C, use only if the material is heat treated by heating to a minimum temperatures of 1095°C.

Table 2-2.3 Pressure-Temperature Ratings for Group 2.3 Materials

Materials	A182 Gr. F316L A182 Gr. F304L (1)						
	Working Pressures by Classes, bar						
Class Temp. °C	150	300	400	600	900	1500	2500
-29 to 38	15.9	41.4	55.2	82.7	124.1	206.8	344.7
50	15.3	40.0	53.4	80.0	120.1	200.1	333.5
100	13.3	34.8	46.4	69.6	104.4	173.9	289.9
150	12.0	31.4	41.9	62.8	94.2	157.0	261.6
200	11.2	29.2	38.9	58.3	87.5	145.8	243.0
250	10.5	27.5	36.6	54.9	82.4	137.3	228.9
300	10.0	26.1	34.8	52.1	78.2	130.3	217.2
325	9.3	25.5	34.0	51.0	76.4	127.4	212.3
350	8.4	25.1	33.4	50.1	75.2	125.4	208.9
375	7.4	24.8	33.0	49.5	74.3	123.8	206.3
400	6.5	24.3	32.4	48.6	72.9	121.5	202.5
425	5.5	23.9	31.8	47.7	71.6	119.3	198.8
450	4.6	23.4	31.2	46.8	70.2	117.1	195.1

NOTES:

- (1) Not to be used over 425°C.

Pressure-Temperature Ratings for Group 2.5 Materials

Materials	A182 Gr. F347 (1) A182 Gr. F348H (2)						
	Working Pressures by Classes, bar						
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.0	49.6	66.2	99.3	148.9	248.2	413.7
50	18.7	48.8	65.0	97.5	146.3	243.8	406.4
100	17.4	45.3	60.4	90.6	135.9	226.5	377.4
150	15.8	42.5	56.6	84.9	127.4	212.4	353.9
200	13.8	39.9	53.3	79.9	119.8	199.7	332.8
250	12.1	37.8	50.4	75.6	113.4	189.1	315.1
300	10.2	36.1	48.1	72.2	108.3	180.4	300.7
325	9.3	35.4	47.1	70.7	106.1	176.8	294.6
350	8.4	34.8	46.3	69.5	104.3	173.8	289.6
375	7.4	34.2	45.6	68.4	102.6	171.0	285.1
400	6.5	33.9	45.2	67.8	101.7	169.5	282.6
425	5.5	33.6	44.8	67.2	100.8	168.1	280.1
450	4.6	33.5	44.6	66.9	100.4	167.3	278.8
475	3.7	31.7	42.3	63.4	95.1	158.2	263.9
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	25.2	33.4	50.0	75.2	125.5	208.9
550	...	25.0	33.3	49.8	74.8	124.9	208.0
575	...	24.0	31.9	47.9	71.8	119.7	199.5
600	...	21.6	28.6	42.9	64.2	107.0	178.5
625	...	18.3	24.3	36.6	54.9	91.2	152.0
650	...	14.1	18.9	28.1	42.5	70.7	117.7
675	...	12.4	16.9	25.2	37.6	62.7	104.5
700	...	10.1	13.4	20.0	29.8	49.7	83.0
725	...	7.9	10.5	15.4	23.2	38.6	64.4
750	...	5.9	7.9	11.7	17.6	29.6	49.1
775	...	4.6	6.2	9.0	13.7	22.8	38.0
800	...	3.5	4.8	7.0	10.5	17.4	29.2
816	...	2.8	3.8	5.9	8.6	14.1	23.8

NOTES:

- (1) Not to be used over 538°C.
(2) At temperatures over 538°C, use only if the material is heat treated by heating to a minimum temperatures of 1095°C.

Pressure-Temperature Ratings for Group 2.7 Materials

Materials	A182 Gr. F310 (1) (2)						
Working Pressures by Classes, bar							
Class Temp., °C	150	300	400	600	900	1500	2500
-29 to 38	19.0	49.6	66.2	99.3	148.9	248.2	413.7
50	18.5	48.4	64.5	96.7	145.1	241.8	403.1
100	16.6	43.4	57.9	86.8	130.2	217.0	361.6
150	15.3	40.0	53.3	80.0	120.0	200.0	333.3
200	13.8	37.6	50.1	75.2	112.8	188.0	313.4
250	12.1	35.8	47.7	71.5	107.3	178.8	298.1
300	10.2	34.5	45.9	68.9	103.4	172.3	287.2
325	9.3	33.9	45.2	67.7	101.6	169.3	282.2
350	8.4	33.3	44.4	66.6	99.9	166.5	277.6
375	7.4	32.9	43.8	65.7	98.6	164.3	273.8
400	6.5	32.4	43.2	64.8	97.3	162.1	270.2
425	5.5	32.1	42.8	64.2	96.4	160.6	267.7
450	4.6	31.7	42.2	63.4	95.1	158.4	264.0
475	3.7	31.2	41.7	62.5	93.7	156.2	260.3
500	2.8	28.2	37.6	56.5	84.7	140.9	235.0
538	1.4	25.2	33.4	50.0	75.2	125.5	208.9
550	...	25.0	33.3	49.8	74.8	124.9	208.0
575	...	22.2	29.6	44.4	66.5	110.9	184.8
600	...	16.8	22.4	33.5	50.3	83.9	139.8
625	...	12.5	16.7	25.0	37.5	62.5	104.2
650	...	9.4	12.5	18.7	28.1	46.8	78.0
675	...	7.2	9.6	14.5	21.7	36.2	60.3
700	...	5.5	7.3	11.0	16.5	27.5	45.9
725	...	4.3	5.8	8.7	13.0	21.6	36.0
750	...	3.4	4.6	6.8	10.2	17.1	28.4
775	...	2.7	3.5	5.3	8.0	13.3	22.1
800	...	2.1	2.8	4.1	6.2	10.3	17.2
816	...	1.8	2.4	3.5	5.3	8.9	14.8

NOTES:

- (1) At temperatures over 538°C, use only when the carbon content is 0.04% or higher
- (2) Service temperatures of 565°C and above should be used only when assurance is provided that grain size is not finer than ASTM 6.

Pressure-Temperature Ratings for Group 2.8 Materials

Materials	A182 Gr. F44 A182 Gr. F51 (1) A182 Gr. F53 (1)						
	Working Pressures by Classes, bar						
	Class Temp.,°C	150	300	400	600	900	1500
-29 to 38	20.0	51.7	68.9	103.4	155.1	258.6	430.9
50	19.5	51.7	68.9	103.4	155.1	258.6	430.9
100	17.7	50.7	67.5	101.3	152.0	253.3	422.2
150	15.8	45.9	61.2	91.9	137.8	229.6	382.7
200	13.8	42.7	56.9	85.3	128.0	213.3	355.4
250	12.1	40.5	53.9	80.9	121.4	202.3	337.2
300	10.2	38.9	51.8	77.7	116.6	194.3	323.8
325	9.3	38.2	50.9	76.3	114.5	190.8	318.0
350	8.4	37.6	50.2	75.3	112.9	188.2	313.7
375	7.4	37.4	49.8	74.7	112.1	186.8	311.3
400	6.5	36.5	48.9	73.3	109.8	183.1	304.9

NOTES:

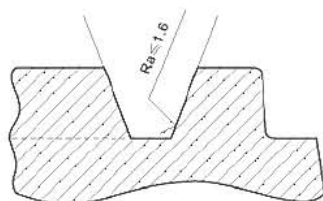
- (1) This steel may become brittle after service at moderately elevated temperatures. Not to be used over 315°C.

$$1 \text{ bar} = 1.02 \text{ kgf/cm}^2 = 14.5 \text{ psi}$$

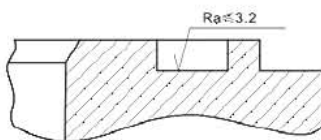
密封面加工要求 Flange Facing Finish

Facing is made by mechanical turning, resulting the following surface conditions:

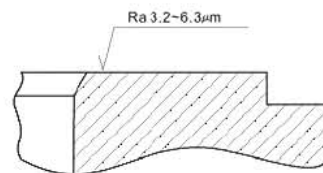
机加工完成的法兰密封面形式:



Ring Joint Facings
环型槽面

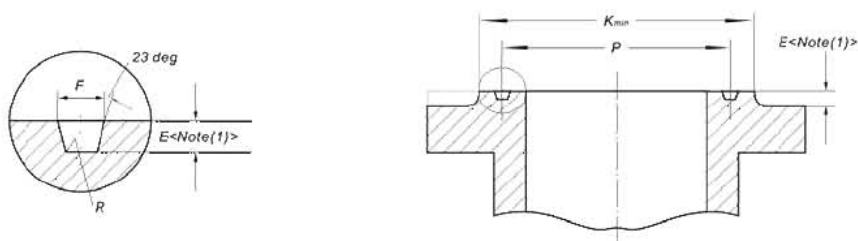


Tongue/Groove
榫槽面
Small Male/Female Facings
小凹凸面



Raised Face
Large Male/
Female Facings
RFLM/RFFF面

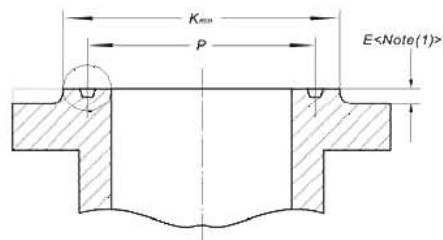
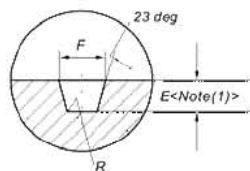
环连接面 Ring Joint Facings



ANSI B16.5

Dimensions In. mm

Nominal Pipe Size							Groove Number	Groove Dimensions				Diameter of Raised Proton, K				
Class 150	Class 300	Class 400 <Note(2)>	Class 600	Class 900 <Note(3)>	Class 1500	Class 2500		Pitch Diameter, P	Depth, E <Note(1)>	Width, F	Radius at Bottom R	Class 150	Class 300 400 600	Class 900	Class 1500	Class 2500
...	1/2	...	1/2	...	...	...	R11	1.344 34.14	0.219 5.56	0.281 7.14	0.03 0.8	...	2.00 51.0	...	...	...
...	...	...	...	...	1/2	...	R12	1.562 39.67	0.250 6.35	0.344 8.74	0.03 0.8	...	...	...	2.38 60.5	...
...	3/4	...	3/4	...	...	1/2	R13	1.688 42.88	0.250 6.35	0.344 8.74	0.03 0.8	...	2.50 63.5	...	...	2.56 65.0
...	...	...	...	...	3/4	...	R14	1.750 44.45	0.250 6.35	0.344 8.74	0.03 0.8	...	...	...	2.62 66.5	...
1	...	...	...	...	...	...	R15	1.875 47.63	0.250 6.35	0.344 8.74	0.03 0.8	2.50 63.5	...	...	...	...
...	1	...	1	...	1	3/4	R16	2.000 50.80	0.250 6.35	0.344 8.74	0.03 0.8	...	2.75 70.0	...	2.81 71.5	2.88 73.0
1 1/4	...	...	...	...	...	...	R17	2.250 57.15	0.250 6.35	0.344 8.74	0.03 0.8	2.88 73.0	...	...	...	...
...	1 1/4	...	1 1/4	...	1 1/4	1	R18	2.375 60.33	0.250 6.35	0.344 8.74	0.03 0.8	...	3.12 79.5	...	3.19 81.0	3.25 82.5
1 1/2	...	...	...	...	...	...	R19	2.562 65.07	0.250 6.35	0.344 8.74	0.03 0.8	3.25 82.5	...	...	...	...
...	1 1/2	...	1 1/2	...	1 1/2	...	R20	2.688 68.27	0.250 6.35	0.344 8.74	0.03 0.8	...	3.56 90.5	...	3.62 92.0	...
...	...	...	...	...	...	1 1/4	R21	2.844 72.23	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	...	4.00 102.0
2	...	...	...	...	...	...	R22	3.250 82.55	0.250 6.35	0.344 8.74	0.03 0.8	4.00 102.0	...	...	...	...
...	2	...	2	...	...	1 1/2	R23	3.250 82.55	0.312 7.92	0.469 11.91	0.03 0.8	...	4.25 108.0	...	...	4.50 114.0
...	...	...	...	...	2	...	R24	3.750 95.25	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	4.88 124.0	...
2 1/2	...	...	...	...	...	...	R25	4.000 101.60	0.250 6.35	0.344 8.74	0.03 0.8	4.75 121.0	...	...	...	...
...	2 1/2	...	2 1/2	...	...	2	R26	4.000 101.60	0.312 7.92	0.469 11.91	0.03 0.8	...	5.00 127.0	...	...	5.25 133.0
...	...	...	...	...	2 1/2	...	R27	4.250 107.95	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	5.38 137.0	...
...	...	...	...	...	...	2 1/2	R28	4.375 111.13	0.375 9.52	0.531 13.49	0.03 0.8	...	...	...	...	5.88 149.0
3	...	...	...	...	...	...	R29	4.500 114.30	0.250 6.35	0.344 8.74	0.03 0.8	5.25 133.0	...	...	...	...
...	(4)	...	(4)	...	...	...	R30	4.625 117.48	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	...	...

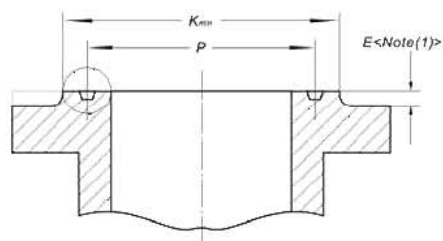
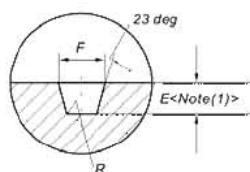


ANSI B16.5

Dimensions In. mm

Nominal Pipe Size							Groove Number	Groove Dimensions				Diameter of Raised Portion, K				
Class 150	Class 300	Class 400 <Note(2)>	Class 600	Class 900 <Note(3)>	Class 1500	Class 2500		Pitch Diameter, P	Depth, E <Note(1)>	Width, F	Radius at Bottom R	Class 150	Class 300 400 600	Class 900	Class 1500	Class 2500
...	3(4)	...	3(4)	3	...	...	R31	4.875 123.83	0.312 7.92	0.469 11.91	0.03 0.8	...	5.75 146	6.12 156	...	...
...	...	...	...	...	...	3	R32	5.000 127.00	0.375 9.53	0.531 13.49	0.06 1.5	...	...	...	...	6.62 168
3 1/2	...	...	...	...	...	...	R33	5.188 131.78	0.250 6.35	0.344 8.74	0.03 0.8	6.06 154	...	...	...	...
...	3 1/2	...	3 1/2	...	...	...	R34	5.188 131.78	0.312 7.92	0.469 11.91	0.03 0.8	...	6.25 159	...	...	...
...	...	...	...	...	3	...	R35	5.375 136.53	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	6.62 168	...
4	...	...	...	...	...	...	R36	5.875 149.23	0.250 6.35	0.344 8.74	0.03 0.8	6.75 171	...	...	...	...
...	4	4	4	4	...	...	R37	5.875 149.23	0.312 7.92	0.469 11.91	0.03 0.8	...	6.88 175	7.12 181	...	...
...	...	...	...	...	...	4	R38	6.188 157.18	0.438 11.13	0.656 16.66	0.06 1.5	...	...	...	...	8.00 203
...	...	...	...	...	4	...	R39	6.375 161.93	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	7.62 194	...
5	...	...	...	...	...	...	R40	6.750 171.45	0.250 6.35	0.344 8.74	0.03 0.8	7.62 194	...	...	...	...
...	5	5	5	5	...	...	R41	7.125 180.98	0.312 7.92	0.469 11.91	0.03 0.8	...	8.25 210	8.50 216	...	...
...	...	...	...	...	...	5	R42	7.500 190.50	0.500 12.70	0.781 19.84	0.06 1.5	...	...	...	...	9.50 241
6	...	...	...	...	...	...	R43	7.625 193.68	0.250 6.35	0.344 8.74	0.03 0.8	8.62 219	...	...	...	...
...	...	...	...	...	5	...	R44	7.625 193.68	0.312 7.92	0.469 11.91	0.03 0.8	...	...	...	9.00 229	...
...	6	6	6	6	...	...	R45	8.312 211.14	0.312 7.92	0.469 11.91	0.03 0.8	...	9.50 241	9.50 241	...	...
...	...	...	...	...	6	...	R46	8.312 211.14	0.375 9.53	0.531 13.49	0.06 1.5	...	...	...	9.75 248	...
...	...	...	...	...	...	6	R47	9.000 228.60	0.500 12.70	0.781 19.84	0.06 1.5	...	...	...	...	11.00 279
8	...	...	...	...	...	...	R48	9.750 247.65	0.250 6.35	0.344 8.74	0.03 0.8	10.75 273	...	...	...	...
...	8	8	8	8	...	...	R49	10.625 269.88	0.312 7.92	0.469 11.91	0.03 0.8	...	11.88 302	12.12 308	...	...
...	...	...	...	...	8	...	R50	10.625 269.88	0.438 11.13	0.656 16.66	0.06 1.5	...	...	...	12.50 318	...

