

# STEEL LINE BLANKS

## Note To Purchaser

1. If the purchaser needs a steel line blank that deviates from this standard, the deviating requirements shall be stated in the purchase order.

2. If no exceptions are to be taken to this standard, the purchase order need only make reference to ASME B16.48 and specify the items marked with an asterisk (\*) in the following list. Other items listed are options that may also be specified if required.

- \*a. Size (see pages C4 - C17).
- \*b. Class (see pages C4 - C17).
- \*c. Facing (Standard 125 - 250 RMS).
- \*d. Style (see Fig. 1, 2 or 3).
- \*e. Plate material (see Table page C3).
- f. Inside diameter (if other than standard).
- g. Lifting or handling device.

3. All Keddco spec blinds are manufactured to ASME B16.48 unless otherwise specified.

## GENERAL

This standard provides dimensions for operating line blanks (or "blinds") in sizes NPS 1/2 through NPS 24 for installation between ANSI B16.5 flanges in the 150, 300, 600, 900, 1500, and 2500 pound pressure classes. Line blanks used only for pressure testing are not part of this standard.

A Figure 8 blank (also called a spectacle blind) is a pressure retaining plate with one solid end and one open end connected with a web or tie bar (see Figure 1).

Keddco reserves the right to supply the web design (integral, double tie-bar, single wedge) that best suits the use of the raw material in the construction of the spectacle blind.

A paddle blank is similar to the solid end of a figure 8 blank (with a handle) and is generally used in conjunction with a paddle spacer in large sizes (see Figure 2).

A paddle spacer is similar to the open end figure 8 blank (with a handle) and is generally used in conjunction with a paddle blank (see Figure 3).

Paddle spacer handles shall have one 1/2 inch (13 millimeter) minimum diameter hole located near the outer end. This hole serves as a remote visual indicator.

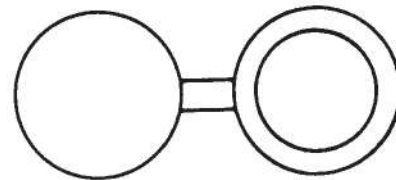


FIG. 1

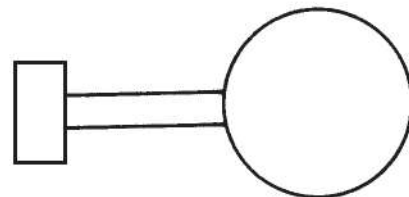


FIG. 2

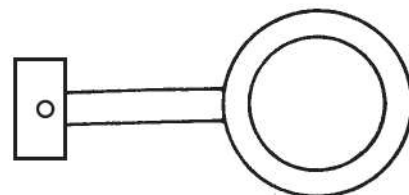


FIG. 3

CAUTION: Paddle blanks shall not be supplied with indicator or bolt holes.

## SECTION - RATING

### Pressure - Temperature Ratings

Pressure-temperature ratings are those listed in ANSI B16.5 and B16.34 standard class for the material group corresponding to the plate materials.

