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 **TUBE LINE®**
STAINLESS

 **TUBE TEC®**

 **BRITE LINE®**

ANSI Flange Catalog

ASME/ANSI B16.5
All Dimensions in Inches

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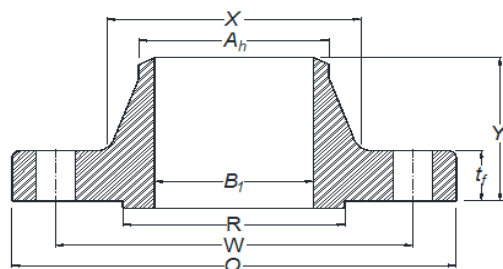
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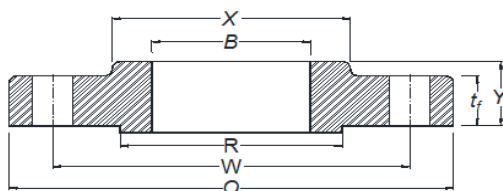
170 Tubeway Drive
Carol Stream, IL 60188
Phone 630-690-7000
Fax 630-690-9701

301 Brown Avenue
Sanford, FL 32771
Phone 407-323-0940
Fax 321-257-1005

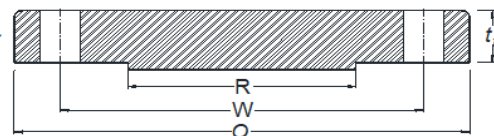
150# Flanges



WELDING NECK FLANGE



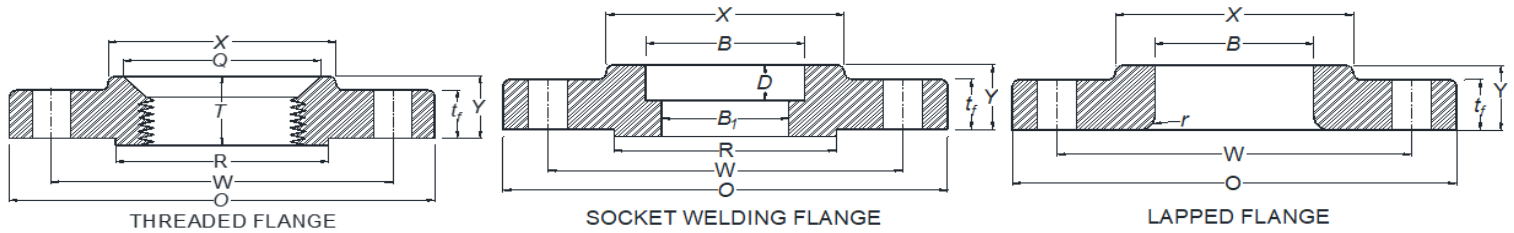
SLIP ON FLANGE



BLIND FLANGE

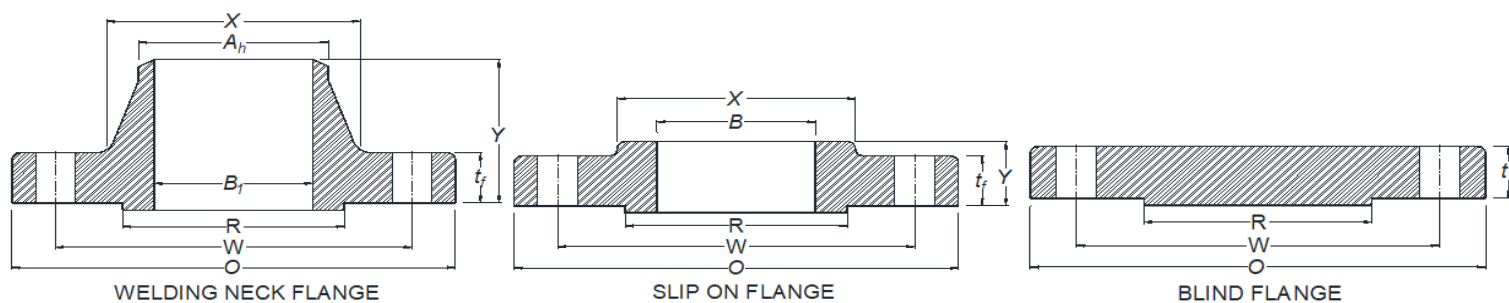
Nominal Pipe Size						Length Through Hub			Minimum Thread Length Threaded, T
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Minimum Thickness Lap Joint, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	
½	3.50	0.38	0.44	1.19	0.84	0.56	0.62	1.81	0.62
¾	3.88	0.44	0.50	1.50	1.05	0.56	0.62	2.00	0.62
1	4.25	0.50	0.56	1.94	1.32	0.62	0.69	2.12	0.69
1 ¼	4.62	0.56	0.62	2.31	1.66	0.75	0.81	2.19	0.81
1 ½	5.00	0.62	0.69	2.56	1.90	0.81	0.88	2.38	0.88
2	6.00	0.69	0.75	3.06	2.38	0.94	1.00	2.44	1.00
2 ½	7.00	0.81	0.88	3.56	2.88	1.06	1.12	2.69	1.12
3	7.50	0.88	0.94	4.25	3.50	1.12	1.19	2.69	1.19
3 ½	8.50	0.88	0.94	4.81	4.00	1.19	1.25	2.75	1.25
4	9.00	0.88	0.94	5.31	4.50	1.25	1.31	2.94	1.31
5	10.00	0.88	0.94	6.44	5.56	1.38	1.44	3.44	1.44
6	11.00	0.94	1.00	7.56	6.63	1.50	1.56	3.44	1.56
8	13.50	1.06	1.12	9.69	8.63	1.69	1.75	3.94	1.75
10	16.00	1.12	1.19	12.00	10.75	1.88	1.94	3.94	1.94
12	19.00	1.19	1.25	14.38	12.75	2.12	2.19	4.44	2.19
14	21.00	1.31	1.38	15.75	14.00	2.19	3.12	4.94	2.25
16	23.50	1.38	1.44	18.00	16.00	2.44	3.44	4.94	2.50
18	25.00	1.50	1.56	19.88	18.00	2.62	3.81	5.44	2.69
20	27.50	1.62	1.69	22.00	20.00	2.81	4.06	5.62	2.88
24	32.00	1.81	1.88	26.12	24.00	3.19	4.38	5.94	3.25

