



**Global Consulting Inc.**

"Managing projects to success"

## FORGED FLANGES



**Global Consulting Inc.**  
"Managing Projects to Success"

## FORGED FLANGES



### A.) Type Range

1. Welding-Neck
2. Slip on
3. Screwed
4. Blind
5. Lap Joint
6. Socket-welding

### B.) Materials

Steel grade ASME A/SA 182 F304/304L, F316/316L, F321H, F347H, F304H, etc.  
Duplex steel ASME A/SA F51, G53, F60, etc

### C.) Size

1/2" to 24" (DN15-DN600)

### D.) Standard

1. American standard flange ASME B16.5: 150#, 300#, 600#, 900#, 1500#, 2500#,
2. DIN standard flange : PN6, PN10, PN25, PN40, PN64, PN100, PN160,
3. BS EN1092-1 Flange : PN10, PN16, PN25, PN 40
4. Plate flange made from ASTM A240 plate or cast in conformance with ASTM A351

**Customized flange is welcome.**

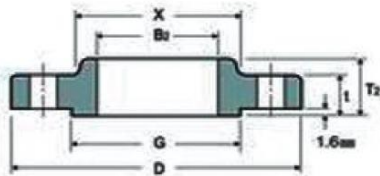


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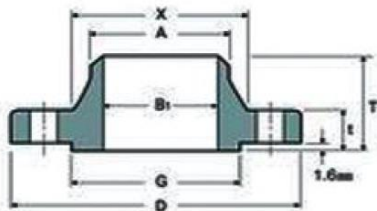


## ANSI FLANGES

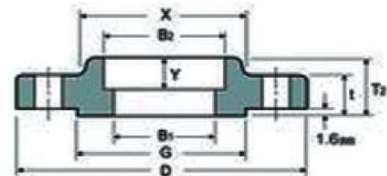
### CLASS 150 CARBON STEEL AND STAINLESS STEEL



SLIP-ON



WELDING NECK



SOCKET WELDING

## ANSI B16.5 FORGED FLANGES

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 Bever	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	71.1	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	36.6
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	93.8	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

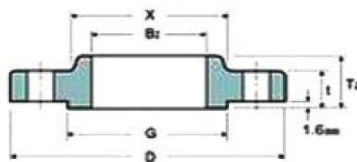


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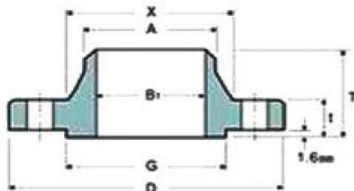


## ANSI FLANGES

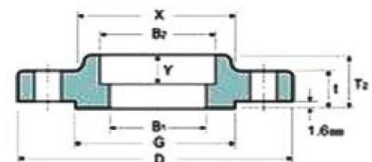
### CLASS 300 CARBON STEEL AND STAINLESS STEEL



SLIP-ON



WELDING NECK



SOCKET WELDING

## ANSI B16.5 FORGED FLANGES

Nominal Pipe Size	Outside Diam.	Diam. at Base of Hub	O.D of Raised Face	Thick-ness	BORE				LENGTH THRU HUB			Diam of Hub at Bever	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	20.8
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	104.6	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	117.8	185.7	35.1	128.3	143.8	144.5	144.5	98.6	50.8	50.8	141.2	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	166.4	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	50.0
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

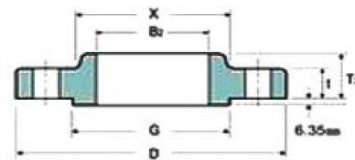


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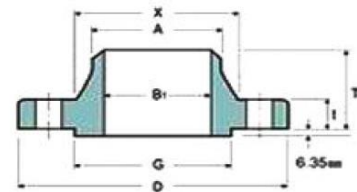


**ANSI FLANGES**

**CLASS 400 CARBON STEEL AND STAINLESS STEEL**



**SLIP-ON**



**WELDING NECK**

**ANSI B16.5 FORGED FLANGES**

Nominal Pipe Size	Outside Diam.	Diam. at Base of Hub	O.D of Raised Face	Thick-ness	BORE				LENGTH THRU HUB			Diam of Hub at Bever
					Welding Neck	Slip-on	Lap Joint	Counter Bore Min.	Welding Neck	Slip-on And Threaded	Lap Joint	
	D	X	G	I	B1	B2	B3	B	T1	T2	T3	A
1/2	95	38.1	35.1	14.2	See Note(1) To be specialized by purchaser	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		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	260.4	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	587.5	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

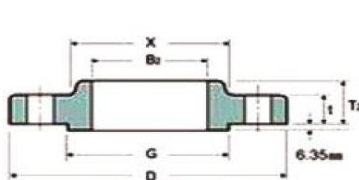


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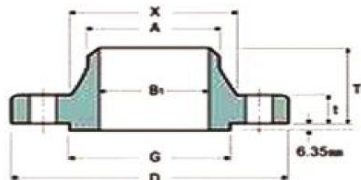


## ANSI FLANGES

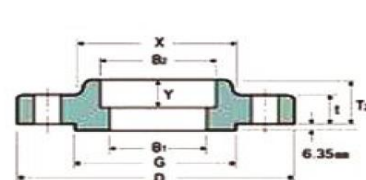
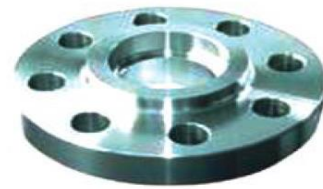
### CLASS 600 CARBON STEEL AND STAINLESS STEEL