### ANSI Class

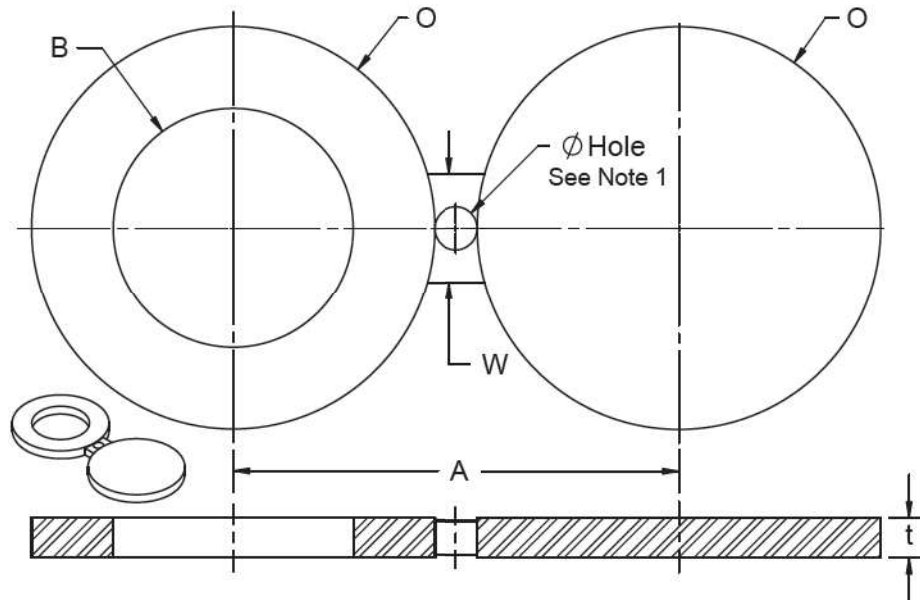
Line blanks covered by this standard are for the following ANSI classes: 150, 300, 600, 900, 1500, and 2500.

MATERIALS	FORGING SPEC. -GR	PLATES SPEC. -GR
CARBON	A105	A516-70
CARBON	A350-LF2	A516-70 NORM
1-1/4 Cr-1/2 Mo	A182-F11	A387-11 CL.2
2-1/4 Cr-1 Mo	A182-F22	A387-22 CL.3
5 Cr-1/2 Mo	A182-F5	A387-5 CL.4
9 Cr-9 Mo	A182-F9	A387-9 CL.5
304SS	A182-GR.F304	A240 GR.304
316SS	A182-GR.F316	A240 GR.316
321SS	A182-GR.F321	A240 GR.321
347SS	A182-GR.F347	A240 GR.347

Note: Other materials available upon request  
Approved weld procedures for all of the above materials

## FIGURE 8 BLINDS

Dimensions of Class 150 Raised Face Figure 8 Blanks



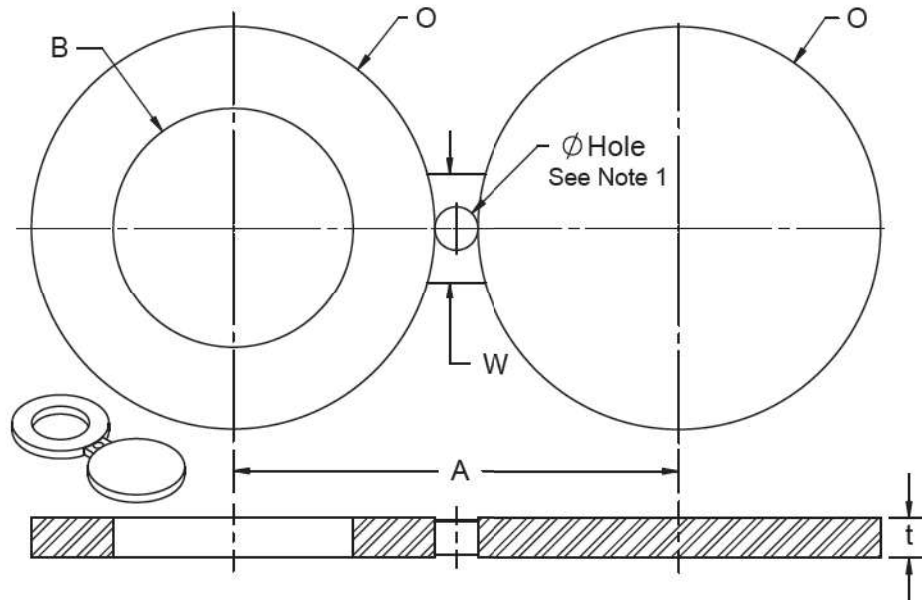
NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	1.75	44	2.38	60	0.12	3	1.50	38	0.62	0.3
3/4	0.82	21	2.12	54	2.75	70	0.12	3	1.50	38	0.62	0.3
1	1.05	27	2.50	64	3.12	79	0.12	3	1.50	38	0.62	0.3
1 1/4	1.66	42	2.88	73	3.50	89	0.25	6	1.50	38	0.62	0.5
