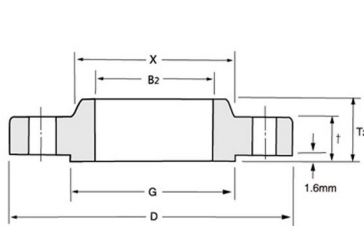
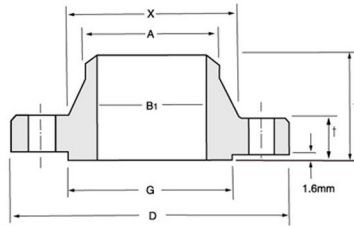


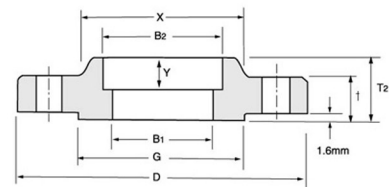
## ANSI CLASS 150 FLANGES



SLIP-ON



WELDING NECK



SOCKET WELDING

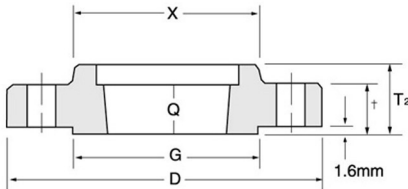
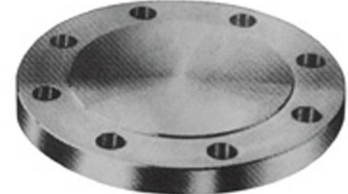
## ANSI B16.5 FORGED FLANGES

Unit:mm

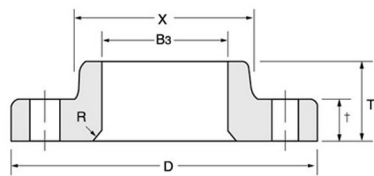
Nominal Pipe Size	Outside Diam	O. D. of Raised Face	Diam at Base of Hub	Thick-ness	BORE			LENGTH THRU HUB			Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Welding Neck	Slip-on Threaded Socket Welding	Lap Joint			
					B1	B2	B3	T1	T2	T3			
1/2	89	35.1	30.2	11.2	15.7	22.4	22.9	47.8	15.7	15.7	21.3	3.0	15.7
3/4	99	42.9	38.1	12.7	20.8	27.7	28.2	52.3	15.7	15.7	26.7	3.0	15.7
1	108	50.8	49.3	14.2	26.7	34.5	35.1	55.6	17.5	17.5	33.5	3.0	17.5
1 1/4	117	63.5	58.7	15.7	35.1	43.2	43.7	57.2	20.6	20.6	42.2	4.8	20.6
1 1/2	127	73.2	65.0	17.5	40.9	49.5	50.0	62.0	22.4	22.4	48.3	6.4	22.4
2	152	91.9	77.7	19.1	52.6	62.0	62.5	63.5	25.4	25.4	60.5	7.9	25.4
2 1/2	178	104.6	90.4	22.4	62.7	74.7	75.4	69.9	28.4	28.4	73.2	7.9	28.4
3	191	127.0	108.0	23.9	78.0	90.7	91.4	69.9	30.2	30.2	88.9	9.7	30.2
3 1/2	216	139.7	122.2	23.9	90.2	103.4	104.1	71.4	31.8	31.8	101.6	9.7	31.8
4	229	157.2	134.9	23.9	102.4	116.1	116.8	76.2	33.3	33.3	114.3	11.2	33.3
5	254	185.7	163.6	23.9	128.3	143.8	144.5	88.9	36.6	36.6	141.2	11.2	36.3
6	279	215.9	192.0	25.4	154.2	170.7	171.5	88.9	39.6	39.6	168.4	12.7	39.6
8	343	269.7	246.1	28.4	202.7	221.5	222.3	101.6	44.5	44.5	219.2	12.7	44.5
10	406	323.9	304.8	30.2	254.5	276.4	277.4	101.6	49.3	49.3	273.1	12.7	49.3
12	483	381.0	365.3	31.8	304.8	327.2	328.2	114.3	55.6	55.6	323.9	12.7	55.6
14	533	412.8	400.1	35.1	336.6	359.2	360.2	127.0	57.2	79.2	355.6	12.7	57.2
16	597	469.9	457.2	36.6	387.4	410.5	411.2	127.0	63.5	87.4	406.4	12.7	63.5
18	635	533.4	505.0	39.6	438.2	461.8	462.3	139.7	68.3	96.8	457.2	12.7	68.3
20	699	584.2	558.8	42.9	489.0	513.1	514.4	144.5	73.2	103.1	508.0	12.7	73.2
24	813	692.2	663.4	47.8	590.6	616.0	616.0	152.4	82.6	111.3	609.6	12.7	82.6

