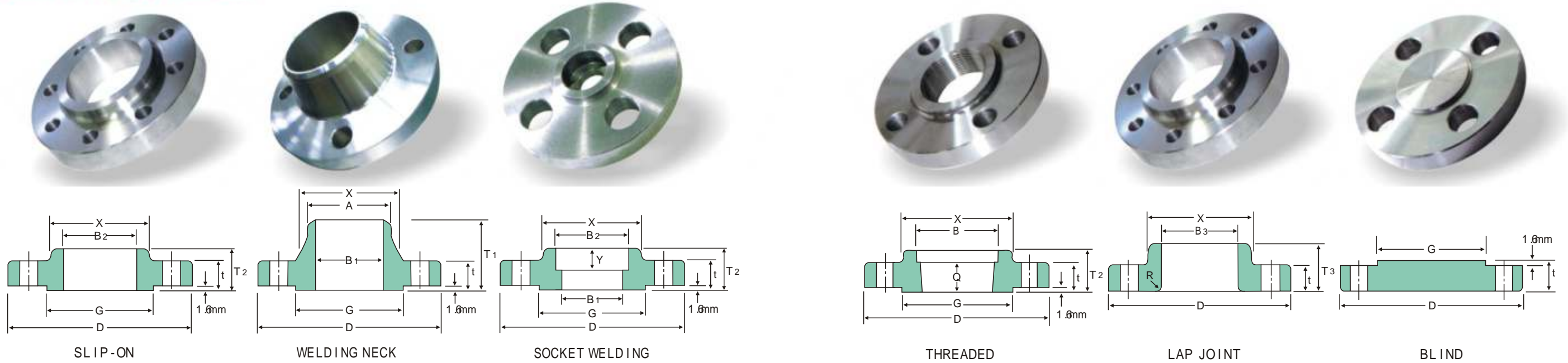


ANSI B16.5 FORGED FLANGES



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	381	35.1	14.2	157	22.4	22.9	23.6	52.3	22.4	22.4	21.3	3.0	15.7
3/4	117	478	42.9	15.7	208	27.7	28.2	29.0	57.2	25.4	25.4	26.7	3.0	15.7
1	124	538	50.8	17.5	267	34.5	35.1	35.8	62.0	26.9	26.9	33.5	3.0	17.5
1 1/4	133	635	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	699	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	841	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	1001	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	1173	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	1334	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	1461	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	1778	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	2062	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	2604	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	3205	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	3747	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	4255	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	4826	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	5334	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	5872	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	7015	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	97	665	4	157	1/2	572	635	762	078	170	062	140	0.61	1.30	0.62	1.40	0.62	1.40
3/4	112	826	4	191	5/8	635	762	889	134	300	115	250	1.15	2.50	1.16	2.50	1.19	2.60
1	127	889	4	191	5/8	635	762	889	164	360	139	310	1.38	3.00	1.42	3.00	1.44	3.20
1 1/4	142	986	4	191	5/8	699	826	953	206	450	167	370	1.66	3.70	1.79	3.90	1.73	3.80
1 1/2	157	1143	4	224	3/4	762	889	1016	306	670	253	560	2.52	5.60	2.68	5.90	2.62	5.80
2	175	1270	8	191	5/8	762	889	1016	340	750	280	620	2.79	6.20	2.79	6.20	2.94	6.50
2 1/2	191	1494	8	224	3/4	826	1016	1143	531	1170	425	940	4.22	9.30	4.75	10.50	4.49	9.90
3	206	1681	8	224	3/4	889	1080	1207	732	1610	581	1280	5.78	12.70	6.79	14.90	6.20	13.70
3 1/2	224	1842	8	224	3/4	953	1080	1270	817	1800	772	1700	7.72	17.00	9.53	21.00		
4	239	2002	8	224	3/4	953	1143	1270	1130	2490	1013	2230	10.07	22.20	12.00	26.50		
5	239	2350	8	224	3/4	1080	1207	1334	1512	3330	1258	2770	12.52	27.60	15.96	35.20		
6	269	2697	12	224	3/4	1080	1207	1397	1968	4340	1604	3540	15.95	35.20	21.20	46.70		
8	318	3302	12	254	7/8	1207	1397	1524	3048	6720	2450	5400	24.37	53.70	34.60	76.30		
10	333	3874	16	284	1	1397	1588	1715	4374	9640	3416	7530	39.92	88.00	55.34	122.00		
12	396	4509	16	318	1 1/8	1461	1715	1842	6441	14200	5126	11300	58.70	129.40	78.90	174.00		
14	414	5144	20	318	1 1/8	1588	1778	1905	8830	19470	7212	15900	83.46	184.00	107.05	236.00		
16	445	5715	20	351	1 1/4	1651	1905	2032	11294	24900	9040	19930	106.14	234.00	139.25	307.00		
18	493	6287	24	351	1 1/4	1715	1969	2096	13834	30500	10900	24030	133.95	295.30	176.90	396.00		
20	541	6858	24	351	1 1/4	1842	2032	2223	16737	36900	13600	30000	157.65	347.60	223.17	492.00		
24	635	8128	24	411	1 1/2	2032	2286	2540	23541	51900	20400	44970	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.