150# Flanges



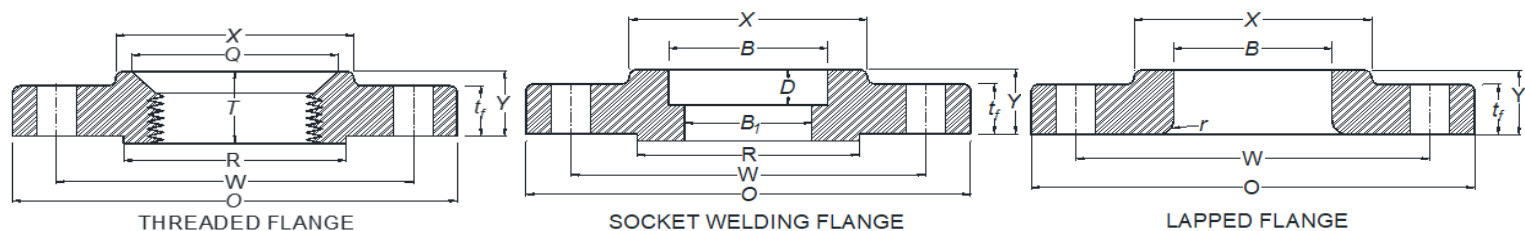
Bore								
Nominal Pipe Size	Minimum Slip - On / Socket Welding, B	Minimum Lapped, B	Welding Neck / Socket Welding, B ₁	Corner Bore Radius of Lapped Flange and Pipe, r	Depth of Socket, D	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	0.88	0.90	To Be Specified By Purchaser	0.12	0.38	1.38	2.38	4 / 0.62
¾	1.09	1.11		0.12	0.44	1.69	2.75	4 / 0.62
1	1.36	1.38		0.12	0.50	2.00	3.12	4 / 0.62
1 ¼	1.70	1.72		0.19	0.56	2.50	3.50	4 / 0.62
1 ½	1.95	1.97		0.25	0.62	2.88	3.88	4 / 0.62
2	2.44	2.46		0.31	0.69	3.62	4.75	4 / 0.75
2 ½	2.94	2.97		0.31	0.75	4.12	5.50	4 / 0.75
3	3.57	3.60		0.38	0.81	5.00	6.00	4 / 0.75
3 ½	4.07	4.10		0.38	...	5.50	7.00	8 / 0.75
4	4.57	4.60		0.44	...	6.19	7.50	8 / 0.75
5	5.66	5.69		0.44	...	7.31	8.50	8 / 0.88
6	6.72	6.75		0.50	...	8.50	9.50	8 / 0.88
8	8.72	8.75		0.50	...	10.62	11.75	8 / 0.88
10	10.88	10.92		0.50	...	12.75	14.25	12 / 1.00
12	12.88	12.92		0.50	...	15.00	17.00	12 / 1.00
14	14.14	14.18		0.50	...	16.25	18.75	12 / 1.12
16	16.16	16.19		0.50	...	18.50	21.25	16 / 1.12
18	18.18	18.20		0.50	...	21.00	22.75	16 / 1.25
20	20.20	20.25		0.50	...	23.00	25.00	20 / 1.25
24	24.25	24.25		0.50	...	27.25	29.50	20 / 1.38

