



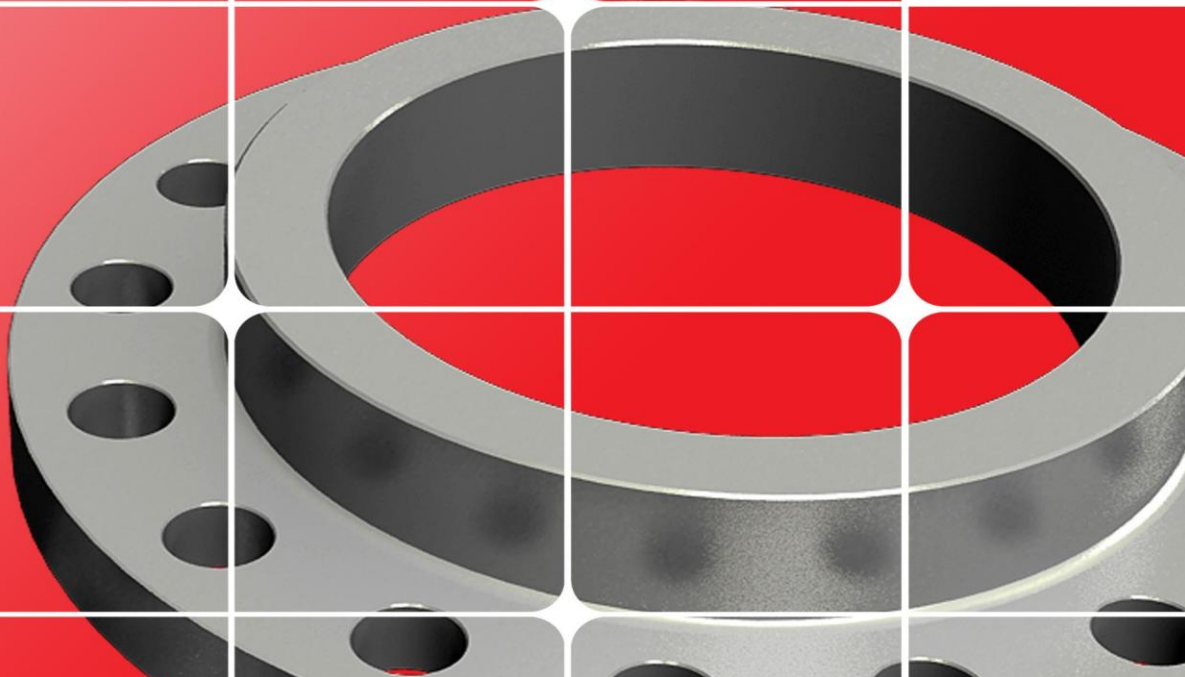
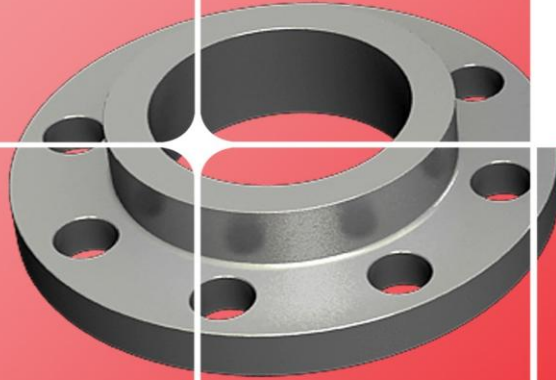
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AWWA FLANGES

- AWWA C207 **B** Ring
- AWWA C207 **D** Ring
- AWWA C207 **E** Ring
- AWWA C207 **F** Ring
- AWWA C207 **Hub** Flanges
- AWWA C228 **SS** Ring SA, SB, SD, SE
- AWWA C228 SS Ring **SF**
- AWWA C228 SS **Blinds**



AWWA Flanges Specifications

Flange Size Range	4" to 144"
Manufacturing Standard	AWWA C207, AWWA C228, AWWA C213
Pressure Rating	86 Psi, 175-150 Psi, 275 Psi, 300 Psi
Flange Face Types	Steel Ring Flanges, Steel Hub Flanges
Coating	Anti-rust Paint, Oil Black Paint, Fusion Bonded Epoxy
Material Grades	Ductile iron. Carbon Steel, Stainless Steel

Industries and Applications

The waterworks-specific AWWA Standard Flanges have been developed to meet light duty applications, typically requiring performance at or below 300 psi. The most common pressure range is AWWA Class D, rated at 175 psi for sizes under 12 inches and 150 psi for larger sizes. AWWA standards provide flange properties intended for potable water use only.

