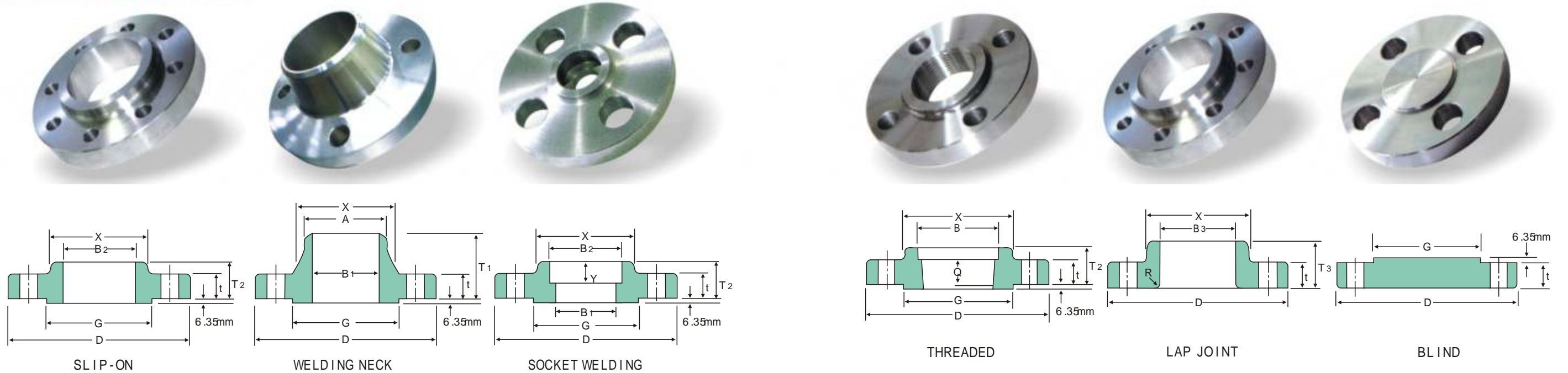


ANSI B16.5 FORGED FLANGES



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 .	Welding Neck	Slip on Threaded Socket Welding	Lap Joint			
					B ₁	B ₂	B ₃	B	T ₁	T ₂	T ₃			
1/2	121	38.1	35.1	22.4		22.4	22.9	23.6	60.5	31.8	31.8	21.3	3.0	22.4
3/4	130	44.5	42.9	25.4		27.7	28.2	29.0	69.9	35.1	35.1	26.7	3.0	25.4
1	149	52.3	50.8	28.4		34.5	35.1	35.8	73.2	41.1	41.1	33.5	3.0	28.4
1 1/4	159	63.5	63.5	28.4	See Note 1 To be specified by purchaser	43.2	43.7	44.5	73.2	41.1	41.1	42.2	4.8	30.2
1 1/2	178	69.9	73.2	31.8		49.5	50.0	50.5	82.6	44.5	44.5	48.3	6.4	31.8
2	216	104.6	91.9	38.1		62.0	62.5	63.5	101.6	57.2	57.2	60.5	7.9	38.1
2 1/2	244	124.0	104.6	41.1		74.7	75.4	76.2	104.6	63.5	63.5	73.2	7.9	47.8
3	267	133.4	127.0	47.8		90.7	91.4	92.2	117.3	73.2	73.2	88.9	9.7	50.8
4	311	162.1	157.2	53.8		116.1	116.8	117.6	124.0	90.4	90.4	114.3	11.2	57.2
5	375	196.9	185.7	73.2		143.8	144.5	144.5	155.4	104.6	104.6	141.2	11.2	63.5
6	394	228.6	215.9	82.6		170.7	171.5	171.5	171.5	119.1	119.1	168.4	12.7	69.9
8	483	292.1	269.7	91.9		221.5	222.3	222.3	212.9	142.7	142.7	219.2	12.7	76.2
10	584	368.3	323.9	108.0		276.4	277.4	276.4	254.0	158.8	177.8	273.1	12.7	84.1
12	673	450.9	381.0	124.0		327.2	328.2	328.7	282.4	180.8	218.9	323.9	12.7	91.9
14	749	495.3	412.8	133.4		359.2	360.2	360.4	298.5	-	241.3	355.6	12.7	-
16	826	552.5	469.9	146.1		410.5	411.2	411.2	311.2	-	260.4	406.4	12.7	-
18	914	596.9	533.4	162.1		461.8	462.3	462.0	327.2	-	276.4	457.2	12.7	-
20	984	641.4	584.2	177.8		513.1	514.4	512.8	355.6	-	292.1	508.0	12.7	-
24	1168	762.0	692.2	203.2		616.0	616.0	614.4	406.4	-	330.2	609.6	12.7	-