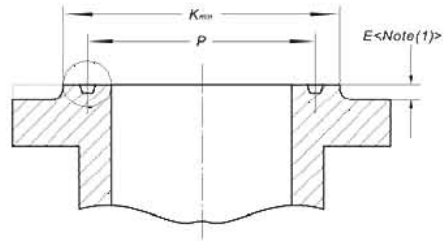
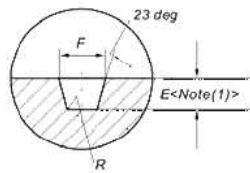
环连接面 Ring Joint Facings



ANSI B16.5

Dimensions ^{In.}_{mm}

Nominal Pipe Size							Groove Number	Groove Dimensions				Diameter of Raised Proton, K				
Class 150	Class 300	Class 400 <Note(2)>	Class 600	Class 900 <Note(3)>	Class 1500	Class 2500		Pitch Diameter, P	Depth, E <Note(1)>	Width, F	Radius at Bottom R	Class 150	Class 300 400 600	Class 900	Class 1500	Class 2500
...	...	...	...	...	...	8	R51	11.000 279.40	0.562 14.27	0.906 23.01	0.06 1.5	...	...	...	...	13.38 340
10	...	...	...	...	...	...	R52	12.000 304.80	0.250 6.35	0.344 8.74	0.03 0.8	13.00 330	...	...	...	...
...	10	10	10	10	...	...	R53	12.750 323.85	0.312 7.92	0.469 11.91	0.03 0.8	...	14.00 356	14.25 362	...	...
...	...	...	...	...	10	...	R54	12.750 323.85	0.438 11.13	0.656 16.66	0.06 1.5	...	...	...	14.62 371	...
...	...	...	...	...	...	10	R55	13.500 342.90	0.688 17.48	1.188 30.18	0.09 2.4	...	...	...	...	16.75 425
12	...	...	...	...	...	...	R56	15.000 381.00	0.250 6.35	0.344 8.74	0.03 0.8	16.00 406	...	...	...	...
...	12	12	12	12	...	...	R57	15.000 381.00	0.312 7.92	0.469 11.91	0.03 0.8	...	16.25 413	16.50 419	...	...
...	...	...	...	...	12	...	R58	15.000 381.00	0.562 14.27	0.906 23.01	0.06 1.5	...	...	...	17.25 438	...
14	...	...	...	...	...	...	R59	15.625 396.88	0.250 6.35	0.344 8.74	0.03 0.8	16.75 425	...	...	...	...
...	...	...	...	...	...	12	R60	16.000 406.40	0.688 17.48	1.312 33.32	0.09 2.4	...	...	...	...	19.50 495
...	14	14	14	...	...	...	R61	16.500 419.10	0.312 7.92	0.469 11.91	0.03 0.8	...	18.00 457	...	...	...
...	...	...	...	14	...	...	R62	16.500 419.10	0.438 11.13	0.656 16.66	0.06 1.5	...	...	18.38 467	...	...
...	...	...	...	...	14	...	R63	16.500 419.10	0.625 15.88	1.062 26.97	0.09 2.4	...	...	...	19.25 489	...
16	...	...	...	...	...	...	R64	17.875 454.03	0.250 6.35	0.344 8.74	0.03 0.8	19.00 483	...	...	...	...
...	16	16	16	...	...	...	R65	18.500 469.90	0.312 7.92	0.469 11.91	0.03 0.8	...	20.00 508	...	...	...
...	...	...	...	16	...	...	R66	18.500 469.90	0.438 11.13	0.656 16.66	0.06 1.5	...	...	20.62 524	...	...
...	...	...	...	...	16	...	R67	18.500 469.90	0.688 17.48	1.188 30.18	0.09 2.4	...	...	...	21.50 546	...
18	...	...	...	...	...	...	R68	20.375 517.53	0.250 6.35	0.344 8.74	0.03 0.8	21.50 546	...	...	...	...
...	18	18	18	...	...	...	R69	21.000 533.40	0.312 7.92	0.469 11.91	0.03 0.8	...	22.62 575	...	...	...



ANSI B16.5

Dimensions ^{In.}_{mm}

Nominal Pipe Size							Groove Number	Groove Dimensions				Diameter of Raised Portion, K				
Class 150	Class 300	Class 400 <Note(2)>	Class 600	Class 900 <Note(3)>	Class 1500	Class 2500		Pitch Diameter, P	Depth, E <Note(1)>	Width, F	Radius at Bottom R	Class 150	Class 300 400 600	Class 900	Class 1500	Class 2500
...	...	...	...	18	...	...	R70	21.000 533.40	0.500 12.70	0.781 19.84	0.06 1.5	...	...	23.38 594	...	...
...	...	...	...	...	18	...	R71	21.000 533.40	0.688 17.48	1.188 30.18	0.09 2.4	...	...	...	24.12 613	...
20	...	...	...	...	...	...	R72	22.000 558.80	0.250 6.35	0.344 8.74	0.03 0.8	23.50 597	...	...	...	...
...	20	20	20	...	...	...	R73	23.000 584.20	0.375 9.53	0.531 13.49	0.06 1.5	...	25.00 635	...	...	...
...	...	...	...	20	...	...	R74	23.000 584.20	0.500 12.70	0.781 19.84	0.06 1.5	...	...	25.50 648	...	...
...	...	...	...	...	20	...	R75	23.000 584.20	0.688 17.48	1.312 33.32	0.09 2.4	...	...	...	26.50 673	...
24	...	...	...	...	...	...	R76	26.500 673.10	0.250 6.35	0.344 8.74	0.03 0.8	28.00 711	...	...	...	...
...	24	24	24	...	...	...	R77	27.250 692.15	0.438 11.13	0.656 16.66	0.06 1.5	...	29.50 749	...	...	...
...	...	...	...	24	...	...	R78	27.250 692.15	0.625 15.88	1.062 26.97	0.09 2.4	...	...	30.38 772	...	...
...	...	...	...	...	24	...	R79	27.250 692.15	0.812 20.62	1.438 36.53	0.09 2.4	...	...	...	31.25 794	...

NOTES:

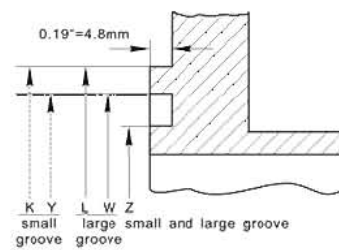
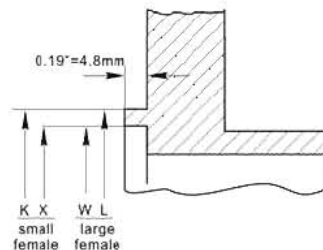
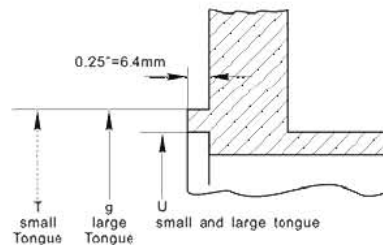
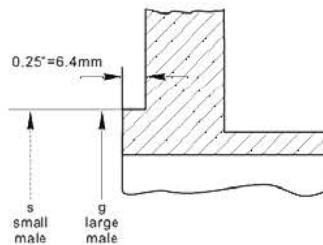
- (1) Height of raised portion is equal to the depth of groove dimension E, but is not subjected to the tolerances for E.
Former full-face contour may be used.
- (2) Use Class 600 in sizes NPS 1/2 to NPS 3 1/2 for Class 400.
- (3) Use Class 1500 in sizes NPS 1/2 to NPS 2 1/2 for Class 900.
- (4) For ring joints with lapped flanges in Classes 300 and 600, ring and groove number R30 are used instead of R31.

TOLERANCES:

- E (depth) +0.016in.(0.4mm), -0.0
- F (width) ±0.008in.(0.2mm)
- P (pitch diameter) ±0.005in.(0.13mm)
- R (radius at bottom) $R \leq 0.06in.(2mm)$ +0.03in.(0.8mm), -0.0
 $R > 0.06in.(2mm)$ ±0.03in.(0.8mm)
- 23 deg (Angle) ±1/2deg

大小凹凸面、大小榫槽面

Large and Small Male/Female, Tongue/Groove Facings



ANSI B 16.5

Class 150-2500

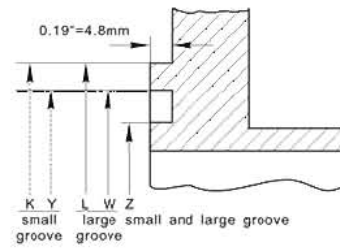
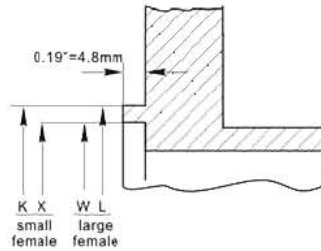
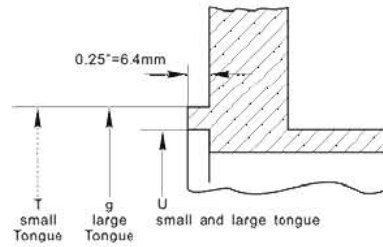
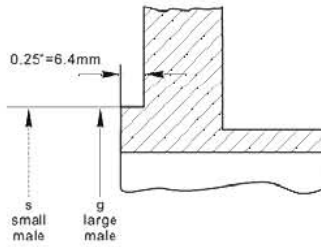
Dimensions In. mm

Nom. Pipe Size	Outside Diameter			Inside Dia. of Large and Small Tongue	Outside Diameter			Inside Dia. of Large and Small Groove	Diameter of Raised Face min.	
	Large Male and Large Tongue	Small Male	Small Tongue		Large Female and Large Groove	Small Female	Small Groove		Small Female and groove	Large Female and Groove
g	s	T	U	W	X	Y	Z	K	L	
1/2"	1.38	0.72	1.38	1.00	1.44	0.78	1.44	0.94	1.75	1.81
	34.9	18.3	35.1	25.4	36.5	19.9	36.5	23.8	44.0	46.0
3/4"	1.69	0.94	1.69	1.31	1.75	1.00	1.75	1.25	2.06	2.12
	42.9	23.8	42.9	33.3	44.4	25.4	44.4	31.8	52.0	54.0
1"	2.00	1.19	1.88	1.50	2.06	1.25	1.94	1.44	2.25	2.44
	50.8	30.2	47.8	38.1	52.4	31.8	49.2	36.5	57.0	62.0
1 1/4"	2.50	1.50	2.25	1.88	2.56	1.56	2.31	1.81	2.62	2.94
	63.5	38.1	57.2	47.6	65.1	39.7	58.7	46.0	67.0	75.0
1 1/2"	2.88	1.75	2.50	2.12	2.94	1.81	2.56	2.06	2.88	3.31
	73.0	44.4	63.5	54.0	74.6	46.0	65.1	52.4	73.0	84.0
2"	3.62	2.25	3.25	2.88	3.69	2.31	3.31	2.81	3.62	4.06
	92.1	57.2	82.6	73.0	93.7	58.8	84.1	71.4	92.0	103.0
2 1/2"	4.12	2.69	3.75	3.38	4.19	2.75	3.81	3.31	4.12	4.56
	104.8	68.3	95.2	85.7	106.4	69.8	96.8	84.1	105.0	116.0
3"	5.00	3.31	4.62	4.25	5.06	3.38	4.69	4.19	5.00	5.44
	127.0	84.1	117.5	108.0	128.6	85.7	119.1	106.4	127.0	138.0
3 1/2"	5.50	3.81	5.12	4.75	5.56	3.88	5.19	4.69	5.50	5.94
	139.7	96.8	130.2	120.6	141.3	98.4	131.8	119.1	140.0	151.0
4"	6.19	4.31	5.69	5.19	6.25	4.38	5.75	5.12	6.19	6.62
	157.2	109.5	144.5	131.8	158.8	111.1	146.0	130.2	157.0	168.0

Large male and female face and large tongue and groove are not applicable to Class 150 because of potential dimensional conflicts.

由于可能潜在的尺寸冲突,大凸面和大榫槽面不适用于150磅的产品

大小凹凸面、大小榫槽面 Large and Small Male/Female, Tongue/Groove Facings



ANSI B 16.5

Class 150-2500

Dimensions In.
mm

Nom. Pipe Size	Outside Diameter			Inside Dia. of Large and Small Tongue	Outside Diameter			Inside Dia. of Large and Small Groove	Diameter of Raised Face min.	
	Large Male and Large Tongue	Small Male	Small Tongue		Large Female and Large Groove	Small Female	Small Groove		Small Female and groove	Large Female and Groove
g	s	t	u	w	x	y	z	k	l	
5"	7.31	5.38	6.81	6.31	7.38	5.44	6.88	6.25	7.31	7.75
	185.7	136.5	173.0	160.3	187.3	138.1	174.6	158.8	186.0	197.0
6"	8.50	6.38	8.00	7.50	8.56	6.44	8.06	7.44	8.50	8.94
	215.9	161.9	203.2	190.5	217.5	163.5	204.8	188.9	216.0	227.0
8"	10.62	8.38	10.00	9.38	10.69	8.44	10.06	9.31	10.62	11.06
	269.9	212.7	254.0	238.1	271.5	214.3	255.6	236.5	270.0	281.0
10"	12.75	10.50	12.00	11.25	12.81	10.56	12.06	11.19	12.75	13.19
	323.8	266.7	304.8	285.8	325.4	268.3	306.4	284.2	324.0	335.0
12"	15.00	12.50	14.25	13.50	15.06	12.56	14.31	13.44	15.00	15.44
	381.0	317.5	362.0	342.9	382.6	319.1	363.5	341.3	381.0	392.0
14"	16.25	13.75	15.50	14.75	16.31	13.81	15.56	14.69	16.25	16.69
	412.8	349.2	393.7	374.6	414.3	350.8	395.3	373.1	413.0	424.0
16"	18.50	15.75	17.62	16.75	18.56	15.81	17.69	16.69	18.50	18.94
	469.9	400.0	447.5	425.4	471.5	401.6	449.3	423.9	470.0	481.0
18"	21.00	17.75	20.12	19.25	21.06	17.81	20.19	19.19	21.00	21.44
	533.4	450.8	511.2	489.0	535.0	452.4	512.8	487.4	533.0	544.0
20"	23.00	19.75	22.00	21.00	23.06	19.81	22.06	20.94	23.00	23.44
	584.2	501.6	558.8	533.4	585.8	503.2	560.4	531.8	584.0	595.0
24"	27.25	23.75	26.25	25.25	27.31	23.81	26.31	25.19	27.25	27.69
	692.2	603.2	666.8	641.4	693.7	604.8	668.3	639.8	692.0	703.0

Large male and female face and large tongue and groove are not applicable to Class 150 because of potential dimensional conflicts.

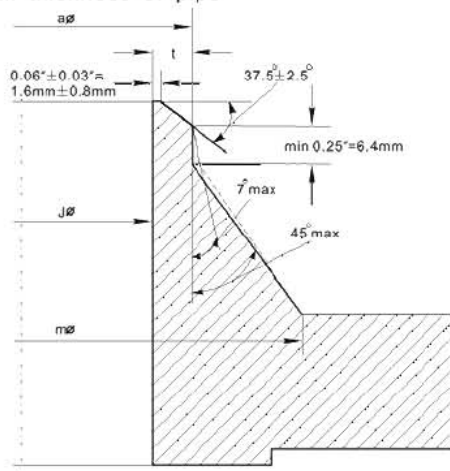
由于可能潜在的尺寸冲突,大凸面和大榫槽面不适用于150磅的产品

焊接端口 Welding Ends

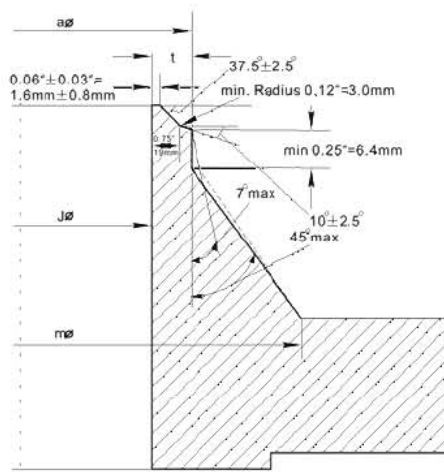


ANSI B16.5/ANSI B16.25

a = Outside diameter of pipe
J = Inside diameter of pipe
t = wall thickness of pipe



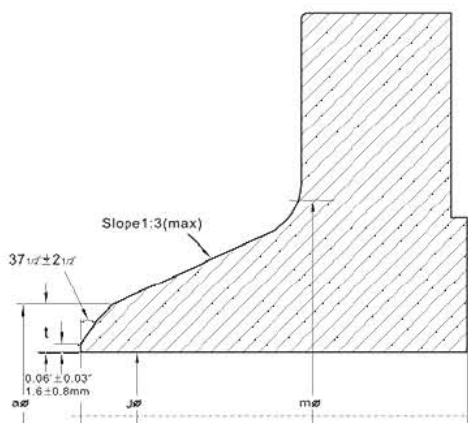
Bevel for Wall Thicknesses (t) from 0.19" to 0.88" inclusive



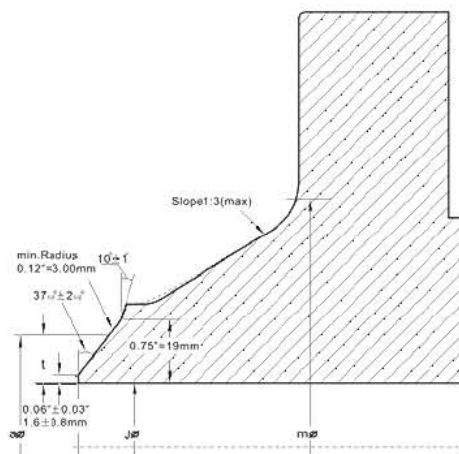
Bevel for Wall Thicknesses (t) greater than 0.88"

Welding Ends(Welding Neck Flanges)

ANSI B16.47/ANSI B16.25



Bevel for Wall Thicknesses (t) from 0.19" to 0.88" inclusive



Bevel for Wall Thicknesses (t) greater than 0.88"

Example of Marking

Flanges are marked as required in ANSI B 16.5 with the following dates:

Manufacture's name or trade make.

B 16

Nominal Size

Primary service pressure

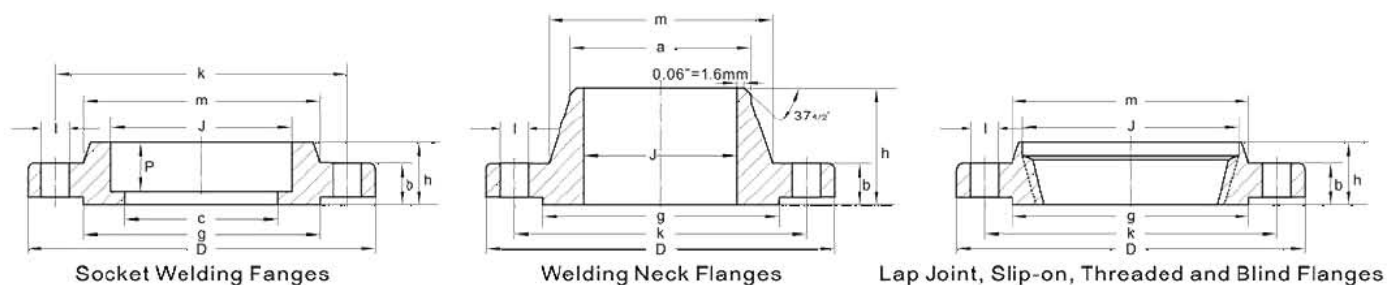
Material designation

Heat code

Schedule No.

Ring Number only when using Ring Joint Flanges.

