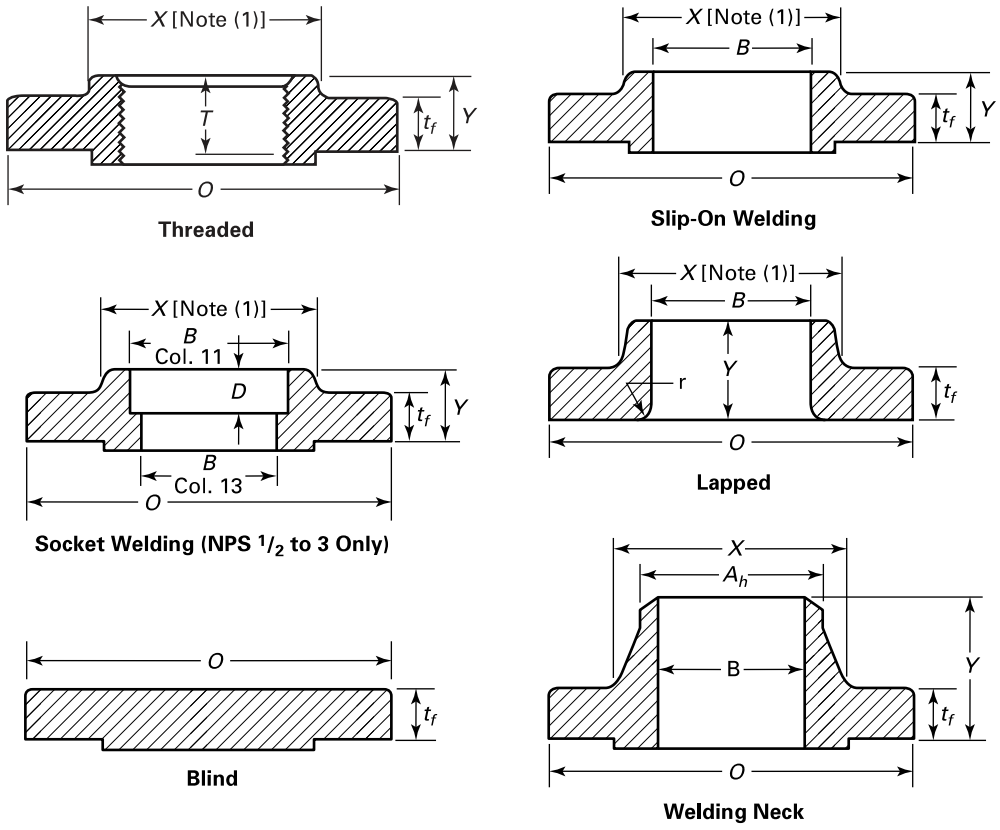
Table 11 Dimensions of Class 300 Flanges



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
						Length Through Hub				Bore					
Nominal Pipe Size NPS	Outside Diamter 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 (4)	Threaded/ Slip-On/ Socket Welding, *Y*	Lapped, *Y*	Welding Neck, *Y*	Minimum Thread Length Threaded, *T* (5)	Minimum Slip-On/ Socket Welding, *B*	Minimum Lapped, *B*	Welding Neck/ Socket Welding, *B* (6)	Corner Radius of Bore of Lapped Flange and Pipe, *r*	Minimum Counter-bore Threaded Flange, *Q*	Depth of Socket, *D*
1/2	95	12.7	14.2	38	21.3	21	22	51	16	22.4	22.9	15.7	3	23.6	10
3/4	117	14.2	15.7	48	26.7	24	25	56	16	27.7	28.2	20.8	3	29.0	11
1	124	15.7	17.5	54	33.5	25	27	60	18	34.5	35.1	26.7	3	35.8	13
1 1/4	133	17.5	19.0	64	42.2	25	27	64	21	43.2	43.7	35.1	5	44.4	14
1 1/2	155	19.0	20.6	70	48.3	29	30	67	22	49.5	50.0	40.9	6	50.3	16

