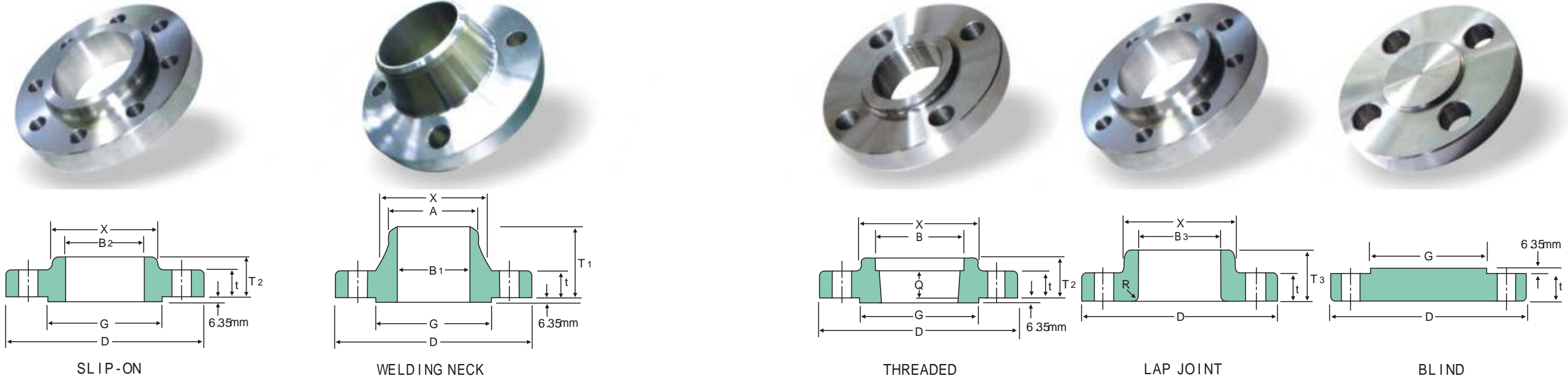


ANSI B16.5 FORGED FLANGES



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
					Welding Neck	Slip-on	Lap Joint	Counter Bore Min . Threaded Min .	Welding Neck	Slip-on Threaded	Lap Joint	
1/2	95	38.1	35.1	14.2		22.4	22.9	23.6	52.3	22.4	22.4	21.3
3/4	117	47.8	42.9	15.7		27.7	28.2	29.0	57.2	25.4	25.4	26.7
1	124	53.8	50.8	17.5		34.5	35.1	35.8	62.0	26.9	26.9	33.5
1 1/4	133	63.5	63.5	20.6	See Note ↑ To be specified by purchaser	43.2	43.7	44.5	66.5	28.4	28.4	42.2
1 1/2	155	69.9	73.2	22.4		49.5	50.0	50.5	69.9	31.8	31.8	48.3
2	165	84.1	91.9	25.4		62.0	62.5	63.5	73.2	36.6	36.6	60.5
2 1/2	191	100.1	104.6	28.4		74.7	75.4	76.2	79.2	41.1	41.1	73.2
3	210	117.3	127.0	31.8		90.7	91.4	92.2	82.6	46.0	46.0	88.9
3 1/2	229	133.4	139.7	35.1		103.4	104.1	104.9	85.9	49.3	49.3	101.6
4	254	146.1	157.2	35.1		116.1	116.8	117.6	88.9	50.8	50.8	114.3
5	279	177.8	185.7	38.1		143.8	144.5	144.5	101.6	53.8	53.8	141.2
6	318	206.2	215.9	41.1		170.7	171.5	171.5	103.1	57.2	57.2	168.4
8	381	280.4	269.7	47.8		221.5	222.3	222.3	117.3	68.3	68.3	219.2
10	445	320.5	323.9	53.8		276.4	277.4	276.4	124.0	73.2	101.6	273.1
12	521	374.7	381.0	57.2		327.2	328.2	328.7	136.7	79.2	108.0	323.9
14	584	425.5	412.8	60.5	359.2	360.2	360.4	149.4	84.1	117.3	355.6	
16	648	482.6	469.9	63.5	410.5	411.2	411.2	152.4	93.7	127.0	406.4	
18	711	533.4	533.4	66.5	461.8	462.3	462.0	165.1	98.6	136.7	457.2	
20	775	587.2	584.2	69.9	513.1	514.4	512.8	168.1	101.6	146.1	508.0	
24	914	701.5	692.2	76.2	616.0	616.0	614.4	174.8	114.3	158.8	609.6	

- Notes
- (1) For the inside diameter of pipes (corresponding to 'Bore' (B1) of Welding Neck Flanges), refer to page 60.
 - (2) Class 400 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.

