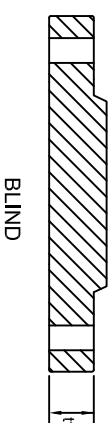
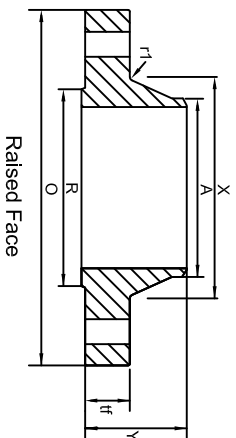


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SIZE		FLANGE				LENGTH THROUGH HUB					BORE			
	Outside Diameter of Flange	Thickness of Flange Min.,	Thickness of Lap Joint Min.	Diameter of Hub X	Diameter of Hub at point of welding A	Threaded Slip-on Socket Welding Y	Lapped Joint Y	Welding Neck Y	Thread Length Threaded Min., T	Slip-on Socket Welding Min., B	Lapped Joint Min., B	Welding Neck Socket Welding B	Corner Radius of Bore of Lapped Joint Flange and Pipe r	Depth of Socket D
Nominal Pipe Size	O	[Note (2)-(4)]			[note (5)]				[Note 6]			[Note (7)]		
1/2	3.50	0.38	0.44	1.19	0.84	0.56	0.62	1.81	0.62	0.88	0.90	0.62	0.12	0.38
3/4	3.88	0.44	0.50	1.50	1.05	0.56	0.62	2.00	0.62	1.09	1.11	0.82	0.12	0.44
1	4.25	0.50	0.56	1.94	1.32	0.62	0.69	2.12	0.69	1.36	1.38	1.05	0.12	0.50
1 1/4	4.62	0.56	0.62	2.31	1.66	0.75	0.81	2.19	0.81	1.70	1.72	1.38	0.19	0.56
1 1/2	5.00	0.62	0.69	2.56	1.90	0.81	0.88	2.38	0.88	1.95	1.97	1.61	0.25	0.62
2	6.00	0.69	0.75	3.06	2.38	0.94	1.00	2.44	1.00	2.44	2.46	2.07	0.31	0.69
2 1/2	7.00	0.81	0.88	3.56	2.88	1.06	1.12	2.69	1.12	2.94	2.97	2.47	0.31	0.75
3	7.50	0.88	0.94	4.25	3.50	1.12	1.19	2.69	1.19	3.57	3.60	3.07	0.38	0.81
3 1/2	8.50	0.88	0.94	4.81	4.00	1.19	1.25	2.75	1.25	4.07	4.10	3.55	0.38	...
4	9.00	0.88	0.94	5.31	4.50	1.25	1.31	2.94	1.31	4.57	4.60	4.03	0.44	...
5	10.00	0.88	0.94	6.44	5.56	1.38	1.44	3.44	1.44	5.66	5.69	5.05	0.44	...
6	11.00	0.94	1.00	7.56	6.63	1.50	1.56	3.44	1.56	6.72	6.75	6.07	0.50	...
8	13.50	1.06	1.12	9.69	8.63	1.69	1.75	3.94	1.75	8.72	8.75	7.98	0.50	...
10	16.00	1.12	1.19	12.00	10.75	1.88	1.94	3.94	1.94	10.88	10.92	10.02	0.50	...
12	19.00	1.19	1.25	14.38	12.75	2.12	2.19	4.44	2.19	12.88	12.92	12.00	0.50	...
14	21.00	1.31	1.38	15.75	14.00	2.19	3.12	4.94	2.25	14.14	14.18	To	0.50	...
16	23.50	1.38	1.44	18.00	16.00	2.44	3.44	4.94	2.50	16.16	16.19	be	0.50	...
18	25.00	1.50	1.56	19.88	18.00	2.62	3.81	5.44	2.69	18.18	18.20	Specified	0.50	...
20	27.50	1.62	1.69	22.00	20.00	2.81	4.06	5.62	2.88	20.20	20.25	by	0.50	...
24	32.00	1.81	1.88	26.12	24.00	3.19	4.38	5.94	3.25	24.25	24.25	Purchaser	0.50	...

NOTES:

- GENERAL NOTES:**
- (a) Dimensions are in inches.
 - (b) For tolerances, see para. 7.
 - (c) For facings, see para. 6.4.
 - (d) For flange bolt holes, see para. 6.5 and Table F7.
 - (e) For spot facing, see para. 6.6.
 - (f) For reducing threaded and slip-on flanges, see Table F6.
 - (g) Blind flanges may be made with or without hubs at the manufacturer's option.
 - (h) For reducing welding neck flanges, see para. 6.8.
- (1) This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges.
- (2) The minimum thickness of these loose flanges, in sizes NPS 3 1/2 and smaller, is slightly greater than the thickness of flanges on fittings, Table F9, which are reinforced by being cast integral with the body of the fitting.
- (3) When these flanges are required with flat face. The flat face may be either the full ft dimension of thickness plus 0.06 in., or the ft dimension thickness without the raised face height. See para. 6.3.2 for additional restrictions.
- (4) The flange dimensions illustrated are for regularly furnished 0.06 in. raised face (except lapped); for requirements of other facings, see Fig F7
- (5) For welding end bevel, see para. 6.7.
- (6) For thread of threaded flanges, see para. 6.9
- (7) Dimensions in Column 13 correspond to the inside diameters of pipe as given in ASME B36.10M for Standard Wall pipe. Thickness of Standard Wall is the same as Schedule 40 in sizes NPS 10 and smaller. Tolerances in para. 7.5.2. apply. These bore sizes are apply. These bore sizes are furnished unless otherwise specked by the purchaser.



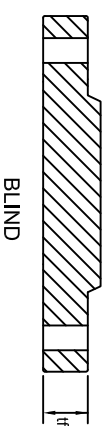
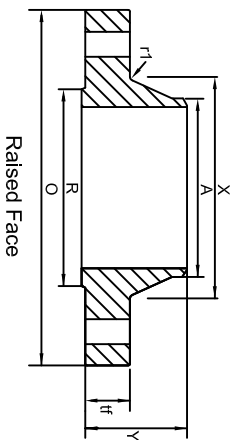
		Minimum Thickness of Flange, tf [Note(1)]										Hub			Drilling			Minimum Fillet	
Nominal Pipe Size	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Diam. Top, A [Note (3)]	Raised Face Diam., R	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Radius, r1							
26	34.25	2.63	2.63	4.69	26.62	26.00	29.50	31.75	24	1 3/8	1 1/4	0.38							
28	36.50	2.75	2.75	4.88	28.62	28.00	31.50	34.00	28	1 3/8	1 1/4	0.44							
30	38.75	2.88	2.88	5.32	30.75	30.00	33.75	36.00	28	1 3/8	1 1/4	0.44							
32	41.75	3.13	3.13	5.63	32.75	32.00	36.00	38.50	28	1 5/8	1 1/2	0.44							
34	43.75	3.19	3.19	5.82	34.75	34.00	38.00	40.50	32	1 5/8	1 1/2	0.50							
36	46.00	3.50	3.50	6.13	36.75	36.00	40.25	42.75	32	1 5/8	1 1/2	0.50							
38	48.75	3.38	3.38	6.13	39.00	38.00	42.25	45.25	32	1 5/8	1 1/2	0.50							
40	50.75	3.50	3.50	6.38	41.00	40.00	44.25	47.25	36	1 5/8	1 1/2	0.50							
42	53.00	3.75	3.75	6.69	43.00	42.00	47.00	49.50	36	1 5/8	1 1/2	0.50							
44	55.25	3.94	3.94	6.94	45.00	44.00	49.00	51.75	40	1 5/8	1 1/2	0.50							
46	57.25	4.00	4.00	7.25	47.12	46.00	51.00	53.75	40	1 5/8	1 1/2	0.50							
48	59.50	4.19	4.19	7.50	49.12	48.00	53.50	56.00	44	1 5/8	1 1/2	0.50							
50	61.75	4.32	4.32	7.94	51.25	50.00	55.50	58.25	44	1 7/8	1 3/4	0.50							
52	64.00	4.50	4.50	8.19	53.25	52.00	57.50	60.50	44	1 7/8	1 3/4	0.50							
54	66.25	4.69	4.69	8.44	55.25	54.00	59.50	62.75	44	1 7/8	1 3/4	0.50							
56	68.75	4.82	4.82	8.94	57.38	56.00	62.00	65.00	48	1 7/8	1 3/4	0.50							
58	71.00	5.00	5.00	9.19	59.38	58.00	64.00	67.25	48	1 7/8	1 3/4	0.50							
60	73.00	5.13	5.13	9.38	61.38	60.00	66.00	69.25	52	1 7/8	1 3/4	0.50							

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For facings, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.