- Waterworks
- Waste water

AWWA C207 Class B Flanges



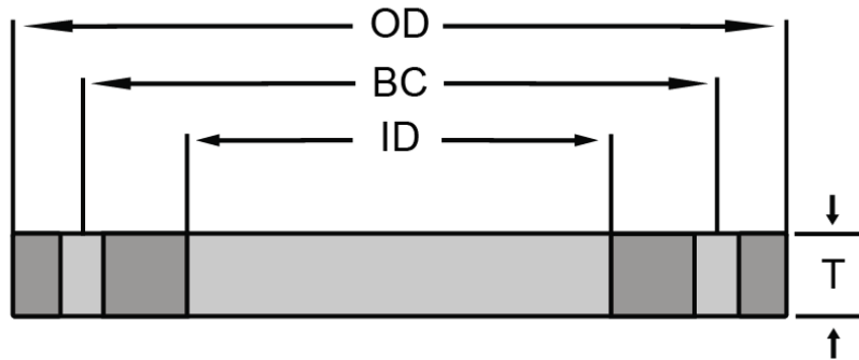
AWWA Ring Flanges



AWWA Hub Flanges

AWWA Flange Dimensions And Weight Chart

AWWA C207 Class B Blind - 86 psi	AWWA C207 Class D Slip On - 175-150 psi	AWWA C207 Class D Hub - 175-150 psi	AWWA C207 E Ring Blind Flange - 275 psi	AWWA C207 Class E Hub Flange - 275 psi
AWWA C207 Class F Ring Flange - 300 psi	AWWA C228 Class SB Ring and Blind- 86 psi	AWWA C228 Class SD Ring and Blind-150 psi	AWWA C228 Class SE Ring and Blind-275 psi	AWWA C228 Class SF Ring and Blind-300 psi

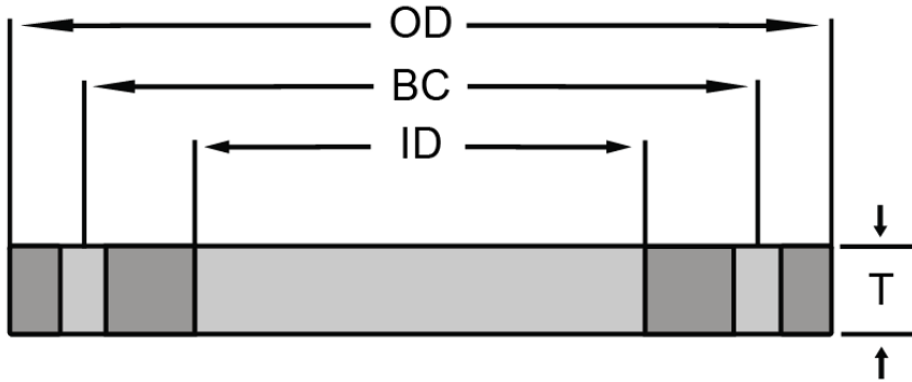
AWWA C207 Class B (86 psi) Blind / Slip-on Flange


NPS	Thick.				Drilling			Weight	
	OD	Slip-On	Blind	Bore	Bolt Circle	Hole Dia	Number Holes	Slip-on	Blind
	A	T	T	B	C				
4	9	0.625	0.625	4.57	7.5	0.75	8	8	11
5	10	0.625	0.625	5.66	8.5	0.875	8	9	14
6	11	0.688	0.688	6.72	9.5	0.875	8	11	19
8	13.5	0.688	0.688	8.72	11.75	0.875	8	15	28
10	16	0.688	0.688	10.88	14.25	1	12	19	39
12	19	0.688	0.719	12.88	17	1	12	28	58
14	21	0.688	0.791	14.19	18.75	1.125	12	34	78
16	23.5	0.688	0.892	16.19	21.25	1.125	16	41	110
18	25	0.688	0.95	18.19	22.75	1.25	16	41	132
20	27.5	0.688	1.04	20.19	25	1.25	20	49	175
22	29.5	0.75	1.132	22.19	27.25	1.375	20	57	219
24	32	0.75	1.216	24.19	29.5	1.375	20	67	277
26	34.25	0.812	1.307	26.19	31.75	1.375	24	80	341
28	36.5	0.875	1.398	28.19	34	1.375	28	94	414
30	38.75	0.875	1.477	30.19	36	1.375	28	105	493
32	41.75	0.936	1.581	32.19	38.5	1.625	28	132	613
34	43.75	0.938	1.661	34.19	40.5	1.625	32	137	707
36	46	1	1.751	36.19	42.75	1.625	32	161	824
38	48.75	1	1.853	38.19	45.25	1.625	32	185	980
40	50.75	1	1.933	40.19	47.25	1.625	36	193	1108
42	53	1.125	2.023	42.19	49.5	1.625	36	234	1264
44	55.25	1.125	2.114	44.19	51.75	1.625	40	249	1436
46	57.25	1.125	2.194	46.19	53.75	1.625	40	260	1600
48	59.5	1.25	2.285	48.19	56	1.625	44	306	1800
50	61.75	1.25	2.377	50.19	58.25	1.875	44	317	2017
52	64	1.25	2.468	52.19	60.5	1.875	44	339	2249
54	66.25	1.375	2.559	54.19	62.75	1.875	44	397	2499
60	73	1.5	2.82	60.19	69.25	1.875	52	508	3344
66	80	1.625	3.092	66.19	76	1.875	52	664	4403
72	86.5	1.75	3.353	72.19	82.5	1.875	60	802	5582
78	93	2		78.19	89	2.125	64	1000	
84	99.75	2		84.19	95.5	2.125	64	1145	
90	106.5	2.25		90.19	102	2.438	68	1404	
96	113.25	2.25		96.19	108.5	2.438	68	1586	
102	120	2.5		102.19	114.5	2.688	72	1912	
108	126.75	2.5		108.19	120.75	2.688	72	2136	
114	133.5	2.75		114.19	126.75	2.938	76	2525	
120	140.25	2.75		120.19	132.75	2.938	76	2795	

