



## CLASS 600 FLANGES ANSI B16.5 FORGED FLANGES

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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. B	Welding Neck T1	Slip-on Threaded Socket Welding T2	Lap Joint T3			
1/2	95	38.1	35.1	14.2		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		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		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	20.6		43.2	43.7	44.5	66.5	28.4	28.4	42.2	4.8	20.6
1 1/2	155	69.9	73.2	22.4		49.5	50.0	50.5	69.9	31.8	31.8	48.3	6.4	22.4
2	165	84.1	91.9	25.4		62.0	62.5	63.5	73.2	36.6	36.6	60.5	7.9	28.4
2 1/2	191	100.1	104.6	28.4		74.7	75.4	76.2	79.2	41.1	41.1	73.2	7.9	31.8
3	210	117.3	127.0	31.8		90.7	91.4	92.2	82.6	46.0	46.0	88.9	9.7	35.1
3 1/2	229	133.4	139.7	35.1		103.4	104.1	104.9	85.9	49.3	49.3	101.6	9.7	39.6
4	273	152.4	157.2	38.1		116.1	116.8	117.6	101.6	53.8	53.8	114.3	11.2	41.1
5	330	189.0	185.7	44.5		143.8	144.5	144.5	114.3	60.5	60.5	141.2	11.2	47.8
6	356	222.3	215.9	47.8		170.7	171.5	171.5	117.3	66.5	66.5	168.4	12.7	50.8
8	419	273.1	269.7	55.6		221.5	222.3	222.3	133.4	76.2	76.2	219.2	12.7	57.2
10	508	342.9	323.9	63.5		276.4	277.4	276.4	152.4	85.9	111.3	273.1	12.7	65.0
12	559	400.1	381.0	66.5		327.2	328.2	328.7	155.4	91.9	117.3	323.9	12.7	69.9
14	603	431.8	412.8	69.9		359.2	360.2	360.4	165.1	93.7	127.0	355.6	12.7	73.2
16	686	495.3	469.9	76.2		410.5	411.2	411.2	177.8	106.4	139.7	406.4	12.7	77.7
18	743	546.1	533.4	82.6		461.8	462.3	462.0	184.2	117.3	152.4	457.2	12.7	79.2
20	813	609.6	584.2	88.9		513.1	514.4	512.8	190.5	127.0	165.1	508.0	12.7	82.6
24	940	717.6	692.2	101.6		616.0	616.0	614.4	203.2	139.7	184.2	609.6	12.7	91.9

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
						0.25" Raised Face	Male-Female Tongue-Groove	Ring Joint	SCH40	SCH80	SCH160				
1/2	9.7	66.5	4	15.7	1/2	76.2	69.9	76.2	1.36	1.36	1.36	0.75	0.76	0.77	0.75
3/4	11.2	82.6	4	19.1	5/8	88.9	82.6	88.9	1.59	1.63	1.67	1.35	1.38	1.37	1.35
1	12.7	88.9	4	19.1	5/8	88.9	82.6	88.9	1.82	1.87	1.94	1.58	1.62	1.66	1.58
1 1/4	14.2	98.6	4	19.1	5/8	95.3	88.9	95.3	2.50	2.59	2.66	2.15	2.23	2.36	2.15
1 1/2	15.7	114.3	4	22.4	3/4	108.0	101.6	108.0	3.63	3.74	3.88	2.99	3.09	3.29	2.99
2	17.5	127.0	8	19.1	5/8	108.0	101.6	108.0	4.54	4.69	4.98	3.71	3.85	4.24	3.71
2 1/2	19.1	149.4	8	22.4	3/4	120.7	114.3	120.7	6.36	6.66	7.00	5.40	5.40	6.23	5.20
3	20.6	168.1	8	22.4	3/4	127.0	120.7	127.0	8.17	8.58	9.04	7.13	7.44	8.63	7.13
3 1/2	22.4	184.2	8	25.4	7/8	139.7	133.4	139.7	12.00	12.44	13.28	9.53	9.53	13.17	
4	23.9	215.9	8	25.4	7/8	146.1	139.7	146.1	16.80	17.46	18.79	14.90	15.40	17.70	
5	23.9	266.7	8	28.4	1	165.1	158.8	165.1	30.90	32.27	34.30	24.60	25.10	29.40	
6	26.9	292.1	12	28.4	1	171.5	165.1	171.5	33.10	34.93	37.69	28.70	29.80	36.20	
8	31.8	349.3	12	31.8	1 1/8	190.5	184.2	196.9	50.90	53.98	60.16	43.50	45.20	59.10	
10	33.3	431.8	16	35.1	1 1/4	215.9	209.6	215.9	85.80	92.59	103.34	70.90	80.20	98.40	
12	39.6	489.0	20	35.1	1 1/4	222.3	215.9	222.3	102.60	112.36	128.19	84.50	97.10	125.30	
14	41.4	527.1	20	38.1	1 3/8	235.0	228.6	235.0	121.60	136.13	156.38	99.30	116.20	152.10	
16	44.5	603.3	20	41.1	1 1/2	254.0	247.7	254.0	177.10	198.70	226.80	141.00	164.20	214.10	
18	49.3	654.1	20	44.5	1 5/8	273.1	266.7	273.1	215.70	246.66	283.01	174.80	201.80	275.40	
20	54.1	723.9	24	44.5	1 5/8	285.8	279.4	292.1	268.00	310.23	356.13	221.80	257.50	352.40	
24	63.5	838.2	24	50.8	1 7/8	330.2	323.9	336.6	372.00	495.71	512.38	313.30	367.10	536.80	

**Notes:**  
 (1) For the inside diameter of pipes (corresponding to 'Bore' (B1) of Welding Neck Flanges), refer to page 83.  
 (2) Class 600 flanges except Lap Joint will be furnished with 0.25" (6.35mm) raised face, which is included in 'Thickness' (t) and 'Length through Hub' (T1, T2).  
 (3) For Slip-on, Threaded and Lap joint Flanges, the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.

(4) Blind Flanges may 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) Dimensions of sizes 1/2" through 3 1/2" are the same as for Class 400 Flanges.  
 (7) 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.