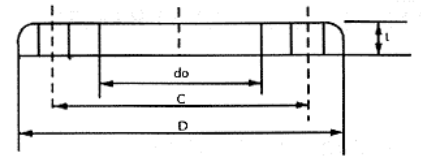


JIS Flanges (JIS B2220)



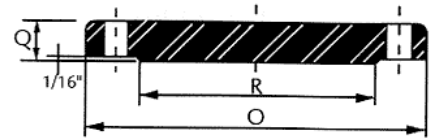
JIS FLANGES (5K)

Nominal Dia. of Flange		Outer Dia. of Pipe	Inner Dia. of Flange do	Outer Dia. of Flange D	Thickness of Flange t	Hole of Bolt			Size of Bolt	Weight kg
in	mm					Distance of Hole	No. of Holes	Bore		
1/2	15	21.7	22.2	80	9	60	4	12	M10	0.30
3/4	20	27.2	27.7	85	10	65	4	12	M10	0.37
1	25	34.0	34.5	95	10	75	4	12	M10	0.45
1 1/4	32	42.7	43.2	115	12	90	4	15	M12	0.78
1 1/2	40	48.6	49.1	120	12	95	4	15	M12	0.83
2	50	60.5	61.1	130	14	105	4	15	M12	1.07
2 1/2	65	76.3	77.1	155	14	130	4	15	M12	1.49
3	80	89.1	90.0	180	14	145	4	19	M16	1.99
3 1/2	90	101.6	102.6	190	14	155	4	19	M16	2.08
4	100	114.3	115.4	200	16	165	8	19	M16	2.39
5	125	139.8	141.2	235	16	200	8	19	M16	3.23
6	150	165.2	166.6	265	18	230	8	19	M16	4.41
8	200	216.3	218.0	320	20	280	8	23	M20	6.33
10	250	267.4	269.5	385	22	345	12	23	M20	9.45
12	300	318.5	321.0	430	22	390	12	23	M20	10.30
14	350	355.6	358.1	480	24	435	12	25	M22	14.00
16	400	406.4	409.0	540	24	495	16	25	M22	16.90
18	450	457.2	460.0	605	24	555	16	25	M22	21.36
20	500	508.0	511.0	665	24	605	20	25	M22	23.50
22	550	558.8	562.0	720	26	665	20	27	M24	33.40
24	600	609.6	613.0	770	26	715	20	27	M24	36.90

JIS FLANGES (10K)

Nominal Dia. of Flange		Outer Dia. of Pipe	Inner Dia. of Flange do	Outer Dia. of Flange D	Thickness of Flange t	Hole of Bolt			Size of Bolt	Weight kg
in	mm					Distance of Hole	No. of Holes	Bore		
1/2	15	21.7	22.2	95	12	70	4	15	M12	0.57
3/4	20	27.2	27.7	100	14	75	4	15	M12	0.73
1	25	34.0	34.5	125	14	90	4	19	M16	1.13
1 1/4	32	42.7	43.2	135	16	100	4	19	M16	1.48
1 1/2	40	48.6	49.1	140	16	105	4	19	M16	1.56
2	50	60.5	61.1	155	16	120	4	19	M16	1.88
2 1/2	65	76.3	77.1	175	18	140	4	19	M16	2.60
3	80	89.1	90.0	185	18	150	8	19	M16	2.61
3 1/2	90	101.6	102.6	195	18	160	8	19	M16	2.76
4	100	114.3	115.4	210	18	175	8	19	M16	3.14
5	125	139.8	141.2	250	20	210	8	23	M20	4.77
6	150	165.2	166.6	280	22	240	8	23	M20	6.34
8	200	216.3	218.0	330	22	290	12	23	M20	7.53
10	250	267.4	269.5	400	24	355	12	25	M22	11.80
12	300	318.5	321.0	445	26	400	16	25	M22	13.60
14	350	355.6	358.1	490	26	445	16	25	M22	17.20
16	400	406.4	409.0	560	28	510	16	27	M24	24.00
18	450	457.2	460.0	620	30	565	20	27	M24	32.00
20	500	508.0	511.0	675	30	620	20	27	M24	35.00
22	550	558.8	562.0	745	32	680	20	33	M30	47.00
24	600	609.6	613.0	795	32	730	24	33	M30	49.00

ANSI Flanges (ANSI B16.5)