126	147	3		126.19	139.25	3.188	80	3252	
132	153.75	3		132.19	145.75	3.188	80	3572	
138	160.5	3.25		138.19	152	3.438	84	4101	
144	167.25	3.25		144.19	158.25	3.438	84	4475	

* Dimensions are in inches

AWWA C207 Class D Slip-On (175-150 psi) Blind / Slip-on Flange

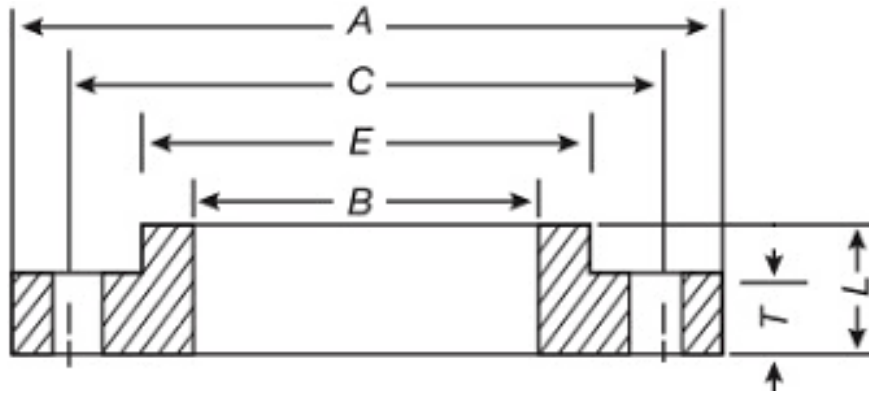


Normal Pipe Size	Thick.		Bore	Drilling			Weight	
	OD	Slip-On	Blind	Bolt Circle	Hole Dia	Number Holes	Slip-on	Blind
	A	T	T	B	C			
4	9	0.625	0.625	4.57	7.5	0.75	8	11
5	10	0.625	0.65	5.66	8.5	0.875	8	14
6	11	0.688	0.693	6.72	9.5	0.875	8	19
8	13.5	0.688	0.812	8.72	11.75	0.875	8	33
10	16	0.688	0.953	10.88	14.25	1	12	54
12	19	0.812	1.117	12.88	17	1	12	90
14	21	0.938	1.133	14.19	18.75	1.125	12	111
16	23.5	1	1.265	16.19	21.25	1.125	16	155
18	25	1.062	1.331	18.19	22.75	1.25	16	185
20	27.5	1.125	1.448	20.19	25	1.25	20	244
22	29.5	1.188	1.568	22.19	27.25	1.375	20	304
24	32	1.25	1.661	24.19	29.5	1.375	20	378
26	34.25	1.312	1.786	26.19	31.75	1.375	24	466
28	36.5	1.312	1.906	28.19	34	1.375	28	565
30	38.75	1.375	2.008	30.19	36	1.375	28	671
32	41.75	1.5	2.15	32.19	38.5	1.625	28	834
34	43.75	1.5	2.252	34.19	40.5	1.625	32	959
36	46	1.625	2.37	36.19	42.75	1.625	32	1116
38	48.75	1.625	2.506	38.19	45.25	1.625	32	1325
40	50.75	1.625	2.609	40.19	47.25	1.625	36	1438
42	53	1.75	2.729	42.19	49.5	1.625	36	1706
44	55.25	1.75	2.849	44.19	51.75	1.625	40	1935
46	57.25	1.75	2.952	46.19	53.75	1.625	40	2153
48	59.5	1.875	3.072	48.19	56	1.625	44	2420
50	61.75	2	3.196	50.19	58.25	1.875	44	2712
52	64	2	3.315	52.19	60.5	1.875	44	3021
54	66.25	2.125	3.435	54.19	62.75	1.875	44	3355
60	73	2.25	3.779	60.19	69.25	1.875	52	4481
66	80	2.5	4.136	66.19	76	1.875	52	5890
72	86.5	2.625	4.48	72.19	82.5	1.875	60	7458
78	93	2.75		78.19	89	2.125	64	1374