300# Flanges



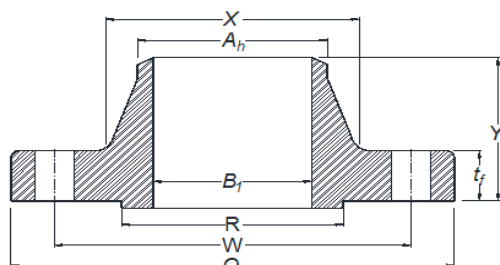
Nominal Pipe Size						Length Through Hub			
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Minimum Thickness Lap Joint, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	Minimum Thread Length Threaded, T
½	3.75	0.50	0.56	1.50	0.84	0.81	0.88	2.00	0.62
¾	4.62	0.56	0.62	1.88	1.05	0.94	1.00	2.19	0.62
1	4.88	0.62	0.69	2.12	1.32	1.00	1.06	2.38	0.69
1 ¼	5.25	0.69	0.75	2.50	1.66	1.00	1.06	2.50	0.81
1 ½	6.12	0.75	0.81	2.75	1.90	1.13	1.19	2.63	0.88
2	6.50	0.81	0.88	3.31	2.38	1.25	1.31	2.69	1.12
2 ½	7.50	0.94	1.00	3.94	2.88	1.44	1.50	2.94	1.25
3	8.25	1.06	1.12	4.62	3.50	1.63	1.69	3.06	1.25
3 ½	9.00	1.12	1.19	5.25	4.00	1.69	1.75	3.13	1.44
4	10.00	1.19	1.25	5.75	4.50	1.82	1.88	3.32	1.44
5	11.00	1.31	1.38	7.00	5.56	1.94	2.00	3.82	1.69
6	12.50	1.38	1.44	8.12	6.63	2.00	2.06	3.82	1.81
8	15.00	1.56	1.62	10.25	8.63	2.38	2.44	4.32	2.00
10	17.50	1.81	1.88	12.62	10.75	2.56	3.75	4.56	2.19
12	20.50	1.94	2.00	14.75	12.75	2.82	4.00	5.06	2.38
14	23.00	2.06	2.12	16.75	14.00	2.94	4.38	5.56	2.50
16	25.50	2.19	2.25	19.00	16.00	3.19	4.75	5.69	2.69
18	28.00	2.31	2.38	21.00	18.00	3.44	5.12	6.19	2.75
20	30.50	2.44	2.50	23.12	20.00	3.69	5.50	6.32	2.88
24	36.00	2.69	2.75	27.62	24.00	4.13	6.00	6.56	3.25

300# Flanges

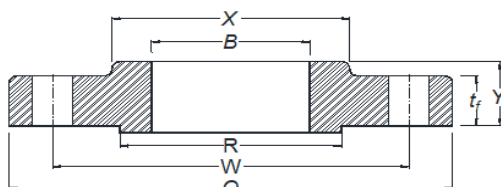


Nominal Pipe Size	Bore								
	Minimum Slip - On Socket Welding, B	Minimum Lapped, B	Welding Neck / Socket Welding, B ₁	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q	Depth of Socket, D	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	0.88	0.90	To Be Specified By Purchaser	0.12	0.93	0.38	1.38	2.62	4 / 0.62
¾	1.09	1.11		0.12	1.14	0.44	1.69	3.25	4 / 0.75
1	1.36	1.38		0.12	1.41	0.50	2.00	3.50	4 / 0.75
1 ¼	1.70	1.72		0.19	1.75	0.56	2.50	3.88	4 / 0.75
1 ½	1.95	1.97		0.25	1.98	0.62	2.88	4.50	4 / 0.88
2	2.44	2.46		0.31	2.50	0.69	3.62	5.00	8 / 0.75
2 ½	2.94	2.97		0.31	3.00	0.75	4.12	5.88	8 / 0.88
3	3.57	3.60		0.38	3.63	0.81	5.00	6.62	8 / 0.88
3 ½	4.07	4.10		0.38	4.13	...	5.50	7.25	8 / 0.88
4	4.57	4.60		0.44	4.63	...	6.19	7.88	8 / 0.88
5	5.66	5.69		0.44	5.69	...	7.31	9.25	8 / 0.88
6	6.72	6.75		0.50	6.75	...	8.50	10.62	12 / 0.88
8	8.72	8.75		0.50	8.75	...	10.62	13.00	12 / 1.00
10	10.88	10.92		0.50	10.88	...	12.75	15.25	16 / 1.12
12	12.88	12.92		0.50	12.94	...	15.00	17.75	16 / 1.25
14	14.14	14.18		0.50	14.19	...	16.25	20.25	20 / 1.25
16	16.16	16.19		0.50	16.19	...	18.50	22.50	20 / 1.38
18	18.18	18.20		0.50	18.19	...	21.00	24.75	24 / 1.38
20	20.20	20.25		0.50	20.19	...	23.00	27.00	24 / 1.38
24	24.25	24.25		0.50	24.19	...	27.25	32.00	24 / 1.62