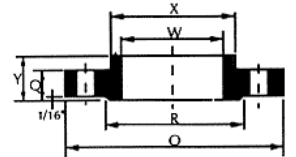


150LB. BLIND FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Drilling Template			Approx. Weight
				No. of Holes	Dia. of Bolts	Dia. of Bolt Circle	
				O	Q	R	
1/2	3 1/2	7/8	1 3/8	4	1/2	2 3/8	0.5
3/4	3 7/8	1/2	1 11/16	4	1/2	2 3/4	0.9
1	4 1/4	9/16	2	4	1/2	3 1/8	0.9
1 1/4	4 5/8	5/8	2 1/2	4	1/2	3 1/2	1.4
1 1/2	5	11/16	2 7/8	4	1/2	3 7/8	1.8
2	6	3/4	3 5/8	4	5/8	4 3/4	2.3
2 1/2	7	7/8	4 1/8	4	5/8	5 1/2	3.2
3	7 1/2	15/16	5	4	5/8	6	4.1
3 1/2	8 1/2	15/16	5 1/2	8	5/8	7	5.9
4	9	15/16	6 3/16	8	5/8	7 1/2	7.7
5	10	15/16	7 5/16	8	3/4	8 1/2	9.1
6	11	1	8 1/2	8	3/4	9 1/2	11.8
8	13 1/2	1 1/8	10 5/8	8	3/4	11 3/4	20.4
10	16	1 3/16	12 3/4	12	7/8	14 1/4	31.8
12	19	1 1/4	15	12	7/8	17	49.9
14	21	1 3/8	16 1/4	12	1	18 3/4	63.5
16	23 1/2	1 7/16	18 1/2	16	1	21 1/4	81.6
18	25	1 9/16	21	16	1 1/8	22 3/4	99.8
20	27 1/2	1 11/16	23	20	1 1/8	25	129.3
24	32	1 7/8	27 1/2	20	1 1/4	29 1/2	195.0

300LB. BLIND FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Drilling Template			Approx. Weight
				No. of Holes	Dia. of Bolts	Dia. of Bolt Circle	
				O	Q	R	
1/2	3 3/4	9/16	1 3/8	4	1/2	2 5/8	0.9
3/4	4 5/8	5/8	1 11/16	4	5/8	3 1/4	1.4
1	4 7/8	11/16	2	4	5/8	3 1/2	1.4
1 1/4	5 1/4	3/4	2 1/2	4	5/8	3 7/8	2.0
1 1/2	6 1/8	13/16	2 7/8	4	3/4	4 1/2	2.7
2	6 1/2	7/8	3 5/8	8	5/8	5	3.6
2 1/2	7 1/2	1	4 1/8	8	3/4	5 7/8	5.4
3	8 1/4	1 1/8	5	8	3/4	6 5/8	7.3
3 1/2	9	1 1/16	5 1/2	8	3/4	7 1/4	10.0
4	10	1 1/4	6 3/16	8	3/4	7 7/8	12.3
5	11	1 3/8	7 5/16	8	3/4	9 1/4	17.1
6	12 1/2	1 7/16	8 1/2	12	3/4	10 5/8	22.2
8	15	1 5/8	10 5/8	12	7/8	13	36.7
10	17 1/2	1 7/8	12 3/4	16	1	15 1/4	56.7
12	20 1/2	2	15	16	1 1/8	17 3/4	83.9
14	23	2 1/8	16 1/4	20	1 1/8	20 1/4	113.4
16	25 1/2	2 1/4	18 1/2	20	1 1/4	22 1/2	133.8
18	28	2 3/8	21	24	1 1/4	24 3/4	179.2
20	30 1/2	2 1/2	23	24	1 1/4	27	229.1
24	36	2 3/4	27 1/4	24	1 1/2	32	358.3

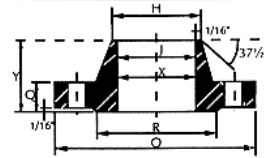


150LB. SLIP-ON FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Dia. of Hub at Base	Length thru Hub	Dia. of Bore	Drilling Template			Approx. Weight
							No. of Holes	Dia. of Bolts	Dia. of Bolt Circle	
	O	Q	R	X	Y	W				kg
1/2	3 1/2	7/16	1 3/8	1 1/16	5/8	0.88	4	1/2	2 3/8	0.4
3/4	3 7/8	1/2	1 11/16	1 1/2	5/8	1.09	4	1/2	2 3/4	0.6
1	4 1/4	9/16	2	1 13/16	1 1/16	1.36	4	1/2	3 1/8	0.8
1 1/4	4 5/8	5/8	2 1/2	2 3/16	1 3/16	1.70	4	1/2	3 1/2	1.1
1 1/2	5	1 1/16	2 7/8	2 9/16	7/8	1.95	4	1/2	3 7/8	1.4
2	6	3/4	3 5/8	3 1/16	1	2.44	4	5/8	4 3/4	2.3
2 1/2	7	7/8	4 1/8	3 9/16	1 1/8	2.94	4	5/8	5 1/2	3.5
3	7 1/2	1 5/16	5	4 1/4	1 3/16	3.57	4	5/8	6	4.0
3 1/2	8 1/2	1 5/16	5 1/2	4 13/16	1 1/4	4.07	8	5/8	7	4.9
4	9	1 5/16	6 3/16	5 1/16	1 5/16	4.57	8	5/8	7 1/2	5.6
5	10	1 5/16	7 5/16	6 1/16	1 7/16	5.66	8	3/4	8 1/2	6.8
6	11	1	8 1/2	7 9/16	1 9/16	6.72	8	3/4	9 1/2	8.5
8	13 1/2	1 1/8	10 5/8	9 1/16	1 3/4	8.72	8	3/4	11 3/4	13.4
10	16	1 3/16	12 3/4	12	1 15/16	10.88	12	7/8	14 1/4	19.5
12	19	1 3/4	15	14 3/8	2 3/16	12.88	12	7/8	17	29.0
14	21	1 3/8	16 1/4	15 1/4	2 1/4	14.14	12	1	18 3/4	38.6
16	23 1/2	1 7/16	18 1/2	18	2 1/2	16.16	16	1	21 1/4	45.0
18	25	1 9/16	21	19 7/8	2 1 1/16	18.18	16	1 1/8	22 3/4	54.4
20	27 1/2	1 1 1/16	23	22	2 7/8	20.20	20	1 1/8	25	70.3
24	32	1 7/8	27 1/4	26 1/8	3 1/4	24.25	20	1 1/4	29 1/2	90.0

