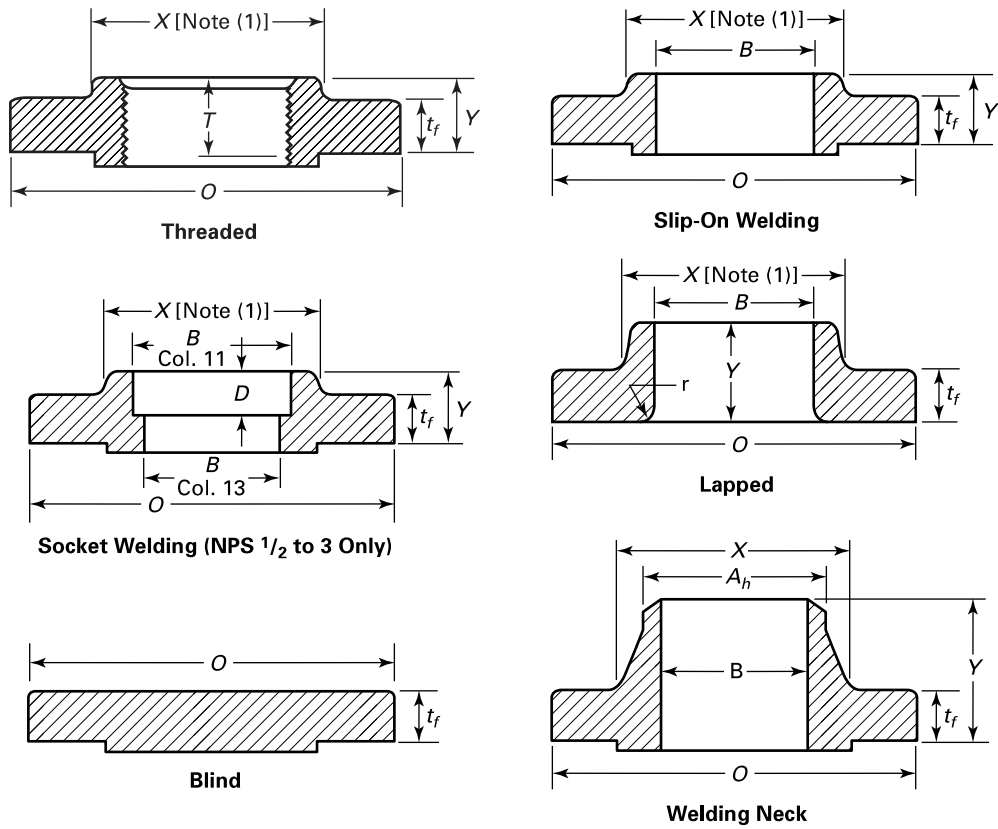


(20)

Table 8 Dimensions of Class 150 Flanges



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Nominal Pipe Size, NPS	Outside Diameter of Flange, O	Minimum Thickness of Flange, t_f (2)-(4)	Minimum Thickness Lap Joint, t_f	Diameter of Hub, X	Hub Diameter Beginning of Chamfer Welding Neck, A_h (5)	Length Through Hub			Minimum Thread Length Threaded, T (6)	Bore			Corner Bore Radius of Lapped Flange and Pipe, r	Depth of Socket, D
						Threaded/ Slip-on/ Socket Welding, Y	Lapped, Y	Welding Neck, Y		Minimum Slip-on/ Socket Welding, B	Minimum Lapped, B	Welding Neck/ Socket Welding, B (7)		
$\frac{1}{2}$	89	9.7	11.2	30	21.3	14	16	46	16	22.4	22.9	15.7	3	10
$\frac{3}{4}$	99	11.2	12.7	38	26.7	14	16	51	16	27.7	28.2	20.8	3	11
1	108	12.7	14.2	49	33.5	16	18	54	18	34.5	35.1	26.7	3	13
$1\frac{1}{4}$	117	14.2	15.7	59	42.2	19	21	56	21	43.2	43.7	35.1	5	14