SLIP-ON



WELDING NECK



SOCKET WELDING

## ANSI B16.5 FORGED FLANGES

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			
					B1	B2	B3	B	T1	T2	T3			
1/2	95	38.1	35.1	14.2		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		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		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	20.6		43.2	43.7	44.5	66.5	28.4	28.4	42.2	4.8	20.6
1 1/2	155	69.9	73.2	22.4		49.5	50.0	50.5	69.9	31.8	31.8	48.3	6.4	22.4
2	165	84.1	91.9	25.4		62.0	62.5	63.5	73.2	36.6	36.6	60.5	7.9	28.4
2 1/2	191	100.1	104.6	28.4		74.7	75.4	76.2	79.2	41.1	41.1	73.2	7.9	31.8
3	210	117.3	127.0	31.8		90.7	91.4	92.2	82.6	46.0	46.0	88.9	9.7	35.1
3 1/2	229	133.4	139.7	35.1		103.4	104.1	104.9	85.9	49.3	49.3	101.6	9.7	39.6
4	273	152.4	157.2	38.1		116.1	116.8	117.6	101.6	53.8	53.8	114.3	11.2	41.1
5	330	189.0	185.7	44.5		143.8	144.5	144.5	114.3	60.5	60.5	141.2	11.2	47.8
6	356	222.3	215.9	47.8		170.7	171.5	171.5	117.3	66.5	66.5	168.4	12.7	50.8
8	419	273.1	269.7	55.6		221.5	222.3	222.3	133.4	76.2	76.2	219.2	12.7	57.2
10	508	342.9	323.9	63.5		276.4	277.4	276.4	152.4	85.9	111.3	273.1	12.7	65.0
12	559	400.1	381.0	66.5		327.2	328.2	328.7	155.4	91.9	117.3	323.9	12.7	69.9
14	603	431.8	412.8	69.5		359.2	360.2	360.4	165.1	93.7	127.0	355.6	12.7	73.2
16	686	495.3	469.9	76.2		410.5	411.2	411.2	177.8	106.4	139.7	406.4	12.7	77.7
18	743	546.1	533.4	82.6		461.8	462.3	462.0	184.2	117.3	152.4	457.2	12.7	79.2
20	813	609.6	584.2	88.9		513.1	514.4	512.8	190.5	127.0	165.1	508.0	12.7	82.6
24	940	717.6	692.2	101.6		616.0	616.0	614.4	203.2	139.7	184.2	609.6	12.7	91.9

See Note(1)  
To be specialized by purchaser

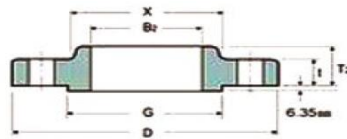


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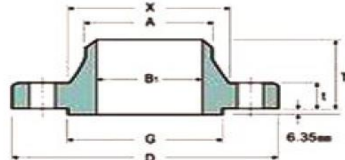


## ANSI FLANGES

### CLASS 900 CARBON STEEL AND STAINLESS STEEL



SLIP-ON



WELDING NECK

## ANSI B16.5 FORGED FLANGES

Nominal Pipe Size	Outside Diam.	Diam. at Base of Hub	O.D of Raised Face	Thick-ness	BORE				LENGTH THRU HUB			Diam of Hub at Bever
					Welding Neck	Slip-on	Lap Joint	Counter Bore Min.	Welding Neck	Slip-on And Threaded	Lap Joint	
					B1	B2	B3	B	T1	T2	T3	
1/2	121	38.1	35.1	22.4		22.4	22.9	23.6	60.5	31.8	31.8	21.3
3/4	130	47.8	42.9	25.4		27.7	28.2	29.0	69.9	35.1	35.1	26.7
1	149	53.8	50.8	28.4		34.5	35.1	35.8	73.2	41.1	41.1	33.5
1 1/4	159	63.5	63.5	28.4		43.2	43.7	44.5	73.2	41.1	41.1	42.2
1 1/2	178	69.9	73.2	31.8		49.5	50.0	50.5	82.6	44.5	44.5	48.3
2	216	104.6	91.9	38.1		62.0	62.5	63.5	101.6	57.2	57.2	60.5
2 1/2	244	124.0	104.6	41.1		74.7	75.4	76.2	104.6	63.5	63.5	73.2
3	241	127.0	127.0	38.1		90.7	91.4	92.2	101.6	53.8	53.8	88.9
4	292	158.8	157.2	44.5		116.1	116.8	104.9	114.3	69.9	69.9	114.3
5	349	190.5	185.7	50.8		143.8	144.5	117.6	127.0	79.2	79.2	141.2
6	381	235.0	215.9	55.6		170.7	171.5	171.5	139.7	85.9	85.9	168.4
8	470	298.5	269.7	63.5		221.5	222.3	222.3	162.1	101.6	114.3	219.2
10	546	368.3	323.9	69.9		276.4	277.4	276.4	184.2	108.0	127.0	273.1
12	610	419.1	381.0	79.2		327.2	328.2	328.7	200.2	117.3	142.7	323.9
14	641	450.9	412.8	85.9		359.2	360.2	360.4	212.9	130.3	155.4	355.6
16	705	508.0	469.9	88.9		410.5	411.2	411.2	215.9	133.4	165.1	406.4
18	787	565.2	533.4	101.6		461.8	462.3	462.0	228.6	152.4	190.5	457.2
20	857	622.3	584.2	108.0		513.1	514.4	512.8	247.7	158.8	209.6	508.0
24	1041	749.3	692.2	139.7		616.0	616.0	614.4	292.1	203.2	266.7	609.6

See Note 1)  
To be specialized by purchaser



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