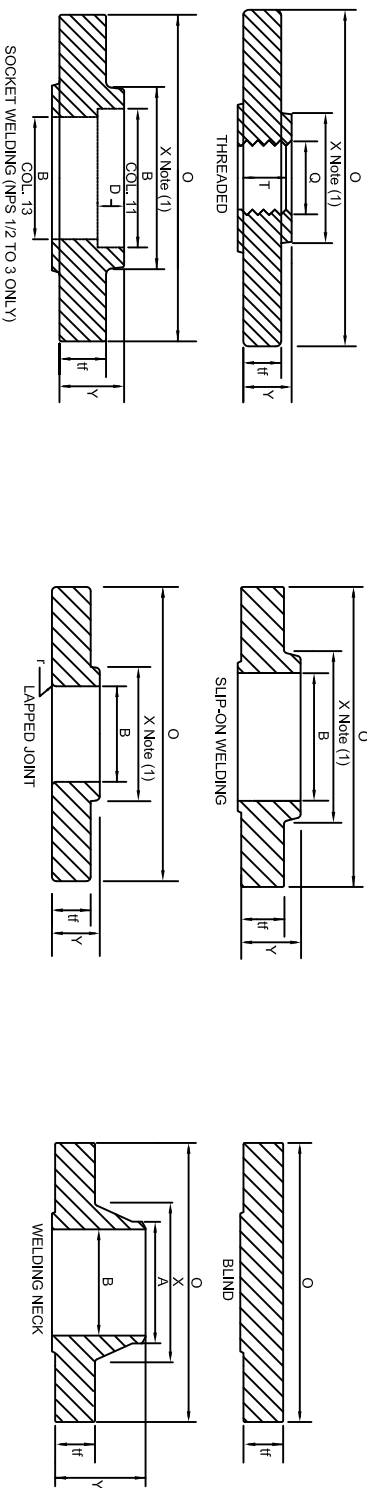
		Minimum Thickness of Flange, tf [Note(1)]			Hub			Drilling					
Nominal Pipe Size	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Diam. Top, A [Note (3)]	Raised Face Diam., R	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1	
26	30.94	1.57	1.69	3.44	26.94	26.06	28.00	29.31	36	7/8	3/4	0.38	
28	32.94	1.69	1.82	3.69	28.94	28.06	30.00	31.31	40	7/8	3/4	0.38	
30	34.94	1.69	1.94	3.88	31.00	30.06	32.00	33.31	44	7/8	3/4	0.38	
32	37.06	1.75	2.07	4.19	33.06	32.06	34.00	35.44	48	7/8	3/4	0.38	
34	39.56	1.88	2.19	4.28	35.12	34.06	36.25	37.69	40	1	7/8	0.38	
36	41.62	2.00	2.25	4.57	37.19	36.06	38.25	39.75	44	1	7/8	0.38	
38	44.25	2.07	2.44	4.82	39.25	38.12	40.25	42.12	40	1 1/8	1	0.38	
40	46.25	2.13	2.57	5.00	41.31	40.12	42.50	44.12	44	1 1/8	1	0.38	
42	48.25	2.25	2.63	5.19	43.38	42.12	44.50	46.12	48	1 1/8	1	0.44	
44	50.25	2.32	2.75	5.32	45.38	44.12	46.50	48.12	52	1 1/8	1	0.44	
46	52.81	2.38	2.88	5.63	47.44	46.12	48.62	50.56	40	1 1/4	1 1/8	0.44	
48	54.81	2.50	3.00	5.82	48.50	48.12	50.75	52.56	44	1 1/4	1 1/8	0.44	
50	56.81	2.63	3.13	6.00	51.50	50.12	52.75	54.56	48	1 1/4	1 1/8	0.44	
52	58.81	2.69	3.25	6.13	53.56	52.12	54.75	56.56	52	1 1/4	1 1/8	0.44	
54	61.00	2.75	3.38	6.32	55.62	54.12	56.75	58.75	56	1 1/4	1 1/8	0.44	
56	63.00	2.82	3.50	6.50	57.69	56.12	58.75	60.75	60	1 1/4	1 1/8	0.56	
58	65.94	2.88	3.62	6.82	59.69	58.12	60.75	63.44	48	1 3/8	1 1/4	0.56	
60	67.94	2.94	3.75	7.00	61.81	60.12	63.00	65.44	52	1 3/8	1 1/4	0.56	

GENERAL NOTES:

- (a) Dimensions are in inches.
- (b) For tolerances, see section 7.
- (c) For facings, see para. 6.1.
- (d) For flange bolt holes, see para. 6.2.
- (e) For spot facing, see para. 6.3.
- (f) The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- (g) Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

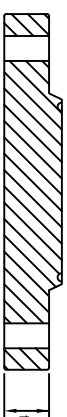
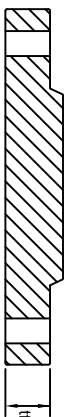
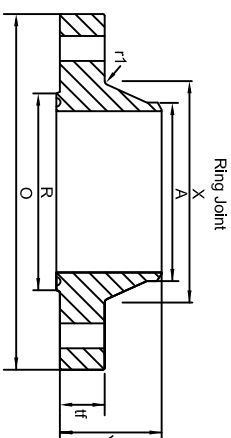
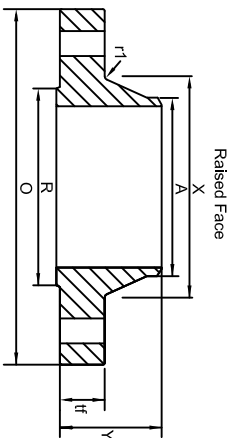
- (1) The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- (2) This dimension is for the large end of hub, which may be straight or tapered.
- (3) For welding and bevel, see para. 6.4.



