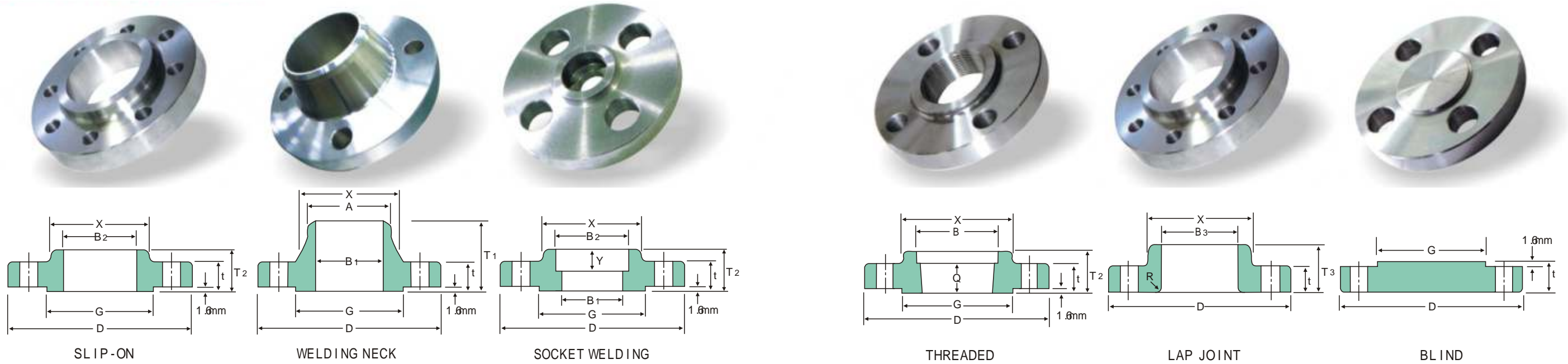


ANSI B16.5 FORGED FLANGES



Unit :mm

Nominal Pipe Size	Outside Diam	Diam at Base of Hub	O .D .of Raised Face	Thickness	BORE				LENGTH THRU HUB			Diam .of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Counter Bore Min . Threaded Min .	Welding Neck	Slip-on Threaded Socket Welding	Lap Joint			
					B1	B2	B3	B	T1	T2	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	104.8	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	114.2	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 60
 - (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.

Unit :mm

Nominal Pipe Size	Depth of Socket	DRILLING			BOLTING			APPROXIMATE WEIGHT										
		Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolt (inch)	Machine Bolt Length	Stud Bolt Length	Welding Neck		Slip-on and Threaded		Lap Joint		Blind		Socket Welding		
		Y				Raised Face	Raised Face	Ring Joint	Kg	lb	Kg	lb	Kg	lb	Kg	lb	Kg	lb
1/2	9.7	66.5	4	15.7	1/2	57.2	63.5	76.2	0.78	1.70	0.62	1.40	0.61	1.30	0.62	1.40	0.62	1.40
3/4	11.2	82.6	4	19.1	5/8	63.5	76.2	88.9	1.34	3.00	1.15	2.50	1.15	2.50	1.16	2.50	1.19	2.60
1	12.7	88.9	4	19.1	5/8	63.5	76.2	88.9	1.64	3.60	1.39	3.10	1.38	3.00	1.42	3.00	1.44	3.20
1 1/4	14.2	98.6	4	19.1	5/8	69.9	82.6	95.3	2.06	4.50	1.67	3.70	1.66	3.70	1.79	3.90	1.73	3.80
1 1/2	15.7	114.3	4	22.4	3/4	76.2	88.9	101.6	3.06	6.70	2.53	5.60	2.52	5.60	2.68	5.90	2.62	5.80
2	17.5	127.0	8	19.1	5/8	76.2	88.9	101.6	3.40	7.50	2.80	6.20	2.79	6.20	3.09	6.80	2.94	6.50
2 1/2	19.1	149.4	8	22.4	3/4	82.6	101.6	114.3	5.31	11.70	4.25	9.40	4.22	9.30	4.75	10.50	4.49	9.90
3	20.6	168.1	8	22.4	3/4	88.9	108.0	120.7	7.32	16.10	5.81	12.80	5.78	12.70	6.79	14.90	6.20	13.70
3 1/2	22.4	184.2	8	22.4	3/4	95.3	108.0	127.0	8.17	18.00	7.72	17.00	7.72	17.00	9.53	21.00		
4	23.9	200.2	8	22.4	3/4	95.3	114.3	127.0	11.30	24.90	10.13	22.30	10.07	22.20	12.00	26.50		
5	23.9	235.0	8	22.4	3/4	108.0	120.7	133.4	15.12	33.30	12.58	27.70	12.52	27.60	15.96	35.20		
6	26.9	269.7	12	22.4	3/4	108.0	120.7	139.7	19.68	43.40	16.04	35.40	15.95	35.20	21.20	46.70		
8	31.8	330.2	12	25.4	7/8	120.7	139.7	152.4	30.48	67.20	24.50	54.00	24.37	53.70	34.60	76.30		
10	33.3	387.4	16	28.4	1	139.7	158.8	171.5	43.74	96.40	34.16	75.30	39.92	88.00	55.34	122.00		
12	39.6	450.9	16	31.8	1 1/8	146.1	171.5	184.2	64.41	142.00	51.26	113.00	58.70	129.40	78.90	174.00		
14	41.4	514.4	20	31.8	1 1/8	158.8	177.8	190.5	88.30	194.70	72.12	159.00	83.46	184.00	107.05	236.00		
16	44.5	571.5	20	35.1	1 1/4	165.1	190.5	203.2	112.94	249.00	90.40	199.30	106.14	234.00	139.25	307.00		
18	49.3	628.7	24	35.1	1 1/4	171.5	196.9	209.6	138.34	305.00	109.00	240.30	133.95	295.30	176.90	396.00		
20	54.1	685.8	24	35.1	1 1/4	184.2	203.2	222.3	167.37	369.00	136.00	300.00	157.65	347.60	223.17	492.00		
24	63.5	812.8	24	41.1	1 1/2	203.2	228.6	254.0	235.41	519.00	204.00	449.70	240.40	530.00	342.00	754.00		

- (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 manufacturer's option.