

Series Specifications 110FW.E6 (110FW)

(also called Series 110)

**Table 110FW.E6.8  
 (Series 110FW)  
 Vacuum Rating (psig)**

Size in.	Rating psi	ISO14962 & BS7159	Optional Equation for Piping with External Stiffeners (based on the distance between stiffeners,ft)							
			2.5	5	7.5	10	15	20	25	30
0.50	150	4024.5	2,716.6	2,716.6	2,716.6	2,716.6	2,716.6	2,716.6	2,716.6	2,716.6
0.75	150	2060.6	1,390.9	1,390.9	1,390.9	1,390.9	1,390.9	1,390.9	1,390.9	1,390.9
1.00	150	1192.5	804.9	804.9	804.9	804.9	804.9	804.9	804.9	804.9
1.50	150	503.1	339.6	339.6	339.6	339.6	339.6	339.6	339.6	339.6
2.00	150	257.6	173.9	173.9	173.9	173.9	173.9	173.9	173.9	173.9
2.50	150	149.1	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6
3.00	150	93.9	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
4.00	150	44.2	33.1	29.8	29.8	29.8	29.8	29.8	29.8	29.8
5.00	150	24.2	21.8	16.3	16.3	16.3	16.3	16.3	16.3	16.3
6.00	150	41.9	31.4	28.3	28.3	28.3	28.3	28.3	28.3	28.3
8.00	150	40.7	48.9	30.6	27.5	27.5	27.5	27.5	27.5	27.5
10.00	150	40.1	72.1	30.0	27.0	27.0	27.0	27.0	27.0	27.0
12.00	150	39.6	83.2	29.7	29.7	26.7	26.7	26.7	26.7	26.7
14.00	150	37.4	89.7	39.3	28.0	25.2	25.2	25.2	25.2	25.2
16.00	150	37.4	100.9	44.9	28.0	28.0	25.2	25.2	25.2	25.2
18.00	150	37.4	100.9	44.8	28.0	28.0	25.2	25.2	25.2	25.2
20.00	150	37.4	145.7	67.3	33.6	28.0	25.2	25.2	25.2	25.2
24.00	150	37.4	168.1	78.5	44.8	28.0	28.0	25.2	25.2	25.2
30.00	100	12.0	108.1	37.8	25.2	18.0	10.8	8.6	8.6	8.1
36.00	100	12.0	107.7	43.1	30.5	19.7	11.7	10.8	8.5	8.5
42.00	50	1.7	33.7	10.0	5.7	5.0	3.2	2.4	2.4	1.4
48.00	50	1.7	33.4	13.1	6.9	5.7	3.5	2.6	2.4	2.4
54.00	50	1.6	33.2	13.0	8.1	5.7	3.9	3.1	2.3	2.3
60.00	50	1.6	33.1	18.9	9.8	6.9	4.9	3.4	2.6	2.3
66.00	50	1.6	32.9	18.8	9.8	6.8	4.9	3.4	3.1	2.3
72.00	50	1.6	32.8	18.7	12.9	8.0	5.6	3.9	3.1	2.6

Notes:

1. Values are valid up to 150 F (66 C). Degrade by 1% per 10 F (5.5 C) rise above 150 F (66 C) to account for reduced modulus values.
2. Includes a safety factor of 5.0 except for the ISO14962 equation which includes a safety factor of 3.0.
3. The ISO14962/BS7159 is a generally accepted equation for aboveground piping systems, but this equation does not take into account the effect of stiffeners which can have an effect on the vacuum rating.

Series Specifications 110FW.E6 (110FW)

(also called Series 110)

Table 110FW.E6M.8 (Metric)  
 (Series 110FW)  
 Vacuum Rating (bar)

Size mm	Rating bar	ISO14962 & BS7159	Optional Equation for Piping with External Stiffeners (based on the distance between stiffeners,m)							
			1	2	3	4	5	6	7	8
13	10	277.5	187.3	187.3	187.3	187.3	187.3	187.3	187.3	187.3
19	10	142.1	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
25	10	82.2	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
38	10	34.7	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
51	10	17.8	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
64	10	10.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
76	10	6.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
102	10	3.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
127	10	1.7	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1
152	10	2.9	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9
203	10	2.8	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9
254	10	2.8	2.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9
305	10	2.7	3.3	2.0	1.8	1.8	1.8	1.8	1.8	1.8
356	10	2.6	4.6	1.9	1.7	1.7	1.7	1.7	1.7	1.7
406	10	2.6	5.4	2.3	1.9	1.7	1.7	1.7	1.7	1.7
457	10	2.6	5.4	2.3	1.9	1.7	1.7	1.7	1.7	1.7
508	10	2.6	6.2	2.7	1.9	1.9	1.7	1.7	1.7	1.7
610	10	2.6	7.0	3.1	1.9	1.9	1.7	1.7	1.7	1.7
762	7	0.8	4.7	2.1	1.2	0.8	0.7	0.7	0.6	0.6
914	7	0.8	4.7	2.1	1.4	1.1	0.7	0.7	0.7	0.6
1067	3	0.1	1.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2
1219	3	0.1	1.3	0.6	0.4	0.3	0.2	0.2	0.2	0.2
1372	3	0.1	2.3	0.7	0.4	0.3	0.2	0.2	0.2	0.2
1524	3	0.1	2.3	0.7	0.5	0.3	0.3	0.2	0.2	0.2
1676	3	0.1	2.3	0.9	0.6	0.4	0.3	0.3	0.2	0.2
1829	3	0.1	2.3	0.9	0.6	0.4	0.3	0.3	0.2	0.2

Notes:

1. Values are valid up to 150 F (66 C). Degrade by 1% per 10 F (5.5 C) rise above 150 F (66 C) to account for reduced modulus values.
2. Includes a safety factor of 5.0 except for the ISO14962 equation which includes a safety factor of 3.0.
3. The ISO14692/BS7159 is a generally accepted equation for aboveground piping systems, but this equation does not take into account the effect of stiffeners which can have an effect on the vacuum rating.