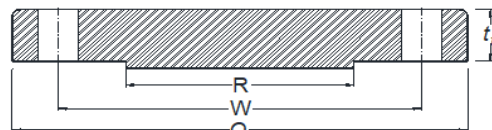
600# Flanges



WELDING NECK FLANGE



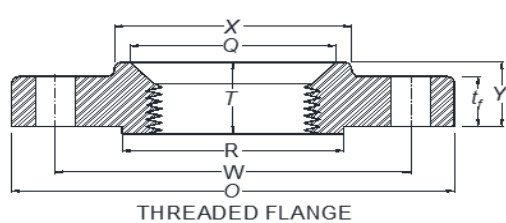
SLIP ON FLANGE



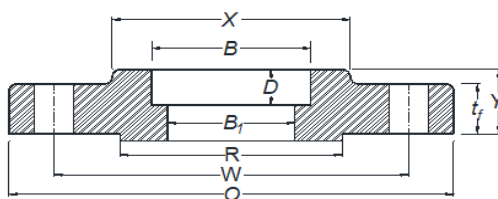
BLIND FLANGE

Nominal Pipe Size					Length Through Hub			Minimum Thread Length Threaded, T
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	
½	3.75	0.56	1.50	0.84	0.88	0.88	2.06	0.62
¾	4.62	0.62	1.88	1.05	1.00	1.00	2.25	0.62
1	4.88	0.69	2.12	1.32	1.06	1.06	2.44	0.69
1 ¼	5.25	0.81	2.50	1.66	1.12	1.12	2.62	0.81
1 ½	6.12	0.88	2.75	1.90	1.25	1.25	2.75	0.88
2	6.50	1.00	3.31	2.38	1.44	1.44	2.88	1.12
2 ½	7.50	1.12	3.94	2.88	1.62	1.62	3.12	1.25
3	8.25	1.25	4.62	3.50	1.81	1.81	3.25	1.38
3 ½	9.00	1.38	5.25	4.00	1.94	1.94	3.38	1.56
4	10.75	1.50	6.00	4.50	2.12	2.12	4.00	1.62
5	13.00	1.75	7.44	5.56	2.38	2.38	4.50	1.88
6	14.00	1.88	8.75	6.63	2.62	2.62	4.62	2.00
8	16.50	2.19	10.75	8.63	3.00	3.00	5.25	2.25
10	20.00	2.50	13.50	10.75	3.38	4.38	6.00	2.56
12	22.00	2.62	15.75	12.75	3.62	4.62	6.12	2.75
14	23.75	2.75	17.00	14.00	3.69	5.00	6.50	2.88
16	27.00	3.00	19.50	16.00	4.19	5.50	7.00	3.06
18	29.25	3.25	21.50	18.00	4.62	6.00	7.25	3.12
20	32.00	3.50	24.00	20.00	5.00	6.50	7.50	3.25
24	37.00	4.00	28.25	24.00	5.50	7.25	8.00	3.62

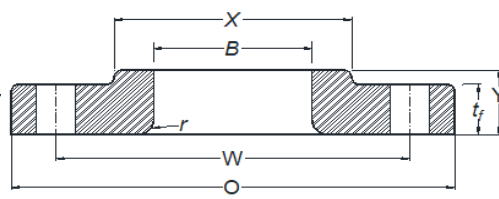
600# Flanges



THREADED FLANGE



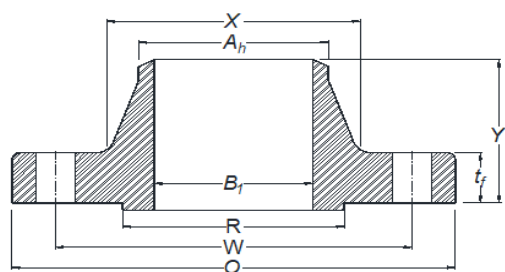
SOCKET WELDING FLANGE



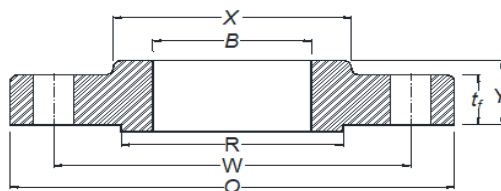
LAPPED FLANGE

Nominal Pipe Size	Bore								
	Minimum Slip - On / Socket Welding, B	Minimum Lapped, B	Welding Neck / Socket Welding, B ₁	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q	Depth of Socket, D	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	0.88	0.90	To Be Specified By Purchaser	0.12	0.93	0.38	1.38	2.62	4 / 0.62
¾	1.09	1.11		0.12	1.14	0.44	1.69	3.25	4 / 0.75
1	1.36	1.38		0.12	1.41	0.50	2.00	3.50	4 / 0.75
1 ¼	1.70	1.72		0.19	1.75	0.56	2.50	3.88	4 / 0.75
1 ½	1.95	1.97		0.25	1.99	0.62	2.88	4.50	4 / 0.88
2	2.44	2.46		0.31	2.50	0.69	3.62	5.00	8 / 0.75
2 ½	2.94	2.97		0.31	3.00	0.75	4.12	5.88	8 / 0.88
3	3.57	3.60		0.38	3.63	0.81	5.00	6.62	8 / 0.88
3 ½	4.07	4.10		0.38	4.13	...	5.50	7.25	8 / 1.00
4	4.57	4.60		0.44	4.63	...	6.19	8.50	8 / 1.00
5	5.66	5.69		0.44	5.69	...	7.31	10.50	8 / 1.12
6	6.72	6.75		0.50	6.75	...	8.50	11.50	12 / 1.12
8	8.72	8.75		0.50	8.75	...	10.62	13.75	12 / 1.25
10	10.88	10.92		0.50	10.88	...	12.75	17.00	16 / 1.38
12	12.88	12.92		0.50	12.94	...	15.00	19.25	20 / 1.38
14	14.14	14.18		0.50	14.19	...	16.25	20.75	20 / 1.50
16	16.16	16.19		0.50	16.19	...	18.50	23.75	20 / 1.62
18	18.18	18.20		0.50	18.19	...	21.00	25.75	20 / 1.75
20	20.20	20.25		0.50	20.19	...	23.00	28.50	24 / 1.75
24	24.25	24.25		0.50	24.19	...	27.25	33.00	24 / 2.00