Table 8 Dimensions of Class 150 Flanges (Cont'd)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Nominal Pipe Size, NPS	Outside Diameter of Flange, O	Minimum Thickness of Flange, t_f (2)-(4)	Minimum Thickness Lap Joint, t_f	Diameter of Hub, X	Hub Diameter Beginning of Chamfer Welding Neck, A_h (5)	Length Through Hub			Minimum Thread Length Threaded, T (6)	Bore			Corner Bore Radius of Lapped Flange and Pipe, r	Depth of Socket, D
						Threaded/ Slip-on/ Socket Welding, Y	Lapped, Y	Welding Neck, Y		Minimum Slip-on/ Socket Welding, B	Minimum Lapped, B	Welding Neck/ Socket Welding, B (7)		
1½	127	15.9	17.5	65	48.3	21	22	60	22	49.5	50.0	40.9	6	16
2	152	17.5	19.0	78	60.5	24	25	62	25	61.9	62.5	52.6	8	18
2½	178	20.6	22.4	90	73.2	27	28	68	28	74.7	75.4	62.7	8	19
3	190	22.4	23.9	108	88.9	28	30	68	30	90.7	91.4	78.0	10	21
3½	216	22.4	23.9	122	101.6	30	32	70	32	103.4	104.1	90.2	10	...
4	229	22.4	23.9	135	114.3	32	33	75	33	116.1	116.8	102.4	11	...
5	254	22.4	23.9	164	141.2	35	37	87	37	143.8	144.5	128.3	11	...
6	279	23.9	25.4	192	168.4	38	40	87	40	170.7	171.4	154.2	13	...
8	343	26.9	28.4	246	219.2	43	44	100	44	221.5	222.2	202.7	13	...
10	406	28.4	30.2	305	273.0	48	49	100	49	276.4	277.4	254.5	13	...
12	483	30.2	31.8	365	323.8	54	56	113	56	327.2	328.2	304.8	13	...
14	553	33.3	35.1	400	355.6	56	79	125	57	359.2	360.2	(8)	13	...
16	597	35.1	36.6	457	406.4	62	87	125	64	410.5	411.2	(8)	13	...
18	635	38.1	39.6	505	457.2	67	97	138	68	461.8	462.3	(8)	13	...
20	698	41.1	42.9	559	508.0	71	103	143	73	513.1	514.4	(8)	13	...
22	749	44.4	46.0	610	558.8	78	108	148	...	564.4	565.2	(8)	13	...
24	813	46.0	47.8	663	609.6	81	111	151	83	616.0	616.0	(8)	13	...

GENERAL NOTES:

- Dimensions are in millimeters.
- For tolerance, see [section 7](#).
- For facings, see [para. 6.4](#).
- For flange bolt holes, see [para. 6.5](#) and [Table 7](#).
- For spot facing, see [para. 6.6](#).
- For reducing threaded and slip-on flanges, see [Table 6](#).
- Blind flanges may be made with or without hubs at the manufacturer's option.
- For reducing welding neck flanges, see [para. 6.8](#).

NOTES:

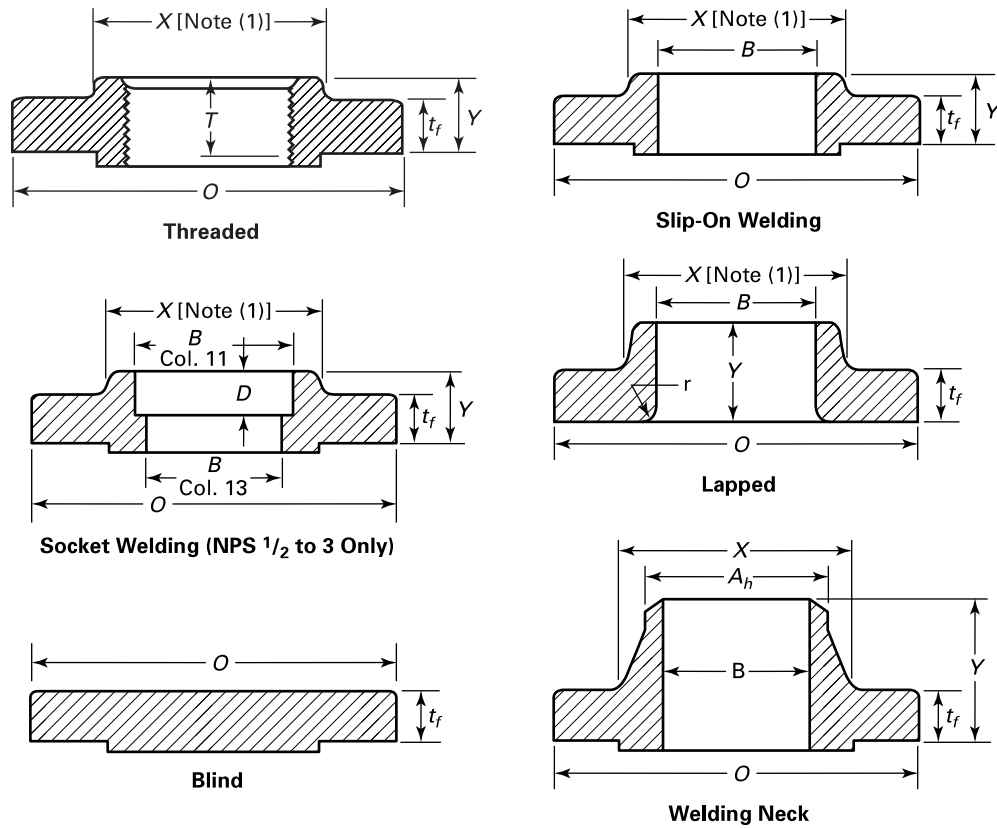
- This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.