84	99.75	2.875		84.19	95.5	2.125	64	1646	
90	106.5	3		90.19	102	2.438	68	1872	
96	113.25	3.25		96.19	108.5	2.438	68	2291	
102	120	3.25		102.19	114.5	2.688	72	2485	
108	126.75	3.375		108.19	120.75	2.688	72	2884	
114	133.5	3.5		114.19	126.75	2.938	76	3214	
120	140.25	3.5		120.19	132.75	2.938	76	3558	
126	147	3.75		126.19	139.25	3.188	80	4065	
132	153.75	3.875		132.19	145.75	3.188	80	4614	
138	160.5	4		138.19	152	3.438	84	5047	
144	167.25	4.125		144.19	158.25	3.438	84	5680	

* Dimensions are in inches

AWWA C207 Class D (175-150 psi) Hub Flange



NPS	OD	Thick.	Overall Thick.	Dia at Base	Bore	Drilling			Weight
						Bolt Circle	Hole Diameter	Number Holes	
	A	T	L	E	B	C			
4	9	0.5	0.875	5.312	4.57	7.5	0.75	8	7
5	10	0.562	1.25	6.312	5.66	8.5	0.875	8	9
6	11	0.562	1.25	7.562	6.72	9.5	0.875	8	11
8	13.5	0.562	1.25	9.688	8.72	11.75	0.875	8	15
10	16	0.688	1.25	12	10.88	14.25	1	12	22
12	19	0.688	1.25	14.375	12.88	17	1	12	33
14	21	0.75	1.25	15.75	14.19	18.75	1.125	12	43
16	23.5	0.75	1.25	18	16.19	21.25	1.125	16	52
18	25	0.75	1.25	19.875	18.19	22.75	1.25	16	52
20	27.5	0.75	1.25	22	20.19	25	1.25	20	61
22	29.5	1	1.75	24.25	22.19	27.25	1.375	20	92
24	32	1	1.75	26.125	24.19	29.5	1.375	20	105
26	34.25	1	1.75	28.5	26.19	31.75	1.375	24	119
28	36.5	1	1.75	30.5	28.19	34	1.375	28	130
30	38.75	1	1.75	32.5	30.19	36	1.375	28	144
32	41.75	1.125	1.75	34.75	32.19	38.5	1.625	28	182
34	43.75	1.125	1.75	36.75	34.19	40.5	1.625	32	191
36	46	1.125	1.75	38.75	36.19	42.75	1.625	32	207
38	48.75	1.125	1.75	40.75	38.19	45.25	1.625	32	237
40	50.75	1.125	1.75	43	40.19	47.25	1.625	36	249
42	53	1.25	1.75	45	42.19	49.5	1.625	36	287
44	55.25	1.25	2.25	47	44.19	51.75	1.625	40	334
46	57.25	1.25	2.25	49	46.19	53.75	1.625	40	348
48	59.5	1.375	2.5	51	48.19	56	1.625	44	407

50	61.75	1.375	2.5	53	50.19	58.25	1.875	44	421
52	64	1.375	2.5	55	52.19	60.5	1.875	44	448
54	66.25	1.375	2.5	57	54.19	62.75	1.875	44	475
60	73	1.5	2.75	63	60.19	69.25	1.875	52	605
66	80	1.5	2.75	69	66.19	76	1.875	52	718
72	86.5	1.5	2.75	75	72.19	82.5	1.875	60	803
78	93	1.75	3	81.25	78.19	89	2.125	64	1010
84	99.75	1.75	3	87.5	84.19	95.5	2.125	64	1160
90	106.5	2	3.25	93.75	90.19	102	2.438	68	1430
96	113.25	2	3.25	100	96.19	108.5	2.438	68	1618