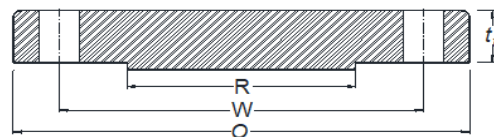
900# Flanges



WELDING NECK FLANGE



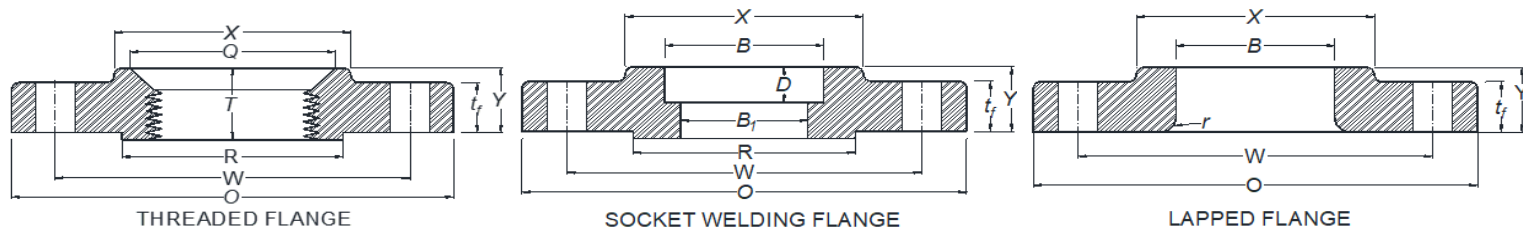
SLIP ON FLANGE



BLIND FLANGE

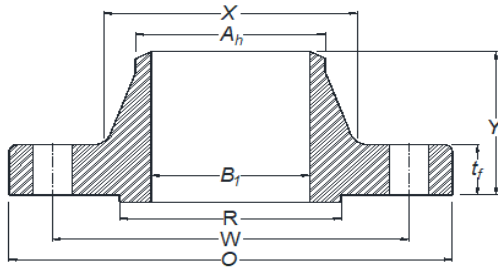
Nominal Pipe Size					Length Through Hub			
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	Minimum Thread Length Threaded, T
½	Use Class 1500 Dimensions in These Sizes							
¾								
1								
1 ¼								
1 ½								
2								
2 ½								
3	9.50	1.50	5.00	3.50	2.12	2.12	4.00	1.62
4	11.50	1.75	6.25	4.50	2.75	2.75	4.50	1.88
5	13.75	2.00	7.50	5.56	3.12	3.12	5.00	2.12
6	15.00	2.19	9.25	6.63	3.38	3.38	5.50	2.25
8	18.50	2.50	11.75	8.63	4.00	4.50	6.38	2.50
10	21.50	2.75	14.50	10.75	4.25	5.00	7.25	2.81
12	24.00	3.12	16.50	12.75	4.62	5.62	7.88	3.00
14	25.25	3.38	17.75	14.00	5.12	6.12	8.38	3.25
16	27.75	3.50	20.00	16.00	5.25	6.50	8.50	3.38
18	31.00	4.00	22.25	18.00	6.00	7.50	9.00	3.50
20	33.75	4.25	24.50	20.00	6.25	8.25	9.75	3.62
24	41.00	5.50	29.50	24.00	8.00	10.50	11.50	4.00