Nominal Pipe Size	Depth of Socket	DRILLING			BOLTING				APPROXIMATE WEIGHT									
		Bolt Circle Diam	Number of Holes	Diam . of Holes	Diam of Bolt (inch)	0.25" Raised Face	Male - Female Tongue - Groove	Ring Joint	Welding Neck		Slip on and Threaded		Lap Joint		Blind		Socket Welding	
									Kg	lb	Kg	lb	Kg	lb	Kg	lb	Kg	lb
1/2	97	82.6	4	22.4	3/4	108.0	101.6	108.0	2.10	4.60	1.80	4.00	1.80	4.00	1.90	4.00	1.81	4.00
3/4	112	88.9	4	22.4	3/4	114.3	108.0	114.3	2.72	6.00	2.27	5.00	2.27	5.00	2.72	6.00	2.81	6.20
1	127	101.6	4	25.4	7/8	127.0	120.7	127.0	3.86	8.50	3.40	7.50	3.40	7.50	4.08	9.00	3.61	8.00
1 1/4	142	111.3	4	25.4	7/8	127.0	120.7	127.0	4.54	10.00	4.10	9.00	4.90	10.80	4.30	9.50	4.99	11.00
1 1/2	157	124.0	4	28.4	1	139.7	133.4	139.7	5.90	13.00	5.45	12.00	5.40	11.90	5.90	13.00	6.76	14.90
2	175	165.1	8	25.4	1 1/8	146.1	139.7	146.1	10.89	24.00	10.50	23.00	9.53	21.00	11.30	25.00	10.89	24.00
2 1/2	191	190.5	8	28.4	1	158.8	152.4	158.8	16.34	36.00	15.80	34.80	13.15	29.00	16.00	35.30	16.34	36.00
3	206	203.2	8	31.8	1 1/8	177.8	171.5	177.8	21.79	48.00	21.77	48.00	17.24	38.00	21.79	48.00		
4	239	241.3	8	35.1	1 1/4	196.9	190.5	196.9	31.30	69.00	31.00	68.40	29.00	63.90	33.11	73.00		
5	239	292.1	8	41.1	1 1/2	247.7	241.3	247.7	59.02	130.00	58.80	129.60	54.00	119.00	60.00	132.30		
6	269	317.5	12	38.1	1 3/8	260.4	254.0	266.7	74.91	165.00	74.00	163.00	62.00	136.70	75.00	165.30		
8	318	393.7	12	44.5	1 5/8	292.1	285.8	323.9	123.83	273.00	117.73	258.00	129.73	236.00	136.98	302.00		
10	333	482.6	12	50.8	1 7/8	336.6	330.2	342.9	205.93	454.00	197.49	435.40	220.19	485.40	229.97	507.00		
12	396	571.5	16	53.8	2	374.7	368.3	387.4	306.00	674.60	264.00	582.00	286.02	630.60	316.00	696.70		
14	414	635.0	16	60.5	2 1/4	406.4	400.1	425.5	416.00	917.00	-	-	404.06	890.80	421.00	928.00		
16	445	704.9	16	66.5	2 1/2	444.5	438.2	469.9	567.50	1250.00	-	-	522.10	1151.00	559.00	1232.70		
18	493	774.7	16	73.2	2 3/4	495.3	489.0	527.1	736.00	1622.60	-	-	669.65	1476.30	761.00	1677.70		
20	541	831.9	16	79.2	3	539.8	533.4	565.2	929.00	2048.00	-	-	805.85	1776.60	967.00	2131.80		
24	635	990.6	16	91.9	3 1/2	616.0	609.6	647.7	1504.00	3315.70	-	-	1285.55	2834.00	1568.00	3456.80		

- (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 MSSP-9, without reducing thickness (t).
- (6) Dimensions of sizes 1/2" through 2 1/2" are the same as for Class 900 Flanges.
- (7) Depth of Socket (Y) is covered by ANSI B16.5 only in size through 2 1/2" inch, over 2 1/2" inch is at the manufacturer's option.

- Notes**
- (1) For the inside diameter of pipes (corresponding to 'Bore' (B1) of Welding Neck Flanges), refer to page 60.
 - (2) Class 1500 flanges except Lap Joint will be furnished with 0.25" (6.35mm) raised face, which is not included in 'Thickness' (t) and 'Length through Hub' (T1), (T2).
 - (3) For slip-on, Threaded and Lap Joint and Socket Welding Flanges, the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.