1 1/2	1.90	48	3.25	83	3.88	99	0.25	6	1.50	38	0.62	0.7
2	2.38	60	4.00	102	4.75	121	0.25	6	2.00	51	0.75	0.9
2 1/2	2.88	73	4.75	121	5.50	140	0.25	6	2.00	51	0.75	1.8
3	3.50	89	5.25	133	6.00	152	0.25	10	2.50	64	0.75	2.7
3 1/2	4.00	102	6.25	159	7.00	178	0.38	10	2.50	64	0.75	3.4
4	4.50	114	6.75	171	7.50	190	0.38	10	2.50	64	0.75	4.0
5	5.56	141	7.62	194	8.50	216	0.38	13	3.00	76	0.88	6.7
6	6.62	168	8.62	219	9.50	241	0.50	13	3.00	76	0.88	9.4
8	8.62	219	10.88	276	11.75	298	0.50	13	3.00	76	0.88	19.1
10	10.75	273	13.25	337	14.25	362	0.62	16	4.00	102	1.00	32.0
12	12.75	324	16.00	406	17.00	432	0.75	19	4.00	102	1.00	56.0
14	14.00	356	17.62	448	18.75	476	0.75	19	4.25	108	1.12	79.0
16	16.00	406	20.12	511	21.25	540	0.88	22	4.25	108	1.12	115.0
18	18.00	457	21.50	546	22.75	578	1.00	25	4.50	114	1.25	138.0
20	20.00	508	23.75	603	25.00	635	1.12	28	4.75	121	1.25	179.0
24	24.00	610	28.12	714	29.50	749	1.25	32	5.50	140	1.38	306.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.