900# Flanges

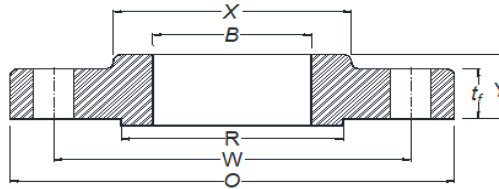


Nominal Pipe Size	Bore								
	Minimum Slip - On / Socket Welding, B	Minimum Lapped, B	Welding Neck / Socket Welding, B ₁	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q	Depth of Socket, D	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	Use Class 1500 Dimensions in These Sizes								
¾									
1									
1 ¼									
1 ½									
2									
2 ½									
3	3.57	3.60	To Be Specified By Purchaser	0.38	3.63	...	5.00	7.50	8 / 1.00
4	4.57	4.60		0.44	4.63	...	6.19	9.25	8 / 1.25
5	5.66	5.69		0.44	5.69	...	7.31	11.00	8 / 1.38
6	6.72	6.75		0.50	6.75	...	8.50	12.50	12 / 1.25
8	8.72	8.75		0.50	8.75	...	10.62	15.50	12 / 1.50
10	10.88	10.92		0.50	10.88	...	12.75	18.50	16 / 1.50
12	12.88	12.92		0.50	12.94	...	15.00	21.00	20 / 1.50
14	14.14	14.18		0.50	14.19	...	16.25	22.00	20 / 1.62
16	16.16	16.19		0.50	16.19	...	18.50	24.25	20 / 1.75
18	18.18	18.20		0.50	18.19	...	21.00	27.00	20 / 2.00
20	20.20	20.25		0.50	20.19	...	23.00	29.50	20 / 2.12
24	24.25	24.25		0.50	24.19	...	27.25	35.50	20 / 2.62

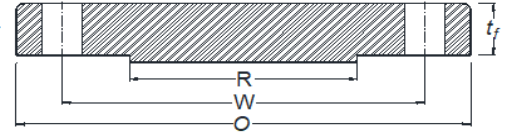
1500# Flanges



WELDING NECK FLANGE



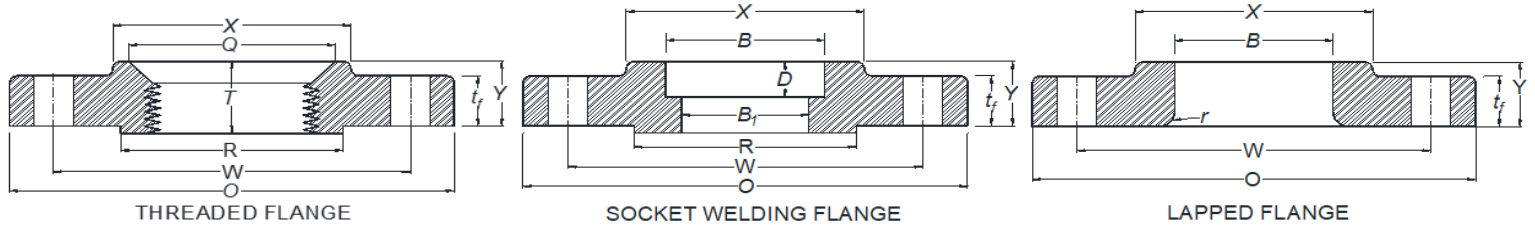
SLIP ON FLANGE



BLIND FLANGE

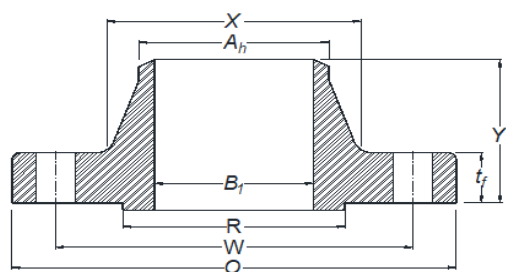
Nominal Pipe Size					Length Through Hub			Minimum Thread Length Threaded, T
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	
½	4.75	0.88	1.50	0.84	1.25	1.25	2.38	0.88
¾	5.12	1.00	1.75	1.05	1.38	1.38	2.75	1.00
1	5.88	1.12	2.06	1.32	1.62	1.62	2.88	1.12
1 ¼	6.25	1.12	2.50	1.66	1.62	1.62	2.88	1.19
1 ½	7.00	1.25	2.75	1.90	1.75	1.75	3.25	1.25
2	8.50	1.50	4.12	2.38	2.25	2.25	4.00	1.50
2 ½	9.62	1.62	4.88	2.88	2.50	2.50	4.12	1.88
3	10.50	1.88	5.25	3.50	...	2.88	4.62	...
4	12.25	2.12	6.38	4.50	...	3.56	4.88	...
5	14.75	2.88	7.75	5.56	...	4.12	6.12	...
6	15.50	3.25	9.00	6.63	...	4.69	6.75	...
8	19.00	3.62	11.50	8.63	...	5.62	8.38	...
10	23.00	4.25	14.50	10.75	...	7.00	10.00	...
12	26.50	4.88	17.75	12.75	...	8.62	11.12	...
14	29.50	5.25	19.50	14.00	...	9.50	11.75	...
16	32.50	5.75	21.75	16.00	...	10.25	12.25	...
18	36.00	6.38	23.50	18.00	...	10.88	12.88	...
20	38.75	7.00	25.25	20.00	...	11.50	14.00	...
24	46.00	8.00	30.00	24.00	...	13.00	16.00	...

