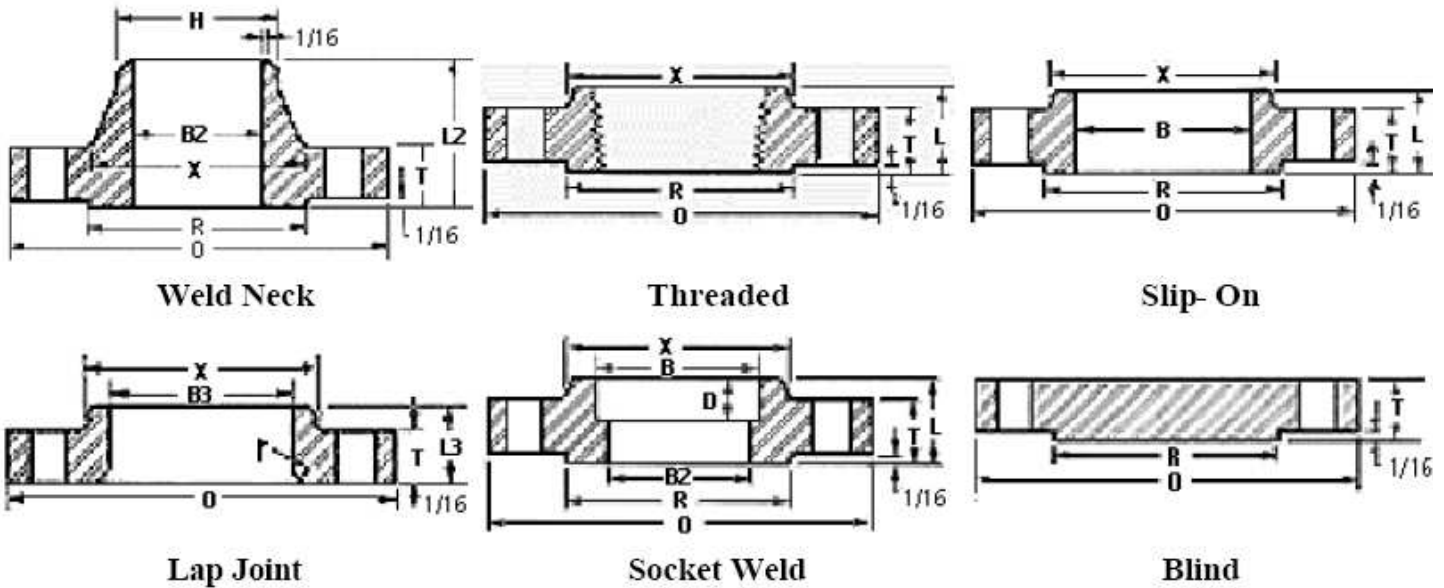


## ANSI B16.5 Class 150 Forged Flanges

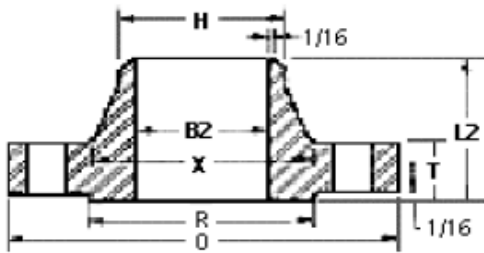


Nom. Pipe Size	Lap Joint			Socket Weld				Blind							
	O	T <sub>1</sub>	R	X	No. 2/Dia. of Holes	Bolt Circle Dia.	L <sub>21</sub>	H	B <sub>23</sub>	L	B	r	L <sub>34</sub>	B <sub>3</sub>	D
½	3.5	.44	1.38	1.19	4-0.62	2.38	1.88	.84	.62	.62	.88	.12	.62	.9	.38
¾	3.88	.5	1.69	1.5	4-0.62	2.75	2.06	1.05	.82	.62	1.09	.12	.62	1.11	.44
1	4.25	.56	2	1.94	4-0.62	3.12	2.19	1.32	1.05	.69	1.36	.12	.69	1.38	.5
1¼	4.62	.62	2.5	2.31	4-0.62	3.5	2.25	1.66	1.38	.81	1.70	.19	.81	1.72	.56
1½	5	.68	2.88	2.56	4-0.62	3.88	2.44	1.9	1.61	.88	1.95	.25	.88	1.97	.62
2	6	.75	3.62	3.06	4-0.75	4.75	2.5	2.38	2.07	1	2.44	.31	1	2.46	.69
2½	7	.88	4.12	3.56	4-0.75	5.5	2.75	2.88	2.47	1.12	2.94	.31	1.12	2.97	.75
3	7.5	.94	5	4.25	4-0.75	6	2.75	3.5	3.07	1.19	3.57	.38	1.19	3.6	.81
3½	8.5	.94	5.5	4.81	8-0.75	7	2.81	4	3.55	1.25	4.07	.38	1.25	4.1	.88
4	9	.94	6.19	5.31	8-0.75	7.5	3	4.5	4.03	1.31	4.57	.44	1.31	4.6	.94
5	10	.94	7.31	6.44	8-0.88	8.5	3.5	5.56	5.05	1.44	5.66	.44	1.44	5.69	.94
