



## CLASS 300 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	Counter Bore Min. Threaded B	Welding Neck T1	Slip-on Threaded Socket Welding T2	Lap Joint T3			
1/2	95	38.1	35.1	14.2	15.7	22.4	22.9	23.6	52.3	22.4	22.4	21.3	3.0	15.7
3/4	117	47.8	42.9	15.7	20.8	27.7	28.2	29.0	57.2	25.4	25.4	26.7	3.0	15.7
1	124	53.8	50.8	17.5	26.7	34.5	35.1	35.8	62.0	26.9	26.9	33.5	3.0	17.5
1 1/4	133	63.5	63.5	19.1	35.1	43.2	43.7	44.5	65.0	26.9	26.9	42.2	4.8	20.6
1 1/2	155	69.9	73.2	20.6	40.9	49.5	50.0	50.5	68.3	30.2	30.2	48.3	6.4	22.4
2	165	84.1	91.9	22.4	52.6	62.0	62.5	63.5	69.9	33.3	33.3	60.5	7.9	28.4
2 1/2	191	100.1	104.6	25.4	62.7	74.7	75.4	76.2	76.2	38.1	38.1	73.2	7.9	31.8
3	210	117.3	127.0	28.4	78.0	90.7	91.4	92.2	79.2	42.9	42.9	88.9	9.7	31.8
3 1/2	229	133.4	139.7	30.2	90.2	103.4	104.1	104.9	81.0	44.5	44.5	101.6	9.7	36.6
4	254	146.1	157.2	31.8	102.4	116.1	116.8	117.6	85.9	47.8	47.8	114.3	11.2	36.6
5	279	177.8	185.7	35.1	128.3	143.8	144.5	144.5	98.6	50.8	50.8	141.2	11.2	42.9
6	318	206.2	215.9	36.6	154.2	170.7	171.5	171.5	98.6	52.3	52.3	168.4	12.7	46.0
8	381	260.4	269.7	41.1	202.7	221.5	222.3	222.3	111.3	62.0	62.0	219.2	12.7	50.8
10	445	320.5	323.9	47.8	254.5	276.4	277.4	276.4	117.3	66.5	95.3	273.1	12.7	55.6
12	521	374.7	381.0	50.8	304.8	327.2	328.2	328.7	130.0	73.2	101.6	323.9	12.7	60.5
14	584	425.5	412.8	53.8	336.6	359.2	360.2	360.4	142.7	76.2	111.3	355.6	12.7	63.5
16	648	482.6	469.9	57.2	387.4	410.5	411.2	411.2	146.1	82.6	120.7	406.4	12.7	68.3
18	711	533.4	533.4	60.5	438.2	461.8	462.3	462.0	158.8	88.9	130.0	457.2	12.7	69.9
20	775	587.2	584.2	63.5	489.0	513.1	514.4	512.8	162.1	95.3	139.7	508.0	12.7	73.2
24	914	701.5	692.2	69.9	590.6	616.0	616.0	614.4	168.1	106.4	152.4	609.6	12.7	82.6

**Notes:**

- (1) For the 'Bore'(B1) other than Standard Wall Thickness, refer to page 83.
- (2) Class 300 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.

## CLASS 300 FLANGES ANSI B16.5 FORGED FLANGES

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)	Stud Bolt Length			Welding Neck			Slip-on and Threaded	Lap Joint	Blind	Socket Welding
						Raised Face	Raised Face	Ring Joint	SCH40	SCH80	SCH160				
1/2	9.7	66.5	4	15.7	1/2	57.2	63.5	76.2	0.91	0.91	0.91	0.63	0.63	0.63	0.63
3/4	11.2	82.6	4	19.1	5/8	63.5	76.2	88.9	1.36	1.36	1.36	1.16	1.16	1.15	1.16
1	12.7	88.9	4	19.1	5/8	63.5	76.2	88.9	1.82	1.87	1.93	1.37	1.37	1.40	1.37
1 1/4	14.2	98.6	4	19.1	5/8	69.9	82.6	95.3	2.27	2.35	2.41	1.75	1.75	1.88	1.75
1 1/2	15.7	114.3	4	22.4	3/4	76.2	88.9	101.6	3.18	3.28	3.40	2.47	2.46	2.65	2.47
2	17.5	127.0	8	19.1	5/8	76.2	88.9	101.6	3.36	3.49	3.75	2.90	2.88	3.22	2.90
2 1/2	19.1	149.4	8	22.4	3/4	82.6	101.6	114.3	5.45	5.72	6.02	4.17	4.20	4.80	4.17
3	20.6	168.1	8	22.4	3/4	88.9	108.0	120.7	8.17	8.54	8.94	5.92	5.87	6.89	5.92
3 1/2	22.4	184.2	8	22.4	3/4	95.3	108.0	127.0	8.90	9.31	10.10	7.72	7.72	8.90	
4	23.9	200.2	8	22.4	3/4	95.3	114.3	127.0	12.10	12.62	13.69	9.73	9.66	11.60	
5	23.9	235.0	8	22.4	3/4	108.0	120.7	133.4	16.30	17.42	19.08	12.10	12.10	15.60	
6	26.9	269.7	12	22.4	3/4	108.0	120.7	139.7	20.40	21.86	24.07	16.00	15.90	21.40	
8	31.8	330.2	12	25.4	7/8	120.7	139.7	152.4	31.30	33.75	38.69	23.90	23.80	34.10	
10	33.3	387.4	16	28.4	1	139.7	158.8	171.5	45.40	50.43	58.38	34.00	38.20	53.50	
12	39.6	450.9	16	31.8	1 1/8	146.1	171.5	184.2	64.50	72.35	85.10	49.10	54.90	78.30	
14	41.4	514.4	20	31.8	1 1/8	158.8	177.8	190.5	93.50	105.61	122.49	69.10	80.10	105.00	
16	44.5	571.5	20	35.1	1 1/4	165.1	190.5	203.2	113.10	130.25	152.56	88.90	103.90	138.60	
18	49.3	628.7	24	35.1	1 1/4	171.5	196.9	209.6	138.90	164.74	195.07	107.20	124.60	174.30	
20	54.1	685.8	24	35.1	1 1/4	184.2	203.2	222.3	167.50	202.32	240.17	132.90	154.40	220.40	
24	63.5	812.8	24	41.1	1 1/2	203.2	228.6	254.0	235.60	288.15	348.28	198.70	232.60	339.00	

- (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.