300LB. SLIP-ON FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Dia. of Hub at Base	Length thru Hub	Dia. of Bore	Drilling Template			Approx. Weight
							No. of Holes	Dia. of Bolts	Dia. of Bolt Circle	
	O	Q	R	X	Y	W				kg
1/2	3 3/4	9/16	1 3/8	1 1/2	7/8	0.88	4	1/2	2 5/8	0.7
3/4	4 5/8	5/8	1 11/16	1 7/8	1	1.09	4	5/8	3 1/4	1.2
1	4 7/8	1 1/16	2	2 1/8	1 1/16	1.36	4	5/8	3 1/2	1.5
1 1/4	5 1/4	3/4	2 1/2	2 1/2	1 1/16	1.70	4	5/8	3 7/8	1.8
1 1/2	6 1/8	13/16	2 7/8	2 3/4	1 3/16	1.95	4	3/4	4 1/2	2.7
2	6 1/2	7/8	3 5/8	3 5/16	1 5/16	2.44	8	5/8	5	3.1
2 1/2	7 1/2	1	4 1/8	3 15/16	1 1/2	2.94	8	3/4	5 7/8	4.5
3	8 1/4	1 1/8	5	4 5/8	1 11/16	3.57	8	3/4	6 5/8	6.2
3 1/2	9	1 3/16	5 1/2	5 1/4	1 3/4	4.07	8	3/4	7 1/4	7.6
4	10	1 1/4	6 1/16	5 3/4	1 7/8	4.57	8	3/4	7 7/8	10.0
5	11	1 3/8	7 5/16	7	2	5.66	8	3/4	9 1/4	12.7
6	12 1/2	1 7/16	8 1/2	8 1/8	2 1/16	6.72	12	3/4	10 5/8	16.6
8	15	1 5/8	10 5/8	10 1/4	2 7/16	8.72	12	7/8	13	26.5
10	17 1/2	1 7/8	12 3/4	12 5/8	2 5/8	10.88	16	1	15 1/4	36.7
12	20 1/2	2	15	14 3/4	2 7/8	12.88	16	1 1/8	17 3/4	52.2
14	23	2 1/8	16 1/4	16 3/4	3	14.14	20	1 1/8	20 1/4	74.4
16	25 1/2	2 1/4	18 1/2	19	3 1/4	16.16	20	1 1/4	22 1/2	99.8
18	28	2 3/8	21	21	3 1/2	18.18	24	1 1/4	24 3/4	127.0
20	30 1/2	2 1/2	23	23 1/8	3 3/4	20.20	24	1 1/4	27	147.0
24	36	2 3/4	27 1/4	27 5/8	4 1/16	24.25	24	1 1/2	32	222.0