6	11	1	8.5	7.56	8-0.88	9.5	3.5	6.63	6.07	1.56	6.72	.5	1.56	6.75	1.06
8	13.5	1.12	10.62	9.69	8-0.88	11.75	4	8.63	7.98	1.75	8.72	.5	1.75	8.75	1.25
10	16	1.19	12.75	12	12-1.00	14.25	4	10.75	10.02	1.94	10.88	.5	1.94	10.92	1.31
12	19	1.25	15	14.38	12-1.00	17	4.5	12.75	12	2.19	12.88	.5	2.19	12.92	1.56
14	21	1.38	16.25	15.75	12-1.12	18.75	5	14	13.25	2.25	14.14	.5	3.12	14.18	1.63
16	23.5	1.44	18.5	18	16-1.12	21.25	5	16	15.25	2.5	16.16	.5	3.44	16.19	1.75
18	25	1.56	21	19.88	16-1.25	22.75	5.5	18	17.25	2.69	18.18	.5	3.81	18.20	1.94
20	27.5	1.69	23	22	20-1.25	25	5.69	20	19.25	2.88	20.2	.5	4.06	20.25	2.13
22	29.5	1.81	25.25	24.25	20-1.38	27.25	5.88	22	21.25	3.13	22.22	.5	4.25	22.25	2.38
24	32	1.88	27.25	26.12	20-1.38	29.5	6	24	23.25	3.25	24.25	.5	4.38	24.25	2.50

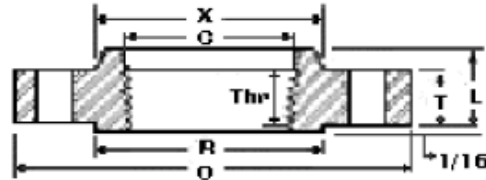
Dimensions in inches.

- 1- 1/16 in. raised face included in dimensions T, L and L<sub>2</sub>.
- 2- Bolt hole diameter 1/8 in. larger than bolt diameter.
- 3- Standard Bore dimensions provided.
- 4- This dimension is commonly associated with "true" Lap Joints. Industry standard is to make to the slip on length thru the hub.

