



AWWA Blind Flange

Minimum Blind Thickness*

Nominal Pipe size in.	Class B (86 psi) T	Class D† (175-150 psi) T	Class E (275 psi) T	Class F (300 psi) T
4	0.625	0.625	1.125	1.130
5	0.625	0.650	1.188	1.210
6	0.688	0.693	1.313	1.310
8	0.688	0.812	1.500	1.310
10	0.688	0.953	1.563	1.500
12	0.719	1.117	1.750	1.630
14	0.791	1.133	1.875	1.940
16	0.892	1.265	2.000	2.140
18	0.950	1.331	2.125	2.250
20	1.040	1.448	2.375	2.330
22	1.132	1.568	2.500	2.500
24	1.216	1.661	2.625	2.690
26	1.307	1.786	2.750	3.000
28	1.398	1.906	2.750	3.130
30	1.477	2.008	2.875	3.166
32	1.581	2.150	3.000	3.332
34	1.661	2.252	3.050	3.475
36	1.751	2.370	3.209	3.671
38	1.853	2.506	3.394	3.815
40	1.933	2.609	3.533	3.982
42	2.023	2.729	3.695	4.171
44	2.114	2.849	3.857	4.338
46	2.194	2.952	3.997	4.505
48	2.285	3.072	4.159	4.781
50	2.377	3.196	4.327	
52	2.468	3.315	4.489	
54	2.559	3.435	4.651	-
60	2.820	3.779	5.116	-
66	3.092	4.136	5.601	-
72	3.353	4.480	6.066	-

1. All flanges are flat faced.

2. ASTM A36 steel used (allowable stress 16,000 psi).

3. ASTM A307 Grade B bolts (7,000 psi allowable stress) used for class B and D.

4. ASTM A193 Grade B7 Bolts (25,000 psi allowable stress) used for class E and F.

5. For diameters over 48 in., designers should consider using dished heads welded to a standard flange.

*Design Method: ASME Boiler & Pressure Vessel Code, Sec. VIII, Div. 1, UG-34, Eq 2, or corresponding ring-flange thickness, whichever is greater.

†Class D flanges are rated at 175psi for nominal pipe sizes ≤12 in., and 150 psi for nominal pipe sizes > 12 in.