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SIZE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE
		Thickness of Flange Min.,	Thickness of Lap Joint	Diameter of Hub	Diameter of Hub at point of welding	Threading Slip-on Socket Welding	Lapped Joint	Welding Neck	Thread Length	Slip-on Socket Welding	Lapped Joint	Welding Neck	Corner Radius of Bore of Lapped Joint	Counter-bore	Depth of
Nominal Pipe Size	O	[Note (2)-(4)]	tf	X	A	Y	Y	Y	T	Min.,	Min.,	B	Flange and	Flange	Socket
1/2	3.75	0.50	0.56	1.50	0.84	0.81	0.88	2.00	0.62	0.88	0.90	0.62	0.12	0.93	0.38
3/4	4.62	0.56	0.62	1.88	1.05	0.94	1.00	2.19	0.62	1.09	1.11	0.82	0.12	1.14	0.44
1	4.88	0.62	0.69	2.12	1.32	1.00	1.06	2.38	0.69	1.36	1.38	1.05	0.12	1.41	0.50
1 1/4	5.25	0.69	0.75	2.50	1.66	1.00	1.06	2.50	0.81	1.70	1.72	1.38	0.19	1.75	0.56
1 1/2	6.12	0.75	0.81	2.75	1.90	1.13	1.19	2.63	0.88	1.95	1.97	1.61	0.25	1.98	0.62
2	6.50	0.81	0.88	3.31	2.38	1.25	1.31	2.69	1.12	2.44	2.46	2.07	0.31	2.50	0.69
2 1/2	7.50	0.94	1.00	3.94	2.88	1.44	1.50	2.94	1.25	2.94	2.97	2.47	0.31	3.00	0.75
3	8.25	1.06	1.12	4.62	3.50	1.63	1.69	3.06	1.25	3.57	3.60	3.07	0.38	3.63	0.81
3 1/2	9.00	1.12	1.19	5.25	4.00	1.69	1.75	3.13	1.44	4.07	4.10	3.55	0.38	4.13	...
4	10.00	1.19	1.25	5.75	4.50	1.82	1.88	3.32	1.44	4.57	4.60	4.03	0.44	4.63	...
5	11.00	1.31	1.38	7.00	5.56	1.94	2.00	3.82	1.69	5.66	5.69	5.05	0.44	5.69	...
6	12.50	1.38	1.44	8.12	6.63	2.00	2.06	3.82	1.81	6.72	6.75	6.07	0.50	6.75	...
8	15.00	1.56	1.62	10.25	8.63	2.38	2.44	4.32	2.00	8.72	8.75	7.98	0.50	8.75	...
10	17.50	1.81	1.88	12.62	10.75	2.56	3.75	4.56	2.19	10.88	10.92	10.02	0.50	10.88	...
12	20.50	1.94	2.00	14.75	12.75	2.82	4.00	5.06	2.38	12.88	12.92	12.00	0.50	12.94	...
14	23.00	2.06	2.12	16.75	14.00	2.94	4.38	5.56	2.50	14.14	14.18	To	0.50	14.19	...
16	25.50	2.19	2.25	19.00	16.00	3.19	4.75	5.69	2.69	16.16	16.19	be	0.50	16.19	...
18	28.00	2.31	2.38	21.00	18.00	3.44	5.12	6.19	2.75	18.18	18.20	Specified	0.50	18.19	...
20	30.50	2.44	2.50	23.12	20.00	3.69	5.50	6.32	2.88	20.20	20.25	by	0.50	20.19	...
24	36.00	2.69	2.75	27.62	24.00	4.13	6.00	6.56	3.25	24.25	24.25	Purchaser	0.50	...	...

NOTES:

- (1) This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and the back face of the flange.
 - (2) These flanges may be supplied with a flat face. The flat face may be either the full flange dimension thickness plus 0.06 in. or the flange dimension thickness without the raised face height. See para. 6.3.2. for additional restrictions.
 - (3) The flange dimensions illustrated are for regularly furnished 0.06 in. raised face (except lapped); for requirements of other facings, see Fig F7
 - (4) For welding end bevel, see para. 6.7.
 - (5) For thread of threaded flanges, see para. 6.9
 - (6) Dimensions in Column 13 correspond to the inside diameters of pipe as give ASME B36.10M for Standard Wall pipe. Standard Wall dimensions are the same as Schedule 40 in sizes NPS 10 and smaller. Tolerances in para. 7.5.2 apply. These bore size are furnished unless otherwise specified by the purchaser.
- GENERAL NOTES:
- (a) Dimensions of Table are in inches.
 - (b) For tolerances, see para. 7.
 - (c) For facings, see para. 6.4.
 - (d) For flange bolt holes, see para. 6.5 and Table F10.
 - (e) For spot facing, see para. 6.6.
 - (f) For reducing threaded and slip-on flanges, see Table F6.
 - (g) Blind flanges may be made with or without hubs at the manufacturer's option.
 - (h) For reducing welding neck flanges, see para. 6.8.



		Minimum Thickness of Flange, tf [Note(1)]				Hub		Drilling						
Nominal Pipe	O.D. of	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet		
Size	Flange, O				[Note (2)]	[Note (3)]	Diam., R					Radius, r1		
26	38.25	3.07	3.25	7.19	28.38	26.00	29.50	34.50	28	1 3/4	1 5/8	0.38		
28	40.75	3.32	3.50	7.69	30.50	28.00	31.50	37.00	28	1 3/4	1 5/8	0.44		
30	43.00	3.57	3.69	8.19	32.56	30.00	33.75	39.25	28	1 7/8	1 3/4	0.44		
32	45.25	3.82	3.88	8.69	34.69	32.00	36.00	41.50	28	2	1 7/8	0.44		
34	47.50	3.94	4.07	9.07	36.88	34.00	38.00	43.50	28	2	1 7/8	0.50		
36	50.00	4.07	4.32	9.44	39.00	36.00	40.25	46.00	32	2 1/8	2	0.50		
38	46.00	4.19	4.19	7.06	39.12	38.00	40.50	43.00	32	1 5/8	1 1/2	0.50		
40	48.75	4.44	4.44	7.56	41.25	40.00	42.75	45.50	32	1 3/4	1 5/8	0.50		
42	50.75	4.63	4.63	7.82	43.25	42.00	44.75	47.50	32	1 3/4	1 5/8	0.50		
44	53.25	4.82	4.82	8.06	45.25	44.00	47.00	49.75	32	1 7/8	1 3/4	0.50		
46	55.75	5.00	5.00	8.44	47.38	46.00	49.00	52.00	28	2	1 7/8	0.50		
48	57.75	5.19	5.19	8.75	49.38	48.00	51.25	54.00	32	2	1 7/8	0.50		
50	60.25	5.44	5.44	9.07	51.38	50.00	53.50	56.25	32	2 1/8	2	0.50		
52	62.25	5.63	5.63	9.32	53.38	52.00	55.50	58.25	32	2 1/8	2	0.50		
54	65.25	5.94	5.94	9.88	55.50	54.00	57.75	61.00	28	2 3/8	2 1/4	0.50		
56	67.25	6.00	6.00	10.19	57.62	56.00	59.75	63.00	28	2 3/8	2 1/4	0.50		
58	69.25	6.19	6.19	10.44	59.62	58.00	62.00	65.00	32	2 3/8	2 1/4	0.50		
60	71.25	6.38	6.38	10.69	61.62	60.00	64.00	67.00	32	2 3/8	2 1/4	0.50		

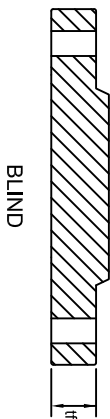
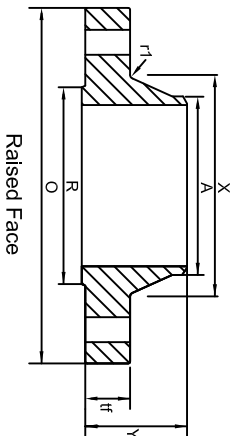
GENERAL NOTES:

- (a) Dimensions are in inches.
- (b) For tolerances, see section 7.
- (c) For facings, see para. 6.1.
- (d) For flange bolt holes, see para. 6.2.
- (e) For spot facing, see para. 6.3.
- (f) The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- (g) Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- (1) The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- (2) This dimension is for the large end of hub, which may be straight or tapered.
- (3) For welding and bevel, see para. 6.4.