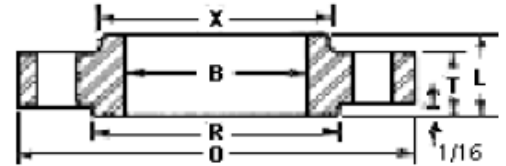
## ANSI B16.5 Class 300 Forged Flanges



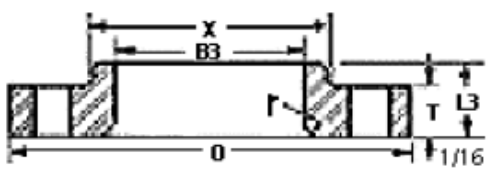
**Weld Neck**



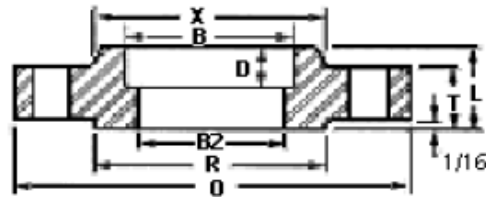
**Threaded**



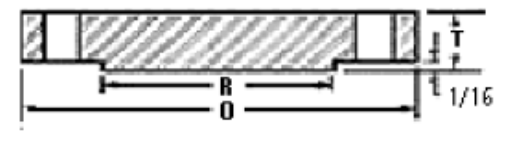
**Slip-On**



**Lap Joint**



**Socket Weld**



**Blind**

Nom. Pipe Size	O	T <sup>1</sup>	R	X	No.2 & Dia. of Holes	Bolt Circle Dia.	L <sup>2</sup> <sub>1</sub>	H	B <sup>2</sup> <sub>3</sub>	L	B	r	L <sup>3</sup> <sub>4</sub>	B <sub>3</sub>	D	C	Thr
½	3.75	0.56	1.38	1.5	4-0.62	2.62	2.06	0.84	0.62	0.88	0.88	0.12	0.88	0.9	0.38	0.93	0.62
¾	4.62	0.62	1.69	1.88	4-0.75	3.25	2.25	1.05	0.82	1	1.09	0.12	1	1.11	0.44	1.14	0.62
1	4.88	0.69	2	2.12	4-0.75	3.5	2.44	1.32	1.05	1.06	1.36	0.12	1.06	1.38	0.5	1.41	0.69
1¼	5.25	0.75	2.5	2.5	4-0.75	3.88	2.56	1.66	1.38	1.06	1.7	0.19	1.06	1.72	0.56	1.75	0.81
1½	6.12	0.81	2.88	2.75	4-0.88	4.5	2.69	1.9	1.61	1.19	1.95	0.25	1.19	1.97	0.62	1.99	0.88
2	6.5	0.88	3.62	3.31	8-0.75	5	2.75	2.38	2.07	1.31	2.44	0.31	1.31	2.46	0.69	2.5	1.12
2½	7.5	1	4.12	3.94	8-0.88	5.88	3	2.88	2.47	1.5	2.94	0.31	1.5	2.97	0.75	3	1.25
3	8.25	1.12	5	4.62	8-0.88	6.62	3.12	3.5	3.07	1.69	3.57	0.38	1.69	3.6	0.81	3.63	1.25
3½	9	1.19	5.5	5.25	8-0.88	7.25	3.19	4	3.55	1.75	4.07	0.38	1.75	4.1		4.13	1.44
4	10	1.25	6.19	5.75	8-0.88	7.88	3.38	4.5	4.03	1.88	4.57	0.44	1.88	4.6		4.63	1.44
5	11	1.38	7.31	7	8-0.88	9.25	3.88	5.56	5.05	2	5.66	0.44	2	5.69		5.69	1.69
6	12.5	1.44	8.5	8.12	12-0.88	10.62	3.88	6.63	6.07	2.06	6.72	0.5	2.06	6.75		6.75	1.81
8	15	1.62	10.62	10.25	12-1.00	13	4.38	8.63	7.98	2.44	8.72	0.5	2.44	8.75		8.75	2
10	17.5	1.88	12.75	12.62	16-1.12	15.25	4.62	10.75	10.02	2.62	10.88	0.5	3.75	10.92		10.88	2.19
12	20.5	2	15	14.75	16-1.25	17.75	5.12	12.75	12.00	2.88	12.88	0.5	4	12.92		12.94	2.38
14	23	2.12	16.25	16.75	20-1.25	20.25	5.62	14	13.25	3	14.14	0.5	4.38	14.18		14.19	2.5
16	25.5	2.25	18.5	19	20-1.38	22.5	5.75	16	15.25	3.25	16.16	0.5	4.75	16.19		16.19	2.69
18	28	2.38	21	21	24-1.38	24.75	6.25	18	17.25	3.5	18.18	0.5	5.12	18.2		18.19	2.75
20	30.5	2.5	23	23.12	24-1.38	27	6.38	20	19.25	3.75	20.2	0.5	5.5	20.25		20.19	2.88
22	33	2.63	25.25	25.25	24-1.63	29.25	6.5	22	21.25	4.00	22.22	0.5	5.75	22.25		22.19	3.13
24	36	2.75	27.25	27.62	24-1.62	32	6.62	24	23.25	4.19	24.25	0.5	6	24.25		24.19	3.25

Dimensions in inches.

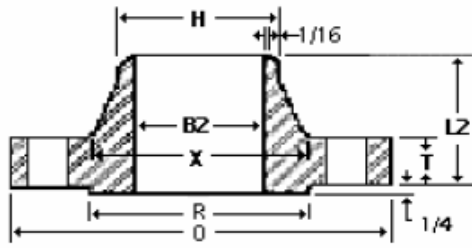
1- 1/16 in. raised face included in dimensions T, L and L<sub>2</sub>.

2- Bolt hole diameter 1/8 in. larger than bolt diameter.

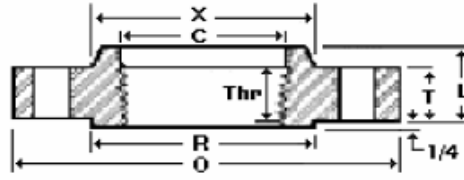
3- Standard Bore dimensions provided.

4- This dimension is commonly associated with "true" Lap Joints. Industry standard is to make to the slip on length thru the hub.