Table 11 Dimensions of Class 300 Flanges (Cont'd)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
						Length Through Hub				Bore					
Nominal Pipe Size NPS	Outside Diamter 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 (4)	Threaded/ Slip-On/ Socket Welding, *Y*	Lapped, *Y*	Welding Neck, *Y*	Minimum Thread Length Threaded, *T* (5)	Minimum Slip-On/ Socket Welding, *B*	Minimum Lapped, *B*	Welding Neck/ Socket Welding, *B* (6)	Corner Radius of Bore of Lapped Flange and Pipe, *r*	Minimum Counter-bore Threaded Flange, *Q*	Depth of Socket, *D*
2	165	20.6	22.4	84	60.5	32	33	68	28	62.0	62.5	52.6	8	63.5	17
2½	190	23.9	25.4	100	73.2	37	38	75	32	74.7	75.4	62.7	8	76.2	19
3	210	26.9	28.4	117	88.9	41	43	78	32	90.7	91.4	78.0	10	92.2	21
3½	229	28.4	30.2	133	101.6	43	44	80	37	103.4	104.1	90.2	10	104.9	...
4	254	30.2	31.8	146	114.3	46	48	84	37	116.1	116.8	102.4	11	117.6	...
5	279	33.3	35.1	178	141.2	49	51	97	43	143.8	144.5	128.3	11	144.5	...
6	318	35.1	36.6	206	168.4	51	52	97	46	170.7	171.4	154.2	13	171.4	...
8	381	39.6	41.1	260	219.2	60	62	110	51	221.5	222.2	202.7	13	222.2	...
10	444	46.0	47.8	321	273.0	65	95	116	56	276.4	277.4	254.5	13	276.4	...
12	521	49.3	50.8	375	323.8	72	102	129	60	327.2	328.2	304.8	13	328.7	...
14	584	52.3	53.8	425	355.6	75	111	141	64	359.2	360.2	(7)	13	360.4	...
16	648	55.6	57.2	483	406.4	81	121	145	68	410.5	411.2	(7)	13	411.2	...
18	711	58.7	60.5	533	457.2	87	130	157	70	461.8	462.3	(7)	13	462.0	...
20	775	62.0	63.5	587	508.0	94	140	161	73	513.1	514.4	(7)	13	512.8	...
22	838	65.0	66.5	641	558.8	100	145	164	...	564.4	565.2	(7)	13	...	...
24	914	68.3	68.8	702	609.6	105	152	167	83	616.0	616.0	(7)	13	614.4	...

GENERAL NOTES:

(a) Dimensions are in millimeters.
(b) For tolerances, see section 7.
(c) For facings, see para. 6.4.
(d) For flange bolt holes, see para. 6.5 and Table 10.
(e) For spot facing, see para. 6.6.
(f) For reducing threaded and slip-on flanges, see Table 6.
(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. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.
(2) These flanges may be supplied with a flat face. The flat face may be either the full t_f dimension thickness plus 1.5 mm or the t_f dimension thickness without the raised face height. See para. 6.3.2 for additional restrictions.
(3) The flange dimensions illustrated are for regularly furnished 1.5-mm raised face (except lapped); for requirements of other facings, see Figure 6.

Table 11 Dimensions of Class 300 Flanges (Cont'd)

NOTES: (Cont'd)