* Dimensions are in inches

AWWA C207 Class E (275 psi) Ring Blind Flange Dimensions

Normal Pipe Size		Thick.			Drilling			Weight	
	Outer Diameter	Slip-On	Blind	Bore	Bolt Circle	Hole Diameter	Number Holes	Slip-on	Blind
	A	T	T	B	C				
4	9	1.125	1.125	4.57	7.5	0.75	8	14	20
5	10	1.188	1.188	5.66	8.5	0.875	8	16	26
6	11	1.313	1.313	6.72	9.5	0.875	8	20	35
8	13.5	1.5	1.5	8.72	11.75	0.875	8	33	61
10	16	1.563	1.563	10.88	14.25	1	12	44	89
12	19	1.75	1.75	12.88	17	1	12	71	141
14	21	1.875	1.875	14.19	18.75	1.125	12	94	184
16	23.5	2	2	16.19	21.25	1.125	16	120	246
18	25	2.125	2.125	18.19	22.75	1.25	16	127	296
20	27.5	2.375	2.375	20.19	25	1.25	20	168	400
22	29.5	2.5	2.5	22.19	27.25	1.375	20	189	484
24	32	2.625	2.625	24.19	29.5	1.375	20	234	598
26	34.25	2.75	2.75	26.19	31.75	1.375	24	270	718
28	36.5	2.75	2.75	28.19	34	1.375	28	297	815
30	38.75	2.875	2.875	30.19	36	1.375	28	344	961
32	41.75	3	3	32.19	38.5	1.625	28	422	1163
34	43.75	3	3.05	34.19	40.5	1.625	32	441	1299
36	46	3.125	3.209	36.19	42.75	1.625	32	502	1511
38	48.75	3.125	3.394	38.19	45.25	1.625	32	580	1795
40	50.75	3.25	3.533	40.19	47.25	1.625	36	626	2025
42	53	3.375	3.695	42.19	49.5	1.625	36	701	2309
44	55.25	3.375	3.857	44.19	51.75	1.625	40	747	2715
46	57.25	3.438	3.997	46.19	53.75	1.625	40	794	2813
48	59.5	3.5	4.159	48.19	56	1.625	44	858	3276
50	61.75	3.5	4.327	50.19	58.25	1.875	44	887	3671
52	64	3.625	4.489	52.19	60.5	1.875	44	982	4091
54	66.25	3.75	4.651	54.19	62.75	1.875	44	1083	4542
60	73	3.875	5.116	60.19	69.25	1.875	52	1313	6066
66	80	4.25	5.601	66.19	76	1.875	52	1736	7976
72	86.5	4.375	6.066	72.19	82.5	1.875	60	2005	10099
78	93	4.75	78.19	89	2.125	64	2374		
84	99.75	4.75	84.19	95.5	2.125	64	2719		
90	106.5	5.125	90.19	102	2.438	68	3197		
96	113.25	5.125	96.19	108.5	2.438	68	3613		
102	120	5.5	102.19	114.5	2.688	72	4206		
108	126.75	5.5	108.19	120.75	2.688	72	4700		

114	133.5	5.875	114.19	126.75	2.938	76	5395		
120	140.25	5.875	120.19	132.75	2.938	76	5972		
126	147	6.25	126.19	139.25	3.188	80	6775		
132	153.75	6.25	132.19	145.75	3.188	80	7442		
138	160.5	6.75	138.19	152	3.438	84	8517		
144	167.25	6.75	144.19	158.25	3.438	84	9295		
* Dimensions are in inches									

AWWA C207 Class E (275 psi) Hub Flange Dimensions

Normal Pipe Size	Outer Diameter	Thick.	Overall Thick.	Diameter at Base	Bore	Drilling		Number Holes	Weight
	A	T	L	E	B	C	Hole Dia		
4	9	0.938	1.312	5.312	4.57	7.5	0.75	8	13
5	10	0.938	1.438	6.438	5.66	8.5	0.875	8	14
6	11	1	1.562	7.562	6.72	9.5	0.875	8	17
8	13.5	1.125	1.75	9.688	8.72	11.75	0.875	8	28
10	16	1.188	1.938	12	10.88	14.25	1	12	37
12	19	1.25	2.188	14.375	12.88	17	1	12	59
14	21	1.375	2.25	15.75	14.19	18.75	1.125	12	78
16	23.5	1.438	2.5	18	16.19	21.25	1.125	16	101
18	25	1.562	2.688	19.875	18.19	22.75	1.25	16	110
20	27.5	1.688	2.875	22	20.19	25	1.25	20	139
22	29.5	1.812	3.125	24	22.19	27.25	1.375	20	162
24	32	1.875	3.25	26.125	24.19	29.5	1.375	20	197
26	34.25	2	3.375	28.5	26.19	31.75	1.375	24	235
28	36.5	2.062	3.438	30.75	28.19	34	1.375	28	269
30	38.75	2.125	3.5	32.75	30.19	36	1.375	28	303
32	41.75	2.25	3.625	35	32.19	38.5	1.625	28	375
34	43.75	2.312	3.688	37	34.19	40.5	1.625	32	401
36	46	2.375	3.75	39.25	36.19	42.75	1.625	32	452
38	48.75	2.375	3.75	41.75	38.19	45.25	1.625	32	528
40	50.75	2.5	3.875	43.75	40.19	47.25	1.625	36	573
42	53	2.625	4	46	42.19	49.5	1.625	36	648
44	55.25	2.625	4	48	44.19	51.75	1.625	40	688
46	57.25	2.688	4.062	50	46.19	53.75	1.625	40	733
48	59.5	2.75	4.125	52.25	48.19	56	1.625	44	799
50	61.75	2.75	4.125	54.25	50.19	58.25	1.875	44	827
52	64	2.875	4.25	56.5	52.19	60.5	1.875	44	922
54	66.25	3	4.375	58.75	54.19	62.75	1.875	44	1024
60	73	3.125	4.5	65.25	60.19	69.25	1.875	52	1253
66	80	3.375	4.875	71.5	66.19	76	1.875	52	1623
72	86.5	3.5	5	78.5	72.19	82.5	1.875	60	1922
78	93	3.875	5.375	84.5	78.19	89	2.125	64	2279
84	99.75	3.875	5.375	90.5	84.19	95.5	2.125	64	2586
90	106.5	4.25	5.75	96.75	90.19	102	2.438	68	3061
96	113.25	4.25	5.75	102.75	96.19	108.5	2.438	68	3432
* Dimensions are in inches									