FLANGES CLASS 300 SERIES B



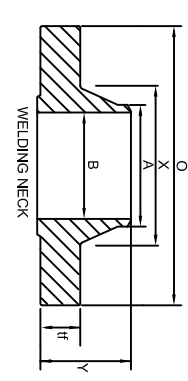
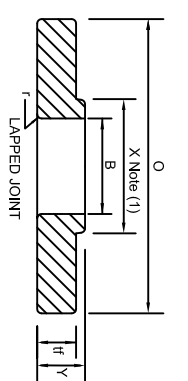
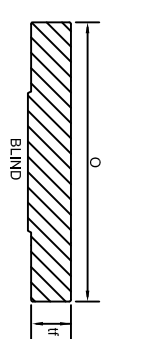
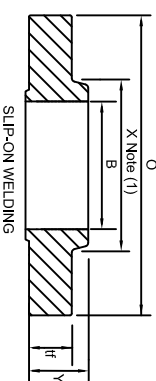
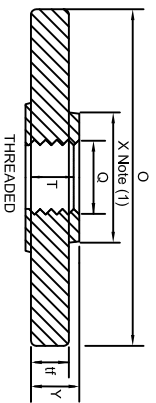
		Minimum Thickness of Flange, tf [Note(1)]			Hub			Drilling					
Nominal Pipe Size	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Diam. Top, A [Note (3)]	Raised Face Diam., R	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1	
26	34.12	3.44	3.44	5.63	27.62	26.19	29.00	31.62	32	1 3/8	1 1/4	0.56	
28	36.25	3.44	3.44	5.81	29.75	28.19	31.00	33.75	36	1 3/8	1 1/4	0.56	
30	39.00	3.63	3.63	6.16	32.00	30.25	33.25	36.25	36	1 1/2	1 3/8	0.56	
32	41.50	4.00	4.00	6.56	34.00	32.25	35.50	38.50	32	1 5/8	1 1/2	0.62	
34	43.62	4.00	4.00	6.75	36.12	34.25	37.50	40.62	36	1 5/8	1 1/2	0.62	
36	46.12	4.00	4.00	7.06	38.00	36.25	39.75	42.88	32	1 3/4	1 5/8	0.62	
38	48.12	4.31	4.31	7.50	40.00	38.25	41.75	44.88	36	1 3/4	1 5/8	0.62	
40	50.12	4.50	4.50	7.75	42.00	40.25	43.88	46.88	40	1 3/4	1 5/8	0.62	
42	52.50	4.63	4.63	8.00	44.00	42.31	46.00	49.00	36	1 7/8	1 3/4	0.62	
44	54.50	4.94	4.94	8.38	46.19	44.31	48.00	51.00	40	1 7/8	1 3/4	0.62	
46	57.50	5.00	5.06	8.69	48.38	46.31	50.00	53.75	36	2	1 7/8	0.62	
48	59.50	5.00	5.25	8.75	50.31	48.31	52.25	55.75	40	2	1 7/8	0.62	
50	61.50	5.38	5.44	9.19	52.38	50.31	54.25	57.75	44	2	1 7/8	0.62	
52	63.50	5.56	5.61	9.50	54.44	52.31	56.25	59.75	48	2	1 7/8	0.62	
54	65.88	5.32	5.81	9.38	56.50	54.31	58.25	62.12	48	2	1 7/8	0.62	
56	69.50	6.00	6.12	10.50	58.81	56.31	60.50	65.00	36	2 3/8	2 1/4	0.69	
58	71.94	6.00	6.31	10.75	60.94	58.31	62.75	67.44	40	2 3/8	2 1/4	0.69	
60	73.94	5.88	6.50	10.63	62.94	60.31	65.00	69.44	40	2 3/8	2 1/4	0.69	

GENERAL NOTES:

- (a) Dimensions are in inches.
- (b) For tolerances, see section 7.
- (c) For facings, see para. 6.1.
- (d) For flange bolt holes, see para. 6.2.
- (e) For spot facing, see para. 6.3.
- (f) The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- (g) Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- (1) The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- (2) This dimension is for the large end of hub, which may be straight or tapered.
- (3) For welding and bevel, see para. 6.4.



FLANGES CLASS 400

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SIZE	FLANGE			Diameter of Hub	LENGTH THROUGH HUB			Thread Length	BORE				
	Outside Diameter of Flange	Thickness of Flange Min., tf	Diameter of Hub X	at point of welding A	Threaded Slip-on Y	Lapped Joint Y	Welding Neck Y	Threaded Flange Min., T	Slip-on Min., B	Lapped Joint Min., B	Welding Neck B	Corner Radius of Bore of Lapped Joint Flange and Pipe r	Counter-bore Threaded Flange Min., Q
Nominal Pipe Size	0	tf	X	[note (2)]	Y	Y	Y	[Note (3)]	B	B	B	r	Q
1/2													
3/4													
1													
1 1/4													
1 1/2													
2													
2 1/2													
3													
3 1/2													
4	10.00	1.38	5.75	4.50	2.00	2.00	3.50	1.44	4.57	4.60		0.44	4.63
5	11.00	1.50	7.00	5.56	2.12	2.12	4.00	1.69	5.66	5.69		0.44	5.69
6	12.50	1.62	8.12	6.63	2.25	2.25	4.06	1.81	6.72	6.75		0.50	6.75
8	15.00	1.88	10.25	8.63	2.69	2.69	4.62	2.00	8.72	8.75	To	0.50	8.75
10	17.50	2.12	12.62	10.75	2.88	4.00	4.88	2.19	10.88	10.92	be	0.50	10.88
12	20.50	2.25	14.75	12.75	3.12	4.25	5.38	2.38	12.88	12.92	Specified by	0.50	12.94
14	23.00	2.38	16.75	14.00	3.31	4.62	5.88	2.50	14.14	14.18		0.50	14.19
16	25.50	2.50	19.00	16.00	3.69	5.00	6.00	2.69	16.16	16.19	Purchaser	0.50	16.19
18	28.00	2.62	21.00	18.00	3.88	5.38	6.50	2.75	18.18	18.20		0.50	18.19
20	30.50	2.75	23.12	20.00	4.00	5.75	6.62	2.88	20.20	20.25		0.50	20.19
24	36.00	3.00	27.62	24.00	4.50	6.25	6.88	3.25	24.25	24.25		0.50	24.19

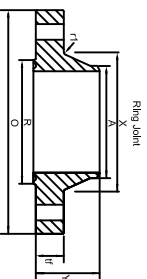
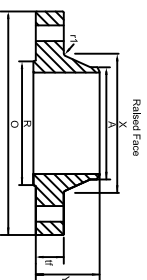
GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see para. 7.
- For facings, see para. 6.4.
- For flange bolt holes, see para. 6.5 and Table F13.
- For spot facing, see para. 6.6.
- For reducing threaded and slip-on flanges, see Table FG.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see para. 6.8.

Use Class 600 dimensions in these sizes [Note (4)]

NOTES :

- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, and lapped flanges.
- For welding end bevel, see para. 6.7.
- For thread in threaded flanges, see para. 6.9
- Socket welding flanges may be provided in NPS 1/2 through 3 1/2 using Class 600 dimensions.



Nominal Pipe Size	O.D. of Flange, O	Minimum Thickness of Flange, t _f (Note 1))		Length Through Hub, Y	Diam. Of Hub, X	Hub Diam. Top, A	Raised Face Diam., R	Diam. of Bolt Circle	Drilling No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r ₁
		WNF	BLND									
26	38.25	3.50	3.88	7.62	28.62	26.00	29.50	34.50	28	17/8	13/4	0.44
28	40.75	3.75	4.12	8.12	30.81	28.00	31.50	37.00	28	2	17/8	0.50
30	43.00	4.00	4.38	8.62	32.94	30.00	33.75	39.25	28	2 1/8	2	0.50
32	45.25	4.25	4.56	9.12	35.00	32.00	36.00	41.50	28	2 1/8	2	0.50
34	47.50	4.38	4.81	9.50	37.19	34.00	38.00	43.50	28	2 1/8	2	0.56
36	50.00	4.50	5.06	9.88	39.38	36.00	40.25	46.00	32	2 1/8	2	0.56
38	47.50	4.88	4.88	8.12	39.50	38.00	40.75	44.00	32	17/8	13/4	0.56
40	50.00	5.12	5.12	8.50	41.50	40.00	43.00	46.25	32	2	17/8	0.56
42	52.00	5.25	5.25	8.81	43.62	42.00	45.00	48.25	32	2	17/8	0.56
44	54.50	5.50	5.50	9.18	45.62	44.00	47.25	50.50	32	2 1/8	2	0.56
46	56.75	5.75	5.75	9.62	47.75	46.00	49.50	52.75	36	2 1/8	2	0.56
48	59.50	6.00	6.00	10.12	49.88	48.00	51.50	55.25	28	23/8	2 1/4	0.56
50	61.75	6.19	6.25	10.56	52.00	50.00	53.62	57.50	32	23/8	2 1/4	0.56
52	63.75	6.38	6.44	10.88	54.00	52.00	55.62	59.50	32	23/8	2 1/4	0.56
54	67.00	6.69	6.75	11.38	56.12	54.00	57.88	62.25	28	25/8	2 1/2	0.56
56	69.00	6.88	6.94	11.75	58.25	56.00	60.12	64.25	32	25/8	2 1/2	0.56
58	71.00	7.00	7.12	12.06	60.25	58.00	62.12	66.25	32	25/8	2 1/2	0.56
60	74.25	7.31	7.44	12.56	62.38	60.00	64.38	69.00	32	27/8	23/4	0.56

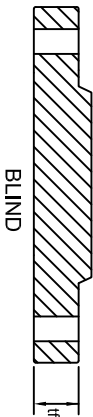
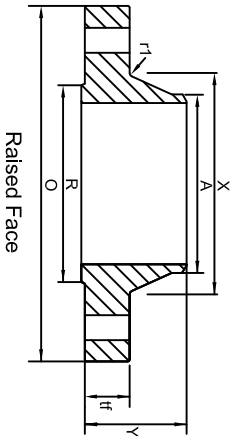
GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For radii, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.