R B 16 24" 900Lb SA105/105N HT 588 SCH 80 (R78)



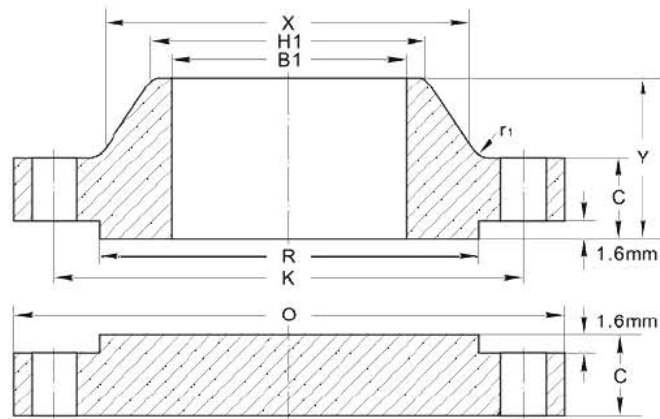
ANSI B 16.5

D Outside Diameter ★	When O.D. is 24" or less		±1.6mm (±0.06in.)
	When O.D. is over 24"		±3.2mm (±0.12in.)
J Inside Diameter (WN, SW)	No Backing Ring	NPS ≤ 10	±1.0mm (±0.03in.)
		12 ≤ NPS ≤ 18	±1.5mm (±0.06in.)
		NPS ≥ 20	+3.0, -1.5mm (+0.12, -0.06in.)
	With Backing Ring	NPS ≤ 10	+0.0, -1.0mm (+0.0, -0.03in.)
		NPS ≥ 12	+0.0, -1.5mm (+0.0, -0.06in.)
g Diameter of Contact Face	2.0mm (0.06") Raised Face		±1.0mm (±0.03in.)
	7.0mm (0.25") Raised Face		±0.5mm (±0.02in.)
	Tongue and Groove, Male and Female		±0.5mm (±0.02in.)
Flange Bore	Lapped, Slip-on and Socket Welding	NPS ≤ 10	+1.0, -0.0mm (+0.03, -0.0in.)
		NPS ≥ 12	+1.5, -0.0mm (+0.06, -0.0in.)
	Counterbores	Threaded	NPS ≤ 10 +1.0, -0.0mm (+0.03, -0.0in.) NPS ≥ 12 +1.5, -0.0mm (+0.06, -0.0in.)
		Socket Welding	1/2 ≤ NPS ≤ 3 ±0.25mm (±0.010in.)
a Diameter of Hub at Point of Welding	NPS ≤ 5		+2.0, -1.0mm (+0.09, -0.03in.)
	NPS ≥ 6		+4.0, -1.0mm (+0.16, -0.03in.)
m Diameter of Hub at Base ★	When Hub Base is 24" or less		±1.6mm (±0.06in.)
	When Hub Base is over 24"		±3.2mm (±0.12in.)
I Drilling and Facing	Bolt Circle Diameter K		±1.5mm (±0.06in.)
	Bolt hole to Bolt Hole		±0.8mm (±0.03in.)
	Bolt Circle Concentricity	NPS ≤ 2 1/2	0.8mm (0.03in.)
		NPS ≥ 3	1.5mm (0.06in.)
h Length through Hub on Welding Neck Flanges	NPS ≤ 4		±1.5mm (±0.06in.)
	5 ≤ NPS ≤ 10		+1.5, -3.0mm (+0.06, -0.12in.)
	NPS ≥ 12		+3.0, -5.0mm (+0.12, -0.18in.)
b Thickness	NPS ≤ 18		+3.0, -0.0mm (+0.12, -0.0in.)
	NPS ≥ 20		+5.0, -0.0mm (+0.19, -0.0in.)

Note: ★ This tolerance is not covered by ANSI B 16.5. but Maker's option.

注意: ★此公差不包含在 ANSI B 16.5, 只作为制造者的选项。

ANSI B 16.47



Nominal Sizes from 26" to 60"

Flange Outside Diameter (O)

法兰外圆直径

- 0.06in.(1.6mm) Raised face. $\pm 0.08\text{in}(2\text{mm})$
- 0.25in.(6.4mm) Raised face. $\pm 0.04\text{in}(1\text{mm})$

Flange Thickness (C)

法兰厚度

To 1.0 in.(25.4mm):	+0.12in.(3.0mm)	-0
1.0in.(25.4mm)-2.0in.(50.8mm)	+0.19in.(4.8mm)	-0
2.0in.(50.8mm)-3.0in.(76.2mm)	+0.31in.(7.9mm)	-0
Over 3.0in.(76.2mm)	+0.38in.(9.7mm)	-0

Hub Dimensions including welding Ends

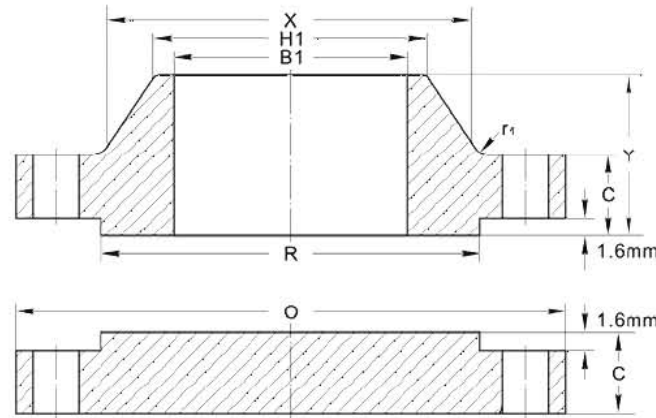
焊接端口

Nominal outside diameter of welding end of welding neck flanges (H1)		
(no Backing Rings)	+0.12in(5.4mm)	-0.06in(1.6mm)
Nominal inside diameter of welding ends of welding neck flanges (B1)		
no Backing Rings	+0.12in(5.4mm)	-0.06in(1.6mm)
with Backing Rings	+0	-0.06in(1.6mm)

Drilling and Facing

钻孔与表面

Bolt circle diameter (K)	$\pm 0.06\text{in}(1.6\text{mm})$
Center-to-center of adjacent bolt holes	$\pm 0.03\text{in}(0.8\text{mm})$
Eccentricity between bolt circle diameter and machined facing diameters	$\pm 0.06\text{in}(1.6\text{mm})$



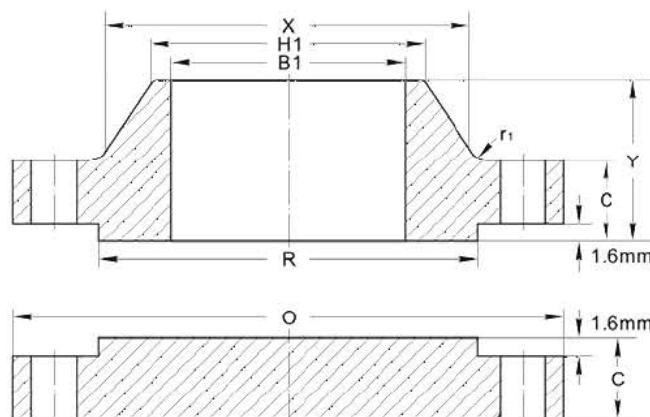
ANSI B16.47 Series A

150 磅 法 兰

Dimensions In. mm

Nom. Pipe Size	O.D. OF Flange	Thickness of Flange, Min		Length Through Hub	Diam. Of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. Of Bolt	Fillet Radius Min.	Approx. Weight	
								Diam.of Bolt Circle	No. of Bolt Holes	Diam. Of Bolt Hole			Welding Neck	Blind
		WNF	BLIND										Pounds Kg	Pounds Kg
	O	C	C	Y	X	A	R				r1			
26	34.25	2.69	2.69	4.75	26.62	26.00	29.50	31.75	24	1.38	1 1/4	0.38	324	625
	870.0	68.3	68.3	120.7	676.1	660.4	749.3	806.5		35.1		9.7	147	306
28	36.50	2.81	2.81	4.94	28.62	28.00	31.50	34.00	28	1.38	1 1/4	0.44	360	800
	927.1	71.4	71.4	125.5	726.9	711.2	800.1	863.6		35.1		11.2	163	363
30	38.75	2.94	2.94	5.38	30.75	30.00	33.75	36.00	28	1.38	1 1/4	0.44	419	948
	984.3	74.7	74.7	136.7	781.1	762.0	857.3	914.4		35.1		11.2	190	430
32	41.75	3.19	3.19	5.69	32.75	32.00	36.00	38.50	28	1.62	1 1/2	0.44	525	1184
	1060.5	81.0	81.0	144.5	831.9	812.8	914.4	977.9		41.1		11.2	238	537
34	43.75	3.25	3.25	5.88	34.75	34.00	38.00	40.50	32	1.62	1 1/2	0.50	562	1323
	1111.3	82.6	82.6	149.4	882.7	863.6	965.2	1028.7		41.1		12.7	255	600
36	46.00	3.56	3.56	6.19	36.75	36.00	40.25	42.75	32	1.62	1 1/2	0.50	665	1609
	1168.4	90.4	90.4	157.2	933.5	914.4	1022.4	1085.9		41.1		12.7	302	730
38	48.75	3.44	3.44	6.19	39.00	38.00	42.25	45.25	32	1.62	1 1/2	0.50	754	1748
	1238.3	87.4	87.4	157.2	990.6	965.2	1073.2	1149.4		41.1		12.7	342	792
40	50.75	3.56	3.56	6.44	41.00	40.00	44.25	47.25	36	1.62	1 1/2	0.50	807	1968
	1289.1	90.4	90.4	163.6	1041.4	1016.0	1124.0	1200.2		41.1		12.7	366	893
42	53.00	3.81	3.81	6.75	43.00	42.00	47.00	49.50	36	1.62	1 1/2	0.50	924	2303
	1346.2	96.8	96.8	171.5	1092.2	1066.8	1193.8	1257.3		41.1		12.7	419	1044
44	55.25	4.00	4.00	7.00	45.00	44.00	49.00	51.75	40	1.62	1 1/2	0.50	1012	2623
	1403.4	101.6	101.6	177.8	1143.0	1117.6	1244.6	1314.5		41.1		12.7	459	1190
46	57.25	4.06	4.06	7.31	47.12	46.00	51.00	53.75	40	1.62	1 1/2	0.50	1102	2864
	1454.2	103.1	103.1	185.7	1196.8	1168.4	1295.4	1365.3		41.1		12.7	500	1299
48	59.50	4.25	4.25	7.56	49.12	48.00	53.50	56.00	44	1.62	1 1/2	0.50	1217	3240
	1511.3	108.0	108.0	192.0	1247.6	1219.2	1358.9	1422.4		41.1		12.7	552	1470
50	61.75	4.38	4.38	8.00	51.25	50.00	55.50	58.25	44	1.88	1 3/4	0.50	1305	3560
	1568.5	111.3	111.3	203.2	1301.8	1270.0	1409.7	1479.6		47.8		12.7	592	1615
52	64.00	4.56	4.56	8.25	53.25	52.00	57.50	60.50	44	1.88	1 3/4	0.50	1455	4006
	1625.6	115.8	115.8	209.6	1352.6	1320.8	1460.5	1536.7		47.8		12.7	660	1817
54	66.25	4.75	4.75	8.50	55.25	54.00	59.50	62.75	44	1.88	1 3/4	0.50	1600	4478
	1682.8	120.7	120.7	215.9	1403.4	1371.6	1511.3	1593.9		47.8		12.7	726	2031
56	68.75	4.88	4.88	9.00	57.38	56.00	62.00	65.00	48	1.88	1 3/4	0.50	1775	4947
	1746.3	124.0	124.0	228.6	1457.5	1422.4	1574.8	1651.0		47.8		12.7	805	2244
58	71.00	5.06	5.06	9.25	59.38	58.00	64.00	67.25	48	1.88	1 3/4	0.50	1949	5429
	1803.4	128.5	128.5	235.0	1508.3	1473.2	1625.6	1708.2		47.8		12.7	884	2491
60	73.00	5.19	5.19	9.44	61.38	60.00	66.00	69.25	52	1.88	1 3/4	0.50	2050	5946
	1854.2	131.8	131.8	239.8	1559.1	1524.0	1676.4	1759.0		47.8		12.7	930	2697

大直径钢制法兰 Large Diameter Steel Flanges

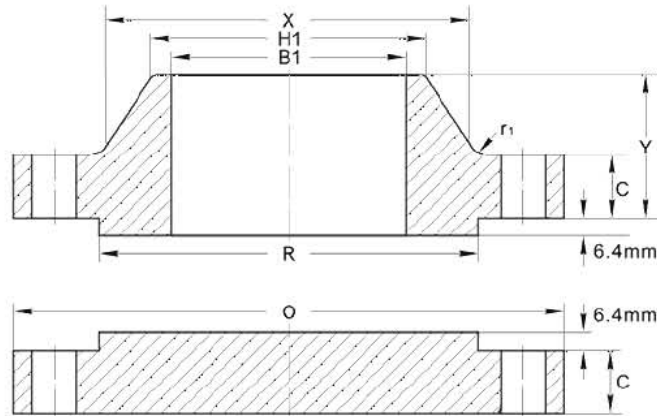


ANSI B16.47 Series A

300 磅 法 兰

Dimensions In. mm

Nom. Pipe Size	O.D. OF Flange	Thickness of Flange, Min		Length Through Hub	Diam. Of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. Of Bolt	Fillet Radius Min.	Approx. Weight	
													Welding Neck	Blind
		WNF	BLIND					Pounds Kg	Pounds Kg					
		O	C					C	Y	X			A	R
26	38.25	3.12	3.31	7.25	28.38	26.00	29.50	34.50	28	1.75	1 5/8	0.38	606	1014
	971.6	79.2	84.1	184.2	720.9	660.4	749.3	876.3		44.5		9.7	275	460
28	40.75	3.38	3.56	7.75	30.50	28.00	31.50	37.00	28	1.75	1 5/8	0.44	750	1248
	1035.1	85.9	90.4	196.9	774.7	711.2	800.1	939.8		44.5		11.2	340	566
30	43.00	3.62	3.75	8.25	32.56	30.00	33.75	39.25	28	1.88	1 3/4	0.44	858	1462
	1092.2	91.9	95.3	215.9	827.0	762.0	857.3	997.0		47.8		11.2	389	663
32	45.25	3.88	3.94	8.75	34.69	32.00	36.00	41.50	28	2.00	1 7/8	0.44	966	1697
	1149.4	98.6	100.1	222.3	881.1	812.8	914.4	1054.1		50.8		11.2	438	770
34	47.50	4.00	4.12	9.12	36.88	34.00	38.00	43.50	28	2.00	1 7/8	0.50	1098	1971
	1206.5	101.6	104.6	231.6	936.8	863.6	965.2	1104.9		50.8		12.7	498	894
36	50.00	4.12	4.38	9.50	39.00	36.00	40.25	46.00	32	2.12	2	0.50	1241	2294
	1270.0	104.6	111.3	241.3	990.6	914.4	1022.4	1168.4		53.8		12.7	563	1040
38	46.00	4.25	4.25	7.12	39.12	38.00	40.50	43.00	32	1.62	1 1/2	0.50	677	1922
	1168.4	108.0	108.0	180.8	993.6	965.2	1028.7	1092.2		41.1		12.7	307	872
40	48.75	4.50	4.50	7.62	41.25	40.00	42.75	45.50	32	1.75	1 5/8	0.50	820	2282
	1238.3	114.3	114.3	193.5	1047.8	1016.0	1085.9	1155.7		44.5		12.7	372	1035
42	50.75	4.69	4.69	7.88	43.25	42.00	44.75	47.50	32	1.75	1 5/8	0.50	902	2587
	1289.1	119.1	119.1	200.2	1098.6	1066.8	1136.7	1206.5		44.5		12.7	409	1173
44	53.25	4.88	4.88	8.12	45.25	44.00	47.00	49.75	32	1.88	1 3/4	0.50	1023	2954
	1352.6	124.0	124.0	206.2	1149.4	1117.6	1193.8	1263.7		47.8		12.7	464	1340
46	55.75	5.06	5.06	8.50	47.38	46.00	49.00	52.00	28	2.00	1 7/8	0.50	1199	3527
	1416.1	128.5	128.5	215.9	1203.5	1168.4	1244.6	1320.8		50.8		12.7	544	1600
48	57.75	5.25	5.25	8.81	49.38	48.00	51.25	54.00	32	2.00	1 7/8	0.50	1250	3748
	1466.9	133.4	133.4	223.8	1254.3	1219.2	1301.8	1371.6		50.8		12.7	567	1700
50	60.25	5.50	5.50	9.12	51.38	50.00	53.50	56.25	32	2.12	2	0.50	1417	4268
	1530.4	139.7	139.7	231.6	1305.1	1270.0	1358.9	1428.8		53.8		12.7	643	1936
52	62.25	5.69	5.69	9.38	53.38	52.00	55.50	58.25	32	2.12	2	0.50	1530	4724
	1581.2	144.5	144.5	238.3	1355.9	1320.8	1409.7	1479.6		53.8		12.7	694	2143
54	65.25	6.00	6.00	9.94	55.50	54.00	57.75	61.00	28	2.38	2 1/4	0.50	1834	5480
	1657.4	152.4	152.4	252.5	1409.7	1371.6	1466.9	1549.4		60.5		12.7	832	2486
56	67.25	6.06	6.06	10.25	57.62	56.00	59.75	63.00	28	2.38	2 1/4	0.50	1944	5895
	1708.2	153.9	153.9	260.4	1463.5	1422.4	1517.7	1600.2		60.5		12.7	882	2674
58	69.25	6.25	6.25	10.50	59.62	58.00	62.00	65.00	32	2.38	2 1/4	0.50	2046	6422
	1759.0	158.8	158.8	266.7	1514.3	1473.2	1574.8	1651.0		60.5		12.7	928	2913
60	71.25	6.44	6.44	10.75	61.62	60.00	64.00	67.00	32	2.38	2 1/4	0.50	2180	7019
	1809.8	163.6	163.6	273.1	1565.1	1524.0	1625.6	1701.8		60.5		12.7	989	3184