AWWA C207 Class E (300 psi) Ring Blind Dimensions

Normal Pipe Size	Thick.				Drilling			Weight	
	Outer Diameter	Slip-On	Blind	Bore	Bolt Circle	Hole Diameter	Number Holes	Slip-on	Blind
	A	T	T	B	C				
4	10	1.13	1.13	4.57	7.88	0.875	8	18	25
5	11	1.21	1.21	5.66	9.25	0.875	8	22	33
6	12.5	1.31	1.31	6.73	10.62	0.875	12	30	46
8	15	1.31	1.31	8.73	13	1	12	40	66
10	17.5	1.5	1.5	10.88	15.25	1.125	16	56	102
12	20.5	1.63	1.63	12.88	17.75	1.25	16	83	152
14	23	1.94	1.94	14.19	20.25	1.25	20	128	228
16	25.5	2.14	2.14	16.19	22.5	1.375	20	167	310
18	28	2.25	2.25	18.19	24.75	1.375	24	204	392
20	30.5	2.33	2.33	20.19	27	1.375	24	247	482
22	33	2.5	2.5	22.19	29.25	1.375	24	307	606
24	36	2.69	2.69	24.19	32	1.625	24	388	776
26	38.25	3	3	26.19	34.5	1.875	28	451	977
28	40.75	3.13	3.13	28.19	37	1.875	28	532	1156
30	43	3.15	3.166	30.19	39.25	1.875	28	586	1303
32	45.25	3.25	3.332	32.19	41.5	1.875	28	657	1518
34	47.5	3.38	3.475	34.19	43.5	1.875	28	741	1745
36	50	3.46	3.671	36.19	46	2.125	32	802	2042
38	52.25	3.5	3.815	38.19	48	2.125	32	874	2317
40	54.25	3.63	3.982	40.19	50.25	2.125	36	937	2608
42	57	3.81	4.171	42.19	52.75	2.125	36	1103	3015
44	59.25	4	4.338	44.19	55	2.125	36	1237	3388
46	61.5	4.13	4.505	46.19	57.25	2.125	40	1344	3791
48	65	4.5	4.781	48.19	60.75	2.125	40	1718	4494

* Dimensions are in inches

AWWA C228 Class SA (50 psi) / SB 86 psi / SD 150 psi / SE 275 psi / SF 300 psi) Ring and Blind Flange Dimensions

Nominal Size	Class SA 50 psi	Class SB 86 psi	Class SD 150 psi	Class SE 275 psi	Class SF 300 psi
2	0.50	NA	NA	NA	NA
2½	0.50	NA	NA	NA	NA
3	0.50	NA	NA	NA	NA
4	0.50	0.625	0.625	1.125	1.13
5	0.50	0.625	0.65	1.188	1.21
6	0.50	0.688	0.693	1.313	1.31
8	0.50	0.688	0.8125	1.5	1.31
10	Use class SB	0.688	0.953	1.563	1.5
12	Use class SB	0.719	1.117	1.75	1.63
14	Use class SB	0.791	1.133	1.875	1.94
16	Use class SB	0.892	1.265	2	2.14
18	Use class SB	0.95	1.331	2.125	2.25
20	Use class SB	1.04	1.448	2.375	2.33
22	Use class SB	1.132	1.568	2.5	2.5
24	Use class SB	1.216	1.661	2.625	2.69
26	Use class SB	1.307	1.786	2.75	3
28	Use class SB	1.398	1.906	2.75	3.13
30	Use class SB	1.477	2.008	2.875	3.166
32	Use class SB	1.581	2.15	3	3.332
34	Use class SB	1.661	2.252	3.05	3.475

36	Use class SB	1.751	2.37	3.209	3.671
38	Use class SB	1.853	2.506	3.394	3.815
40	Use class SB	1.933	2.609	3.533	3.982
42	Use class SB	2.023	2.729	3.695	4.171
44	Use class SB	2.114	2.849	3.857	4.338
46	Use class SB	2.194	2.952	3.997	4.505
48	Use class SB	2.285	3.072	4.159	4.781
50	Use class SB	2.377	3.196	4.327	-
52	Use class SB	2.468	3.315	4.489	-
54	Use class SB	2.559	3.435	4.651	-
60	Use class SB	2.82	3.779	5.116	-
66	Use class SB	3.092	4.136	5.601	-
72	Use class SB	3.353	4.48	6.066	-

