

DIMENSION OF PIPE FLANGES AS PER TABLE BS- 10

**Table D: For Working Steam Pressure
upto 50 lbs per sq. inch**

Nominal Pipe size	O.D of Pipe	Dia. of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2'	21.3	95.3	66.7	4	12.7	4.8
3/4'	26.7	101.6	73.0	4	12.7	4.8
1'	33.4	114.3	82.6	4	12.7	4.8
1 1/4'	42.2	120.7	87.6	4	12.7	6.4
1 1/2'	48.3	133.4	98.4	4	12.7	6.4
2'	60.3	152.4	114.3	4	15.9	7.9
2 1/2'	73.0	165.1	127.0	4	15.9	7.9
3'	88.9	184.2	146.1	4	15.9	9.5
3 1/2'	101.6	203.2	165.1	4	15.9	9.5
4'	114.3	215.9	177.8	4	15.9	9.5
5'	141.3	254.0	209.6	8	15.9	12.7
6'	168.3	279.4	228.6	8	15.9	12.7
7'	190.5	304.8	260.4	8	15.9	12.7
8'	219.1	336.6	292.1	8	15.9	12.7
9'	244.5	368.3	323.9	8	15.9	15.9
10'	273.0	406.4	355.6	8	19.1	15.9
12'	323.9	457.2	406.4	12	19.1	15.9
14'	355.6	527.1	469.9	12	22.2	19.1
16'	406.4	577.9	520.7	12	22.2	19.1
18'	457.2	641.4	584.2	12	22.2	22.2
20'	508.0	704.9	641.4	16	22.5	25.4
24'	609.6	825.5	755.7	16	25.4	28.6

**Table F: For Working Steam Pressure
above 100 lbs and upto 150 lbs per sq. inch**
**Table E: For Working Steam Pressure 50 lbs
upto 100 lbs per sq. inch**

Nominal Pipe Size	Dia. of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2'	95.3	66.7	4	12.7	6.4
3/4'	101.6	73.0	4	12.7	6.4
1'	114.3	82.6	4	12.7	7.1
1 1/4'	120.7	87.3	4	12.7	7.9
1 1/2'	133.4	98.4	4	12.7	8.7
2'	152.4	114.3	4	15.9	9.5
2 1/2'	165.1	127.0	4	15.9	10.3
3'	184.2	146.1	4	15.9	11.1
3 1/2'	203.2	165.1	8	15.9	11.9
4'	215.9	177.8	8	15.9	12.7
5'	254.0	209.6	8	15.9	14.3
6'	279.4	228.6	8	19.1	17.5
7'	304.8	260.4	8	19.1	19.1
8'	336.6	292.1	8	19.1	19.1
9'	368.3	323.9	12	19.1	20.6
10'	406.4	355.6	12	19.1	22.2
12'	457.2	406.4	12	22.2	25.4
14'	527.2	469.9	12	22.2	25.4
16'	577.9	520.7	12	22.2	25.4
18'	641.4	584.2	16	22.2	28.6
20'	704.9	647.4	16	22.2	31.8
24'	825.5	755.7	16	25.4	38.1

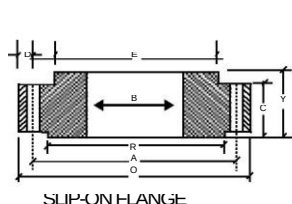
**Table H: For Working Steam Pressure
above 150 lbs and upto 250 lbs per sq. inch**