FLANGES
CLASS 400
SERIES B



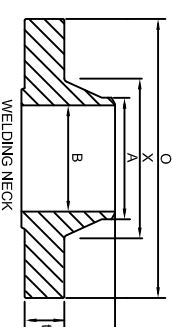
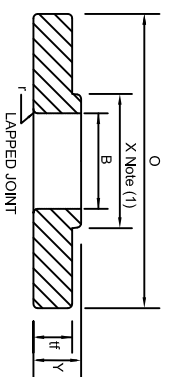
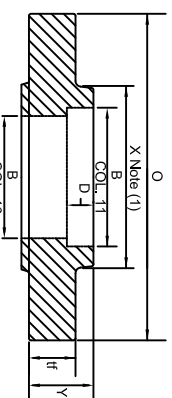
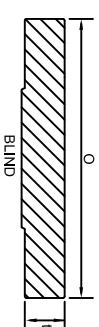
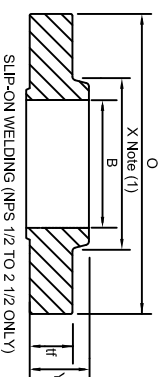
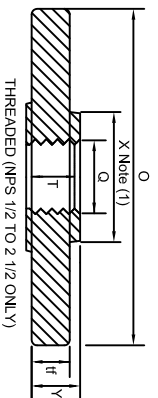
		Minimum Thickness of Flange, tf [Note(1)]				Hub		Drilling				
Nominal Pipe	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1
Size					[Note (2)]	[Note (3)]	Diam., R					
26	33.50	3.50	3.50	5.88	27.12	26.00	28.00	30.75	28	1 1/2	1 3/8	0.44
28	36.00	3.75	3.75	6.25	29.12	28.00	30.00	33.00	24	1 5/8	1 1/2	0.50
30	38.25	4.00	4.00	6.69	31.25	30.00	32.25	35.25	28	1 5/8	1 1/2	0.50
32	40.75	4.25	4.25	7.06	33.25	32.00	34.38	37.50	28	1 3/4	1 5/8	0.50
34	42.75	4.38	4.38	7.38	35.38	34.00	36.50	39.50	32	1 3/4	1 5/8	0.56
36	45.50	4.69	4.69	7.88	37.50	36.00	38.62	42.00	28	1 7/8	1 3/4	0.56
38	...	...	...	...	...	...	...	...	...	...	...	...
40	...	...	...	...	...	...	...	...	...	...	...	...
42	...	...	...	...	...	...	...	...	...	...	...	...
44	...	...	...	...	...	...	...	...	...	...	...	...
46	...	...	...	...	...	...	...	...	...	...	...	...
48	...	...	...	...	...	...	...	...	...	...	...	...
50	...	...	...	...	...	...	...	...	...	...	...	...
52	...	...	...	...	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	...	...	...	...	...	...
56	...	...	...	...	...	...	...	...	...	...	...	...
58	...	...	...	...	...	...	...	...	...	...	...	...
60	...	...	...	...	...	...	...	...	...	...	...	...

GENERAL NOTES:

- (a) Dimensions are in inches.
(b) For tolerances, see section 7.
(c) For facings, see para. 6.1.
(d) For flange bolt holes, see para. 6.2.
(e) For spot facing, see para. 6.3.
(f) The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
(g) Blind flanges may be made with or without hubs at the manufacturer's option.
(h) Dimensions for Classes 400, 600, and 900 NPS 38 and larger for Series B flanges are the same as for the Series A flanges.

NOTES:

- (1) The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
(2) This dimension is for the large end of hub, which may be straight or tapered.
(3) For welding and bevel, see para. 6.4.



FLANGES CLASS 600

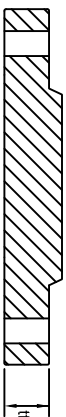
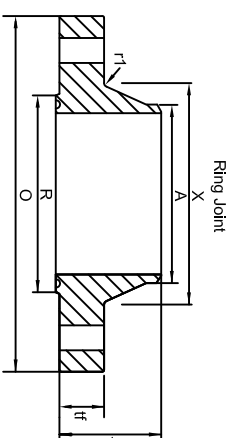
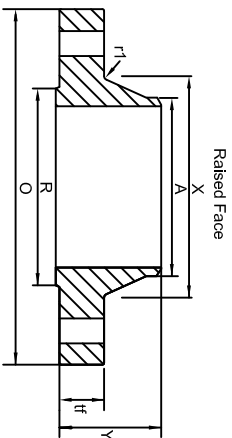
1	2	3	4	5	6	7	9	9	10	11	12	13	14	15
SIZE	FLANGE				LENGTH THROUGH HUB					BORE				
	Outside Diameter of Flange	Thickness of Flange Min., tf	Diameter of Hub X	Diameter of Hub at point of welding A [note (2)]	Threaded Slip-on Socket Welding Y	Lapped Joint Y	Welding Neck Y	Thread Length Threaded Min., T [Note 3]	Slip-on Socket Welding Min., B	Lapped Joint Min., B	Welding Neck Socket Welding B	Corner Radius of Bore of Lapped Joint Flange and Pipe r	Counter-bore Threaded Flange Min., Q	Depth of Socket D
Pipe Size	0													
1/2	3.75	0.56	1.50	0.84	0.88	0.88	2.06	0.62	0.88	0.90		0.12	0.93	0.38
3/4	4.62	0.62	1.88	1.05	1.00	1.00	2.25	0.62	1.09	1.11		0.12	1.14	0.44
1	4.88	0.69	2.12	1.32	1.06	1.06	2.44	0.69	1.36	1.38		0.12	1.41	0.50
1 1/4	5.25	0.81	2.50	1.66	1.12	1.12	2.62	0.81	1.70	1.72		0.19	1.75	0.56
1 1/2	6.12	0.88	2.75	1.90	1.25	1.25	2.75	0.88	1.95	1.97		0.25	1.99	0.62
2	6.50	1.00	3.31	2.38	1.44	1.44	2.88	1.12	2.44	2.46		0.31	2.50	0.69
2 1/2	7.50	1.12	3.94	2.88	1.62	1.62	3.12	1.25	2.94	2.97		0.31	3.00	0.75
3	8.25	1.25	4.62	3.50	1.81	1.81	3.25	1.38	3.57	3.60	To be specified by Purchaser	0.38	3.63	0.81
3 1/2	9.00	1.38	5.25	4.00	1.94	1.94	3.38	1.56	4.07	4.10		0.38	4.13	...
4	10.75	1.50	6.00	4.50	2.12	2.12	4.00	1.62	4.57	4.60	Specified by Purchaser	0.44	4.63	...
5	13.00	1.75	7.44	5.56	2.38	2.38	4.50	1.88	5.66	5.69		0.44	5.69	...
6	14.00	1.88	8.75	6.63	2.62	2.62	4.62	2.00	6.72	6.75		0.50	6.75	...
8	16.50	2.19	10.75	8.63	3.00	3.00	5.25	2.25	8.72	8.75		0.50	8.75	...
10	20.00	2.50	13.50	10.75	3.38	4.38	6.00	2.56	10.88	10.92		0.50	10.88	...
12	22.00	2.62	15.75	12.75	3.62	4.62	6.12	2.75	12.88	12.92		0.50	12.94	...
14	23.75	2.75	17.00	14.00	3.69	5.00	6.50	2.88	14.14	14.18		0.50	14.19	...
16	27.00	3.00	19.50	16.00	4.19	5.50	7.00	3.06	16.16	16.19		0.50	16.19	...
18	29.25	3.25	21.50	18.00	4.62	6.00	7.25	3.12	18.18	18.20		0.50	18.19	...
20	32.00	3.50	24.00	20.00	5.00	6.50	7.50	3.25	20.20	20.25		0.50	20.19	...
24	37.00	4.00	28.25	24.00	5.50	7.25	8.00	3.62	24.25	24.25		0.50	24.19	...