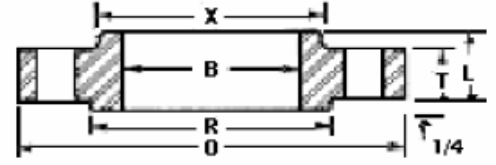
## ANSI B16.5 Class 600 Forged Flanges



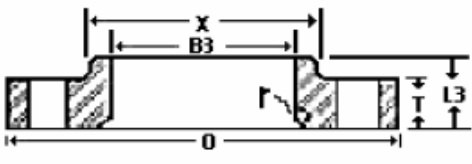
Weld Neck



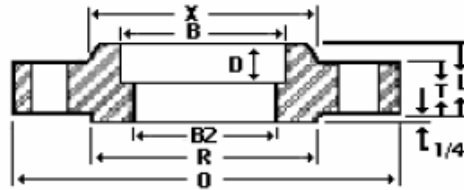
Threaded



Slip-On



Lap Joint



Socket Weld



Blind

Nom. Pipe Size	O	T <sub>1</sub>	R	X	No. and Dia. of Bolt Holes	Bolt Circle Dia.	L <sub>21</sub>	H	B <sub>2</sub>	L	B	r	L <sub>3</sub>	B <sub>3</sub>	D	C	Thr
1/2	3.75	0.56	1.38	1.5	4-0.62	2.62	2.06	0.84	To	0.88	0.88	0.12	0.88	0.9	0.38	0.93	0.62
3/4	4.62	0.62	1.69	1.88	4-0.75	3.25	2.25	1.05	Be	1	1.09	0.12	1	1.11	0.44	1.14	0.62
1	4.88	0.69	2	2.12	4-0.75	3.5	2.44	1.32	S	1.06	1.36	0.12	1.06	1.38	0.5	1.41	0.69
1 1/4	5.25	0.81	2.5	2.5	4-0.75	3.88	2.62	1.66	p	1.12	1.7	0.19	1.12	1.72	0.56	1.75	0.81
1 1/2	6.12	0.88	2.88	2.75	4-0.88	4.5	2.75	1.9	e	1.25	1.95	0.25	1.25	1.97	0.62	1.99	0.88
2	6.5	1	3.62	3.31	8-0.75	5	2.88	2.38	c	1.44	2.44	0.31	1.44	2.46	0.69	2.5	1.12
2 1/2	7.5	1.12	4.12	3.94	8-0.88	5.88	3.12	2.88	i	1.62	2.94	0.31	1.62	2.97	0.75	3	1.25
3	8.25	1.25	5	4.62	8-0.88	6.62	3.25	3.5	f	1.81	3.57	0.38	1.81	3.6	0.81	3.63	1.38
3 1/2	9	1.38	5.5	5.25	8-1.00	7.25	3.38	4	i	1.94	4.07	0.38	1.94	4.1		4.13	1.56
4	10.75	1.5	6.19	6	8-1.00	8.5	4	4.5	e	2.12	4.57	0.44	2.12	4.6		4.63	1.62
5	13	1.75	7.31	7.44	8-1.12	10.5	4.5	5.56	d	2.38	5.66	0.44	2.38	5.69		5.69	1.88
6	14	1.88	8.5	8.75	12-1.12	11.5	4.62	6.63	by	2.62	6.72	0.5	2.62	6.75		6.75	2
8	16.5	2.19	10.62	10.75	12-1.25	13.75	5.25	8.63	p	3	8.72	0.5	3	8.75		8.75	2.25
10	20	2.50	12.75	13.5	16-1.38	17	6	10.75	u	3.38	10.88	0.5	4.38	10.92		10.88	2.56
12	22	2.62	15	15.75	20-1.38	19.25	6.12	12.75	r	3.62	12.88	0.5	4.62	12.92		12.94	2.75
14	23.75	2.75	16.25	17	20-1.50	20.75	6.5	14	c	3.69	14.14	0.5	5	14.18		14.19	2.88
16	27	3.00	18.5	19.5	20-1.62	23.75	7	16	h	4.19	16.16	0.5	5.5	16.19		18.19	3.06
18	29.25	3.25	21	21.5	20-1.75	25.75	7.25	18	a	4.62	18.18	0.5	6	18.2		18.1	3.12
20	32	3.5	23	24	24-1.75	28.5	7.5	20	s	5	20.2	0.5	6.5	20.25		20.19	3.25
22	34.25	3.75	25.25	26.25	24-1.75	30.63	7.75	22	e	5.25	22.22	0.5	6.88	22.25		--	--
24	37	4	27.25	28.25	24-2.00	33	8	24	r	5.5	24.25	0.5	7.25	24.25		24.19	3.62

Dimensions in inches.

Sizes NPS 1/2 through 3-1/2 are same as Class 400 flanges.

1- 1/4 in. raised face not included in dimensions T, L and L<sub>2</sub>.

2- Bolt hole diameter 1/8 in. larger than bolt diameter.