## FIGURE 8 BLINDS

Dimensions of Class 300 Raised Face Figure 8 Blanks

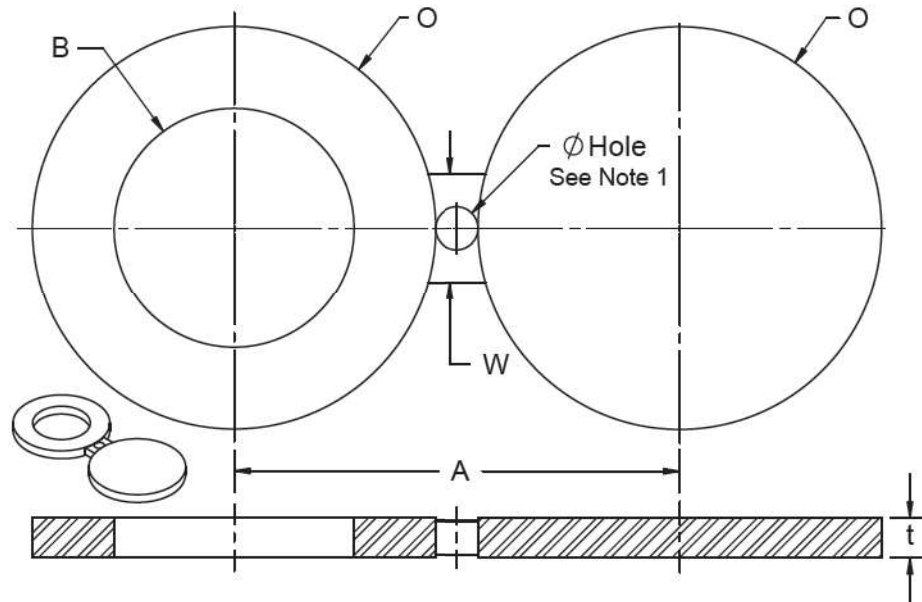


NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	2.00	51	2.62	67	0.25	6	1.50	38	0.62	0.5
3/4	0.82	21	2.50	64	3.25	83	0.25	6	1.50	38	0.75	0.5
1	1.05	27	2.75	70	3.50	89	0.25	6	1.50	38	0.75	0.5
1 1/4	1.66	42	3.12	79	3.88	99	0.25	6	1.50	38	0.75	0.9
1 1/2	1.90	48	3.62	92	4.50	114	0.25	6	1.50	51	0.88	1.3
2	2.38	60	4.25	108	5.00	127	0.38	10	2.00	51	0.75	1.8
2 1/2	2.88	73	5.00	127	5.88	149	0.38	10	2.00	64	0.88	2.4
3	3.50	89	5.75	146	6.62	168	0.38	10	2.50	64	0.88	2.9
3 1/2	4.00	102	6.38	162	7.25	184	0.50	13	2.50	64	0.88	5.4
4	4.50	114	7.00	178	7.88	200	0.50	13	2.50	64	0.88	7.8
5	5.56	141	8.38	213	9.25	235	0.62	16	3.00	76	0.88	14.0
6	6.62	168	9.75	248	10.62	270	0.62	16	3.00	76	0.88	20.1
8	8.62	219	12.00	305	13.00	330	0.88	22	3.00	89	1.00	40.0
10	10.75	273	14.12	359	15.25	387	1.00	25	4.00	102	1.12	65.0
12	12.75	324	16.50	419	17.75	451	1.12	28	4.00	102	1.25	103.0
14	14.00	356	19.00	483	20.25	514	1.25	32	4.25	108	1.25	153.0
16	16.00	406	21.12	537	22.50	572	1.50	38	4.25	108	1.38	215.0
18	18.00	457	23.38	594	24.75	629	1.62	41	4.50	114	1.38	295.0
20	20.00	508	25.62	651	27.00	686	1.75	44	4.75	121	1.38	374.0
24	24.00	610	30.38	772	32.00	813	2.00	51	5.50	140	1.62	625.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.