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see para. 7.
- For facings, see para. 6.4.
- For flange bolt holes, see para. 6.5 and Table F15.
- For spot facing, see para. 6.6.
- For reducing threaded and slip-on flanges, see Table F6.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see para. 6.8.

NOTES:

- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges.
- For welding end bevel, see para. 6.7.
- For threads in threaded flanges, see para. 6.9



FLANGES CLASS 600 SERIES A

		Minimum Thickness of Flange, tf			Hub			Drilling			Minimum	
Nominal Pipe Size	O.D. of Flange, O	[Note(1)]		Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Fillet Radius, r1
26	40.00	4.25	4.94	8.75	29.44	26.00	29.50	36.00	28	2	1 7/8	0.50
28	42.25	4.38	5.19	9.25	31.62	28.00	31.50	38.00	28	2 1/8	2	0.50
30	44.50	4.50	5.50	9.75	33.94	30.00	33.75	40.25	28	2 1/8	2	0.50
32	47.00	4.62	5.81	10.25	36.12	32.00	36.00	42.50	28	2 3/8	2 1/4	0.50
34	49.00	4.75	6.06	10.62	38.31	34.00	38.00	44.50	28	2 3/8	2 1/4	0.56
36	51.75	4.88	6.38	11.12	40.62	36.00	40.25	47.00	28	2 5/8	2 1/2	0.56
38	50.00	6.00	6.12	10.00	40.25	38.00	41.50	45.75	28	2 3/8	2 1/4	0.56
40	52.00	6.25	6.38	10.38	42.25	40.00	43.75	47.75	32	2 3/8	2 1/4	0.56
42	55.25	6.62	6.75	11.00	44.38	42.00	46.00	50.50	28	2 5/8	2 1/2	0.56
44	57.25	6.81	7.00	11.38	46.50	44.00	48.25	52.50	32	2 5/8	2 1/2	0.56
46	59.50	7.06	7.31	11.81	48.62	46.00	50.25	54.75	32	2 5/8	2 1/2	0.56
48	62.75	7.44	7.69	12.44	50.75	48.00	52.50	57.50	32	2 7/8	2 3/4	0.56
50	65.75	7.75	8.00	12.94	52.88	50.00	54.50	60.00	28	3 1/8	3	0.56
52	67.75	8.00	8.25	13.25	54.88	52.00	56.50	62.00	32	3 1/8	3	0.56
54	70.00	8.25	8.56	13.75	57.00	54.00	58.75	64.25	32	3 1/8	3	0.56
56	73.00	8.56	8.88	14.25	59.12	56.00	60.75	66.75	32	3 3/8	3 1/4	0.62
58	75.00	8.75	9.12	14.56	61.12	58.00	63.00	68.75	32	3 3/8	3 1/4	0.62
60	78.50	9.19	9.56	15.31	63.38	60.00	65.25	71.75	28	3 5/8	3 1/2	0.69

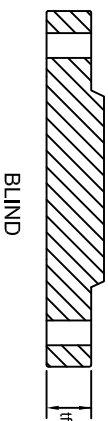
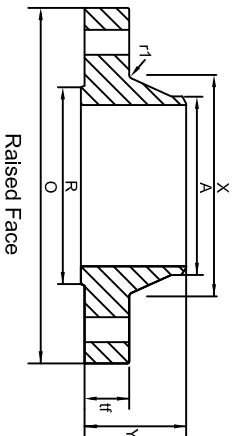
GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For facings, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.

FLANGES CLASS 600 SERIES B



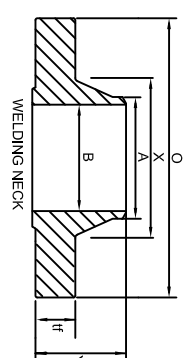
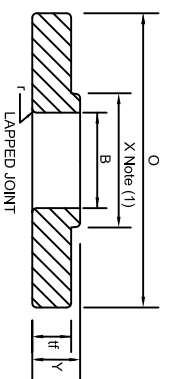
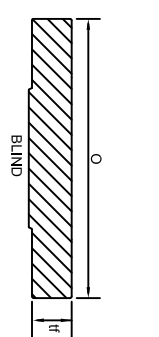
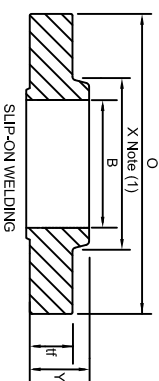
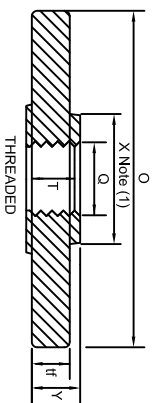
		Minimum Thickness of Flange, tf [Note(1)]				Hub			Drilling						
Nominal Pipe Size	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1			
26	35.00	4.38	4.38	7.12	27.50	26.00	28.62	31.75	28	1 3/4	1 5/8	0.50			
28	37.50	4.56	4.56	7.50	29.62	28.00	30.88	34.00	28	1 7/8	1 3/4	0.50			
30	40.25	4.94	5.00	8.06	31.75	30.00	33.12	36.50	28	2	1 7/8	0.50			
32	42.75	5.12	5.31	8.50	33.88	32.00	35.25	38.75	28	2 1/8	2	0.50			
34	45.75	5.56	5.68	9.19	36.00	34.00	37.50	41.50	24	2 3/8	2 1/4	0.56			
36	47.75	5.75	5.94	9.56	38.12	36.00	39.75	43.50	28	2 3/8	2 1/4	0.56			
38	...	...	...	...	...	...	...	...	...	...	...	...			
40	...	...	...	...	...	...	...	...	...	...	...	...			
42	...	...	...	...	...	...	...	...	...	...	...	...			
44	...	...	...	...	...	...	...	...	...	...	...	...			
46	...	...	...	...	...	...	...	...	...	...	...	...			
48	...	...	...	...	...	...	...	...	...	...	...	...			
50	...	...	...	...	...	...	...	...	...	...	...	...			
52	...	...	...	...	...	...	...	...	...	...	...	...			
54	...	...	...	...	...	...	...	...	...	...	...	...			
56	...	...	...	...	...	...	...	...	...	...	...	...			
58	...	...	...	...	...	...	...	...	...	...	...	...			
60	...	...	...	...	...	...	...	...	...	...	...	...			

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For facings, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- Dimensions for Classes 400, 600, and 900 NPS 38 and larger for Series B flanges are the same as for the Series A flanges.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.