1500# Flanges

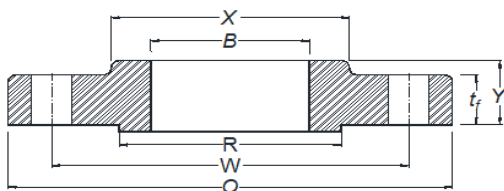


Bore									
Nominal Pipe Size	Minimum Slip - On / Socket Welding, B	Welding Neck / Socket Welding, B ₁	Welding Neck / Socket Welding, B	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q	Depth of Socket, D	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	0.88	To Be Specified By Purchaser	To Be Specified By Purchaser	0.12	0.93	0.38	1.38	3.25	4 / 0.88
¾	1.09			0.12	1.14	0.44	1.69	3.50	4 / 0.88
1	1.36			0.12	1.41	0.50	2.00	4.00	4 / 1.00
1 ¼	1.70			0.19	1.75	0.56	2.50	4.38	4 / 1.00
1 ½	1.95			0.25	1.99	0.62	2.88	4.88	4 / 1.12
2	2.44			0.31	2.50	0.69	3.62	6.50	8 / 1.00
2 ½	2.94			0.31	3.00	0.75	4.12	7.50	8 / 1.12
3	...			0.38	...	...	5.00	8.00	8 / 1.12
4	...			0.44	...	...	6.19	9.50	8 / 1.38
5	...			0.44	...	...	7.31	11.50	8 / 1.62
6	...			0.50	...	...	8.50	12.50	12 / 1.50
8	...			0.50	...	...	10.62	15.50	12 / 1.75
10	...			0.50	...	...	12.75	19.00	12 / 2.00
12	...			0.50	...	...	15.00	22.50	16 / 2.12
14	...			0.50	...	...	16.25	25.00	16 / 2.38
16	...			0.50	...	...	18.50	27.75	16 / 2.62
18	...			0.50	...	...	21.00	30.50	16 / 2.88
20	...			0.50	...	...	23.00	32.75	16 / 3.12
24	...			0.50	...	...	27.25	39.00	16 / 3.62

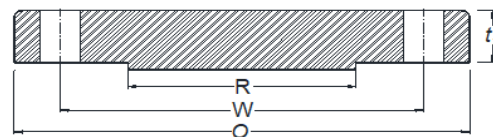
2500# Flanges



WELDING NECK FLANGE



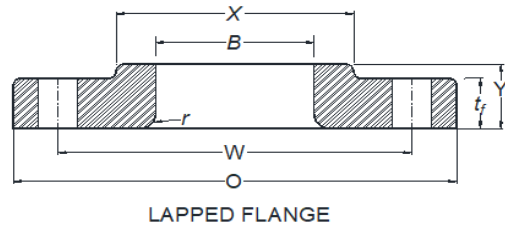
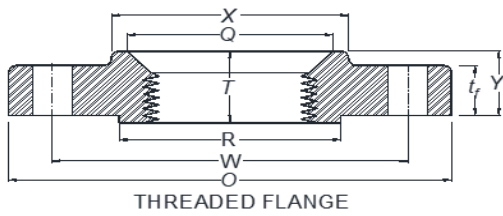
SLIP ON FLANGE



BLIND FLANGE

Nominal Pipe Size					Length Through Hub			Minimum Thread Length Threaded, T
	Outside Diameter of Flange, O	Minimum Thickness of Flange, t _f	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A _h	Threaded / Slip-On / Socket Welding, Y	Lapped, Y	Welding Neck, Y	
½	5.25	1.19	1.69	0.84	1.56	1.56	2.88	1.12
¾	5.50	1.25	2.00	1.05	1.69	1.69	3.12	1.25
1	6.25	1.38	2.25	1.32	1.88	1.88	3.50	1.38
1 ¼	7.25	1.50	2.88	1.66	2.06	2.06	3.75	1.50
1 ½	8.00	1.75	3.12	1.90	2.38	2.38	4.38	1.75
2	9.25	2.00	3.75	2.38	2.75	2.75	5.00	2.00
2 ½	10.50	2.25	4.50	2.88	3.12	3.12	5.62	2.25
3	12.00	2.62	5.25	3.50	...	3.62	6.62	...
4	14.00	3.00	6.50	4.50	...	4.25	7.50	...
5	16.50	3.62	8.00	5.56	...	5.12	9.00	...
6	19.00	4.25	9.25	6.63	...	6.00	10.75	...
8	21.75	5.00	12.00	8.63	...	7.00	12.50	...
10	26.50	6.50	14.75	10.75	...	9.00	16.50	...
12	30.00	7.25	17.38	12.75	...	10.00	18.25	...

2500# Flanges



Bore							
Nominal Pipe Size	Minimum Lapped, B	Welding Neck / Socket Welding, B ₁	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q	Raised Face Diameter R	Bolt Circle Diameter W	Bolt Hole Qty / Dia
½	0.90	To Be Specified By Purchaser	0.12	0.93	1.38	3.50	4 / 0.88
¾	1.11		0.12	1.14	1.69	3.75	4 / 0.88
1	1.38		0.12	1.41	2.00	4.25	4 / 1.00
1 ¼	1.72		0.19	1.75	2.50	5.12	4 / 1.12
1 ½	1.97		0.25	1.99	2.88	5.75	4 / 1.25
2	2.46		0.31	2.50	3.62	6.75	8 / 1.12
2 ½	2.97		0.31	3.00	4.12	7.75	8 / 1.12
3	3.60		0.38	...	5.00	9.00	8 / 1.38
4	4.60		0.44	...	6.19	10.75	8 / 1.62
5	5.69		0.44	...	7.31	12.75	8 / 1.88
6	6.75		0.50	...	8.50	14.50	8 / 2.12
8	8.75		0.50	...	10.62	17.25	12 / 2.12
10	10.92		0.50	...	12.75	21.25	12 / 2.62
12	12.92		0.50	...	15.00	24.38	12 / 2.88