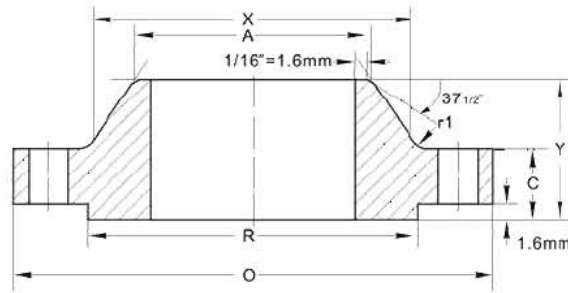


ANSI B16.47 Series A

600 磅 法 兰

Dimensions In. mm

Nom. Pipe Size	O.D. OF Flange	Thickness of Flange, Min		Length Through Hub	Diam. Of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. Of Bolt	Fillet Radius Min.	Approx. Weight	
								Diam.of Bolt Circle	No. of Bolt Holes	Diam. Of Bolt Hole			Welding Neck	Blind
		WNF	BLIND										Pounds Kg	Pounds Kg
	O	C	C	Y	X	A	R				r1			
26	40.00	4.25	4.94	8.75	29.44	26.00	29.50	36.00	28	2.00	1 7/8	0.50	941	1631
	1016.0	108.0	125.5	222.3	747.8	660.4	749.3	914.4		50.8		12.7	427	740
28	42.25	4.38	5.19	9.25	31.62	28.00	31.50	38.00	28	2.12	2	0.50	1056	1916
	1073.2	111.3	131.8	235.0	803.1	711.2	800.1	965.2		53.8		12.7	479	869
30	44.50	4.50	5.50	9.75	33.94	30.00	33.75	40.25	28	2.12	2	0.50	1201	2271
	1130.3	114.3	139.7	247.7	862.1	762.0	857.3	1022.4		53.8		12.7	545	1030
32	47.00	4.62	5.81	10.25	36.12	32.00	36.00	42.50	28	2.38	2 1/4	0.50	1345	2654
	1193.8	117.3	147.6	260.4	917.4	812.8	914.4	1079.5		60.5		12.7	610	1204
34	49.00	4.75	6.06	10.62	38.31	34.00	38.00	44.50	28	2.38	2 1/4	0.56	1468	3023
	1244.6	120.7	153.9	269.7	973.1	863.6	965.2	1130.3		60.5		14.2	666	1371
36	51.75	4.88	6.38	11.12	40.62	36.00	40.25	47.00	28	2.62	2 1/2	0.56	1664	3527
	1314.5	124.0	162.1	282.4	1031.7	914.4	1022.4	1193.8		66.5		14.2	755	1600
38	50.00	6.00	6.12	10.00	40.25	38.00	41.50	45.75	28	2.38	2 1/4	0.56	1411	3190
	1270.0	152.4	155.4	254.0	1022.4	965.2	1054.1	1162.1		60.5		14.2	640	1447
40	52.00	6.25	6.38	10.38	42.25	40.00	43.75	47.75	32	2.38	2 1/4	0.56	1506	3571
	1320.8	158.8	162.1	263.7	1073.2	1016.0	1111.3	1212.9		60.5		14.2	683	1620
42	55.25	6.62	6.75	11.00	44.38	42.00	46.00	50.50	28	2.62	2 1/2	0.56	1662	4294
	1403.4	168.1	171.5	279.4	1127.3	1066.8	1168.4	1282.7		66.5		14.2	754	1948
44	57.25	6.81	7.00	11.38	46.50	44.00	48.25	52.50	32	2.62	2 1/2	0.56	1990	4630
	1454.2	173.0	177.8	289.1	1181.1	1117.6	1225.6	1333.5		66.5		14.2	903	2100
46	59.50	7.06	7.31	11.81	48.62	46.00	50.25	54.75	32	2.62	2 1/2	0.56	2323	5401
	1511.3	179.3	185.7	300.0	1234.9	1168.4	1276.4	1390.7		66.5		14.2	1054	2450
48	62.75	7.44	7.69	12.44	50.75	48.00	52.50	57.50	32	2.88	2 3/4	0.56	2645	6283
	1593.9	189.0	195.3	316.0	1289.1	1219.2	1333.5	1460.5		73.2		14.2	1200	2850
50	65.75	7.75	8.00	12.94	52.88	50.00	54.50	60.00	28	3.12	3	0.56	3005	7127
	1670.1	196.85	203.2	328.7	1343.2	1270.0	1384.3	1524.0		79.2		14.2	1363	3233
52	67.75	8.00	8.25	13.25	54.88	52.00	56.50	62.00	32	3.12	3	0.56	3232	7870
	1720.9	203.2	209.6	336.6	1394.0	1320.8	1435.1	1574.8		79.2		14.2	1466	3570
54	70.00	8.25	8.56	13.75	57.00	54.00	58.75	64.25	32	3.12	3	0.56	3538	8747
	1778.0	209.6	217.4	349.3	1447.8	1371.6	1492.3	1632.0		79.2		14.2	1605	3968
56	73.00	8.56	8.88	14.25	59.12	56.00	60.75	66.75	32	3.38	3 1/4	0.62	3767	9810
	1854.2	217.4	225.6	362.0	1501.6	1422.4	1543.1	1695.5		85.9		15.7	1709	4450
58	75.00	8.75	9.12	14.56	61.12	58.00	63.00	68.75	32	3.38	3 1/4	0.62	4224	10692
	1905.0	222.3	231.6	369.8	1552.4	1473.2	1600.2	1746.3		85.9		15.7	1916	4850
60	78.50	9.19	9.56	15.31	63.38	60.00	65.25	71.75	28	3.62	3 1/2	0.69	5070	12319
	1993.9	233.4	242.8	388.9	1609.9	1524.0	1657.4	1822.5		91.9		17.5	2300	5588



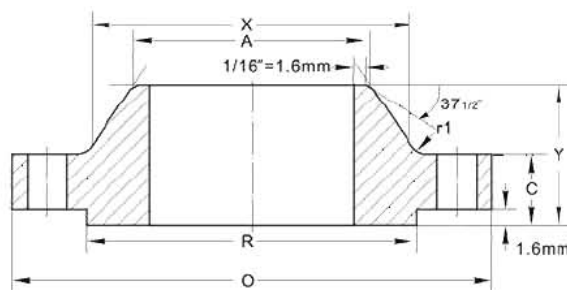
ANSI B16.47 Series B

150 磅等颈对焊法兰

Dimensions ^{In.}_{mm}

Nom. Pipe Size	O.D. of Flange	Thickness of Flange, Min		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt	Fillet Radius Min.	Approx. weight
								Diam.of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole			
		WNF	BLIND										
	O	C	C	Y	X	A	R					r1	Pounds Kg
26	30.94	1.62	1.75	3.50	26.94	26.06	28.00	29.31	36	0.88	3/4	0.38	139
	785.9	41.1	44.5	88.9	684.3	661.9	711.2	744.5		22.4		9.7	63
28	32.94	1.75	1.88	3.75	28.94	28.06	30.00	31.31	40	0.88	3/4	0.38	163
	836.7	44.5	47.8	95.3	735.1	712.7	762.0	795.3		22.4		9.7	74
30	34.94	1.75	2.00	3.94	31.00	30.06	32.00	33.31	44	0.88	3/4	0.38	176
	887.5	44.5	50.8	100.1	787.4	763.5	812.8	846.1		22.4		9.7	80
32	37.06	1.81	2.12	4.25	33.06	32.06	34.00	35.44	48	0.88	3/4	0.38	203
	941.3	46.0	53.8	108.0	839.7	814.3	863.6	900.2		22.4		9.7	92
34	39.56	1.94	2.25	4.34	35.12	34.06	36.25	37.69	40	1.00	7/8	0.38	249
	1004.8	49.3	57.2	110.2	892.0	865.1	920.8	957.3		25.4		9.7	113
36	41.62	2.06	2.31	4.62	37.19	36.06	38.25	39.75	44	1.00	7/8	0.38	284
	1057.1	52.3	58.7	117.3	944.6	915.9	971.6	1009.7		25.4		9.7	129
38	44.25	2.12	2.50	4.88	39.25	38.12	40.25	42.12	40	1.12	1	0.38	330
	1124.0	53.8	63.5	124.0	997.0	968.2	1022.4	1069.8		28.4		9.7	150
40	46.25	2.19	2.62	5.06	41.31	40.12	42.50	44.12	44	1.12	1	0.38	356
	1174.8	55.6	66.5	128.5	1049.3	1019.0	1079.5	1120.6		28.4		9.7	162
42	48.25	2.31	2.69	5.25	43.38	42.12	44.50	46.12	48	1.12	1	0.44	406
	1225.6	58.7	68.3	133.4	1101.9	1069.8	1130.3	1171.4		28.4		11.2	184
44	50.25	2.38	2.81	5.38	45.38	44.12	46.50	48.12	52	1.12	1	0.44	422
	1276.4	60.5	71.4	136.7	1152.7	1120.6	1181.1	1222.2		28.4		11.2	192
46	52.81	2.44	2.94	5.69	47.44	46.12	48.62	50.56	40	1.25	1 1/8	0.44	493
	1341.4	62.0	74.7	144.5	1205.0	1171.4	1234.9	1284.2		31.8		11.2	224
48	54.81	2.56	3.06	5.88	49.50	48.12	50.75	52.56	44	1.25	1 1/8	0.44	509
	1392.2	65.0	77.7	149.4	1257.3	1222.2	1289.1	1335.0		31.8		11.2	231
50	56.81	2.69	3.18	6.06	51.50	50.12	52.75	54.56	48	1.25	1 1/8	0.44	579
	1443.0	68.3	80.8	153.9	1308.1	1273.0	1339.9	1385.8		31.8		11.2	263
52	58.81	2.75	3.31	6.19	53.56	52.12	54.75	56.56	52	1.25	1 1/8	0.44	627
	1493.8	69.9	84.1	157.2	1360.4	1323.8	1390.7	1436.6		31.8		11.2	285
54	61.00	2.81	3.44	6.38	55.62	54.12	56.75	58.75	56	1.25	1 1/8	0.44	632
	1549.4	71.4	87.4	162.1	1412.7	1374.6	1441.5	1492.3		31.8		11.2	287
56	63.00	2.88	3.56	6.56	57.69	56.12	58.75	60.75	60	1.25	1 1/8	0.56	711
	1600.2	73.2	90.4	166.6	1465.3	1425.4	1492.3	1543.1		31.8		14.2	323
58	65.94	2.94	3.68	6.88	59.69	58.12	60.75	63.44	48	1.38	1 1/4	0.56	845
	1674.9	74.7	93.5	174.8	1516.1	1476.2	1543.1	1611.4		35.1		14.2	384
60	67.94	3.00	3.81	7.06	61.81	60.12	63.00	65.44	52	1.38	1 1/4	0.56	855
	1725.7	76.2	96.8	179.3	1570.0	1527.0	1600.2	1662.2		35.1		14.2	388

大直径钢制法兰 Large Diameter Steel Flanges

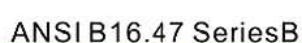


ANSI B16.47 Series B

300 磅 等 颈 对 焊 法 兰

Dimensions ^{In.} mm

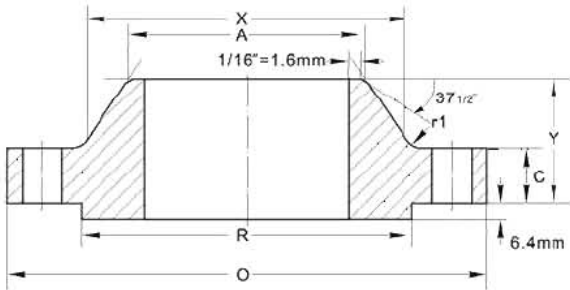
Nom. Pipe Size	O.D. of Flange	Thickness of Flange, Min		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt	Fillet Radius Min.	Approx. weight
		WNF	BLIND					Diam.of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole			Pounds
		O	C										
26	34.12	3.50	3.50	5.69	27.62	26.19	29.00	31.62	32	1.38	1 1/4	0.56	399
	866.6	88.9	88.9	144.5	701.5	665.2	736.6	803.1		35.1		14.2	181
28	36.25	3.50	3.50	5.88	29.75	28.19	31.00	33.75	36	1.38	1 1/4	0.56	447
	920.8	88.9	88.9	149.4	755.7	716.0	787.4	857.3		35.1		14.2	203
30	39.00	3.69	3.69	6.22	32.00	30.25	33.25	36.25	36	1.50	1 3/8	0.56	590
	990.6	93.7	93.7	158.0	812.8	768.4	844.6	920.8		38.1		14.2	268
32	41.50	4.06	4.06	6.62	34.00	32.25	35.50	38.50	32	1.62	1 1/2	0.62	727
	1054.1	103.1	103.1	168.1	863.6	819.2	901.7	977.9		41.1		15.7	330
34	43.62	4.06	4.06	6.81	36.12	34.25	37.50	40.62	36	1.62	1 1/2	0.62	787
	1107.9	103.1	103.1	173.0	917.4	870.0	952.5	1031.7		41.1		15.7	357
36	46.12	4.06	4.06	7.12	38.00	36.25	39.75	42.88	32	1.75	1 5/8	0.62	893
	1171.4	103.1	103.1	180.8	965.2	920.8	1009.7	1089.2		44.5		15.7	405
38	48.12	4.38	4.38	7.56	40.00	38.25	41.75	44.88	36	1.75	1 5/8	0.62	917
	1222.2	111.3	111.3	192.0	1016.0	971.6	1060.5	1140.0		44.5		15.7	416
40	50.12	4.56	4.56	7.81	42.00	40.25	43.88	46.88	40	1.75	1 5/8	0.62	992
	1273.0	115.8	115.8	198.4	1066.8	1022.4	1114.6	1190.8		44.5		15.7	450
42	52.50	4.69	4.69	8.06	44.00	42.31	46.00	49.00	36	1.88	1 3/4	0.62	1106
	1333.5	119.1	119.1	204.7	1117.6	1074.7	1168.4	1244.6		47.8		15.7	502
44	54.50	5.00	5.00	8.44	46.19	44.31	48.00	51.00	40	1.88	1 3/4	0.62	1216
	1384.3	127.0	127.0	214.4	1173.2	1125.5	1219.2	1295.4		47.8		15.7	552
46	57.50	5.06	5.12	8.75	48.38	46.31	50.00	53.75	36	2.00	1 7/8	0.62	1432
	1460.5	128.5	130.0	222.3	1228.9	1176.3	1270.0	1365.3		50.8		15.7	650
48	59.50	5.06	5.31	8.81	50.31	48.31	52.25	55.75	40	2.00	1 7/8	0.62	1611
	1511.3	128.5	134.9	223.8	1277.9	1227.1	1327.2	1416.1		50.8		15.7	731
50	61.50	5.44	5.50	9.25	52.38	50.31	54.25	57.75	44	2.00	1 7/8	0.62	1675
	1562.1	138.2	139.7	235.0	1330.5	1277.9	1378.0	1466.9		50.8		15.7	760
52	63.50	5.62	5.68	9.56	54.44	52.31	56.25	59.75	48	2.00	1 7/8	0.62	1763
	1612.9	142.7	144.3	242.8	1382.8	1328.7	1428.8	1517.7		50.8		15.7	800
54	65.88	5.38	5.88	9.44	56.50	54.31	58.25	62.12	48	2.00	1 7/8	0.62	1979
	1673.4	136.7	149.4	239.8	1435.1	1379.5	1479.6	1577.8		50.8		15.7	898
56	69.50	6.06	6.18	10.56	58.81	56.31	60.50	65.00	36	2.38	2 1/4	0.69	2519
	1765.3	153.9	157.0	268.2	1493.8	1430.3	1536.7	1651.0		60.5		17.5	1143
58	71.94	6.06	6.38	10.81	60.94	58.31	62.75	67.44	40	2.38	2 1/4	0.69	2682
	1827.3	153.9	162.1	274.6	1547.9	1481.1	1593.9	1713.0		60.5		17.5	1217
60	73.94	5.94	6.56	10.69	62.94	60.31	65.00	69.44	40	2.38	2 1/4	0.69	2890
	1878.1	150.9	166.6	271.5	1598.7	1531.9	1651.0	1763.8		60.5		17.5	1311



Dimensions $\frac{\text{In.}}{\text{mm}}$

Nom. Pipe Size	O.D. of Flange	Thickness of Flange, Min		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt	Fillet Radius Min.	Approx. weight
		O	C					C	Y	X		A	R
26	35.00	4.38	4.38	7.12	27.50	26.00	28.62	31.75	28	1.75	1 5/8	0.50	588
	889.0	111.3	111.3	180.8	698.5	660.4	726.9	806.5		44.5		12.7	267
28	37.50	4.56	4.56	7.50	29.62	28.00	30.88	34.00	28	1.88	1 3/4	0.50	718
	952.5	115.8	115.8	190.5	752.3	711.2	784.4	863.6		47.8		12.7	326
30	40.25	4.94	5.00	8.06	31.75	30.00	33.12	36.50	28	2.00	1 7/8	0.50	885
	1022.4	125.5	127.0	204.7	806.5	762.0	841.2	927.1		50.8		12.7	402
32	42.75	5.12	5.31	8.50	33.88	32.00	35.25	38.75	28	2.12	2	0.50	1019
	1085.9	130.0	134.9	215.9	860.6	812.8	895.4	984.3		53.8		12.7	462
34	45.75	5.56	5.68	9.19	36.00	34.00	37.50	41.50	24	2.38	2 1/4	0.56	1282
	1162.1	141.2	144.3	233.4	914.4	863.6	952.5	1054.1		60.5		14.2	582
36	47.75	5.75	5.94	9.56	38.12	36.00	39.75	43.50	28	2.38	2 1/4	0.56	1382
	1212.9	146.1	150.9	242.8	968.2	914.4	1009.7	1104.9		60.5		14.2	627
38													
40													
42													
44													
46	SAME AS THE DIMENSION OF SERIES A FLANGE												
48													
50													
52													
54													
56													
58													
60													

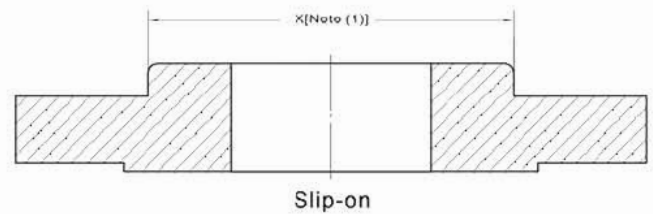
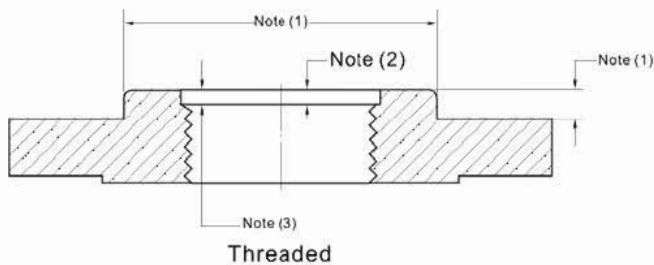
大直径钢制法兰
Large Diameter Steel Flanges



ANSI B16.47 Series B 900 磅 等 颈 对 焊 法 兰 Dimensions In. mm

Nom. Pipe Size	O.D. of Flange	Thickness of Flange, Min		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt	Fillet Radius Min.	Approx weight
		WNF	BLIND					Diam.of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole			Pounds
	O	C	C	Y	X	A	R				r1	Kg	
26	40.25	5.31	6.06	10.19	29.25	26.00	30.00	35.50	20	2.62	2 1/2	0.44	1243
	1022.4	134.9	153.9	258.8	743.0	660.4	762.0	901.7		66.5		11.2	564
28	43.50	5.81	6.56	10.88	31.38	28.00	32.25	38.25	20	2.88	2 3/4	0.50	1556
	1104.9	147.6	166.6	276.4	797.1	711.2	819.2	971.6		73.2		12.7	706
30	46.50	6.12	6.93	11.38	33.50	30.00	34.50	40.75	20	3.12	3	0.50	1835
	1181.1	155.4	176.0	289.1	850.9	762.0	876.3	1035.1		79.2		12.7	833
32	48.75	6.31	7.31	11.94	35.75	32.00	36.50	43.00	20	3.12	3	0.50	2025
	1238.3	160.3	185.7	303.3	908.1	812.8	927.1	1092.2		79.2		12.7	919
34	51.75	6.75	7.68	12.56	37.88	34.00	39.00	45.50	20	3.38	3 1/4	0.56	2435
	1314.5	171.5	195.1	319.0	962.2	863.6	990.6	1155.7		85.9		14.2	1105
36	53.00	6.81	7.94	12.81	40.00	36.00	40.50	47.25	24	3.12	3	0.56	2476
	1346.2	173.0	201.7	325.4	1016.0	914.4	1028.7	1200.2		79.2		14.2	1124
38													
40													
42													
44													
46													
48													
50	SAME AS THE DIMENSION OF SERIES A FLANGE												
52													
54													
56													
58													
60													

