



CLASS 900 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
					Welding Neck B1	Slip-on B2	Lap Joint B3	Counter Bore Min. B	Welding Neck T1	Slip-on Threaded Socket Welding T2	Lap Joint T3	
1/2	121	38.1	35.1	22.4		22.4	22.9	23.6	60.5	31.8	31.8	21.3
3/4	130	44.5	42.9	25.4		27.7	28.2	29.0	69.9	35.1	35.1	26.7
1	149	52.3	50.8	28.4		34.5	35.1	35.8	73.2	41.1	41.1	33.5
1 1/4	159	63.5	63.5	28.4		43.2	43.7	44.5	73.2	41.1	41.1	42.2
1 1/2	178	69.9	73.2	31.8		49.5	50.0	50.5	82.6	44.5	44.5	48.3
2	216	104.6	91.9	38.1		62.0	62.5	63.5	101.6	57.2	57.2	60.5
2 1/2	244	124.0	104.6	41.1		74.7	75.4	76.2	104.6	63.5	63.5	73.2
3	241	127.0	127.0	38.1		90.7	91.4	92.2	101.6	53.8	53.8	88.9
4	292	158.8	157.2	44.5		116.1	116.8	117.6	114.3	69.9	69.9	114.3
5	349	190.5	185.7	50.8		143.8	144.5	144.5	127.0	79.2	79.2	141.2
6	381	235.0	215.9	55.6		170.7	171.5	171.5	139.7	85.9	85.9	168.4
8	470	298.5	269.7	63.5		221.5	222.3	222.3	162.1	101.6	114.3	219.2
10	546	368.3	323.9	69.9		276.4	277.4	276.4	184.2	108.0	127.0	273.1
12	610	419.1	381.0	79.2		327.2	328.2	328.7	200.2	117.3	142.7	323.9
14	641	450.9	412.8	85.9		359.2	360.2	360.4	212.9	130.3	155.4	355.6
16	705	508.0	469.9	88.9		410.5	411.2	411.2	215.9	133.4	165.1	406.4
18	787	565.2	533.4	101.6		461.8	462.3	462.0	228.6	152.4	190.5	457.2
20	857	622.3	584.2	108.0		513.1	514.4	512.8	247.7	158.8	209.6	508.0
24	1041	749.3	692.2	139.7		616.0	616.0	614.4	292.1	203.2	266.7	609.6

Notes:

- (1) For the inside diameter of pipes (corresponding to 'Bore' (B1) of Welding Neck Flanges), refer to page 83.
- (2) Class 900 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.

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Unit:mm

Nominal Pipe Size	Radius of fillet R	Thread Length Q	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
							0.25" Raised Face	Male-Female Tongue-Groove	Ring Joint	SCH40	SCH80	SCH160			
1/2	3.0	22.4	82.6	4	22.4	3/4	108.0	101.6	108.0	3.10	3.10	3.10	1.75	1.80	1.78
3/4	3.0	25.4	88.9	4	22.4	3/4	114.3	108.0	114.3	3.18	3.18	3.18	2.35	2.35	2.43
1	3.0	28.4	101.6	4	25.4	7/8	127.0	120.7	127.0	3.86	3.92	4.00	3.50	3.60	3.65
1 1/4	4.8	30.2	111.3	4	25.4	7/8	127.0	120.7	127.0	4.54	4.64	4.71	4.01	4.10	4.27
1 1/2	6.4	31.8	124.0	4	28.4	1	139.7	133.4	139.7	6.36	6.49	6.65	5.52	5.40	5.93
2	7.9	38.1	165.1	8	25.4	7/8	146.1	139.7	146.1	10.90	11.10	11.50	9.81	9.81	10.00
2 1/2	7.9	47.8	190.5	8	28.4	1	158.8	152.4	158.8	16.30	16.69	17.14	13.50	13.50	14.00
3	9.7	41.1	190.5	8	25.4	7/8	146.1	139.7	146.1	15.00	15.50	16.10	11.50	11.40	15.10
4	11.2	47.8	235.0	8	31.8	1 1/8	171.5	165.1	171.5	23.20	23.94	25.43	19.40	23.20	21.80
5	11.2	53.8	279.4	8	35.1	1 1/4	190.5	184.2	190.5	39.10	40.62	42.86	32.40	36.80	34.80
6	12.7	57.2	317.5	12	31.8	1 1/8	190.5	184.2	196.9	49.90	52.06	55.33	41.00	47.70	47.50
8	12.7	63.5	393.7	12	38.1	1 3/8	222.3	215.9	222.3	84.90	88.61	96.09	70.60	86.30	82.40
10	12.7	71.4	469.9	16	38.1	1 3/8	235.0	228.6	235.0	121.70	129.87	142.79	99.70	124.90	122.20
12	12.7	76.2	533.4	20	38.1	1 3/8	254.0	247.7	254.0	157.00	169.48	189.74	132.30	168.00	173.70
14	12.7	82.6	558.8	20	41.1	1 1/2	273.1	266.7	292.1	181.00	199.62	225.55	151.80	188.40	205.70
16	12.7	85.9	616.0	20	44.5	1 5/8	285.8	279.4	298.5	225.00	251.11	285.08	184.10	211.10	259.90
18	12.7	88.9	685.8	20	50.8	1 7/8	323.9	317.5	333.6	309.00	347.24	392.13	256.10	295.10	366.90
20	12.7	91.9	749.3	20	53.8	2	349.3	342.9	362.0	377.00	431.59	490.91	333.20	367.70	461.00
24	12.7	101.6	901.7	20	66.5	2 1/2	438.2	431.8	457.2	685.00	778.36	885.21	600.00	703.70	874.00

- (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) Dimensions of sizes 1/2" through 2 1/2" are the same as for Class 1500 Flanges.