* Dimensions are in inches

AWWA C228 Stainless Steel Ring Flanges Class SB (86psi) Dimensions

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Inside Diameter of Flange, B in. Tube	Number of Bolts	Drilling		Thickness of Flange
					Diameter of Bolt Circle C in.	Diameter of Bolt Holes in.	Class SB (T) in.
2	6	2.44	2.03	4	4.75	0.75	0.625
2-½"	7	2.94	2.53	4	5.5	0.75	0.625
3	7.5	3.57	3.03	4	6	0.75	0.625
4	9	4.57	4.03	8	7.5	0.75	0.625
5	10	5.66	5.03	8	8.5	0.875	0.625
6	11	6.72	6.03	8	9.5	0.875	0.688
8	13.5	8.72	8.03	8	11.75	0.875	0.688
10	16	10.88	10.03	12	14.25	1	0.688
12	19	12.88	12.06	12	17	1	0.812
14	21	14.19	14.19	12	18.75	1.125	0.938
16	23.5	16.19	16.19	16	21.25	1.125	1
18	25	18.19	18.19	16	22.75	1.25	1.062
20	27.5	20.19	20.19	20	25	1.25	1.125
22	29.5	22.19		20	27.25	1.375	1.188
24	32	24.19	24.16	20	29.5	1.375	1.25
26	34.25	26.25		24	31.75	1.375	1.312
28	36.5	28.25		28	34	1.375	1.312
30	38.75	30.25	30.25	28	36	1.375	1.375
32	41.75	32.25		28	38.5	1.625	1.5
34	43.75	34.25		32	40.5	1.625	1.5
36	46	36.25	36.25	32	42.75	1.625	1.625
38	48.75	38.25		32	45.25	1.625	1.625
40	50.75	40.25		36	47.25	1.625	1.625
42	53	42.25		36	49.5	1.625	1.75
44	55.25	44.25		40	51.75	1.625	1.75

* Dimensions are in inches

AWWA C228 Stainless Steel Ring Flanges Class SD (175 psi ≤ 12 in. - 150 psi > 12 in.) Dimensions

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Inside Diameter of Flange, B in. Tube	Number of Bolts	Drilling		Thickness of Flange
					Diameter of Bolt Circle C in.	Diameter of Bolt Holes in.	Class SD (T) in.
46	57.25	46.25		40	53.75	1.625	1.75
48	59.5	48.25		44	56	1.625	1.875
50	61.75	50.25		44	58.25	1.875	2
52	64	52.25		44	60.5	1.875	2
54	66.25	54.25		44	62.75	1.875	2.125
60	73	60.25		52	69.25	1.875	2.25
66	80	66.25		52	76	1.875	2.5
72	86.5	72.25		60	82.5	1.875	2.625
* Dimensions are in inches							

AWWA C228 Stainless Steel Ring Flanges Class SE (275psi) Dimensions

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Inside Diameter of Flange, B in. Tube	Number of Bolts	Drilling		Thickness of Flange
					Diameter of Bolt Circle C in.	Diameter of Bolt Holes in.	Class SE (T) in.
2	6	2.44	2.03	4	4.75	0.75	0.625
2 1/2	7	2.94	2.53	4	5.5	0.75	0.625
3	7.5	3.57	3.03	4	6	0.75	0.625
4	9	4.57	4.03	8	7.5	0.75	0.625
5	10	5.66	5.03	8	8.5	0.875	0.625
6	11	6.72	6.03	8	9.5	0.875	0.688
8	13.5	8.72	8.03	8	11.75	0.875	0.688
10	16	10.88	10.03	12	14.25	1	0.688
12	19	12.88	12.06	12	17	1	0.812
14	21	14.19	14.19	12	18.75	1.125	0.938
16	23.5	16.19	16.19	16	21.25	1.125	1
18	25	18.19	18.19	16	22.75	1.25	1.062
20	27.5	20.19	20.19	20	25	1.25	1.125
22	29.5	22.19		20	27.25	1.375	1.188
24	32	24.19	24.16	20	29.5	1.375	1.25
26	34.25	26.25		24	31.75	1.375	1.312
28	36.5	28.25		28	34	1.375	1.312
30	38.75	30.25	30.25	28	36	1.375	1.375
32	41.75	32.25		28	38.5	1.625	1.5
34	43.75	34.25		32	40.5	1.625	1.5
36	46	36.25	36.25	32	42.75	1.625	1.625
38	48.75	38.25		32	45.25	1.625	1.625
40	50.75	40.25		36	47.25	1.625	1.625
42	53	42.25		36	49.5	1.625	1.75
44	55.25	44.25		40	51.75	1.625	1.75
* Dimensions are in inches							

AWWA C228 Stainless Steel Ring Flanges Class SF (300psi) Dimensions

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Inside Diameter of Flange, B in. Tube	Number of Bolts	Drilling		Thickness of Flange
					Diameter of Bolt Circle C in.	Diameter of Bolt Holes in.	Class SF (T) in.