SAME AS THE DIMENSION OF SERIES A FLANGE



ANSI B16.5 Reducing Thereded and Slip-on Flanges for Classes 150 Through 2500

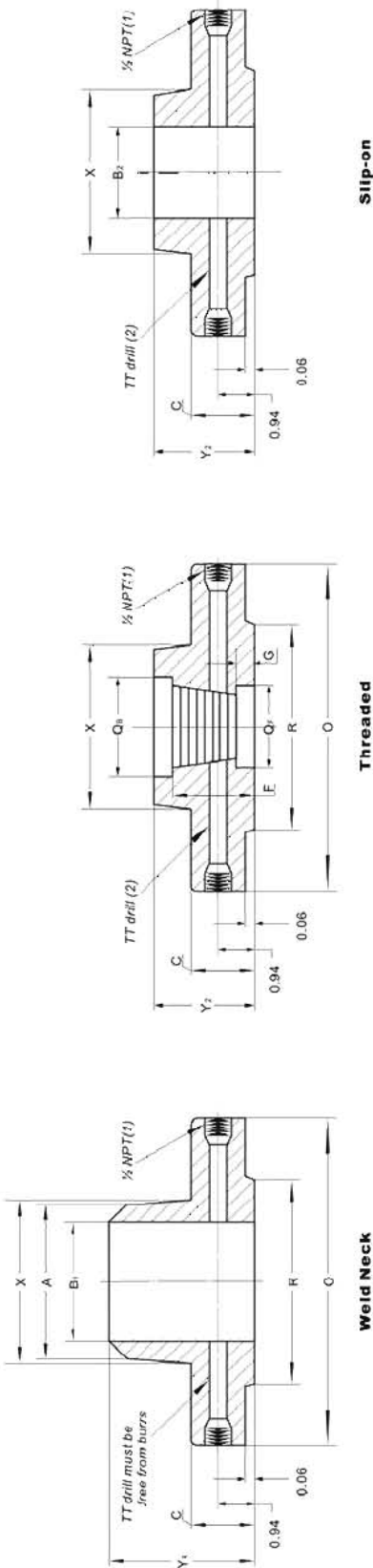
1	2	3	4	5	6
Nominal Pipe Size	Smallest Size of Reducing Outlet Requiring Hub Flanges	Nominal Pipe Size	Smallest Size of Reducing Outlet Requiring Hub Flanges	Nominal Pipe Size	Smallest Size of Reducing Outlet Requiring Hub Flanges
1	1/2	3 1/2	1 1/2	12	3 1/2
1 1/4	1/2	4	1 1/2	14	3 1/2
1 1/2	1/2	5	1 1/2	16	4
2	1	6	2 1/2	18	4
2 1/2	1 1/4	8	3	20	4
3	1 1/4	10	3 1/2	24	4

NOTES:

- (1) The hub dimensions shall be at least as large as those of the standard flanges of the size to which the reduction is being made except flanges reducing to a size smaller than those of Columns 2,4, and 6 may be made from blind flanges. See Example B.
- (2) Class 150 flanges do not have a counterbore. Class 300 and higher pressure flanges will have depth of counterbore of 0.25 in. For NPS 2 and smaller tapping and 0.38 in. For NPS 2½ and larger. The diameter Q of counterbore is the same as that given in the tables of the threaded for the corresponding tapping.
- (3) Minimum length of effective threads shall be at least equal to dimension T of the corresponding pressure class threaded flange as shown in tables but does not necessarily extend for the face of the flange.
- (4) For method of designating reducing threaded and reducing slip-on flanges, see the example below.

EXAMPLES:

- The size designation is NPS 6×2½ -Class 300 reducing threaded flange. This flange has the following dimensions:
 NPS 2½ = taper pipe thread tapping (ASME B1.20.1)
 12.5in. = diameter of regular NPS 6 Class 300 threaded flange
 1.44in. = thickness of regular NPS 6 Class300 threaded flange
 7.0in. = diameter of hub for regular NPS 5 Class 300 threaded flange. Hub diameter may be one size smaller to reduce machining. In this example a hub diameter of 2½ would be the smallest acceptable
 0.62in. = height of hub for regular NPS 5 Class 300 threaded flange
 Other dimensions the same as for regular NPS 6 Class 300 threaded flange, Table F12.
- The size designation is NPS 6×2 - Class 300 reducing threaded flange. Use regular NPS 6 Class 300 blind flange tapped with NPS 2 taper pipe thread (ASME B 1.20.1).



CLASS 300LB
WELDING NECK, SLIP-ON, AND THREADED

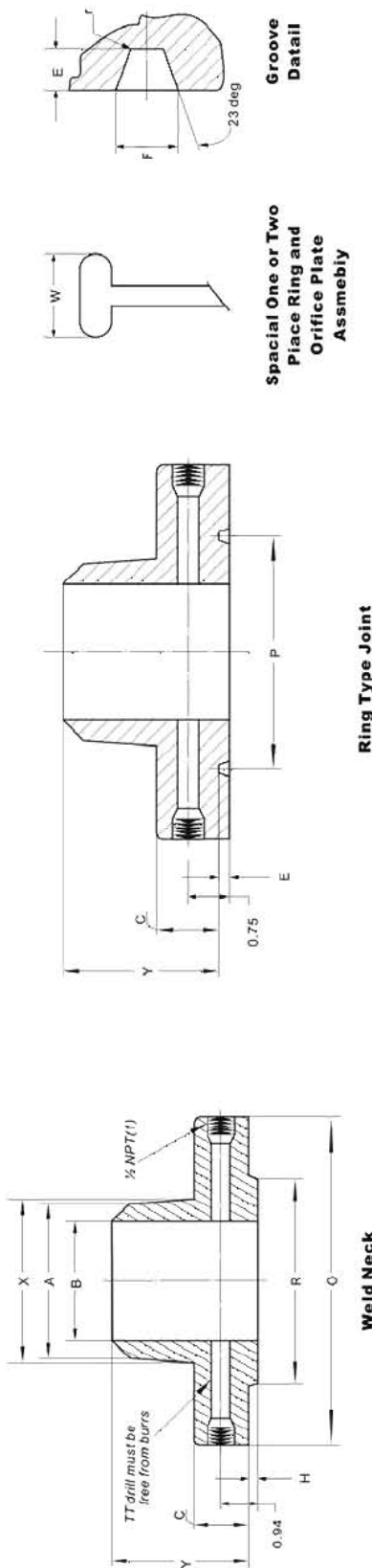
Dimensions in.

ANSI B16.36

Nominal Pipe Size	Outside Diameter of Raised Face	Outside Diameter of Flange	Thickness of Flange, Min.	Length Through hub		Diameter of Hub	Hub Diameter Beginning of Chamfer (W.N.)	Diameter of Counterbore		Counterbore Depth (From Face)		Bore		Diameter of Pressure Conne- ction	Drilling Template				Bolt Length											
				Slip-on and Threaded	Weld Neck			Back	Face	F	G	B1	B2		Slip-on	Weld Neck	Number of Holes	Diameter of Holes			Diameter of Bolts	Machine Bolts	Stud Bolts							
1	2.00	4.88	1.50	1.88	3.25	2.12	1.32	1.41	1.30	1.44	0.75	1.36	To be specified by the purchaser										1/4	3.50	4	0.69	5/8	4.50	5.00	
1 1/2	2.88	6.12	1.50	1.88	3.38	2.75	1.90	1.99	1.89	1.47	0.72	1.95											1/4	4.50	4	0.81	3/4	4.75	5.25	
2	3.62	6.50	1.50	1.94	3.38	3.31	2.38	2.50	2.36	1.50	0.69	2.44											1/4	5.00	8	0.69	5/8	4.50	5.00	
2 1/2	4.12	7.50	1.50	2.00	3.50	3.94	2.88	3.00	2.84	1.75	0.56	2.94											1/4	5.88	8	0.81	3/4	4.75	5.25	
3	5.00	8.25	1.50	2.06	3.50	4.62	3.50	3.63	3.46	1.81	0.56	3.57											3/8	6.62	8	0.81	3/4	4.75	5.25	
4	6.19	10.00	1.50	2.12	3.62	5.75	4.50	4.63	4.45	1.88	0.56	4.57											1/2	7.88	8	0.81	3/4	4.75	5.25	
6	8.50	12.50	1.50	2.12	3.94	8.12	6.63	6.75	6.57	1.88	0.31	6.72											1/2	10.62	12	0.88	3/4	4.75	5.25	
8	10.62	15.00	1.62	2.44	4.38	10.25	8.63	8.75	8.55	2.19	0.44	8.72											1/2	13.00	12	1.00	7/8	5.00	5.75	
10	12.75	17.50	1.88	2.62	4.62	12.62	10.75						10.88											1/2	15.25	16	1.12	1	5.75	6.50
12	15.00	20.50	2.00	2.88	5.12	14.75	12.75						12.88											1/2	17.75	16	1.25	1 1/8	6.25	7.00
14	16.25	23.00	2.12	3.00	5.62	16.75	14.00						14.14											1/2	20.25	20	1.25	1 1/8	6.50	7.25
16	18.50	25.50	2.25	3.25	5.75	19.00	16.00						16.16											1/2	22.50	20	1.38	1 1/4	7.00	7.75
18	21.00	28.00	2.38	3.50	6.25	21.00	18.00						18.18											1/2	24.75	24	1.38	1 1/4	7.25	8.00
20	23.00	30.50	2.50	3.75	6.38	23.12	20.00						20.20											1/2	27.00	24	1.38	1 1/4	7.50	8.50
24	27.25	36.00	2.75	4.19	6.62	27.62	24.00						24.25											1/2	32.00	24	1.62	1 1/2	8.25	9.50

Notes:

- (1) Bolt lengths include allowance for orific and gasket thickness of 0.25 in. for NPS 1-12 and 0.38 in. for NPS14-24
- (2) In conformance with ASME B16.5, stud bolt lengths do not include point heights.



CLASS 600LB WELDING NECK

Dimensions in.

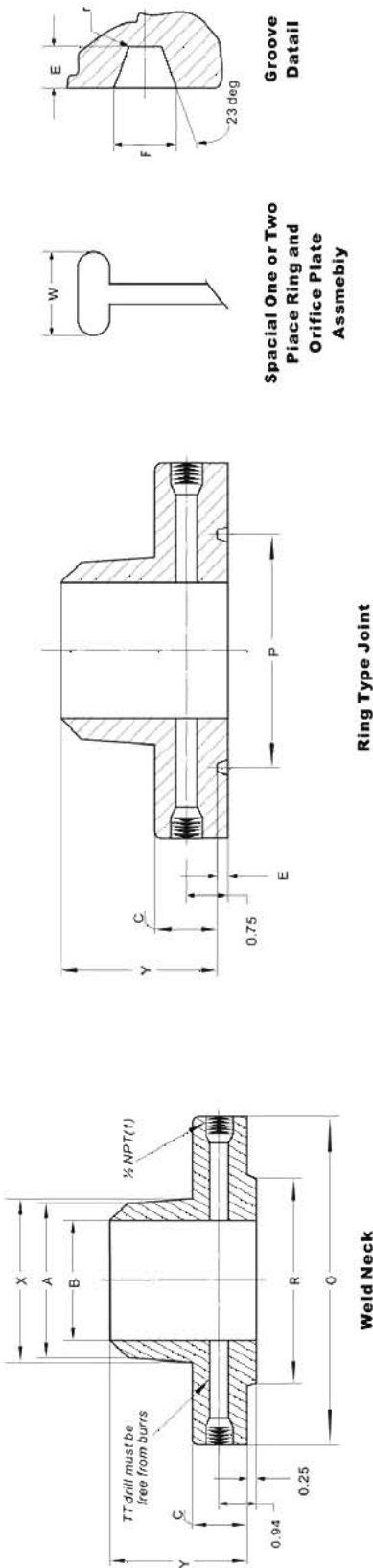
ANSI B16.36

Nominal Pipe Size	Outside Diameter of Raised Face	Outside Diameter of Flange	Thickness of Flange, Min.	Length Through Hub	Height of Raised Face	Ring Type Joint						Diameter of Hub	Hub Diameter Beginning of Chamfer	Bore	Diameter of Pressure Conne- ction	Drilling Template				Diameter of Bolts	Raised Face	Ring Joint	Length of Stud Bolts		
						Groove Number	Pitch Diameter	Groove Depth	Groove Width	Radius at Bottom	Special Oval Ring Height														
R	O	C	Y	H	P	E	F	r max	W	X	A	B	TT		Bolt Circle	Number of Holes	Diameter of Holes	Ring Joint							
1	2.00	4.88	1.44	3.19	0.06	R16	2.000	0.250	0.344	0.03	1.00	2.12	1.32	To be specified by the purchaser	1/4	3.50	4	0.69	0.75	5/8	5.00	5.50			
1 1/2	2.88	6.12	1.44	3.32	0.06	R20	2.688	0.250	0.344	0.03	1.00	2.75	1.90		1/4	4.50	4	0.81	0.88	3/4	5.25	5.50			
2	3.62	6.50	1.44	3.32	0.06	R23	3.250	0.312	0.469	0.03	1.06	3.31	2.38		1/4	5.00	8	0.69	0.75	5/8	5.00	5.50			
2 1/2	4.12	7.50	1.44	3.44	0.06	R26	4.000	0.312	0.469	0.03	1.06	3.94	2.88		1/4	5.88	8	0.81	0.88	3/4	5.25	5.75			
3	5.00	8.25	1.44	3.44	0.06	R31	4.875	0.312	0.469	0.03	1.06	4.62	3.50		3/8	6.62	8	0.81	0.88	3/4	5.25	5.75			
4	6.19	10.75	1.50	4.00	0.25	R37	5.875	0.312	0.469	0.03	1.06	6.00	4.50		1/2	8.50	8	1.00	1.00	7/8	6.00	6.50			
6	8.50	14.00	1.88	4.62	0.25	R45	8.312	0.312	0.469	0.03	1.06	8.75	6.63		1/2	11.50	12	1.12	1.12	1	7.00	7.50			
8	10.62	16.50	2.19	5.25	0.25	R49	10.625	0.312	0.469	0.03	1.06	10.75	8.63		1/2	13.75	12	1.25	1.25	1 1/8	7.75	8.25			
10	12.75	20.00	2.50	6.00	0.25	R53	12.750	0.312	0.469	0.03	1.06	13.50	10.75		1/2	17.00	16	1.38	1.38	1 1/4	8.75	9.25			
12	15.00	22.00	2.62	6.12	0.25	R57	15.000	0.312	0.469	0.03	1.06	15.75	12.75		1/2	19.25	20	1.38	1.38	1 1/4	9.00	9.50			
14	16.25	23.75	2.75	6.50	0.25	R61	16.500	0.312	0.469	0.03	1.06	17.00	14.00	1/2	20.75	20	1.50	1.50	1 3/8	9.50	10.00				
16	18.50	27.00	3.00	7.00	0.25	R65	18.500	0.312	0.469	0.03	1.19	19.50	16.00	1/2	23.75	20	1.62	1.62	1 1/2	10.25	10.75				
18	21.00	29.25	3.25	7.25	0.25	R69	21.000	0.312	0.469	0.03	1.19	21.50	18.00	1/2	25.75	20	1.75	1.75	1 5/8	11.00	11.50				
20	23.00	32.00	3.50	7.50	0.25	R73	23.000	0.375	0.531	0.06	1.25	24.00	20.00	1/2	28.50	24	1.75	1.75	1 5/8	11.75	12.50				
24	27.25	37.00	4.00	8.00	0.25	R77	27.250	0.438	0.656	0.06	1.44	28.25	24.00	1/2	33.00	24	2.00	2.00	1 7/8	13.25	13.75				

Notes:

(1) In conformance with ASME B16.5, stud Bolt lengths do not include point heights.

(2) Bolt lengths for raised face flanged include allowance for orifice and gasket thickness of 0.25 in. for NPS 1-2 and 0.38 in. for NPS 14-24. Bolt lengths for ring Type Joint flanges include allowance of 0.62 in. for NPS 1-10, 0.75 in. for NPS 12-18, and 0.88 in. for NPS 20.



Special One or Two
Place Ring and
Orifice Plate
Assembly

Ring Type Joint

Weld Neck

CLASS 900LB
WELDING NECK

ANSI B16.36

Dimensions in.

Nominal Pipe Size	Outside Diameter of Raised Face	Outside Diameter of Flange	Thickness of Flange, Min.	Length Through Hub	Ring Type Joint							Hub Diameter Beginning of Chamfer	Bore	Diameter of Pressure Convec- tion	Drilling Template				Length of StudBolts										
					Groove Number	Pitch Diameter	Groove Depth	Groove Width	Radius at Bottom	Special Oval Ring Height	Diameter of Hub				Diameter Beginning of Chamfer	Diameter of Bolt Circle	Number of Holes	Diameter of Holes		Diameter of Bolts	Raised Face	Ring Joint							
R	O	C	Y	P	E	F	r max	W	X	A	B	TT																	
1																													
1 1/2																													
2																													
2 1/2																													
3	5.00	9.50	1.50	4.00	R31	4.875	0.312	0.469	0.03	1.06	5.00	3.50	To be specified by the purchaser										3/8	7.50	8	1.00	7/8	6.00	6.50
4	6.19	11.50	1.75	4.50	R37	5.875	0.312	0.469	0.03	1.06	6.25	4.50											1/2	9.25	8	1.25	1 1/8	7.00	7.50
6	8.50	15.00	2.19	5.50	R45	8.312	0.312	0.469	0.03	1.06	9.25	6.63											1/2	12.50	12	1.25	1 1/8	7.75	8.25
8	10.62	18.50	2.50	6.38	R49	10.625	0.312	0.469	0.03	1.06	11.75	8.63											1/2	15.50	12	1.50	1 3/8	9.00	9.50
10	12.75	21.50	2.75	7.25	R53	12.750	0.312	0.469	0.03	1.06	14.50	10.75											1/2	18.50	16	1.50	1 3/8	9.50	10.00
12	15.00	24.00	3.12	7.88	R57	15.000	0.312	0.469	0.03	1.06	16.50	12.75											1/2	21.00	20	1.50	1 3/8	10.25	10.75
14	16.25	25.25	3.38	8.38	R62	16.500	0.438	0.656	0.06	1.31	17.75	14.00											1/2	22.00	20	1.62	1 1/2	11.00	11.50
16	18.50	27.75	3.50	8.50	R66	18.500	0.438	0.656	0.06	1.44	20.00	16.00											1/2	24.25	20	1.75	1 5/8	11.50	12.00
18	21.00	31.00	4.00	9.00	R70	21.000	0.500	0.781	0.06	1.56	22.25	18.00											1/2	27.00	20	2.00	1 7/8	13.00	13.75
20	23.00	33.75	4.25	9.75	R74	23.000	0.500	0.781	0.06	1.56	24.50	20.00											1/2	29.50	20	2.12	2	14.00	14.75
24	27.25	41.00	5.50	11.50	R78	27.250	0.625	1.062	0.09	1.88	29.50	24.00											1/2	35.50	20	2.62	2 1/2	17.50	18.50

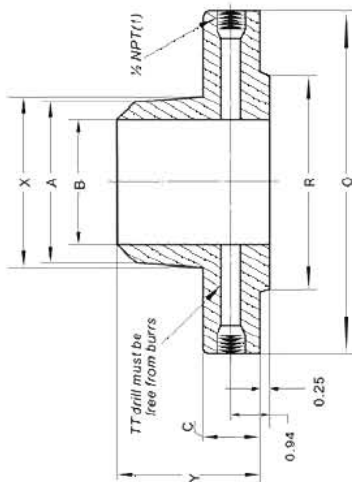
For NPS 2 1/2 and smaller, use Class 1500

For NPS 2 1/2 and smaller, use Class 1500

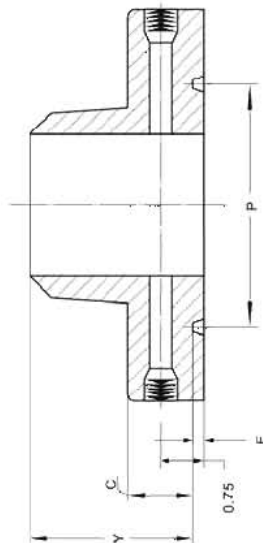
To be specified by
the purchaser

Notes:

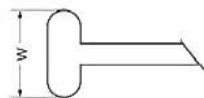
- (1) In conformance with ASME B16.5, stud Bolt lengths do not include point heights.
- (2) Bolt lengths for raised face flanges include allowance for orifice and gasket thickness of 0.25 in. for NPS 3-12 and 0.38 in. for NPS 14-24. Bolt lengths for ring Type Joint flanges include allowance of 0.62 in. for NPS 3-10, and 0.75 in. for NPS 12.