150LB. WELDING NECK FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Dia. of Hub at Base	Min. Dia. of Hub at Pt. of Welding	Length thru Hub	Dia. of Bore	Drilling Template		
								No. of Holes	Dia. of Bolts	Dia. of Bolt Circle
	O	Q	R	X	H	Y	J			
1/2	3 1/2	7/16	1 3/8	1 3/16	0.84	1 7/8	0.62	4	1/2	2 3/8
3/4	3 7/8	1/2	1 11/16	1 1/2	1.05	2 1/16	0.82	4	1/2	2 3/4
1	4 1/4	9/16	2	1 15/16	1.32	2 3/16	1.05	4	1/2	3 1/8
1 1/4	4 5/8	5/8	2 1/2	2 15/16	1.66	2 1/4	1.38	4	1/2	3 1/2
1 1/2	5	11/16	2 7/8	2 9/16	1.90	2 7/16	1.61	4	1/2	3 7/8
2	6	3/4	3 5/8	3 1/16	2.38	2 1/2	2.07	4	5/8	4 3/4
2 1/2	7	7/8	4 1/8	3 9/16	2.88	2 3/4	2.47	4	5/8	5 1/2
3	7 1/2	15/16	5	4 1/4	3.50	2 3/4	3.07	4	5/8	6
3 1/2	8 1/2	15/16	5 1/2	4 11/16	4.00	2 13/16	3.55	8	5/8	7
4	9	15/16	6 3/16	5 5/16	4.50	3	4.03	8	5/8	7 1/2
5	10	15/16	7 9/16	6 7/16	5.56	3 1/2	5.05	8	3/4	8 1/2
6	11	1	8 1/2	7 5/16	6.63	3 1/2	6.07	8	3/4	9 1/2
8	13 1/2	1 1/8	10 5/8	9 11/16	8.63	4	7.98	8	3/4	11 3/4
10	16	1 1/16	12 3/4	12	10.75	4	10.02	12	7/8	14 1/4
12	19	1 1/4	15	14 3/8	12.75	4 1/2	12.00	12	7/8	17
14	21	1 3/8	16 1/4	15 3/4	14.00	5	13.25	12	1	18 1/4
16	23 1/2	1 7/16	18 1/2	18	16.00	5	15.25	16	1	21 1/4
18	25	1 9/16	21	19 7/8	18.00	5 1/2	17.25	16	1 1/8	22 3/4
20	27 1/2	1 11/16	23	22	20.00	5 11/16	19.25	20	1 1/8	25
24	32	1 7/8	27 1/4	26 1/8	24.00	6	23.25	20	1 1/4	29 1/2

300LB. WELDING NECK FLANGES

Nominal Pipe Size	Outside Dia. of Flange	Thickness of Flange	Dia. of Raised Face	Dia. of Hub at Base	Min. Dia. of Hub at Pt. of Welding	Length thru Hub	Dia. of Bore	Drilling Template			Approx. Weight
								No. of Holes	Dia. of Bolts	Dia. of Bolt Circle	
	O	Q	R	X	H	Y	J				kg
1/2	3 3/4	9/16	1 3/8	1 1/2	0.84	2 1/16	0.62	4	1/2	2 5/8	0.9
3/4	4 3/8	5/8	1 11/16	1 7/8	1.05	2 1/4	0.82	4	5/8	3 1/4	1.5
1	4 7/8	11/16	2	2 1/8	1.32	2 7/16	1.05	4	5/8	3 1/2	1.7
1 1/4	5 1/4	3/4	2 1/2	2 1/2	1.66	2 9/16	1.38	4	5/8	3 7/8	2.1
1 1/2	6 1/8	11/16	2 7/8	2 3/4	1.90	2 11/16	1.61	4	3/4	4 1/2	3.2
2	6 1/2	7/8	3 5/8	3 5/16	2.38	2 3/4	2.07	8	5/8	5	3.6
2 1/2	7 1/2	1	4 1/8	3 15/16	2.88	3	2.47	8	3/4	5 7/8	5.4
3	8 1/4	1 1/8	5	4 5/8	3.50	3 1/8	3.07	8	3/4	6 5/8	7.5
3 1/2	9	1 3/16	5 1/2	5 1/4	4.00	3 1/16	3.55	8	3/4	7 1/4	9.2
4	10	1 1/4	6 3/16	5 3/4	4.50	3 1/8	4.03	8	3/4	7 7/8	12.7
5	11	1 3/8	7 5/16	7	5.56	3 7/8	5.05	8	3/4	9 1/4	16.0
6	12 1/2	1 7/16	8 1/2	8 1/8	6.63	3 7/8	6.07	12	3/4	10 5/8	21.0
8	15	1 5/8	10 5/8	10 1/4	8.63	4 3/8	7.98	12	7/8	13	33.0
10	17 1/2	1 7/8	12 3/4	12 5/8	10.75	4 5/8	10.02	16	1	15 1/4	46.6
12	20 1/2	2	15	14 3/4	12.75	5 1/8	12.00	16	1 1/8	17 3/4	69.0
14	23	2 1/8	16 1/4	16 3/4	14.00	5 5/8	13.25	20	1 1/8	20 1/4	93.4
16	25 1/2	2 1/4	18 1/2	19	16.00	5 3/4	15.25	20	1 1/4	22 1/2	119.6
18	28	2 3/8	21	21	18.00	6 1/4	17.25	24	1 1/4	24 3/4	150.5
20	30 1/2	2 1/2	23	23 3/8	20.00	6 3/8	19.25	24	1 1/4	27	184.4
24	36	2 3/4	27 1/4	27 5/8	24.00	6 5/8	23.25	24	1 1/2	32	274.7