Table 8 Dimensions of Class 150 Flanges (Cont'd)

NOTES: (Cont'd)

- (2) The minimum thickness of these loose flanges, in sizes NPS 3½ and smaller, is slightly greater than the thickness of flanges on fittings, [Table 9](#), which are reinforced by being cast integral with the body of the fitting.
- (3) These flanges may be supplied with a flat face. The flat face may be either the full t_f dimension of thickness plus 2 mm or the t_f dimension thickness without the raised face height. See [para 6.3.2](#) for additional restrictions.
- (4) The flange dimensions illustrated are for regularly furnished 1.5-mm raised face (except lapped); for requirements of other facings, see [Figure 6](#).
- (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 furnished unless otherwise specified by the purchaser.
- (8) To be specified by the purchaser.

Table 8C Dimensions of Class 150 Flanges



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Nominal Pipe Size	Outside Diameter of Flange, O	Minimum Thickness of Flange, t_f (2)-(4)	Minimum Thickness Lap Joint	Diameter of Hub, X	Diameter Beginning of Chamfer Welding Neck, A_h (5)	Length Through Hub			Minimum Thread Length Threaded, T (6)	Bore		Welding Neck/ Socket Welding, B (7)	Corner Bore Radius of Lapped Flange and Pipe, r	Depth of Socket, D
						Threaded Slip-On Socket Welding, Y	Lapped, Y	Welding Neck, Y		Minimum Slip-On Socket Welding, B	Minimum Lapped, B			
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

Table 8C Dimensions of Class 150 Flanges (Cont'd)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Nominal Pipe Size	Outside Diameter of Flange, <i>O</i>	Minimum Thickness of Flange, <i>t_f</i> (2)–(4)	Minimum Thickness Lap Joint	Diameter of Hub, <i>X</i>	Diameter Beginning of Chamfer Welding Neck, <i>A_h</i> (5)	Length Through Hub			Minimum Thread Length Threaded, <i>T</i> (6)	Bore			Corner Bore Radius of Lapped Flange and Pipe, <i>r</i>	Depth of Socket, <i>D</i>
						Threaded Slip-On Socket Welding, <i>Y</i>	Lapped, <i>Y</i>	Welding Neck, <i>Y</i>		Minimum Slip-On Socket Welding, <i>B</i>	Minimum Lapped, <i>B</i>	Welding Neck/ Socket Welding, <i>B</i> (7)		
2½	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
3½	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	(8)	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	(8)	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	(8)	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	(8)	0.50	...
22	29.50	1.75	1.81	24.00	22.00	3.06	4.25	5.82	...	22.22	22.25	(8)	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	(8)	0.50	...

GENERAL NOTES:

- (a) Dimensions are in inches.
- (b) For tolerances, see [section 7](#).
- (c) For facings, see [para. 6.4](#).
- (d) For flange bolt holes, see [para. 6.5](#) and [Table 7C](#).
- (e) For spot facing, see [para. 6.6](#).
- (f) For reducing threaded and slip-on flanges, see [Table 6C](#).
- (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](#).

NOTES:

- (1) This dimension is for the large end of the 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 3½ and smaller, is slightly greater than the thickness of flanges on fittings, [Table 9C](#), 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 *t_f* dimension thickness plus 0.06 in. or the *t_f* dimension thickness without the raised face height. See [para. 6.3.2](#) for additional restrictions.

Table 8C Dimensions of Class 150 Flanges (Cont'd)

- NOTES: (Cont'd)
- (4) The flange dimensions illustrated are for regularly furnished 0.06-in. raised face (except lapped); for requirements of other facings, see [Figure 6](#).
 - (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. The 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 furnished unless otherwise specked by the purchaser.
 - (8) To be specified by the purchaser.