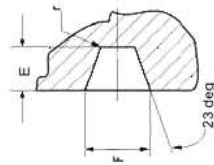
Weld Neck



Ring Type Joint



Special One or Two Piece Ring and Orifice Plate Assembly



Groove Detail

CLASS 1500LB WELDING NECK

ANSI B16.36

Dimensions in.

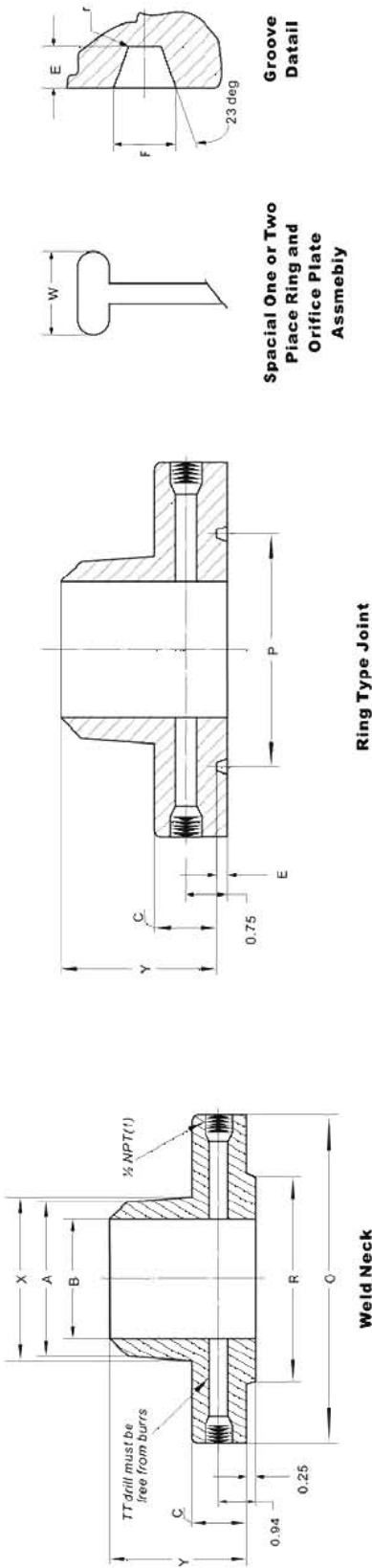
Nominal Pipe Size	Outside Diameter of Raised Face	Outside Diameter of Flange	Thickness of Flange, Min.	Length Through Hub	Ring Type Joint						Diameter of Hub Beginning of Chamfer	Hub Diameter	Bore	Diameter of Pressure Connection	Drilling Template				Length of Stud Bolts	
					Groove Number	Pitch Diameter	Groove Depth	Groove Width	Radius at Bottom	Special Oval Ring Height	X	A			Diameter of Bolt Circle	Number of Holes	Diameter of Holes	Diameter of Raised Face		
1	2.00	5.88	1.50	3.25	R16	2.000	0.250	0.344	0.03	1.00	2.06	1.32	To be specified by the purchaser	1/4	4.00	4	1.00	7/8	6.00	6.25
1 1/2	2.88	7.00	1.50	3.50	R20	2.688	0.250	0.344	0.03	1.00	2.75	1.90		1/4	4.88	4	1.12	1	6.25	6.50
2	3.62	8.50	1.50	4.00	R24	3.750	0.312	0.469	0.03	1.06	4.12	2.38		1/4	6.50	8	1.00	7/8	6.00	6.50
2 1/2	4.12	9.62	1.62	4.12	R27	4.250	0.312	0.469	0.03	1.06	4.88	2.88		1/4	7.50	8	1.12	1	6.50	7.00
3	5.00	10.50	1.88	4.62	R35	5.375	0.312	0.469	0.03	1.06	5.25	3.50		3/8	8.00	8	1.25	1 1/8	7.25	7.25
4	6.19	12.25	2.12	4.88	R39	6.375	0.312	0.469	0.03	1.06	6.38	4.50		1/2	9.50	8	1.38	1 1/4	8.00	8.50
6	8.50	15.50	3.25	6.75	R46	8.312	0.375	0.531	0.06	1.12	9.00	6.63		1/2	12.50	12	1.50	1 3/8	10.50	11.00
8	10.62	19.00	3.62	8.38	R50	10.625	0.438	0.656	0.06	1.31	11.50	8.63		1/2	15.50	12	1.75	1 5/8	11.75	12.25
10	12.75	23.00	4.25	10.00	R54	12.750	0.438	0.656	0.06	1.31	14.50	10.75		1/2	19.00	12	2.00	1 7/8	13.50	14.00
12	15.00	26.50	4.88	11.12	R58	15.000	0.562	0.806	0.06	1.56	17.75	12.75		1/2	22.50	16	2.12	2	15.00	15.75
14	16.25	29.50	5.25	11.75	R63	16.500	0.625	1.062	0.09	1.75	19.50	14.00		1/2	25.00	16	2.38	2 1/4	16.25	17.52
16	18.50	32.50	5.75	12.25	R67	18.500	0.688	1.188	0.09	2.00	21.75	16.00		1/2	27.75	16	2.62	2 1/2	17.75	19.00
18	21.00	36.00	6.38	12.88	R71	21.000	0.688	1.188	0.09	2.00	23.50	18.00		1/2	30.50	16	2.88	2 3/4	19.75	21.00
20	23.00	38.75	7.00	14.00	R75	23.000	0.688	1.312	0.09	2.12	25.25	20.00		1/2	32.75	16	3.12	3	21.50	22.50
24	27.25	46.00	8.00	16.00	R79	27.250	0.812	1.438	0.09	2.31	30.00	24.00		1/2	39.00	16	3.62	3 1/2	24.50	26.00

Notes:

(1) In conformance with ASME B16.5, stud Bolt lengths do not include point heights.

(2) Bolt lengths for raised face flanges include allowance for orifice and gasket thickness of 0.25 in. for NPS 1-12 and 0.38 in. for NPS 14-24. Bolt lengths for ring type joint flanges include allowance of 0.62 in. for NPS 1-6.

孔板法兰
Orifice Flanges

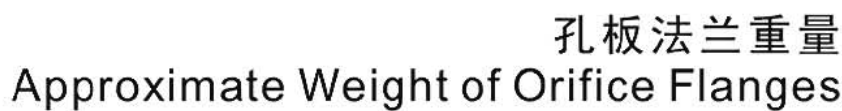


CLASS 2500LB
WELDING NECK

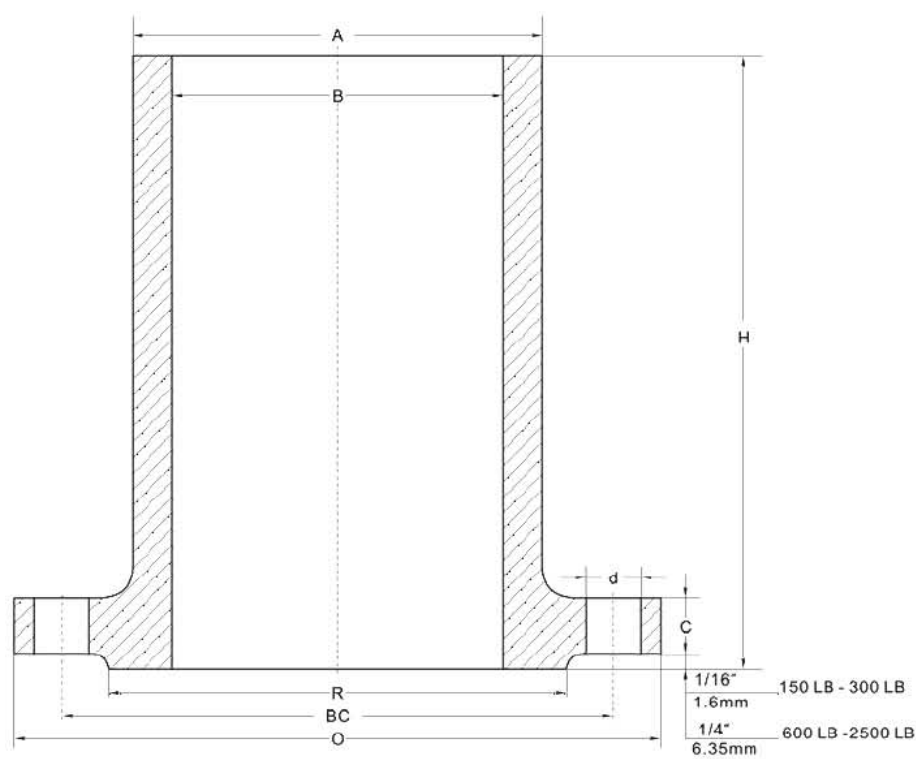
ANSI B16.36														WELDING NECK					Dimensions in.			
Nominal Pipe Size	Outside Diameter of Raised Face	Outside Diameter of Flange	Thickness of Flange, Min.	Length Through Hub	Ring Type Joint							Diameter of Hub	Hub Diameter Beginning of Chamfer	Bore	Diameter of Pressure Connection	Drilling Template				Length of Stud Bolts		
					Groove Number	Pitch Diameter	Groove Depth	Groove Width	Radius at Bottom	Special Oval Ring Height	Diameter of Bolt Circle					Number of Holes	Diameter of Holes	Diameter of Bolts	Raised Face		Ring Joint	
1	2.00	6.25	1.50	3.62	R18	2.375	0.250	0.344	0.03	1.00	2.25	1.32	To be specified by the purchaser	1/4	4.25	4	1.00	7/8	6.00	6.25		
1 1/2	2.88	8.00	1.75	4.38	R23	3.250	0.312	0.469	0.03	1.06	3.12	1.90		1/4	5.75	4	1.25	1 1/8	7.00	7.50		
2	3.62	9.25	2.00	5.00	R26	4.000	0.312	0.469	0.03	1.06	3.75	2.38		1/4	6.75	8	1.12	1	7.25	7.75		
2 1/2	4.12	10.50	2.25	5.62	R28	4.375	0.375	0.531	0.06	1.19	4.50	2.88		1/4	7.75	8	1.25	1 1/8	8.00	8.50		
3	5.00	12.00	2.62	6.62	R32	5.000	0.375	0.531	0.06	1.19	5.25	3.50		3/8	9.00	8	1.38	1 1/4	9.00	9.50		
4	6.19	14.00	3.00	7.50	R38	6.188	0.438	0.656	0.06	1.31	6.50	4.50		1/2	10.75	8	1.62	1 1/2	10.25	10.75		
6	8.50	19.00	4.25	10.75	R47	9.000	0.500	0.781	0.06	1.44	9.25	6.63		1/2	14.50	8	2.12	2	13.75	14.50		
8	10.62	21.75	5.00	12.50	R51	11.000	0.562	0.906	0.06	1.56	12.00	8.63		1/2	17.25	12	2.12	2	15.25	16.00		
10	12.75	26.50	6.50	16.50	R55	13.500	0.688	1.188	0.09	1.88	14.75	10.75	To be specified by the purchaser	1/2	21.25	12	2.62	2 1/2	19.25	20.25		
12	15.00	30.00	7.25	18.25	R60	16.000	0.688	1.312	0.09	2.00	17.38	12.75		1/2	24.38	12	2.88	2 3/4	21.25	22.50		

Notes:

- (1) Other NPT sizes may be furnished if required.
- (2) All other dimensions are in accordance with ASME B16.5.
- (3) In conformance with ASME B16.5, stud Bolt lengths do not include point heights.
- (4) Bolt lengths for raised face flanges include allowance for orifice and gasket thickness of 0.25 in. for NPS 1-12 . Bolt lengths for ring type joint flanges include allowance of 0.62 in. for NPS 1-3.



CLASS	300				300				600				900				1500							
Nom. Pipe Size	Threaded				Slip-on				Welding Neck															
	Raised face		Ring-Joint		Raised face		Ring-Joint		Raised face		Ring-Joint		Raised face		Ring-Joint		Raised face		Ring-Joint					
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb				
1	7.3	16	7.7	17	7.3	16	7.7	17	8.2	18	8.2	18	8.2	18	See 1500 class						12.2	27	12.2	27
1 1/2	10	22	11.3	25	10	22	11.3	25	12.2	27	12.2	27	12.7	28							18.6	41	18.6	41
2	11.8	26	14	31	11.8	26	14	31	13.6	30	15	33	14	31							29	64	31.8	70
2 1/2	16.3	36	18.1	40	16.3	36	18.1	40	17.7	39	20.9	46	18.1	40							43	95	45.5	100
3	18.6	41	21.3	47	18.6	41	21.3	47	21.3	47	24.5	54	21.8	48	24.5	54	34.9	77	39	86	55.3	122	60	132
4	26.8	59	28.6	63	26.8	59	28.6	63	30.4	67	31.3	69	44.9	99	50.8	112	57.6	127	62.6	138	82	181	89.4	197
5	32.2	71	36.7	81	32.2	71	36.7	81	35.4	78	42.6	94	69.9	154	74.4	164	93.5	206	102	224	147	323	154	340
6	43.5	96	47.6	105	43.5	96	47.6	105	46.7	103	49.9	110	87	192	93	205	119	262	129	285	183	404	199	438
8	61.2	135	73	161	61.2	135	73	161	70.3	155	79.4	175	128	282	134	295	195	430	209	462	295	650	313	690
10					89.8	198	102	225	99	218	106.5	235	205	452	217	478	283	625	303	668	497	1095	524	1155
12					128	282	147	325	149	328	169	372	247	545	261	575	367	810	390	860	766	1690	805	1775
14					177	390	195	430	198	436	220	485	367	810	376	830								
16					225	495	254	560	269	593	295	650	503	1110	513	1130								
18					290	640	311	685	338	745	274	805	592	1305	601	1325								
20					340	760	386	850	406	895	449	990	735	1620	748	1650								
24					535	1180	585	1290	599	1320	671	1480	1039	2290	1066	2350								



APPROXIMATE WEIGHT OF WELDING NECK FLANGES

Nom. Pipe Size	CLASSES											
	150		300		600		900		1500		2500	
	kg	Lb	kg	Lb	kg	Lb	kg	Lb	kg	Lb	kg	Lb
1	3.4	7.5	4.5	9.8	4.5	10.0	6.1	13.5	6.1	13.5	8.6	19.0
1 1/4	3.9	8.5	5.3	11.6	5.7	12.5	8.0	17.5	8.0	17.5	12.2	27.0
1 1/2	5.5	12.0	7.0	15.5	7.5	16.5	10.0	22.0	10.0	22.0	15.9	35.0
2	7.9	17.5	8.6	18.8	9.4	20.6	19.5	43.0	19.5	43.0	21.8	48.0
2 1/2	9.6	21.3	11.6	25.5	12.2	26.8	30.0	66.0	30.0	66.0	34.0	75.0
3	11.2	24.6	15.7	34.5	16.0	35.3	28.6	63.0	34.5	76.0	48.0	106.0
3 1/2	14.0	30.7	19.8	43.5	20.3	44.7	-	-	-	-	-	-
4	21.0	46.5	26.8	59.0	34.5	76.0	41.3	91.0	48.0	106.0	70.7	156.0
5	25.4	56.0	37.2	82.0	55.4	122.0	61.7	136.0	78.5	173.0	109.0	240.0
6	34.0	75.0	46.7	103.0	65.8	145.0	79.4	175.0	95.0	210.0	159.0	350.0
8	44.5	98.0	65.8	145.0	91.0	200.0	129.0	285.0	148.0	326.0	229.0	505.0
10	64.4	142.0	93.5	206.0	143.0	315.0	229.0	505.0	290.0	640.0	435.0	960.0
12	84.5	186.0	120.0	265.0	175.0	380.0	281.0	620.0	420.0	925.0	594.0	1310.0
14	92.0	203.0	130.0	287.0	177.0	380.0	234.0	515.0	424.0	935.0		
16	98.0	216.0	156.0	345.0	236.0	520.0	276.0	610.0	526.0	1160.0		
18	108.0	238.0	183.0	403.0	275.0	605.0	354.0	780.0	658.0	1450.0		
20	122.0	270.0	218.0	480.0	340.0	750.0	422.0	930.0	776.0	1710.0		
24	193.0	360.0	299.0	660.0	458.0	1010.0	703.0	1550.0	1193.0	2630.0		



