



CLASS 150 FLANGES ANSI B16.5 FORGED FLANGES

Unit:mm

Nominal Pipe Size	Outside Diam. D	Diam. at Base of Hub X	O.D of Raised Face G	Thick-ness t	BORE			LENGTH THRU HUB			Diam. of Hub at Bevel A	Radius of Fillet R	Thread Length Q
					Welding Neck Socket Welding B1	Slip-on Socket Welding B2	Lap Joint B3	Welding Neck T1	Slip-on Threaded Socket Welding T2	Lap Joint T3			
1/2	89	30.2	35.1	11.2	15.7	22.4	22.9	47.8	15.7	15.7	21.3	3.0	15.7
3/4	99	38.1	42.9	12.7	20.8	27.7	28.2	52.3	15.7	15.7	26.7	3.0	15.7
1	108	49.3	50.8	14.2	26.7	34.5	35.1	55.6	17.5	17.5	33.5	3.0	17.5
1 1/4	117	58.7	63.5	15.7	35.1	43.2	43.7	57.2	20.6	20.6	42.2	4.8	20.6
1 1/2	127	65.0	73.2	17.5	40.9	49.5	50.0	62.0	22.4	22.4	48.3	6.4	22.4
2	152	77.7	91.9	19.1	52.6	62.0	62.5	63.5	25.4	25.4	60.5	7.9	25.4
2 1/2	178	90.4	104.6	22.4	62.7	74.7	75.4	69.9	28.4	28.4	73.2	7.9	28.4
3	191	108.0	127.0	23.9	78.0	90.7	91.4	69.9	30.2	30.2	88.9	9.7	30.2
3 1/2	216	122.2	139.7	23.9	90.2	103.4	104.1	71.4	31.8	31.8	101.6	9.7	31.8
4	229	134.9	157.2	23.9	102.4	116.1	116.8	76.2	33.3	33.3	114.3	11.2	33.3
5	254	163.6	185.7	23.9	128.3	143.8	144.5	88.9	36.6	36.6	141.2	11.2	36.6
6	279	192.0	215.9	25.4	154.2	170.7	171.5	88.9	39.6	39.6	168.4	12.7	39.6
8	343	246.1	269.7	28.4	202.7	221.5	222.3	101.6	44.5	44.5	219.2	12.7	44.5
10	406	304.8	323.9	30.2	254.5	276.4	277.4	101.6	49.3	49.3	273.1	12.7	49.3
12	483	365.3	381.0	31.8	304.8	327.2	328.2	114.3	55.6	55.6	323.9	12.7	55.6
14	533	400.1	412.8	35.1	336.6	359.2	360.2	127.0	57.2	79.2	355.6	12.7	57.2
16	597	457.2	469.9	36.6	387.4	410.5	411.2	127.0	63.5	87.4	406.4	12.7	63.5
18	635	505.0	533.4	39.6	438.2	461.8	462.3	139.7	68.3	96.8	457.2	12.7	68.3
20	699	558.8	584.2	42.9	489.0	513.1	514.4	144.5	73.2	103.1	508.0	12.7	73.2
24	813	663.4	692.2	47.8	590.6	616.0	616.0	152.4	82.6	111.3	609.6	12.7	82.6

Notes:

- (1) For the 'Bore'(B1) other than Standard Wall Thickness, refer to page 83.
- (2) Class 150 flanges except Lap Joint will be furnished with 0.06" (1.6mm) raised face, which is included in 'Thickness' (t) and 'Length through Hub' (T1), (T2).
- (3) For Slip-on, Threaded, Socket Welding and Lap Joint Flanges, the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.

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Unit:mm

Nominal Pipe Size	Depth of Socket Y	DRILLING			BOLTING			APPROXIMATE WEIGHT							
		Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Machine Bolt Length Raised Face	Stud Bolt Length Raised Face Ring Joint	Welding Neck SCH40 SCH80 SCH160			Slip-on and Threaded	Lap Joint	Blind	Socket Welding	
1/2	9.7	60.5	4	15.7	1/2	50.8	57.2	-	0.60	0.60	0.60	0.41	0.40	0.43	0.41
3/4	11.2	69.9	4	15.7	1/2	50.8	63.5	-	0.90	0.90	0.90	0.58	0.58	0.63	0.58
1	12.7	79.2	4	15.7	1/2	57.2	63.5	76.2	1.14	1.18	1.24	0.80	0.80	0.89	0.80
1 1/4	14.2	88.9	4	15.7	1/2	57.2	69.9	82.6	1.41	1.48	1.54	1.07	1.07	1.20	1.07
1 1/2	15.7	98.6	4	15.7	1/2	63.5	69.9	82.6	1.81	1.90	2.01	1.37	1.37	1.58	1.37
2	17.5	120.7	4	19.1	5/8	69.9	82.6	95.3	2.72	2.84	3.07	2.21	2.21	2.39	2.21
2 1/2	19.1	139.7	4	19.1	5/8	76.2	88.9	101.6	4.45	4.70	4.98	3.32	3.34	4.07	3.32
3	20.6	152.4	4	19.1	5/8	76.2	88.9	101.6	5.22	5.54	5.90	3.83	3.83	4.92	3.83
3 1/2	22.4	177.8	8	19.1	5/8	76.2	88.9	101.6	6.40	6.76	7.46	5.20	5.20	5.90	5.20
4	23.9	190.5	8	19.1	5/8	76.2	88.9	101.6	7.49	7.96	8.90	5.40	5.40	7.13	5.90
5	23.9	215.9	8	22.4	3/4	82.6	95.3	108.0	9.53	10.54	12.04	6.26	6.26	8.72	6.80
6	26.9	241.3	8	22.4	3/4	82.6	101.6	114.3	11.80	13.12	15.11	7.50	7.50	11.40	8.60
8	31.8	298.5	8	22.4	3/4	88.9	108.0	120.7	19.10	21.34	25.84	12.30	12.40	20.10	13.60
10	33.3	362.0	12	25.4	7/8	101.6	114.3	127.0	24.50	28.85	35.74	17.10	17.10	28.70	19.50
12	39.6	431.8	12	25.4	7/8	101.6	120.7	133.4	39.90	46.80	58.01	26.50	26.50	43.80	29.10
14	41.4	476.3	12	28.4	1	114.3	133.4	146.1	51.80	62.58	77.60	34.50	38.50	58.20	40.90
16	44.5	539.8	16	28.4	1	114.3	133.4	146.1	64.50	79.42	98.82	45.50	51.20	77.40	44.50
18	49.3	577.9	16	31.8	1 1/8	127.0	146.1	158.8	74.90	97.63	124.32	48.50	55.70	94.00	59.00
20	54.1	635.0	20	31.8	1 1/8	139.7	158.8	171.5	89.40	120.44	154.18	61.80	70.20	122.70	74.90
24	63.5	749.3	20	35.1	1 1/4	152.4	171.5	184.2	121.70	169.37	223.92	87.70	98.70	187.00	99.90

- (4) Blind Flanges may be made with the same hub as that used for Slip-on Flanges or without hub.
- (5) The gasket surface and backside (bearing surface for bolting) are made parallel within 1 degree. To accomplish parallelism, spot facing is carried out according to MSS SP-9, without reducing thickness(t).
- (6) Depth of Socket (Y) is covered by ANSI B16.5 only in sizes through 3 inch, over 3 inch is at the manufacture's option.