## FIGURE 8 BLINDS

Dimensions of Class 600 Raised Face Figure 8 Blanks

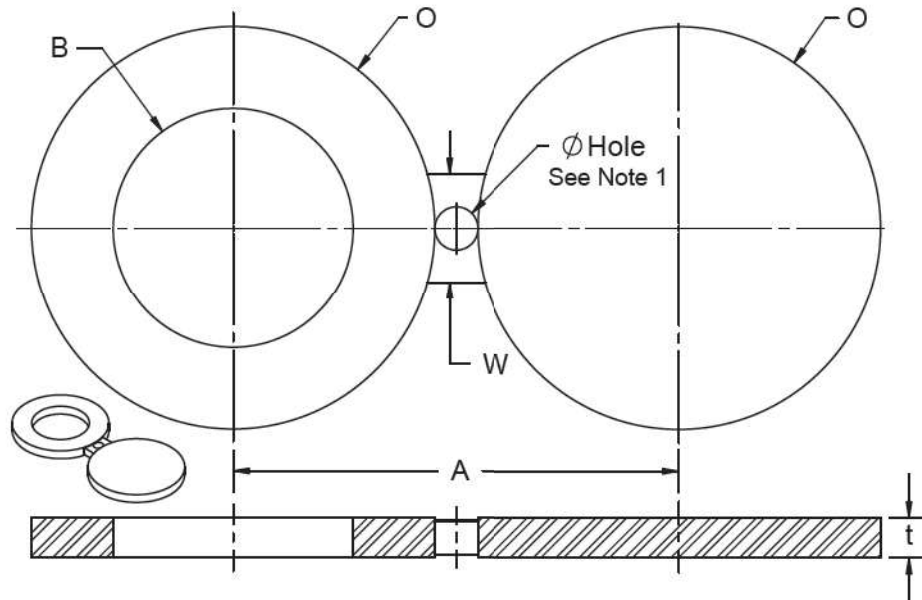


NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	2.00	51	2.62	67	0.25	6	1.50	38	0.62	0.5
3/4	0.82	21	2.50	64	3.25	83	0.25	6	1.50	38	0.75	0.5
1	1.05	27	2.75	70	3.50	89	0.25	6	2.25	57	0.75	0.8
1 1/4	1.44	37	3.12	79	3.88	99	0.38	10	2.25	57	0.75	1.1
1 1/2	1.68	43	3.62	92	4.50	114	0.38	10	2.62	67	0.88	1.3
2	2.16	55	4.25	108	5.00	127	0.38	10	2.25	57	0.75	2.2
2 1/2	2.64	67	5.00	127	5.88	149	0.50	13	2.62	67	0.88	3.9
3	3.26	83	5.75	146	6.62	168	0.50	13	2.62	67	0.88	5.5
3 1/2	3.76	96	6.25	159	7.25	184	0.62	16	3.00	76	1.00	8.8
4	4.26	108	7.50	191	8.50	216	0.62	16	3.00	76	1.00	12.0
5	5.30	135	9.38	238	10.50	267	0.75	19	3.38	86	1.12	23.5
6	6.36	162	10.38	264	11.50	292	0.88	22	3.38	86	1.12	35.0
8	8.33	212	12.50	318	13.75	349	1.12	28	3.75	95	1.25	60.0
10	10.42	265	15.62	397	17.00	432	1.38	35	4.12	105	1.38	117.5
12	12.39	315	17.88	454	19.25	489	1.62	41	4.12	105	1.38	185.0
14	13.62	346	19.25	489	20.75	527	1.75	44	4.50	114	1.50	230.0
16	15.62	397	22.12	562	23.75	603	2.00	51	4.88	124	1.62	340.0
18	17.62	448	24.00	610	25.75	654	2.12	54	5.25	133	1.75	450.0
20	19.56	497	26.75	679	28.50	724	2.50	64	5.25	133	1.75	620.0
24	23.50	597	31.00	787	33.00	838	2.88	73	6.00	152	2.00	975.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.