FLANGES CLASS 900

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SIZE	FLANGE				LENGTH THROUGH HUB			Thread Length	BORE			Corner Radius of Bore of	
	Outside Diameter of Flange	Thickness of Flange Min., tf	Diameter of Hub	Diameter of Hub at point of welding A	Threaded Slip-on Y	Lapped Joint Y	Welding Neck Y	Threaded Flange Min., T	Slip-on Min., B	Lapped Joint Min., B	Welding Neck B	Lapped Joint of Bore of Flange and Pipe r	Counter-bore Threaded Flange Min., Q
Nominal Pipe Size	O	tf	X	[note (2)]	Y	Y	Y	[Note (3)]	B	B	B	r	Q
1/2													
3/4													
1													
1 1/4													
1 1/2													
2													
2 1/2													
3	9.50	1.50	5.00	3.50	2.12	2.12	4.00	1.62	3.57	3.60		0.38	3.63
4	11.50	1.75	6.25	4.50	2.75	2.75	4.50	1.88	4.57	4.60		0.44	4.63
5	13.75	2.00	7.50	5.56	3.12	3.12	5.00	2.12	5.66	5.69		0.44	5.69
6	15.00	2.19	9.25	6.63	3.38	3.38	5.50	2.25	6.72	6.75	To be	0.50	6.75
8	18.50	2.50	11.75	8.63	4.00	4.50	6.38	2.50	8.72	8.75	Specified by	0.50	8.75
10	21.50	2.75	14.50	10.75	4.25	5.00	7.25	2.81	10.88	10.92		0.50	10.88
12	24.00	3.12	16.50	12.75	4.62	5.62	7.88	3.00	12.88	12.92		0.50	12.94
14	25.25	3.38	17.75	14.00	5.12	6.12	8.38	3.25	14.14	14.18	Purchaser	0.50	14.19
16	27.75	3.50	20.00	16.00	5.25	6.50	8.50	3.38	16.16	16.19		0.50	16.19
18	31.00	4.00	22.25	18.00	6.00	7.50	9.00	3.50	18.18	18.20		0.50	18.19
20	33.75	4.25	24.50	20.00	6.25	8.25	9.75	3.62	20.20	20.25		0.50	20.19
24	41.00	5.50	29.50	24.00	8.00	10.50	11.50	4.00	24.25	24.25		0.50	24.19

Use Class 1500 dimensions in these sizes [Note (4)].

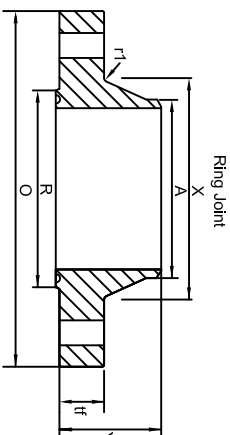
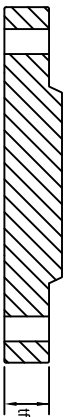
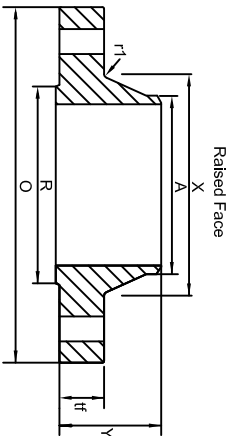
GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see para. 7.
- For facings, see para. 6.4.
- For flange bolt holes, see para. 6.5 and Table F17.
- For spot facing, see para. 6.6.
- For reducing threaded and slip-on flanges, see Table FG.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see para. 6.8.

NOTES:

- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges.
- For welding end bevel, see para. 6.7.
- For threads in threaded flanges, see para. 6.9
- Socket welding flanges may be provided in NPS 1/2 through 2 1/2 using Class 1500 dimensions.

FLANGES CLASS 900 SERIES A



		Minimum Thickness of Flange, tf [Note(1)]			Hub		Drilling						
Nominal Pipe Size	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1	
26	42.75	5.50	6.31	11.25	30.50	26.00	29.50	37.50	20	2 7/8	2 3/4	0.44	
28	46.00	5.62	6.75	11.75	32.75	28.00	31.50	40.25	20	3 1/8	3	0.50	
30	48.50	5.88	7.18	12.25	35.00	30.00	33.75	42.75	20	3 1/8	3	0.50	
32	51.75	6.25	7.62	13.00	37.25	32.00	36.00	45.50	20	3 3/8	3 1/4	0.50	
34	55.00	6.50	8.06	13.75	39.62	34.00	38.00	48.25	20	3 5/8	3 1/2	0.56	
36	57.50	6.75	8.44	14.25	41.88	36.00	40.25	50.75	20	3 5/8	3 1/2	0.56	
38	57.50	7.50	8.50	13.88	42.25	38.00	43.25	50.75	20	3 5/8	3 1/2	0.75	
40	59.50	7.75	8.81	14.31	44.38	40.00	45.75	52.75	24	3 5/8	3 1/2	0.81	
42	61.50	8.12	9.12	14.62	46.31	42.00	47.75	54.75	24	3 5/8	3 1/2	0.81	
44	64.88	8.44	9.56	15.38	48.62	44.00	50.00	57.62	24	3 7/8	3 3/4	0.88	
46	68.25	8.88	10.06	16.18	50.88	46.00	52.50	60.50	24	4 1/8	4	0.88	
48	70.25	9.19	10.38	16.50	52.88	48.00	54.50	62.50	24	4 1/8	4	0.94	
50	...	...	...	...	...	...	...	...	...	...	...	...	
52	...	...	...	...	...	...	...	...	...	...	...	...	
54	...	...	...	...	...	...	...	...	...	...	...	...	
56	...	...	...	...	...	...	...	...	...	...	...	...	
58	...	...	...	...	...	...	...	...	...	...	...	...	
60	...	...	...	...	...	...	...	...	...	...	...	...	

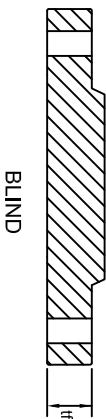
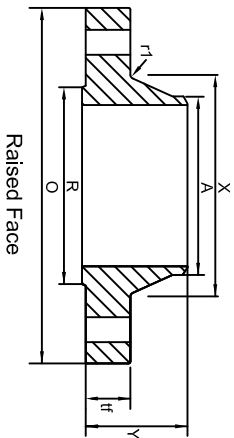
GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For facings, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.

FLANGES CLASS 900 SERIES B



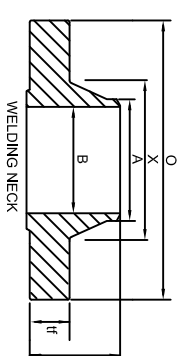
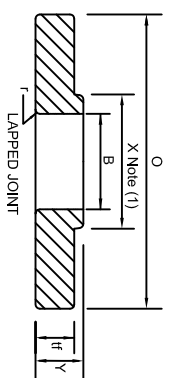
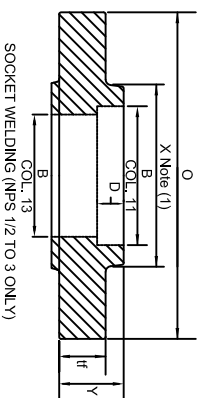
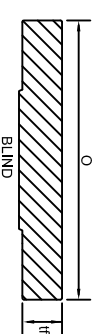
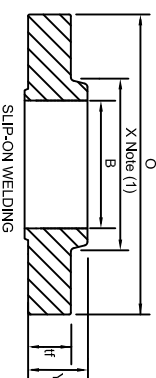
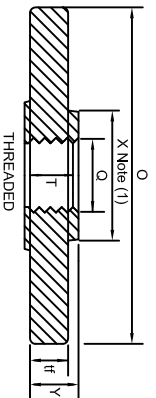
		Minimum Thickness of Flange, tf [Note(1)]			Hub			Drilling					
Nominal Pipe	O.D. of Flange, O	WNF	BLIND	Length Through Hub, Y	Diam. Of Hub, X	Diam. Top, A	Raised Face	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Minimum Fillet Radius, r1	
Size	Flange, O				[Note (2)]	[Note (3)]	Diam., R						
26	40.25	5.31	6.06	10.19	29.25	26.00	30.00	35.50	20	2 5/8	2 1/2	0.44	
28	43.50	5.81	6.56	10.88	31.38	28.00	32.25	38.25	20	2 7/8	2 3/4	0.50	
30	46.50	6.12	6.39	11.38	33.50	30.00	34.50	40.75	20	3 1/8	3	0.50	
32	48.75	6.31	7.31	11.94	35.75	32.00	36.50	43.00	20	3 1/8	3	0.50	
34	51.75	6.75	7.68	12.56	37.88	34.00	39.00	45.50	20	3 3/8	3 1/4	0.56	
36	53.00	6.81	7.94	12.81	40.00	36.00	40.50	47.25	24	3 1/8	3	0.56	
38	...	...	...	...	...	...	...	...	...	...	...	...	
40	...	...	...	...	...	...	...	...	...	...	...	...	
42	...	...	...	...	...	...	...	...	...	...	...	...	
44	...	...	...	...	...	...	...	...	...	...	...	...	
46	...	...	...	...	...	...	...	...	...	...	...	...	
48	...	...	...	...	...	...	...	...	...	...	...	...	
50	...	...	...	...	...	...	...	...	...	...	...	...	
52	...	...	...	...	...	...	...	...	...	...	...	...	
54	...	...	...	...	...	...	...	...	...	...	...	...	
56	...	...	...	...	...	...	...	...	...	...	...	...	
58	...	...	...	...	...	...	...	...	...	...	...	...	
60	...	...	...	...	...	...	...	...	...	...	...	...	