ANSI B16.5 Tolerances

	Nominal Pipe Size	Tolerance
Outside Diameter	1/2" - 24"	± 0.06"
Hub Diameter	1/2" - 5"	+ 0.09" / -0.03"
	6" - 24"	+ 0.16" / -0.03"
Overall Length	1/2" - 4"	± 0.06"
	5" - 10"	+ 0.06" / -0.12"
	12" - 24"	+ 0.12" / -0.18"
Flange Thickness	1/2" - 18"	+ 0.12" / -0.00"
	20" - 24"	+ 0.19" / -0.00"
Raised Face Diameter	1/2" - 24" (0.06" raised face)	± 0.03"
	1/2" - 24" (0.25" raised face)	± 0.02"
Bolt Circle Diameter	1/2" - 24"	± 0.06"
Center to Center of Adjacent Bolt Holes	1/2" - 24"	± 0.03"
Concentricity Between Bolt Circle Diameter and Machined Face Diameter	1/2" - 2 1/2"	± 0.03"
	3" - 24"	± 0.06"
Wall Thickness Weldneck	1/2" - 24"	Not Less Than 87 ½ Percent of the Specified Nominal Wall Thickness
Inside Diameter of Weldneck	1/2" - 10"	± 0.03"
	12"-18"	± 0.06"
	20"-24"	+ 0.12" / -0.06"
Counter Bore of Socket Weld	1/2" - 24"	± 0.01"
Lapped and Slip-On Flange Bores and Threaded Counter Bores	1/2" - 10"	± 0.03"
	12" - 24"	± 0.06"
Perpendicularity of Flange Face to the Bore	1/2" - 5"	1 Degree
	6" - 24"	.5 Degrees

ANSI Flange Weights

Nominal Pipe Size	Class 150				Class 300				Class 600			
	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind
½	2	1	1	2	2	1.5	1.5	2	2	2	2	2
¾	2	1.5	1.5	2	3	2.5	2.5	3	3.5	3	3	3
1	2.5	2	2	2	4	3	3	4	4	3.5	3.5	4
1 ¼	2.5	2.5	2.5	3	5	4.5	4.5	6	5.5	4.5	4.5	5
1 ½	4	3	3	3	7	6.5	6.5	7	8	6.5	6.5	7.5
2	6	5	5	4	8	7	7	8	10	8	8	9.5
2 ½	10	8	8	7	12	10	10	12	14.5	12	12	13.5
3	11.5	9	9	9	18	13	14.5	16	19	15.5	15.5	19
3 ½	12	11	11	13	20	16	16	21	24	20	20	25
4	16.5	13	12	17	26.5	23.5	24	28	38.5	32	32	39
5	21	15	13	20	36	29	26	37	64.5	54	54	65
6	26	17	18	27	45	36	38	48	77	64	65	80
8	42	28	28	47	69	56	55	79	119	96	95	130
10	54	40	36	67	100	77	88	122	191	155	155	215
12	88	61	60	123	142	113	139	183	227	186	190	273
14	114	83	77	139	206	159	184	241	269	217	220	333
16	142	106	104	187	249	210	234	315	374	313	319	471
18	165	109	146	217	306	253	305	414	449	381	390	599
20	197	148	159	283	369	307	375	640	560	485	496	769
24	268	204	195	415	519	490	530	800	789	687	700	1174

ANSI Flange Weights

Nominal Pipe Size	Class 900				Class 1500				Class 2500			
	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind	Weld Neck	Slip-On, Threaded, Socket Weld	Lap Joint	Blind
½					4.5	4	4	4	7	7	7	7
¾					6	6	6	6	8.5	8	8	8
1					8.5	8	8	8	11.5	11	11	11
1 ¼					9.5	9	9	10	17	16	16	17
1 ½					13.5	12	12	13	24	22	22	23
2					24	22	22	23	36	33	33	35
2 ½					33	31	31	31	52.5	48	48	50
3	30.5	26	26	29	44	40	40	43	80	72	72	77
4	50	44	44	60	66	62	62	66	122	117	117	119
5	83	71	71	81	122	114	114	129	204	183	183	200
6	105	91	92	104	151	135	137	158	315	282	282	311
8	179	156	158	182	258	227	231	269	474	414	414	471
10	262	223	229	269	427	306	310	463	894	782	782	905
12	346	293	306	381	634	582	593	696	1260	1110	1110	1304
14	379	337	355	454	837	786	804	925				
16	478	408	427	571	1068	992	1011	1229				
18	643	568	588	808	1419	1297	1317	1674				
20	797	698	736	1020	1707	1530	1568	2126				
24	1465	1335	1361	1930	2714	2375	2401	3432				