

DIMENSIONAL STANDARD · AWWA C207

AWWA C207 Class E Flange Dimensions

AWWA C207 Class E (275 psi) steel ring and hub flange dimensions in inches: OD, bolt circle, holes, bolts and thickness.

This chart gives **AWWA C207 Class E** steel pipe flange dimensions in inches — outside diameter, bolt circle, number and size of bolt holes, bolt size and flange thickness for ring (slip-on) and hub flanges. AWWA C207 covers steel flanges for waterworks service from 4 in to 144 in; Class E is rated 275 psi.

Teshi Group manufactures AWWA C207 ring and hub flanges in India for water transmission, treatment and pumping projects.

- D** Outside diameter of flange
- C** Flange thickness, excluding raised face unless stated
- N** Neck / hub diameter at base
- H** Length through hub / neck length
- K** Bolt circle (pitch circle) diameter
- n** Number of bolts
- L** Bolt hole diameter
- Bolt** Bolt size (metric M or inch diameter)

Class E — steel ring (slip-on) flange, 275 psi — inches

Size	D Flange OD	K Bolt circle	n Bolts	L Hole dia	Bolt Size	C Slip-on ring
4	9	7.5	8	0.75	—	1.125
5	10	8.5	8	0.875	—	1.188
6	11	9.5	8	0.875	—	1.313
8	13.5	11.75	8	0.875	—	1.5
10	16	14.25	12	1	—	1.563
12	19	17	12	1	—	1.75
14	21	18.75	12	1.125	—	1.875
16	23.5	21.25	16	1.125	—	2
18	25	22.75	16	1.25	—	2.125
20	27.5	25	20	1.25	—	2.375
22	29.5	27.25	20	1.375	—	2.5
24	32	29.5	20	1.375	—	2.625
26	34.25	31.75	24	1.375	—	2.75
28	36.5	34	28	1.375	—	2.75
30	38.75	36	28	1.375	—	2.875
32	41.75	38.5	28	1.625	—	3
34	43.75	40.5	32	1.625	—	3
36	46	42.75	32	1.625	—	3.125
38	48.75	45.25	32	1.625	—	3.125

Size	D Flange OD	K Bolt circle	n Bolts	L Hole dia	Bolt Size	C Slip-on ring
40	50.75	47.25	36	1.625	—	3.25
42	53	49.5	36	1.625	—	3.375
44	55.25	51.75	40	1.625	—	3.375
46	57.25	53.75	40	1.625	—	3.438
48	59.5	56	44	1.625	—	3.5
50	61.75	58.25	44	1.875	—	3.5
52	64	60.5	44	1.875	—	3.625
54	66.25	62.75	44	1.875	—	3.75
60	73	69.25	52	1.875	—	3.875
66	80	76	52	1.875	—	4.25
72	86.5	82.5	60	1.875	—	4.375
78	93	89	64	2.125	—	4.75
84	99.75	95.5	64	2.125	—	4.75
90	106.5	102	68	2.438	—	5.125
96	113.25	108.5	68	2.438	—	5.125
102	120	114.5	72	2.688	—	5.5
108	126.75	120.75	72	2.688	—	5.5
114	133.5	126.75	76	2.938	—	5.875
120	140.25	132.75	76	2.938	—	5.875
126	147	139.25	80	3.188	—	6.25
132	153.75	145.75	80	3.188	—	6.25
138	160.5	152	84	3.438	—	6.75
144	167.25	158.25	84	3.438	—	6.75

Class E — steel hub flange, 275 psi — inches

Size	D Flange OD	K Bolt circle	n Bolts	L Hole dia	Bolt Size	C Hub flange	H Overall length incl. hub	N Hub / neck dia
4	9	7.5	8	0.75	—	0.938	1.312	5.312
5	10	8.5	8	0.875	—	0.938	1.438	6.438
6	11	9.5	8	0.875	—	1	1.562	7.562
8	13.5	11.75	8	0.875	—	1.125	1.75	9.688
10	16	14.25	12	1	—	1.188	1.938	12
12	19	17	12	1	—	1.25	2.188	14.375
14	21	18.75	12	1.125	—	1.375	2.25	15.75
16	23.5	21.25	16	1.125	—	1.438	2.5	18
18	25	22.75	16	1.25	—	1.562	2.688	19.875

Size	D Flange OD	K Bolt circle	n Bolts	L Hole dia	Bolt Size	C Hub flange	H Overall length incl. hub	N Hub / neck dia
20	27.5	25	20	1.25	—	1.688	2.875	22
22	29.5	27.25	20	1.375	—	1.812	3.125	24
24	32	29.5	20	1.375	—	1.875	3.25	26.125
26	34.25	31.75	24	1.375	—	2	3.375	28.5
28	36.5	34	28	1.375	—	2.062	3.438	30.75
30	38.75	36	28	1.375	—	2.125	3.5	32.75
32	41.75	38.5	28	1.625	—	2.25	3.625	35
34	43.75	40.5	32	1.625	—	2.312	3.688	37
36	46	42.75	32	1.625	—	2.375	3.75	39.25
38	48.75	45.25	32	1.625	—	2.375	3.75	41.75
40	50.75	47.25	36	1.625	—	2.5	3.875	43.75
42	53	49.5	36	1.625	—	2.625	4	46
44	55.25	51.75	40	1.625	—	2.625	4	48
46	57.25	53.75	40	1.625	—	2.688	4.062	50
48	59.5	56	44	1.625	—	2.75	4.125	52.25
50	61.75	58.25	44	1.875	—	2.75	4.125	54.25
52	64	60.5	44	1.875	—	2.875	4.25	56.5
54	66.25	62.75	44	1.875	—	3	4.375	58.75
60	73	69.25	52	1.875	—	3.125	4.5	65.25
66	80	76	52	1.875	—	3.375	4.875	71.5
72	86.5	82.5	60	1.875	—	3.5	5	78.5
78	93	89	64	2.125	—	3.875	5.375	84.5
84	99.75	95.5	64	2.125	—	3.875	5.375	90.5
90	106.5	102	68	2.438	—	4.25	5.75	96.75
96	113.25	108.5	68	2.438	—	4.25	5.75	102.75

Notes

- All dimensions are in inches (1 in = 25.4 mm).
- AWWA C207 drilling matches ASME B16.1 / B16.5 Class 125/150 drilling in the sizes they share, so AWWA flanges bolt to Class 150 valves and fittings.
- Pressure ratings are for water service at ambient temperature; refer to the standard for test pressures.
- Values are nominal, compiled from published copies of the standard; blank cells (—) are values not confirmed from the sources available. Verify against the current edition before design, purchase or fabrication.

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