长高颈法兰 Seamless Long Welding Necks

Nom. Pipe Size	Outside Diameter	Thickness of Flange Min.	O.D.of Raised Face	Diameter of Hub	Diameter of Bore	Length Through Hub H	Drilling		
							Diameter of Bolt Circle BC	Number of Bolts	Diameter of Bolt holes d
	O	C	R	A	B	H	BC		d
Class 150 LB									
1/2	3.50	0.44	1.38	1.19	0.62	9	2.38	4	5/8
	90.00	11.2	35.1	30.2	15.8	229	60.3		16.0
3/4	3.88	0.50	1.69	1.50	0.82	9	2.75	4	5/8
	100.00	12.7	42.9	38.1	20.9	229	69.9		16.0
1	4.25	0.56	2.00	2.00	1.05	9	3.12	4	5/8
	110.00	14.3	50.8	50.8	26.6	229	79.4		16.0
1 1/4	4.62	0.62	2.50	2.31	1.38	9	3.50	4	5/8
	115.00	15.9	63.5	60.3	35.1	229	88.9		16.0
1 1/2	5.00	0.69	2.88	2.56	1.61	9	3.88	4	5/8
	125.00	17.5	73.2	66.7	40.9	229	98.4		16.0
2	6.00	0.75	3.62	3.06	2.07	9	4.75	4	3/4
	150.00	19.1	92.1	82.5	51.5	229	120.7		19.0
2 1/2	7.00	0.88	4.12	3.56	2.47	9	5.50	4	3/4
	180.00	22.3	104.8	90.0	62.7	229	139.7		19.0
3	7.50	0.94	5.00	4.25	3.07	9	6.00	4	3/4
	190.00	23.9	127.0	108.0	77.9	229	152.4		19.0
3 1/2	8.50	0.94	5.50	4.81	3.55	9	7.00	8	3/4
	215.00	23.9	139.9	122.0	90.1	229	177.8		19.0
4	9.00	0.94	6.19	5.31	4.03	9	7.50	8	3/4
	230.00	23.9	157.2	135.0	102.3	229	190.5		19.0
5	10.00	0.94	7.31	6.44	5.05	12	8.50	8	7/8
	225.00	23.9	185.7	164.0	128.2	305	215.9		22.5
6	11.00	1.00	8.50	7.56	6.07	12	9.50	8	7/8
	280.00	25.4	215.9	192.0	154.1	305	241.3		22.5
8	13.50	1.12	10.62	9.69	7.98	12	11.75	8	7/8
	345.00	28.6	269.9	246.0	202.7	305	294.5		22.5
10	16.00	1.19	12.75	12.00	10.02	12	14.25	12	1
	405.00	30.2	323.9	305.0	254.6	305	362.0		25.5
12	19.00	1.25	15.00	14.38	12.00	12	17.00	12	1
	485.00	31.8	381.0	365.0	304.8	305	431.8		25.5
14	21.00	1.38	16.25	15.75	To be specified by Purchaser	12	18.75	12	1 1/8
	535.00	35.0	412.8	400.0		305	476.3		28.5
16	23.50	1.44	18.50	18.00		12	21.25	16	1 1/8
	595.00	36.6	469.9	457.0		305	539.8		28.5
18	25.00	1.56	21.00	19.88		12	22.75	16	1 1/4
	635.00	39.7	533.4	505.0		305	577.9		32.0
20	27.50	1.69	23.00	22.00	12	25.00	20	1 1/4	
	700.00	42.9	584.2	559.0	305	635.0		32.0	
24	32.00	1.88	27.25	26.12	12	29.50	20	1 3/8	
	815.00	47.7	692.2	663.0	305	749.3		32.0	
Class 300 LB									
1/2	3.75	0.56	1.38	1.50	0.62	9	2.62	4	5/8
	95.0	12.7	34.9	38.0	15.8	229	66.7		16.0
3/4	4.62	0.62	1.69	1.88	0.82	9	3.25	4	3/4
	115.0	14.3	42.9	48.0	20.9	229	82.6		19.0
1	4.88	0.69	2.00	2.12	1.05	9	3.50	4	3/4
	125.0	15.9	50.8	54.0	26.6	229	88.9		19.0
1 1/4	5.25	0.75	2.50	2.50	1.38	9	3.88	4	3/4
	135.0	17.5	63.5	64.0	35.1	229	98.4		19.0
1 1/2	6.12	0.81	2.88	2.75	1.61	9	4.50	4	7/8
	155.0	19.1	73.0	70.0	40.9	229	114.3		22.5
2	6.50	0.88	3.62	3.25	2.07	9	5.00	8	3/4
	165.0	20.7	92.1	82.5	51.5	229	127.0		19.0
2 1/2	7.50	1.00	4.12	3.94	2.47	9	5.88	8	7/8
	190.0	23.9	104.8	100.0	62.7	229	149.2		22.5
3	8.25	1.12	5.00	4.62	3.07	9	6.62	8	7/8
	210.0	27.0	127.0	117.0	77.9	229	168.3		22.5
3 1/2	9.00	1.19	5.50	5.25	3.55	9	7.25	8	7/8
	230.0	28.6	139.7	133.0	90.1	229	184.2		22.5
4	10.00	1.25	6.19	5.75	4.03	9	7.88	8	7/8
	255.0	30.2	157.2	146.0	102.3	229	200.0		22.5
5	11.00	1.38	7.31	7.00	5.05	12	9.25	8	7/8
	280.0	33.4	185.7	178.0	128.2	305	235.0		22.5
6	12.50	1.44	8.50	8.12	6.07	12	10.62	12	7/8
	320.0	35.0	215.9	206.0	154.1	305	269.9		22.5
8	15.00	1.62	10.62	10.25	7.98	12	13.00	12	1
	380.0	39.7	269.9	260.0	202.7	305	330.2		25.5
10	17.50	1.88	12.75	12.62	10.02	12	15.25	16	1 1/8
	445.0	46.1	323.9	321.0	254.6	305	387.4		28.5
12	20.50	2.00	15.00	14.75	12.00	12	17.75	16	1 1/4
	5250.0	49.3	381.0	375.0	304.8	305	450.8		32.0
14	23.00	2.12	16.25	16.75	To be specified by Purchaser	12	20.25	20	1 1/4
	585.0	52.4	412.8	425.0		305	514.4		32.0
16	25.50	2.25	18.50	19.00		12	22.50	20	1 3/8
	650.0	55.6	469.9	483.0		305	571.5		35.0
18	28.00	2.38	21.00	21.00		12	24.75	24	1 3/8
	710.0	58.8	533.4	533.0		305	628.6		35.0
20	30.50	2.50	23.00	23.12	12	27.00	24	1 3/8	
	775.0	62.0	584.2	587.0	305	685.8		35.0	
24	36.00	2.75	27.25	27.62	12	32.00	24	1 5/8	
	915.0	69.9	692.2	702.0	305	812.8		41.5	

长高颈法兰
Seamless Long Welding Necks



Diameter Outside	Thickness of Flange Min.	O.D. of Raised Face	Diameter of Hub	Diameter of Bore	Length Through Hub.	Drilling			Nom. Pipe Size
						Diameter of Bolt Circle	Number holes	Diameter of Bolt holes	
O	C	R	A	B	H	BC		d	
Class 600 LB									
3.75	0.56	1.38	1.50	To be specified by purchaser	9.00	2.62	4	5/8	1/2
95.2	14.3	34.9	38.1		229.0	66.7	4	16.0	
4.62	0.62	1.69	1.88		9.00	3.25	4	3/4	3/4
117.5	15.9	42.9	47.6		229.0	82.5		19.0	
4.88	0.69	2.00	2.12		9.00	3.50	4	3/4	1
124.0	17.5	50.8	54.0		229.0	88.9		19.0	
5.25	0.81	2.50	2.50		9.00	3.88	4	3/4	1 1/4
133.5	20.6	63.5	63.5		229.0	98.4		19.0	
6.12	0.88	2.88	2.75		9.00	4.50	4	7/8	1 1/2
155.5	22.2	73.0	69.8		229.0	114.3		22.5	
6.50	1.00	3.62	3.25		9.00	5.00	8	3/4	2
165.0	25.4	92.1	82.5		229.0	127.0		19.0	
7.50	1.12	4.12	3.94		9.00	5.88	8	7/8	2 1/2
190.5	28.6	104.8	100.0		229.0	149.2		22.5	
8.25	1.25	5.00	4.62		9.00	6.62	8	7/8	3
209.5	31.8	127.0	117.5		229.0	168.1		22.5	
9.00	1.38	5.50	5.25		9.00	7.25	8	1	3 1/2
228.5	34.9	139.7	133.4		229.0	184.2		25.5	
10.75	1.50	6.19	6.00		9.00	8.50	8	1	4
273.0	38.1	157.2	152.4		229.0	215.9		25.5	
13.00	1.75	7.31	7.44		12.00	10.50	8	1 1/8	5
330.0	44.5	185.7	190.5		305.0	266.7		28.5	
14.00	1.88	8.50	8.75		12.00	11.50	12	1 1/8	6
355.5	47.6	215.6	222.2		305.0	292.1		28.5	
16.50	2.19	10.62	10.75		12.00	13.75	12	1 1/4	8
419.0	55.6	269.9	273.0		305.0	349.3		32.0	
20.00	2.50	12.75	13.50		12.00	17.00	16	1 3/8	10
508.0	63.5	323.9	342.9		305.0	431.8		35.0	
22.00	2.62	15.00	15.75		12.00	19.25	20	1 3/8	12
559.0	66.7	381.0	400.0		305.0	489.0		35.0	
23.75	2.75	16.25	17.00		12.00	20.75	20	1 1/2	14
603.5	69.9	412.8	431.8		305.0	527.1		38.0	
27.00	3.00	18.50	19.50	12.00	23.75	20	1 5/8	16	
686.0	76.2	469.9	495.3	305.0	603.3		41.5		
29.25	3.25	21.00	21.50	12.00	25.75	20	1 3/4	18	
743.0	82.6	533.4	546.1	305.0	654.1		45.0		
32.00	3.50	23.00	24.00	12.00	28.50	24	1 3/4	20	
813.0	88.9	548.2	609.6	305.0	723.9		45.0		
37.00	4.00	27.25	28.25	12.00	33.00	24	2	24	
940.0	101.6	692.2	717.5	305.0	838.2		51.0		
Class 900 LB									
Use class 1500 LB dimensions in these sizes									1/2
									3/4
									1
									1 1/4
									1 1/2
									2
									2 1/2
9.50	1.50	5.00	5.00	To be specified by Purchaser	9.00	7.50	8	1	3
241.5	38.1	127.0	127.0		229.0	190.5	8	25.5	
11.50	1.75	6.19	6.25		9.00	9.25	8	1 1/4	4
292.0	44.5	157.2	158.7		229.0	235.0		32.0	
13.75	2.00	7.31	7.50		12.00	11.00	8	1 3/8	5
349.0	50.8	185.7	190.5		305.0	279.4		35.0	
15.00	2.19	8.50	9.25		12.00	12.50	12	1 1/4	6
381.0	55.6	215.9	235.0		305.0	317.5		32.0	
18.50	2.50	10.62	11.75		12.00	15.50	12	1 1/2	8
470.0	63.5	269.9	298.5		305.0	393.7		38.0	
21.50	2.75	12.75	14.50		12.00	18.50	16	1 1/2	10
546.0	69.9	323.9	368.9		305.0	469.9		38.0	
24.00	3.12	15.00	16.50		12.00	21.00	20	1 1/2	12
609.5	79.4	381.0	419.1		305.0	533.4		38.0	
25.25	3.38	16.25	17.75		12.00	22.00	20	1 5/8	14
641.5	85.7	412.8	450.9		305.0	558.8		41.0	
27.75	3.50	18.50	20.00		12.00	24.25	20	1 3/4	16
705.0	88.9	469.9	508.0		305.0	616.0		45.0	
31.00	4.00	21.00	22.25		12.00	27.00	20	2	18
787.5	101.6	533.4	565.2		305.0	685.8		51.0	
33.75	4.25	23.00	24.50		12.00	29.50	20	2 1/8	20
857.5	108.0	584.2	622.3		305.0	749.3		54.0	
41.00	5.50	27.25	29.50		12.00	35.50	20	2 5/8	24
1041.5	139.7	692.2	749.3		305.0	901.7		66.5	

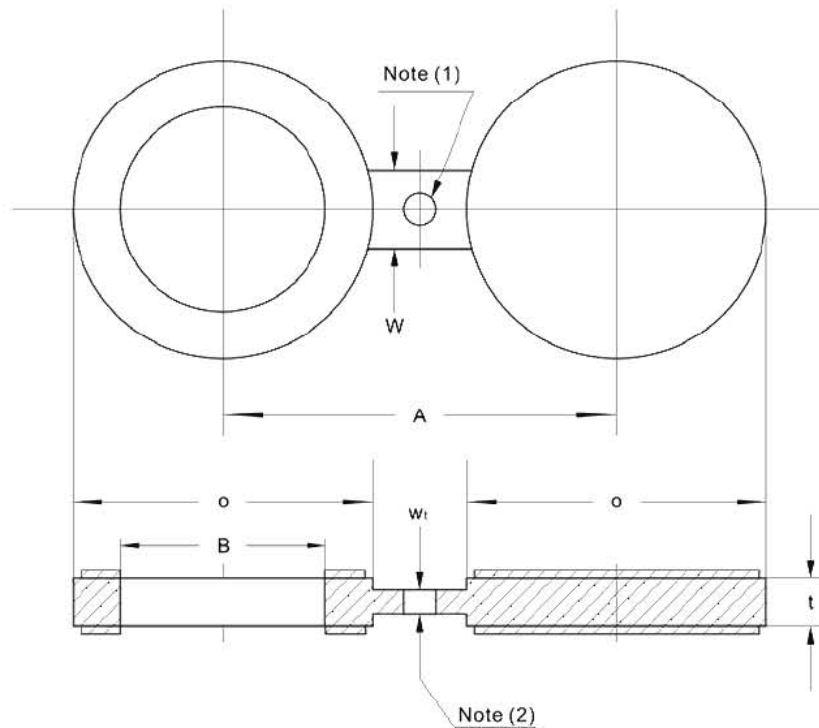


长高颈法兰 Seamless Long Welding Necks

Nom Pipe Size	Diameter Outside	Thickness of Flange Min.	O.D.of Raised Face	Diameter of Hub	Diameter of Bore	Length Through Hub	Drilling		
							Diameter of Bolt Circle	Number of Bolts	Diameter of Bolt holes
	O	C	R	A	B	H	BC		d
Class 1500 LB									
1/2	4.75	0.88	1.38	1.50	To be specified by purchaser	9.00	3.25	4	8/9
	120.6	22.5	34.9	38.1		229.0	82.5		22.5
3/4	5.12	1.00	1.69	1.75		9.00	3.50	4	8/9
	130.2	25.4	42.9	44.5		229.0	88.9		22.5
1	5.88	1.12	2.00	2.06		9.00	4.00	4	1
	149.5	28.6	50.8	52.4		229.0	101.6		25.5
1 1/4	6.25	1.12	2.50	2.50		9.00	4.38	4	1
	159.0	28.6	63.5	63.5		229.0	111.1		25.5
1 1/2	7.00	1.25	2.88	2.75		9.00	4.88	4	1 1/8
	178.0	31.8	73.0	69.9		229.0	123.8		28.5
2	8.50	1.50	3.62	4.12		9.00	6.50	8	1
	216.0	38.1	92.1	104.8		229.0	165.1		25.5
2 1/2	9.62	1.62	4.12	4.88		9.00	7.50	8	1 1/8
	244.5	41.3	104.8	123.8		229.0	190.5		28.5
3	10.50	1.88	5.00	5.25		9.00	8.00	8	1 1/4
	267.0	47.6	127.0	133.4		229.0	203.2		32.0
4	12.50	2.12	6.19	6.38		9.00	9.50	8	1 3/8
	311.0	54.0	157.2	161.9		229.0	241.3		35.0
5	14.75	2.88	7.31	7.75		12.00	11.50	8	1 5/8
	374.5	73.0	185.7	196.9		305.0	292.1		41.0
6	15.50	3.25	8.50	9.00		12.00	12.50	12	1 1/2
	392.5	82.6	215.9	228.6		305.0	317.5		38.0
8	19.00	3.62	10.62	11.50		12.00	15.50	12	1 3/4
	483.0	92.1	269.9	292.1		305.0	393.7		45.0
10	23.00	4.25	12.75	14.50	12.00	19.00	12	2	
	584.0	108.0	323.9	368.3	305.0	482.6		51.0	
12	26.50	4.88	15.00	17.75	12.00	22.50	16	2 1/8	
	673.0	123.8	381.0	450.9	305.0	571.5		54.0	
14	29.50	5.25	16.25	19.50	12.00	25.00	16	2 3/8	
	749.5	133.4	412.8	495.3	305.0	635.0		60.5	
16	32.50	5.75	18.50	21.75	12.00	27.75	16	2 5/8	
	825.5	146.1	469.9	552.5	305.0	704.9		66.5	
18	36.00	6.38	21.00	23.50	12.00	30.50	16	2 7/8	
	914.5	161.9	533.4	596.9	305.0	774.7		73.0	
20	38.75	7.00	23.00	25.25	12.00	32.75	16	3 1/8	
	984.0	177.8	584.2	641.4	305.0	831.9		79.5	
24	46.00	8.00	27.25	30.00	12.00	39.00	16	3 5/8	
	1168.5	203.2	692.2	762.0	305.0	990.6		92.0	
Class 2500 LB									
1/2	5.25	1.19	1.38	1.69	To be specified by purchaser	9.00	3.50	4	8/9
	133.3	31.2	34.9	42.9		229.0	88.9		22.5
3/4	5.50	1.25	1.69	2.00		9.00	3.75	4	8/9
	139.7	31.8	42.9	50.8		229.0	95.2		22.5
1	6.25	1.38	2.00	2.25		9.00	4.25	4	1
	159.0	34.9	50.8	57.2		229.0	108.0		25.5
1 1/4	7.25	1.50	2.50	2.88		9.00	5.12	4	1 1/8
	184.0	38.1	63.5	73.0		229.0	130.0		28.5
1 1/2	8.00	1.75	2.88	3.12		9.00	5.75	4	1 1/4
	203.0	44.5	73.0	79.4		229.0	146.1		32.0
2	9.25	2.00	3.62	3.75		9.00	6.75	8	1 1/8
	235.0	50.8	92.1	95.3		229.0	171.5		28.5
2 1/2	10.50	2.25	4.12	4.50		9.00	7.75	8	1 1/4
	267.0	57.2	104.8	114.3		229.0	196.9		32.0
3	12.00	2.62	5.00	5.25		9.00	9.00	8	1 3/8
	305.0	66.7	127.0	133.4		229.0	228.6		35.0
4	14.00	3.00	6.19	6.50		9.00	10.75	8	1 5/8
	355.5	76.2	157.2	165.1		229.0	273.1		41.0
5	16.50	3.62	7.31	8.00		12.00	12.75	8	1 7/8
	419.0	92.1	185.7	203.2		305.0	323.8		48.0
6	19.00	4.25	8.50	9.25		12.00	14.50	8	2 1/8
	483.0	108.0	215.9	235.0		305.0	368.3		54.0
8	21.75	5.00	10.62	12.00		12.00	17.25	12	2 1/8
	552.5	127.0	269.9	304.8		304.8	438.2		54.0
10	26.50	6.50	12.75	14.75	12.00	21.25	12	2 5/8	
	673.0	165.1	323.9	374.7	305.0	539.8		66.5	
12	30.00	7.25	15.00	17.38	12.00	24.38	12	2 7/8	
	762.0	184.2	381.0	441.3	305.0	619.3		73.0	