## FIGURE 8 BLINDS

Dimensions of Class 900 Raised Face Figure 8 Blanks



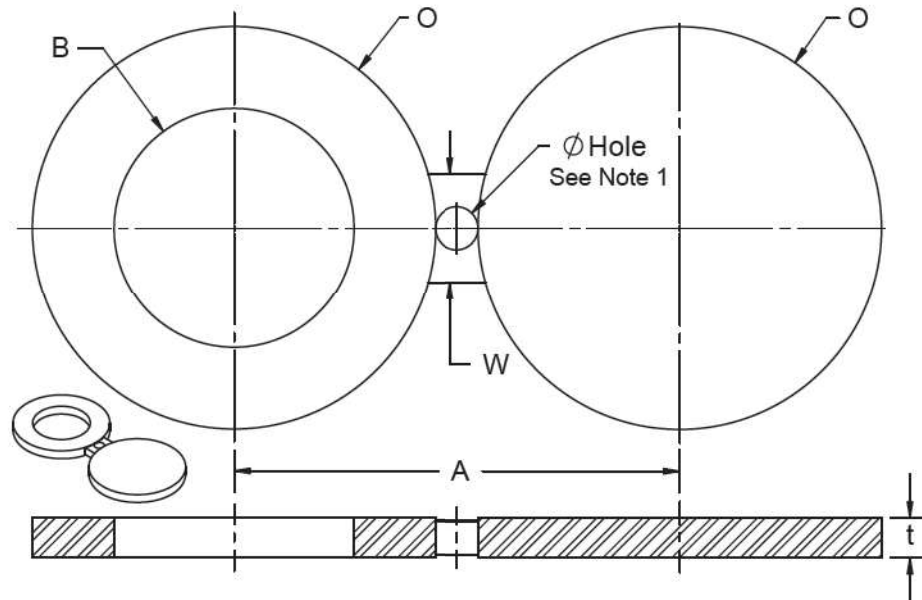
NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	2.38	60	3.25	83	0.25	6	1.50	38	0.88	0.5
3/4	0.82	21	2.62	67	3.50	89	0.25	6	1.62	41	0.88	0.5
1	1.05	27	3.00	76	4.00	102	0.25	6	2.25	57	1.00	0.9
1 1/4	1.44	37	3.38	86	4.38	111	0.38	10	2.25	57	1.00	1.4
1 1/2	1.68	43	3.75	95	4.88	124	0.38	10	2.62	67	1.12	1.8
2	2.16	55	5.50	140	6.50	165	0.50	13	2.25	57	1.00	4.7
2 1/2	2.64	67	6.38	162	7.50	190	0.50	13	2.62	67	1.12	7.1
3	3.26	83	6.50	165	7.50	190	0.62	16	2.62	67	1.00	9.5
4	4.26	108	8.00	203	9.25	235	0.75	19	3.00	76	1.25	17.0
5	5.30	135	9.62	244	11.00	279	0.88	22	3.38	86	1.38	34.8
6	6.36	162	11.25	286	12.50	318	1.00	25	3.38	86	1.25	52.5
8	8.33	212	14.00	356	15.50	394	1.38	35	3.75	95	1.50	97.0
10	10.42	265	17.00	432	18.50	470	1.62	41	4.12	105	1.50	178.0
12	12.39	315	19.50	495	21.00	533	1.88	48	4.12	105	1.50	280.0
14	13.62	346	20.38	518	22.00	559	2.12	54	4.50	114	1.62	305.0
16	15.62	397	22.50	572	24.25	616	2.38	60	4.88	124	1.75	410.0
18	17.62	448	25.00	635	27.00	686	2.62	67	5.25	133	2.00	570.0
20	19.56	497	27.38	695	29.50	749	2.88	73	5.25	133	2.12	750.0
24	23.50	597	32.88	835	35.50	902	3.50	89	6.00	152	2.62	1250.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.