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Inside Diameter of Flange, B in. Tube	Number of Bolts	Diameter of Bolt Circle C in.	Diameter of Bolt Holes in.	Class SF (T) in.
4	10	4.57	4.03	8	7.88	0.875	1.13
5	11	5.66	5.03	8	9.25	0.875	1.21
6	12.5	6.73	6.03	12	10.62	0.875	1.31
8	15	8.73	8.03	12	13	1	1.31
10	17.5	10.88	10.03	16	15.25	1.125	1.5
12	20.5	12.88	12.06	16	17.75	1.25	1.63
14	23	14.19	14.19	20	20.25	1.25	1.94
16	25.5	16.19	16.19	20	22.5	1.375	2.14
18	28	18.19	18.19	24	24.75	1.375	2.25
20	30.5	20.19	20.19	24	27	1.375	2.33
22	33	22.19		24	29.25	1.375	2.5
24	36	24.19	24.19	24	32	1.625	2.69
26	38.25	26.25		28	34.5	1.875	3
28	40.75	28.25		28	37	1.875	3.13
30	43	30.25	30.25	28	39.25	1.875	3.15
32	45.25	32.25		28	41.5	1.875	3.25
34	47.5	34.25		28	43.5	1.875	3.38
36	50	36.25	36.25	32	46	2.125	3.46
38	52.25	38.25		32	48	2.125	3.5
40	54.25	40.25		36	50.25	2.125	3.63
42	57	42.25		36	52.75	2.125	3.81
44	59.25	44.25		36	55	2.125	4
46	61.5	46.25		40	57.25	2.125	4.13
* Dimensions are in inches							

AWWA C228 Stainless Blind Thickness Class SA (50psi), Class SB (86 psi), Class SD (175 psi ≤ 12 in. - 150 psi > 12 in.), Class SE (275 psi) and Class SF (300 psi) Flange Dimensions

Nominal Pipe Size in.	Outside Diameter of Flange, A in.	Diameter of Bolt Circle C in.	Class SA 50 psi T in.	Class SB 86 psi T in.	Class SD 150 psi T in.	Class SE 275 psi T in.	Class SF 300 psi T in.
2	6	4.75	0.5	N/A	N/A	N/A	N/A
2.5	7	5.5	0.5	N/A	N/A	N/A	N/A
3	7.5	6	0.5	N/A	N/A	N/A	N/A
4	9	7.5	0.5	0.625	0.625	1.125	1.13
5	10	8.5	0.5	0.625	0.65	1.188	1.21
6	11	9.5	0.5	0.688	0.693	1.313	1.31
8	13.5	11.75	0.5	0.688	0.813	1.5	1.31
10	16	14.25		0.688	0.953	1.563	1.5
12	19	17		0.719	1.117	1.75	1.63
14	21	18.75		0.791	1.133	1.875	1.94
16	23.5	21.25		0.892	1.265	2	2.14
18	25	22.75		0.95	1.331	2.125	2.25
20	27.5	25		1.04	1.448	2.375	2.33
22	29.5	27.25		1.132	1.568	2.5	2.5
24	32	29.5		1.216	1.661	2.625	2.69
26	34.25	31.75		1.307	1.786	2.75	3
28	36.5	34		1.398	1.906	2.75	3.13
30	38.75	36		1.477	2.008	2.875	3.166
32	41.75	38.5		1.581	2.15	3	3.332
34	43.75	40.5		1.661	2.252	3.05	3.475

36	46	42.75		1.751	2.37	3.209	3.671
38	48.75	45.25		1.853	2.506	3.394	3.815
40	50.75	47.25		1.933	2.609	3.533	3.982
42	53	49.5		2.023	2.729	3.695	0.171
44	55.25	51.75		2.114	2.849	3.857	4.338
46	57.25	53.75		2.194	2.952	3.997	4.505
48	59.5	56		2.285	3.072	4.159	4.781
50	61.75	58.25		2.377	3.196	4.327	
52	64	60.5		2.468	3.315	4.489	
54	66.25	62.75		2.559	3.435	4.651	
60	73	69.25		2.82	3.779	5.116	
66	80	76		3.092	4.136	5.601	
72	86.5	82.5		3.353	4.48	6.066	

AWWA C228 Stainless Steel Ring Flange Tolerances

		Tolerance
Outside Diameter	NPS 2" - 72"	± 0.12"
Inside Diameter	NPS 2" - 72"	+ .060" / -0.00"
Overall Length	NPS 2" - 72"	+0.12" / - 0.19"
Flange Thickness	NPS 4 18"	+ 0.12" / -0.00"
	NPS 20"	+ 0.19" / -0.00"
Bolt Circle Diameter	NPS 2" - 72"	± 0.06"
Centre to Centre of Adjacent Bolt Holes	NPS 2" - 72"	± 0.03"
Concentricity Between Bolt Circle Diameter and Machined Face Diameter	NPS 2" - 72"	± 0.06"