Nominal Pipe Size	O.D. of Pipe	Dia of Flange	Dia of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2'	21.3	95.3	66.7	4	12.7	9.5
3/4'	26.7	101.6	73.0	4	12.7	9.5
1'	33.4	120.7	87.3	4	15.9	9.5
1 1/4'	42.2	133.4	98.4	4	15.9	12.7
1 1/2'	48.3	139.7	104.8	4	15.9	12.7
2'	60.3	165.1	127.0	4	15.9	15.9
2 1/2'	73.0	184.2	146.1	8	15.9	15.9
3'	88.9	203.2	165.1	8	15.9	15.9
3 1/2'	101.6	215.9	177.8	8	15.9	19.1
4'	114.3	228.6	190.5	8	15.9	19.1
5'	141.3	279.4	235.0	8	19.1	22.2
6'	168.3	304.8	260.4	12	19.1	22.2
7'	190.3	336.6	292.1	12	19.1	22.2
8'	219.1	368.3	323.9	12	19.1	25.4
9'	244.5	406.4	355.6	12	22.2	25.4
10'	273.0	431.8	381.0	12	22.2	25.4
12'	323.0	489.0	438.2	16	22.2	28.6
14'	355.6	552.5	495.3	16	25.4	31.8
16'	406.4	609.6	552.5	20	25.4	31.8
18'	457.2	673.1	609.6	20	28.6	34.9
20'	508.0	736.6	673.1	24	28.6	38.1
24'	609.6	850.9	781.1	24	31.8	41.3

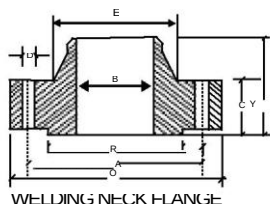
Nominal Pipe size	Dia of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2'	114.3	82.6	4	15.9	12.7
3/4'	114.3	82.6	4	15.9	12.7
1'	120.78	87.3	4	15.9	14.3
1 1/4'	133.4	98.4	4	15.9	17.5
1 1/2'	139.7	104.8	4	15.9	17.5
2'	165.1	127.0	4	15.9	19.1
2 1/2'	184.2	146.1	8	15.9	19.1
3'	203.2	165.1	8	15.9	22.2
3 1/2'	215.9	177.8	8	15.9	22.2
4'	228.6	190.5	8	15.9	25.4
5'	279.4	235.0	8	19.1	28.6
6'	304.8	260.4	12	19.1	28.6
7'	336.6	292.1	12	19.1	31.8
8'	368.3	323.9	12	19.1	31.8
9'	406.4	355.6	12	22.2	34.9
10'	431.8	381.0	12	22.2	34.9
12'	489.0	438.2	16	22.2	38.1
14'	552.5	495.3	16	25.4	41.3
16'	609.6	552.5	20	25.4	44.5
18'	673.1	609.6	20	28.6	47.6
20'	736.6	673.1	24	28.6	50.8
24'	850.9	781.1	24	31.8	57.2



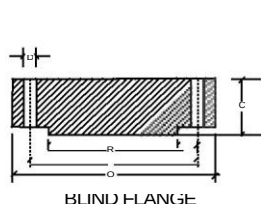
FORGED FLANGES TO ANSI B 16.5 (ASA 150 / 300 LBS)



SLIP-ON FLANGE



WELDING NECK FLANGE



BLIND FLANGE



150 LBS

Nominal Pipe Size (MM) (INCH.)	Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B		
15	1/2	88.9	60.3	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5
20	3/4	98.4	69.8	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1
25	1	107.9	79.4	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7
32	1 1/4	117.5	88.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3
40	1 1/2	127.0	98.4	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9
50	2	152.4	120.6	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5
65	2 1/2	177.8	139.7	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0
80	3	190.5	152.4	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6
100	4	228.6	190.5	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8
125	5	254.0	215.9	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8
150	6	279.4	241.3	8	25.4	192.1	39.7	88.9	39.7	170.7	171.4	215.9	27.0
200	8	342.9	298.4	8	28.6	246.1	44.4	101.6	44.4	221.5	222.2	269.9	31.7
250	10	406.4	361.9	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3
300	12	482.6	431.8	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7
350	14	533.4	476.2	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3
400	16	596.9	539.7	16	36.5	457.2	63.5	127.0	87.3	410.5	411.2	469.9	44.4
450	18	635.0	577.8	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2
500	20	698.5	635.0	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0
600	24	812.8	749.3	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5