Unit mm

Nominal Pipe Size	Radius of Fillet	Thread Length	DRILLING			BOLTING			APPROXIMATE WEIGHT								
			Bolt Circle Diam	Number of Holes	Diam . of Holes	Diam . of Bolts (inches)	Stud Bolt Length			Welding Neck		Slip-on and Threaded		Lap Joint		Blind	
							0.25" Raised Face	Male - Female Tongue - Groove	Ring Joint	Kg	lb	Kg	lb	Kg	lb	Kg	lb
							Y	Q									
1/2	3.0	15.7	66.5	4	15.7	1/2	76.2	69.9	76.2	136	300	091	200	080	180	091	200
3/4	3.0	15.7	82.6	4	19.1	5/8	88.9	82.6	88.9	159	350	136	300	136	300	140	300
1	3.0	17.5	88.9	4	19.1	5/8	88.9	82.6	88.9	181	400	159	350	159	350	170	360
1 1/4	4.8	20.6	98.6	4	19.1	5/8	95.3	88.9	95.3	250	550	210	460	204	450	227	500
1 1/2	6.4	22.4	114.3	4	22.4	3/4	108.0	101.6	108.0	363	800	310	680	295	650	340	750
2	7.9	28.4	127.0	8	19.1	5/8	108.0	101.6	108.0	454	1000	363	800	363	800	440	970
2 1/2	7.9	31.8	149.4	8	22.4	3/4	120.7	114.3	120.7	635	1400	544	1200	499	1100	680	1500
3	9.7	35.1	168.1	8	22.4	3/4	127.0	120.7	127.0	817	1800	726	1600	635	1400	890	1960
3 1/2	9.7	39.6	184.2	8	25.4	7/8	139.7	133.4	139.7	1180	2600	953	2100	908	2000	1317	2900
4	11.2	36.6	200.2	8	25.4	7/8	139.7	133.4	139.7	1361	3000	1089	2400	998	2200	1440	3170
5	11.2	42.9	235.0	8	25.4	7/8	146.1	139.7	146.1	1769	3900	1407	3100	1315	2900	1950	4300
6	12.7	46.0	269.7	12	25.4	7/8	152.4	146.1	152.4	2223	4900	1998	4400	1678	3700	2767	6100
8	12.7	50.8	330.2	12	28.4	1	171.5	165.1	171.5	3538	7800	3040	6700	2616	5900	4536	10000
10	12.7	55.6	387.4	16	31.8	1 1/8	190.5	184.2	190.5	4989	11000	4128	9100	4309	9500	6800	15000
12	12.7	60.5	450.9	16	35.1	1 1/4	203.2	196.9	203.2	7257	16000	5902	13000	6895	15200	9800	21600
14	12.7	63.5	514.4	20	35.1	1 1/4	209.6	203.2	209.6	10569	23300	8172	18000	9525	21000	13166	29000
16	12.7	68.3	571.5	20	38.1	1 3/8	222.3	215.9	222.3	13330	29400	10669	23500	12700	28000	16700	36800
18	12.7	69.9	628.7	24	38.1	1 3/8	228.6	222.3	228.6	15890	35030	12939	28530	15649	34500	20657	45540
20	12.7	73.2	685.8	24	41.1	1 1/2	241.3	235.0	247.7	19300	42550	15200	33500	19051	42000	26100	57540
24	12.7	82.6	812.8	24	47.8	1 3/4	266.7	260.4	279.4	28148	62050	23154	51050	27896	61500	39500	87080

- (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 3 1/2 " are the same as for Class 600 Flanges.