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see section 7.
- For facings, see para. 6.1.
- For flange bolt holes, see para. 6.2.
- For spot facing, see para. 6.3.
- The bore is to be specified by the purchaser. Tolerances in para 7.3.2 apply.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- Dimensions for Classes 400, 600, and 900 NPS 38 and larger for Series B flanges are the same as for the Series A flanges.

NOTES:

- The minimum flange thickness does not include the raised face thickness (see para. 6.1.1).
- This dimension is for the large end of hub, which may be straight or tapered.
- For welding and bevel, see para. 6.4.



FLANGES CLASS 1500

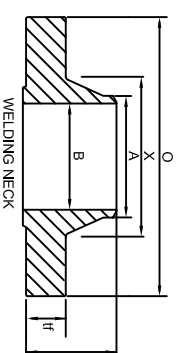
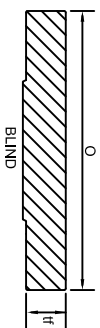
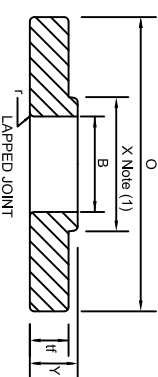
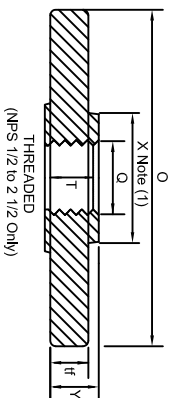
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SIZE	FLANGE					LENGTH THROUGH HUB				BORE				
				Diameter of Hub at point of welding A	Threaded Slip-on Socket Welding	Lapped Joint	Welding Neck	Thread Length Threaded Min., T	Slip-on Socket Welding Min., B	Lapped Joint Min., B	Welding Neck Socket Welding B	Corner Radius of Bore of Lapped Joint Flange and Pipe r	Counterbore Threaded Flange Min., Q	Depth of Socket D
Nominal Pipe Size	Outside Diameter of Flange O	Thickness of Flange Min., t _f	Diameter of Hub X	[note (2)]	Y	Y	Y	[Note 3]	B	B	B			
1/2	4.75	0.88	1.50	0.84	1.25	1.25	2.38	0.88	0.88	0.90		0.12	0.93	0.38
3/4	5.12	1.00	1.75	1.05	1.38	1.38	2.75	1.00	1.09	1.11		0.12	1.14	0.44
1	5.88	1.12	2.06	1.32	1.62	1.62	2.88	1.12	1.36	1.38		0.12	1.41	0.50
1 1/4	6.25	1.12	2.50	1.66	1.62	1.62	2.88	1.19	1.70	1.72		0.19	1.75	0.56
1 1/2	7.00	1.25	2.75	1.90	1.75	1.75	3.25	1.25	1.95	1.97		0.25	1.99	0.62
2	8.50	1.50	4.12	2.38	2.25	2.25	4.00	1.50	2.44	2.46		0.31	2.50	0.69
2 1/2	9.62	1.62	4.88	2.88	2.50	2.50	4.12	1.88	2.94	2.97		0.31	3.00	0.75
3	10.50	1.88	5.25	3.50	...	2.88	4.62	...	...	3.60	To be specified by Purchaser	0.38	...	...
4	12.25	2.12	6.38	4.50	...	3.56	4.88	...	...	4.60		0.44	...	...
5	14.75	2.88	7.75	5.56	...	4.12	6.12	...	...	5.69		0.44	...	...
6	15.50	3.25	9.00	6.63	...	4.69	6.75	...	...	6.75		0.50	...	...
8	19.00	3.62	11.50	8.63	...	5.62	8.38	...	...	8.75		0.50	...	...
10	23.00	4.25	14.50	10.75	...	7.00	10.00	...	...	10.92		0.50	...	...
12	26.50	4.88	17.75	12.75	...	8.62	11.12	...	...	12.92		0.50	...	...
14	29.50	5.25	19.50	14.00	...	9.50	11.75	...	...	14.18		0.50	...	...
16	32.50	5.75	21.75	16.00	...	10.25	12.25	...	...	16.19		0.50	...	...
18	36.00	6.38	23.50	18.00	...	10.88	12.88	...	...	18.20		0.50	...	...
20	38.75	7.00	25.25	20.00	...	11.50	14.00	...	...	20.25		0.50	...	...
24	46.00	8.00	30.00	24.00	...	13.00	16.00	...	...	24.25		0.50	...	...

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see para. 7.
- For facings, see para. 6.4.
- For flange bolt holes, see para. 6.5 and Table F19.
- For spot facing, see para. 6.6.
- For reducing threaded and slip-on flanges, see Table FG.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see para. 6.8.

NOTES:

- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges.
- For welding end bevel, see para. 6.7.
- For threads in threaded flanges, see para. 6.9



FLANGES CLASS 2500

1	2	3	4	5	6	7	8	9	10	11	12	13
SIZE	FLANGE				LENGTH THROUGH HUB				BORE			
				Diameter of Hub at point of welding A				Thread Length Threaded Min., T		Welding Neck Socket Welding B	Corner Radius of Bore of Lapped Joint	Counterbore Threaded Flange
Nominal	Outside Diameter of Flange	Thickness of Flange Min., tf	Diameter of Hub X		Threaded Y	Lapped Joint Y	Welding Neck Y		Lapped Joint Min., B		Flange and Pipe r	Flange Min., Q
Pipe Size	O	tf	X	[note (2)]	Y	Y	Y	[Note 3]	B	B		
1/2	5.25	1.19	1.69	0.84	1.56	1.56	2.88	1.12	0.90		0.12	0.93
3/4	5.50	1.25	2.00	1.05	1.69	1.69	3.12	1.25	1.11		0.12	1.14
1	6.25	1.38	2.25	1.32	1.88	1.88	3.50	1.38	1.38		0.12	1.41
1 1/4	7.25	1.50	2.88	1.66	2.06	2.06	3.75	1.50	1.72		0.19	1.75
1 1/2	8.00	1.75	3.12	1.90	2.38	2.38	4.38	1.75	1.97		0.25	1.99
2	9.25	2.00	3.75	2.38	2.75	2.75	5.00	2.00	2.46	To be Specified by Purchaser	0.31	2.50
2 1/2	10.50	2.25	4.50	2.88	3.12	3.12	5.62	2.25	2.97		0.31	3.00
3	12.00	2.62	5.25	3.50	...	3.62	6.62	...	3.60		0.38	...
4	14.00	3.00	6.50	4.50	...	4.25	7.50	...	4.60		0.44	...
5	16.50	3.62	8.00	5.56	...	5.12	9.00	...	5.69		0.44	...
6	19.00	4.25	9.25	6.63	...	6.00	10.75	...	6.75		0.50	...
8	21.75	5.00	12.00	8.63	...	7.00	12.50	...	8.75		0.50	...
10	26.50	6.50	14.75	10.75	...	9.00	16.50	...	10.92		0.50	...
12	30.00	7.25	17.38	12.75	...	10.00	18.25	...	12.92		0.50	...

GENERAL NOTES:

- Dimensions are in inches.
- For tolerances, see para. 7.
- For facings, see para. 6.4.
- For flange bolt holes, see para. 6.5 and Table F21.
- For spot facing, see para. 6.6.
- For reducing threaded and slip-on flanges, see Table F6.
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see para. 6.8.

NOTES:

- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges.
- For welding end bevel, see para. 6.7.
- For threads in threaded flanges, see para. 6.9