300 LBS

Nominal Pipe Size (MM) (INCH.)	Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B		
15	1/2	95.2	66.7	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5
20	3/4	117.5	82.5	4	15.9	47.6	25.4	57.1	25.4	27.7	28.2	42.9	11.1
25	1	123.8	88.9	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7
32	1 1/4	133.3	98.4	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3
40	1 1/2	155.6	114.3	4	20.6	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9
50	2	165.1	127.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5
65	2 1/2	190.5	149.2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0
80	3	209.5	168.3	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6
100	4	254.0	200.0	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2	23.8
125	5	279.4	234.9	8	34.9	177.8	50.8	98.4	50.8	143.8	144.5	185.7	-
150	6	317.5	269.9	12	36.5	206.4	52.4	98.4	52.4	170.7	171.4	215.9	-
200	8	381.0	330.2	12	41.3	260.3	61.9	111.1	61.9	221.5	222.2	269.9	-
250	10	444.5	387.3	16	47.6	320.7	66.7	117.5	95.2	276.3	277.4	323.8	-
300	12	520.7	450.8	16	50.8	374.6	73.0	130.2	101.6	327.1	328.2	381.0	-
350	14	584.2	514.3	20	54.0	425.4	76.2	142.9	111.1	359.1	360.2	412.7	-
400	16	647.7	571.5	20	57.2	482.6	82.5	146.0	120.6	410.5	411.2	469.9	-
450	18	711.2	628.5	24	60.3	533.4	88.9	158.7	130.2	461.8	462.3	533.4	-

500	20	774.7	685.8	34.9	24	63.5	587.4	95.2	161.9	139.7	513.1	514.3	584.2	-
600	24	914.4	812.8	41.3	24	69.8	701.7	106.4	168.3	152.4	615.9	615.9	692.1	-

All Dimensions are in Millimeters - Flanges except Lap Joint will be furnished with (1.6) Raised Face, which is included in "Thickness(C)" and "Length through Hub(Y)"

DIMENSIONAL TOLERANCES

			Welding Neck		
Outside Diameter	When O.D is 24" or less	+ 1/16" (1.6mm)	Outside Diameter	When O.D. is 24" or less	± 1/6" (1.6mm)
	When O.D is Over 24"	+ 1/8" (3.2mm)		When O.D is over 24"	± 1/16" (3.2mm)
Inside			Inside Diameter	10" and Smaller	+ 1/32" (0.8mm)
		10" 7 Smaller		12" thru 18"	+ 1/16" (1.6mm)
			Diameter of Contact Face	20" and Larger	+ 1/8" (3.2mm) - 1/16" (1.6mm)
				1/16" Raised Face	+1/32" (0.8mm)
			Diameter of Hub at Base	1/4" Raised Face Tongue & Groove Male, Female	+ 1/64" (0.4mm)
				When Hub Base is 24" or Smaller	= 1/16" (1.6mm)
			Diameter of Hub at Point of Welding	When Hub Base is Over 24"	- 1/8" (3.2mm)
				5" and Smaller	+ 3/32" (2.4mm) - 1/32" (0.8mm)
			Drilling	6" and Larger	+ 5/32" (4.0mm) - 1/32" (0.8mm)
				Bolt Circle	+ 1/16" (1.6mm)
				Bolt hole spacing	+ 1/32" (0.8mm)
				Eccentricity of Bolt Circle with Respect to Facing	21/2" & Smaller 1/32" (0.8mm) max 3" & Larger 1/16" (1.6mm) max
				Eccentricity of Bolt Circle with Respect to Bore	1/32" (0.8mm) max
				Eccentricity of Facing with Respect to Bore	1/32" (0.8mm) max
			Thickness	18" and Smaller	+ 1/8" (3.2mm)-0"
				20" and Larger	+ 3/16" (4.8mm)-0"
			Length	10" and Smaller	+ 1/16" (1.6mm)
			Thru Hub	12" and Larger	+ 1/8" (3.2mm)