## FIGURE 8 BLINDS

Dimensions of Class 1500 Raised Face Figure 8 Blanks

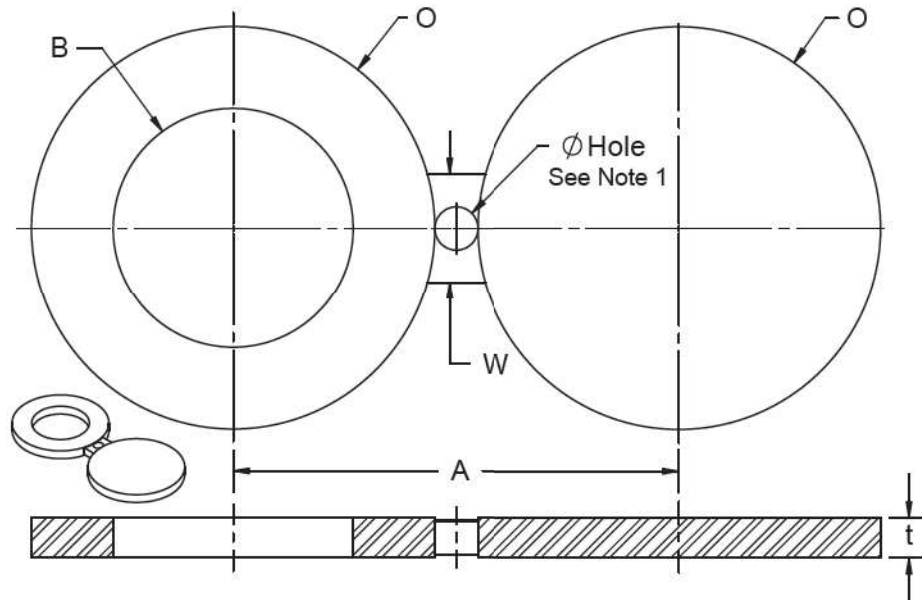


NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	2.38	60	3.25	83	0.25	6	1.50	38	0.88	0.6
3/4	0.82	21	2.62	67	3.50	89	0.38	10	1.62	41	0.88	1.1
1	1.05	27	3.00	76	4.00	102	0.38	10	2.50	64	1.00	1.4
1 1/4	1.38	35	3.38	86	4.38	111	0.38	10	2.50	64	1.00	1.8
1 1/2	1.61	41	3.75	95	4.88	124	0.50	13	2.75	70	1.12	2.8
2	2.07	53	5.50	140	6.50	165	0.50	13	2.75	70	1.00	6.3
2 1/2	2.47	63	6.38	162	7.50	190	0.62	16	3.00	76	1.12	10.4
3	3.07	78	6.75	171	8.00	203	0.75	19	3.00	76	1.25	14.0
4	4.03	102	8.12	206	9.50	241	0.88	22	3.50	89	1.38	22.0
5	5.05	128	9.88	251	11.50	292	1.12	28	3.50	89	1.62	42.0
6	6.06	154	11.00	279	12.50	318	1.38	35	3.50	89	1.50	63.0
8	7.98	203	13.75	349	15.50	394	1.62	41	4.00	102	1.75	113.0
10	10.02	255	17.00	432	19.00	483	2.00	51	4.50	114	2.00	213.0
12	11.94	303	20.38	518	22.50	572	2.38	60	4.50	114	2.12	365.0
14	13.12	333	22.62	575	25.00	635	2.62	67	5.00	127	2.38	497.0
16	15.00	381	25.12	638	27.75	705	3.00	76	5.25	133	2.62	693.0
18	16.88	429	27.62	702	30.50	775	3.38	86	5.75	146	2.88	934.0
20	18.81	478	29.62	752	32.75	832	3.75	95	6.00	152	3.12	1170.0
24	22.62	575	35.38	899	39.00	991	4.38	111	7.00	178	3.62	1547.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.

## FIGURE 8 BLINDS

Dimensions of Class 2500 Raised Face Figure 8 Blanks



NPS	Inside Diameter <i>B</i>		Outside Diameter <i>O</i>		Centerline Dimension <i>A</i>		Thickness <i>t</i>		Web Width <i>W</i>		HOLE	WGT
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
1/2	0.62	16	2.62	67	3.50	89	0.38	10	1.50	38	0.88	1.1
3/4	0.82	21	2.88	73	3.75	95	0.38	10	1.62	41	0.88	1.3
1	1.05	27	3.25	83	4.25	108	0.38	10	2.50	64	1.00	1.7
1 1/4	1.38	35	4.00	102	5.12	130	0.50	13	2.50	64	1.12	3.4
1 1/2	1.61	41	4.50	114	5.75	146	0.62	16	2.75	70	1.25	5.2
2	2.07	53	5.62	143	6.75	171	0.62	16	2.75	70	1.12	8.1
2 1/2	2.47	63	6.50	165	7.75	197	0.75	19	3.00	76	1.25	13.1
3	3.07	78	7.62	194	9.00	229	0.88	22	3.00	76	1.38	21.0
4	4.03	102	9.12	232	10.75	273	1.12	28	3.50	89	1.62	37.0
5	5.05	128	10.88	276	12.75	324	1.38	35	3.50	89	1.88	65.0
6	6.06	154	12.38	314	14.50	368	1.62	41	3.50	89	2.12	97.0
8	7.81	198	15.12	384	17.25	438	2.12	54	4.00	102	2.12	187.0
10	9.75	248	18.62	473	21.25	540	2.62	67	4.50	114	2.62	349.0
12	11.37	289	21.50	546	24.38	619	3.12	79	4.50	114	2.88	553.0

Note: Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.