钢制管线“8”字盲板 Steel line Blanks Figure 8 Blanks

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**DIMENSIONS OF CLASS 150
RAISED FACE FIGURE 8 BLANKS**

NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	1.75	2.38	0.12	1.50
3/4	0.82	2.12	2.75	0.12	1.50
1	1.05	2.50	3.12	0.12	1.50
1 1/4	1.66	2.88	3.50	0.25	1.50
1 1/2	1.90	3.25	3.88	0.25	1.50
2	2.38	4.00	4.75	0.25	2.00
2 1/2	2.88	4.75	5.50	0.25	2.00
3	3.50	5.25	6.00	0.25	2.50
3 1/2	4.00	6.25	7.00	0.38	2.50
4	4.50	6.75	7.50	0.38	2.50
5	5.56	7.62	8.50	0.38	3.00
6	6.62	8.62	9.50	0.50	3.00
8	8.62	10.88	11.75	0.50	3.00
10	10.75	13.25	14.25	0.62	4.00
12	12.75	16.00	17.00	0.75	4.00
14	14.00	17.62	18.75	0.75	4.25
16	16.00	20.12	21.25	0.88	4.25
18	18.00	21.50	22.75	1.00	4.50
20	20.00	23.75	25.00	1.12	4.75
24	24.00	28.12	29.50	1.25	5.50

**DIMENSIONS OF CLASS 300
RAISED FACE FIGURE 8 BLANKS**

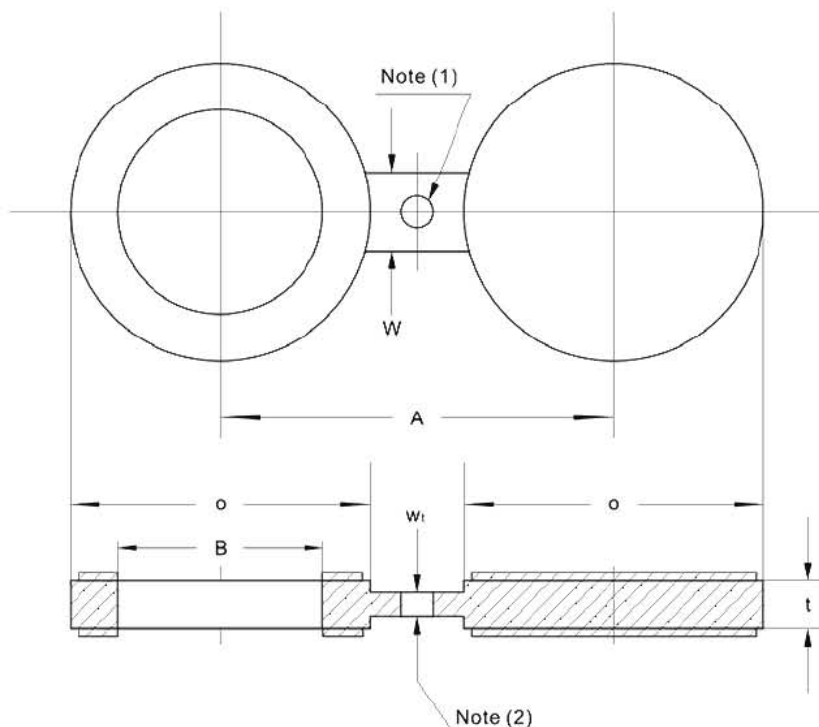
NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	2.00	2.62	0.25	1.50
3/4	0.82	2.50	3.25	0.25	1.50
1	1.05	2.75	3.50	0.25	1.50
1 1/4	1.66	3.12	3.88	0.25	1.50
1 1/2	1.90	3.62	4.50	0.25	2.00
2	2.38	4.25	5.00	0.38	2.00
2 1/2	2.88	5.00	5.88	0.38	2.50
3	3.50	5.75	6.62	0.38	2.50
3 1/2	4.00	6.38	7.25	0.50	2.50
4	4.50	7.00	7.88	0.50	2.50
5	5.56	8.38	9.25	0.62	3.00
6	6.62	9.75	10.62	0.62	3.00
8	8.62	12.00	13.00	0.88	3.50
10	10.75	14.12	15.25	1.00	4.00
12	12.75	16.50	17.75	1.12	4.00
14	14.00	19.00	20.25	1.25	4.75
16	16.00	21.12	22.50	1.50	4.88
18	18.00	23.38	24.75	1.62	4.50
20	20.00	25.62	27.00	1.75	4.75
24	24.00	30.38	32.00	2.00	5.50

NOTES:

(1) Hole size (where required due to bolt spacing) shall be the same as flange bolt hole, and located such that it will not interfere with bolting between two flanges.

(2) The thickness of the tie bar dimension W_t shall be 0.25 in. minimum, except when t is less than 0.25 in., W_t shall equal t

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**DIMENSIONS OF CLASS 600
RAISED FACE FIGURE 8 BLANKS**

NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	2.00	2.62	0.25	1.50
3/4	0.82	2.50	3.25	0.25	1.50
1	1.05	2.75	3.50	0.25	2.25
1 1/4	1.44	3.12	3.88	0.38	2.25
1 1/2	1.68	3.62	4.50	0.38	2.62
2	2.16	4.25	5.00	0.38	2.25
2 1/2	2.64	5.00	5.88	0.50	2.62
3	3.26	5.75	6.62	0.50	2.62
3 1/2	3.76	6.25	7.25	0.62	3.00
4	4.26	7.50	8.50	0.62	3.00
5	5.30	9.38	10.50	0.75	3.38
6	6.36	10.38	11.50	0.88	3.38
8	8.33	12.50	13.75	1.12	3.75
10	10.42	15.62	17.00	1.38	4.12
12	12.39	17.88	19.25	1.62	4.12
14	13.62	19.25	20.75	1.75	4.50
16	15.62	22.12	23.75	2.00	4.88
18	17.62	24.00	25.75	2.12	5.25
20	19.56	26.75	28.50	2.50	5.25
24	23.50	31.00	33.00	2.88	6.00

**DIMENSIONS OF CLASS 900
RAISED FACE FIGURE 8 BLANKS**

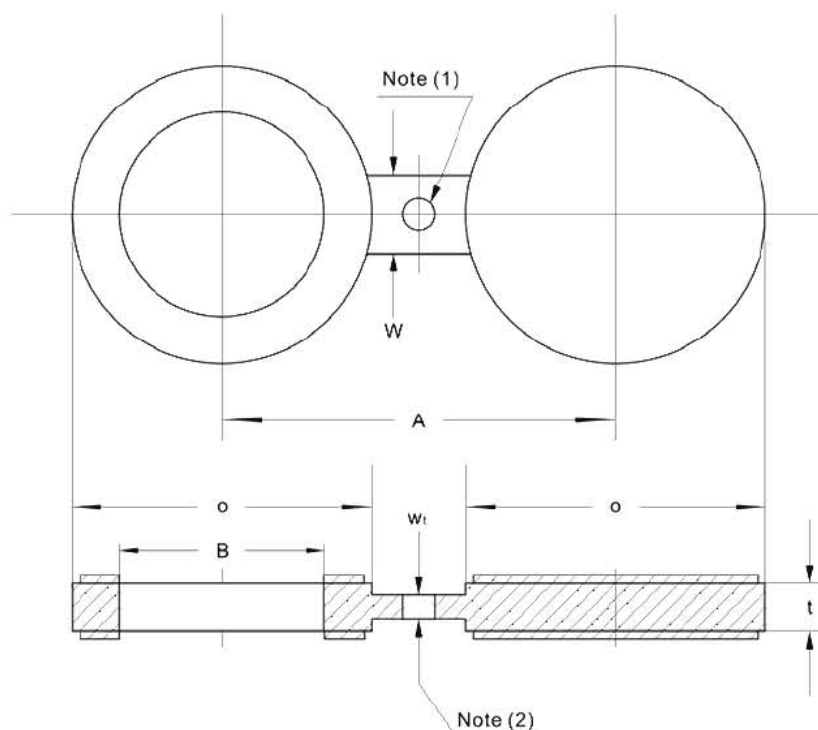
NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	2.38	3.25	0.25	1.50
3/4	0.82	2.62	3.50	0.25	1.62
1	1.05	3.00	4.00	0.25	2.25
1 1/4	1.44	3.38	4.38	0.38	2.25
1 1/2	1.68	3.75	4.88	0.38	2.62
2	2.16	5.50	6.50	0.50	2.25
2 1/2	2.64	6.38	7.50	0.50	2.62
3	3.26	6.50	7.50	0.62	2.62
4	4.26	8.00	9.25	0.75	3.00
5	5.30	9.62	11.00	0.88	3.38
6	6.36	11.25	12.50	1.00	3.38
8	8.33	14.00	15.50	1.38	3.75
10	10.42	17.00	18.50	1.62	4.12
12	12.39	19.50	21.00	1.88	4.12
14	13.62	20.38	22.00	2.12	4.50
16	15.62	22.50	24.25	2.38	4.88
18	17.62	25.00	27.00	2.62	5.25
20	19.56	27.38	29.50	2.88	5.25
24	23.50	32.88	35.50	3.50	6.00

NOTES:

- (1) Hole size (where required due to bolt spacing) shall be the same as flange bolt hole, and located such that it will not interfere with bolting between two flanges.
- (2) The thickness of the tie bar dimension W_t shall be 0.25 in. Minimum.

钢制管线“8”字盲板 Steel line Blanks Figure 8 Blanks

ANSI B16.48



**DIMENSIONS OF CLASS 1500
RAISED FACE FIGURE 8 BLANKS**

NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	2.38	3.25	0.25	1.50
3/4	0.82	2.62	3.50	0.38	1.62
1	1.05	3.00	4.00	0.38	2.50
1 1/4	1.38	3.38	4.38	0.38	2.50
1 1/2	1.61	3.75	4.88	0.50	2.75
2	2.07	5.50	6.50	0.50	2.75
2 1/2	2.47	6.38	7.50	0.62	3.00
3	3.07	6.75	8.00	0.75	3.00
4	4.03	8.12	9.50	0.88	3.50
5	5.05	9.88	11.50	1.12	3.50
6	6.06	11.00	12.50	1.38	3.50
8	7.98	13.75	15.50	1.62	4.00
10	10.02	17.00	19.00	2.00	4.50
12	11.94	20.38	22.50	2.38	4.50
14	13.12	22.62	25.00	2.62	5.00
16	15.00	25.12	27.75	3.00	5.25
18	16.88	27.62	30.50	3.38	5.75
20	18.81	29.62	32.75	3.75	6.00
24	22.62	35.38	39.00	4.38	7.00

**DIMENSIONS OF CLASS 2500
RAISED FACE FIGURE 8 BLANKS**

NPS	Inside Diameter B, in.	Outside Diameter O, in.	Centerline Dimension A, in.	Thickness t, in.	Tie bar W, in.
1/2	0.62	2.62	3.50	0.38	1.50
3/4	0.82	2.88	3.75	0.38	1.62
1	1.05	3.25	4.25	0.38	2.50
1 1/4	1.38	4.00	5.12	0.50	2.50
1 1/2	1.61	4.50	5.75	0.62	2.75
2	2.07	5.62	6.75	0.62	2.75
2 1/2	2.47	6.50	7.75	0.75	3.00
3	3.07	7.62	9.00	0.88	3.00
4	4.03	9.12	10.75	1.12	3.50
5	5.05	10.88	12.75	1.38	3.50
6	6.06	12.38	14.50	1.62	3.50
8	7.81	15.12	17.25	2.12	4.00
10	9.75	18.62	21.25	2.62	4.50
12	11.37	21.50	24.38	3.12	4.50

NOTES:

- (1) Hole size (where required due to bolt spacing) shall be the same as flange bolt hole, and located such that it will not interfere with bolting between two flanges.
- (2) The thickness of the tie bar dimension W_t shall be 0.25 in. Minimum.

Designation	Tensile strength		Yield strength		Elongation in 2" or 4D min, %	Reduction of Area min, %	Chemical composition, weight %												Other elements
	KSI	Mpa	KSI	Mpa			C	Mn	P	S	Si	Cr	Mo	Ni	Cu	V	Cb	N	
A 105	≥70	≥485	≥36	≥250	22	30	min. max.	0.60 1.05	0.035	0.040	0.10 0.35	0.30	0.12	0.4	0.400	0.080	0.020		
A 181 Class 60	≥60	≥415	≥30	≥205	22	35	min. max.	1.10	0.050	0.050	0.10 0.35								
A 181 Class 70	≥70	≥485	≥36	≥250	18	24	min. max.	1.10	0.050	0.050	0.10 0.35								
A 182 F1	≥70	≥485	≥40	≥275	20	30	min. max.	0.60 0.90	0.045	0.045	0.15 0.35		0.44 0.65						
A 182 F2	≥70	≥485	≥40	≥275	20	30	min. max.	0.30 0.80	0.040	0.040	0.10 0.60	0.50 0.81	0.44 0.65						
A 182 F5	≥70	≥485	≥40	≥275	20	35	min. max.	0.30 0.60	0.030	0.030	0.50	4.00 6.00	0.44 0.65	0.5					
A 182 F5a	≥90	≥620	≥65	≥450	22	50	min. max.	0.25	0.040	0.030	0.50	4.00 6.00	0.44 0.65	0.5					
A 182 F9	≥85	≥585	≥55	≥380	20	40	min. max.	0.15	0.030	0.030	1.00	8.00 10.00	0.90 1.10						
A 182 F91	≥85	≥585	≥60	≥415	20	40	min. max.	0.08 0.12	0.020	0.010	0.20 0.50	8.00 9.50	0.85 1.05	0.4		0.18 0.25	0.06 0.10	0.030 0.070	Al 0.04max
A 182 F11, Cl.1	≥60	≥415	≥30	≥205	20	45	min. max.	0.05 0.15	0.030	0.030	0.50 1.00	1.00 1.50	0.44 0.65						
A 182 F11, Cl.2	≥70	≥485	≥40	≥275	20	30	min. max.	0.10 0.20	0.040	0.040	0.50 1.00	1.00 1.50	0.44 0.65						
A 182 F11, Cl.3	≥75	≥515	≥45	≥310	20	30	min. max.	0.10 0.20	0.030	0.040	0.50 1.00	1.00 1.50	0.44 0.65						
A 182 F12, Cl.1	≥60	≥415	≥32	≥220	20	45	min. max.	0.05 0.15	0.045	0.045	0.50	0.80 1.25	0.44 0.65						
A 182 F12, Cl.2	≥70	≥485	≥40	≥275	20	30	min. max.	0.10 0.20	0.040	0.040	0.10 0.60	0.80 1.25	0.44 0.65						
A 182 F22, Cl.1	≥60	≥415	≥30	≥205	20	35	min. max.	0.05 0.15	0.040	0.040	0.50	2.00 2.50	0.87 1.13						
A 182 F22, Cl.3	≥75	≥515	≥45	≥310	20	30	min. max.	0.05 0.15	0.040	0.040	0.50	2.00 2.50	0.87 1.13						
A 182 F22V	85-110	585-780	≥60	≥415	18	45	min. max.	0.11 0.15	0.015	0.010	0.10	2.00 2.50	0.90 1.10	0.25 0.35	0.20	0.25 0.35	0.07		B 0.002max Ca 0.015max Ti 0.03max
A 182 F304	≥75	≥515	≥30	≥205	30	50	min. max.	0.08	0.045	0.030	1.00	18.0 20.0		8.0 11.0					
A 182 F304H	≥75	≥515	≥30	≥205	30	50	min. max.	0.04 0.10	0.045	0.030	1.00	18.0 20.0		8.0 11.0					

Designation	Tensile strength		Yield strength		Elongation in 2" or 4D min, %	Reduction of Area min, %	Chemical composition, weight %														
	KSI	Mpa	KSI	Mpa			C	Mn	P	S	Si	Cr	Mo	Ni	Cu	V	Cb	N	Other elements		
ASTM																					
A 182 F304L	≥70	≥485	≥25	≥170	30	50	min. max.	0.03	2.00	0.045	0.030	1.00	18.0 20.0	8.0 13.0							
A 182 F310	≥75	≥515	≥30	≥205	30	50	min. max.	0.25	2.00	0.045	0.030	1.00	24.0 26.0	19.0 22.0							
A 182 F316	≥75	≥515	≥30	≥205	30	50	min. max.	0.08	2.00	0.045	0.030	1.00	16.0 18.0	10.0 14.0							
A 182 F316H	≥75	≥515	≥30	≥205	30	50	min. max.	0.04 0.10	2.00	0.045	0.030	1.00	16.0 18.0	10.0 14.0							
A 182 F316L	≥70	≥485	≥25	≥170	30	50	min. max.	0.03	2.00	0.045	0.030	1.00	16.0 18.0	10.0 15.0							
A 182 F321	≥75	≥515	≥30	≥205	30	50	min. max.	0.08	2.00	0.045	0.030	1.00	17.0 19.0	9.0 12.0					5xc≤Ti≤0.7		
A 182 F321H	≥75	≥515	≥30	≥205	30	50	min. max.	0.04 0.10	2.00	0.045	0.030	1.00	17.0 19.0	9.0 12.0					4xc≤Ti≤0.7		
A 182 F347	≥75	≥515	≥30	≥205	30	50	min. max.	0.08	2.00	0.045	0.030	1.00	17.0 20.0	9.0 13.0		10xc 1.10					
A 182 F347H	≥75	≥515	≥30	≥205	30	50	min. max.	0.04 0.10	2.00	0.045	0.030	1.00	17.0 20.0	9.0 13.0		8xc 1.10					
A 350 LF1	60-85	415-585	≥30	≥205	25	38	min. max.	0.30	1.35	0.035	0.040	0.30	0.3	0.12	0.4	0.40	0.08	0.02			
A 350 LF2, Cl.1	70-95	485-655	≥36	≥250	22	30	min. max.	0.30	1.35	0.035	0.040	0.30	0.3	0.12	0.4	0.40	0.08	0.02			
A 350 LF2, Cl.2	70-95	485-655	≥36	≥250	22	30	min. max.	0.30	1.35	0.035	0.040	0.30	0.3	0.12	0.4	0.40	0.08	0.02			
A 350 LF3, Cl.1	70-95	485-655	≥37.5	≥260	22	35	min. max.	0.20	0.90	0.035	0.040	0.35	0.3	0.12	3.3 3.7	0.40	0.03	0.02			
A 350 LF6, Cl.2	75-100	515-690	≥60	≥415	20	40	min. max.	0.22	1.15 1.50	0.025	0.025	0.30	0.3	0.12	0.4	0.40	0.11	0.02	0.010 0.030		
A 694 F46	≥60	≥415	≥46	≥315	20		min. max.	0.26	1.40	0.025	0.025	0.15 0.35									
A 694 F52	≥66	≥455	≥52	≥360	20		min. max.	0.26	1.40	0.025	0.025	0.15 0.35									
A 694 F65	≥77	≥530	≥65	≥450	20		min. max.	0.26	1.40	0.025	0.025	0.15 0.35									
A 694 F70	≥82	≥565	≥70	≥485	18		min. max.	0.26	1.40	0.025	0.025	0.15 0.35									