### Notes:

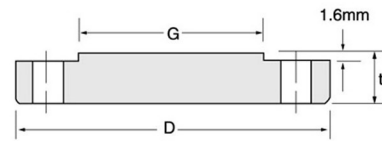
- (1) For the 'Bore' (B1) other than Standard Wall Thickness, refer to page 18.
- (2) Class 150 flanges except Lap Joint will be furnished with 0.06" (1.6mm) raised face, which is included in 'Thickness' (t) and 'length through Hub' (T1), (T2).
- (3) For Slip-on, Threaded, Socket Welding and Lap Joint Flanges, the hubs can be shaped either vertical from base top or tapered within the limits of 7 degrees



**THREADED**



**LAP JOINT**



**BLIND**

Unit:mm

Nominal Pipe Size	Depth of Socket Y	DRILLING			BOLTING			APPROXIMATE WEIGHT										
		Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Machine Bolt Length	Stud Bolt Length		Welding Neck		Slip-on and Threaded		Lap Join		Blind		Socket Welding	
							Raised Face	Raised Face	Ring Joint	Kg	IP	Kg	IP	Kg	IP	Kg	IP	Kg
1/2	9.7	60.5	4	15.7	1/2	50.8	57.2	-	0.52	1.10	0.47	1.00	0.51	1.00	0.47	1.00	0.47	1.00
3/4	11.2	69.9	4	15.7	1/2	50.8	63.5	-	0.92	1.60	0.75	1.30	0.70	1.40	0.63	1.40	0.76	1.30
1	12.7	79.2	4	15.7	1/2	57.2	63.5	76.2	1.10	2.40	0.86	1.90	0.93	1.80	0.95	2.10	0.87	1.90
1 1/4	14.2	88.9	4	15.7	1/2	57.2	69.9	82.6	1.40	3.10	1.40	2.40	1.40	2.00	1.40	2.70	1.43	2.40
1 1/2	15.7	98.6	4	15.7	1/2	63.5	69.9	82.6	1.81	4.00	1.41	3.10	1.51	3.30	1.62	3.60	1.45	3.20
2	17.5	120.7	4	19.1	5/8	69.9	82.6	95.3	2.80	5.70	2.26	5.00	2.38	5.20	2.64	5.80	2.33	5.00
2 1/2	19.1	139.7	4	19.1	5/8	76.2	88.9	101.6	4.28	9.40	3.43	7.60	3.60	7.90	4.06	9.00	3.55	7.80
3	20.6	152.4	4	19.1	5/8	76.2	88.9	101.6	5.18	11.40	4.00	8.50	4.04	8.90	5.00	10.80	4.15	8.90
3 1/2	22.4	177.8	8	19.1	5/8	76.2	88.9	101.6	5.50	12.00	5.00	11.00	4.09	11.00	5.90	13.00	5.00	11.00
4	23.9	190.5	8	19.1	5/8	76.2	88.9	101.6	7.32	16.10	5.75	12.70	5.96	13.00	7.50	16.30	5.99	13.20
5	23.9	215.9	8	22.4	3/4	82.6	95.3	108.0	8.91	19.60	6.51	13.70	6.44	14.00	9.00	19.30	6.96	14.70
6	26.9	241.3	8	22.4	3/4	82.6	101.6	114.3	11.26	24.80	7.81	16.30	7.70	16.70	12.00	24.90	8.41	17.60
8	31.8	298.5	8	22.4	3/4	88.9	108.0	120.7	18.00	39.00	13.00	27.30	12.66	27.90	20.00	43.90	13.93	29.30
10	33.3	362.0	12	25.4	7/8	101.6	114.3	127.0	25.00	54.70	17.60	37.70	17.00	37.00	30.00	64.80	19.50	43.00
12	39.6	431.8	12	25.4	7/8	101.6	120.7	133.4	38.98	85.90	28.68	61.00	28.30	62.40	44.00	95.30	29.03	64.00
14	41.4	476.6	12	28.4	1	114.3	133.4	146.1	51.71	114.00	35.20	77.60	41.50	91.50	64.00	140.00	38.56	85.00
16	44.5	539.8	16	28.4	1	114.3	133.4	146.1	64.41	142.00	45.00	93.00	52.98	116.80	78.00	170.00	47.32	98.00
18	49.3	577.9	16	31.8	1 1/8	127.0	146.1	158.8	74.84	165.00	54.00	109.60	68.00	130.00	95.00	209.00	58.72	120.00
20	54.1	635.0	20	31.8	1 1/8	139.7	158.8	171.5	89.36	197.00	73.00	140.00	85.00	159.00	125.00	272.00	77.81	155.00
24	63.5	749.3	20	35.1	1 1/4	152.4	171.5	184.2	119.66	263.80	96.00	199.50	120.00	218.30	190.00	415.00	100.75	210.00

- (4) Blind Flanges may be made with the same hub as that used 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 is sizes through 3 inch, over 3inch is at the manufacturer's option.