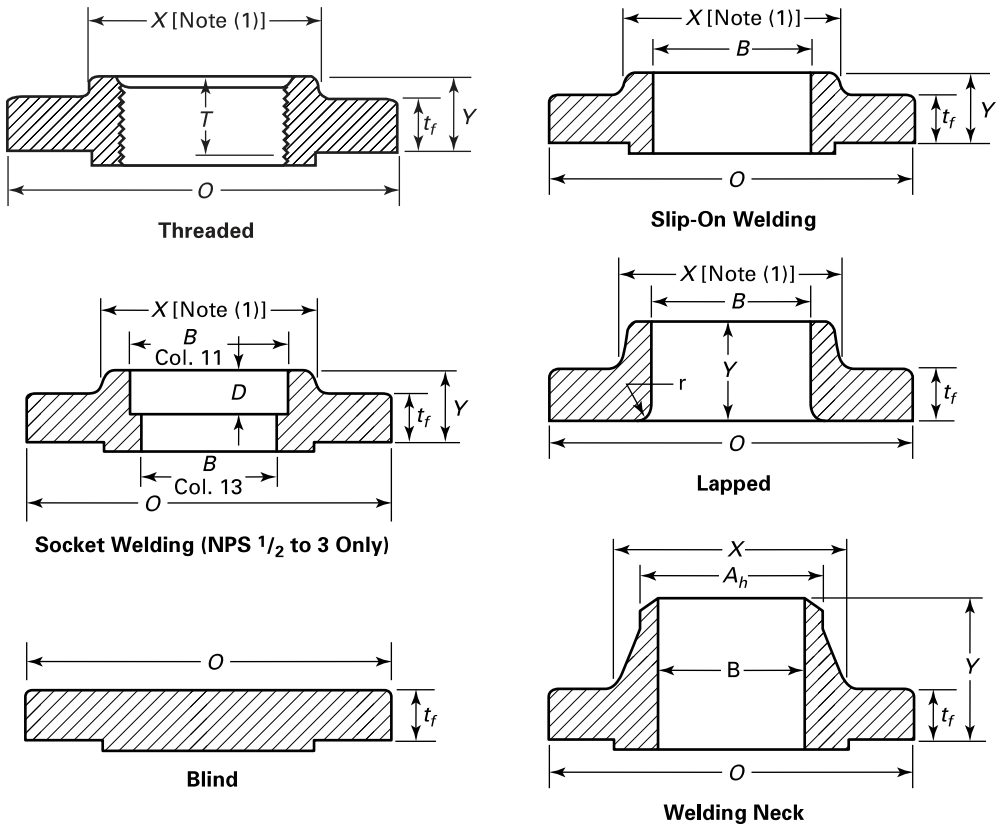
(4) For welding end bevel, see para. 6.7.

(5) For thread of threaded flanges, see para. 6.9.

(6) Dimensions in Column 13 correspond to the inside diameters of pipe as given in 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 sizes are furnished unless otherwise specified by the purchaser.

(7) To be specified by the purchaser.

Table 11C Dimensions of Class 300 Flanges



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					Diameter Beginning of Chamfer Welding Neck, A_h (4)	Length Through Hub				Bore			Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counter-bore Threaded Flange, Q	
Nominal Pipe Size	Outside Diamter of Flange, O	Minimum Thickness of Flange, t_f (2)–(4)	Thickness of Lap Joint, t_f	Diameter of Hub, X		Threaded Slip-On Socket Welding, Y	Lapped, Y	Welding Neck, Y	Minimum Thread Length Threaded, T (5)	Minimum Slip-On Socket Welding, B	Minimum Lapped, B	Welding Neck/ Socket Welding, B (6)			Depth of Socket, D
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

Table 11C Dimensions of Class 300 Flanges (Cont'd)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
						Length Through Hub				Bore					
Nominal Pipe Size	Outside Diamter of Flange, *O*	Minimum Thickness of Flange, t_f (2)–(4)	Thickness of Lap Joint, t_f	Diameter of Hub, *X*	Diameter Beginning of Chamfer Welding Neck, A_h (4)	Threaded Slip-On Socket Welding, *Y*	Lapped, *Y*	Welding Neck, *Y*	Minimum Thread Length Threaded, *T* (5)	Minimum Slip-On Socket Welding, *B*	Minimum Lapped, *B*	Welding Neck/ Socket Welding, *B* (6)	Corner Bore Radius of Lapped Flange and Pipe, *r*	Minimum Counter-bore Threaded Flange, *Q*	Depth of Socket, *D*
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
$2\frac{1}{2}$	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
$3\frac{1}{2}$	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	(7)	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	(7)	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	(7)	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	(7)	0.50	20.19	...
22	33.00	2.56	2.62	25.25	22.00	3.94	5.69	6.44	...	22.22	22.25	(7)	0.50	...	...
24	36.00	2.69	2.75	27.62	24.00	4.13	6.00	6.56	3.25	24.25	24.25	(7)	0.50	24.19	...

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 10C.
(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. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.
(2) These flanges may be supplied with a 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.
(3) The flange dimensions illustrated are for regularly furnished 0.06-in. raised face (except lapped); for requirements of other facings, see Figure 6.
(4) For welding end bevel, see para. 6.7.

Table 11C Dimensions of Class 300 Flanges (Cont'd)

NOTES: (Cont'd)

(5) For thread of threaded flanges, see para. 6.9.

(6) Dimensions in Column 13 correspond to the inside diameters of pipe as given in 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 sizes are furnished unless otherwise specified by the purchaser.

(7) To be specified by the purchaser.