

Special Operating Conditions | Metering Orifice

Drop across a 2000 plate for 4500 scfh would be about 13"w.c., as read on graph* from the intersection of 2848 equivalent scfh air and the #2000 capacity line.

Or it can be calculated:

$$\left(\frac{2848}{1548}\right)^2 \times 3.5 = 11.84\text{"w.c.}$$

IF LIMITED PRESSURE IS AVAILABLE

If 3½"w.c. cannot be spared for metering, larger orifice plates can be selected to take less pressure drop. (See graph on page 4).

Part of the pressure drop across an orifice may be recovered. Net recovery, in % of the drop, varies from about 15% for the smallest orifice for any pipe size to about 33% for the largest orifice.

Chart 1. Temperature Correction Factor

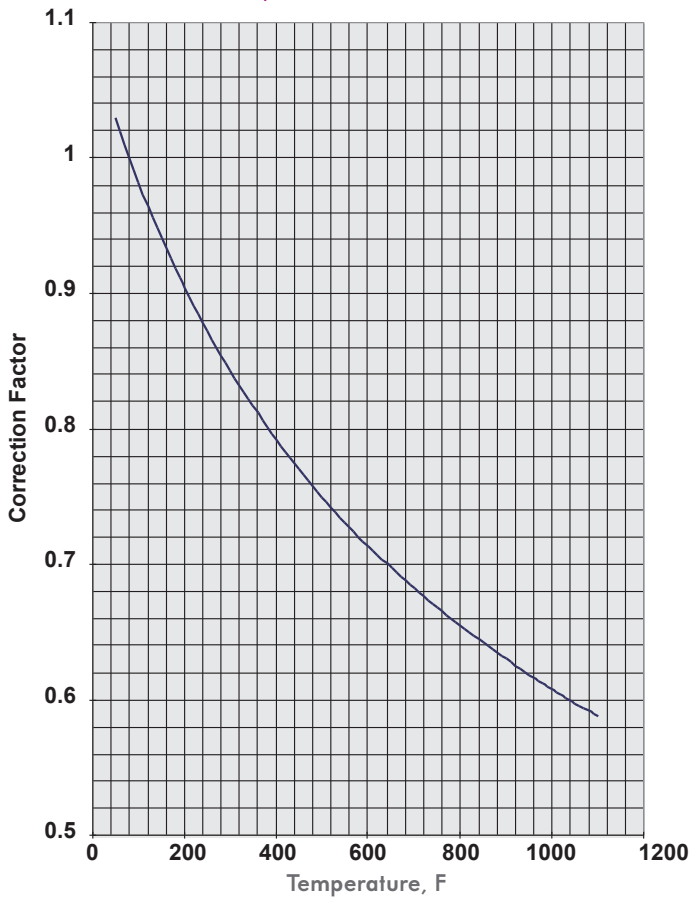
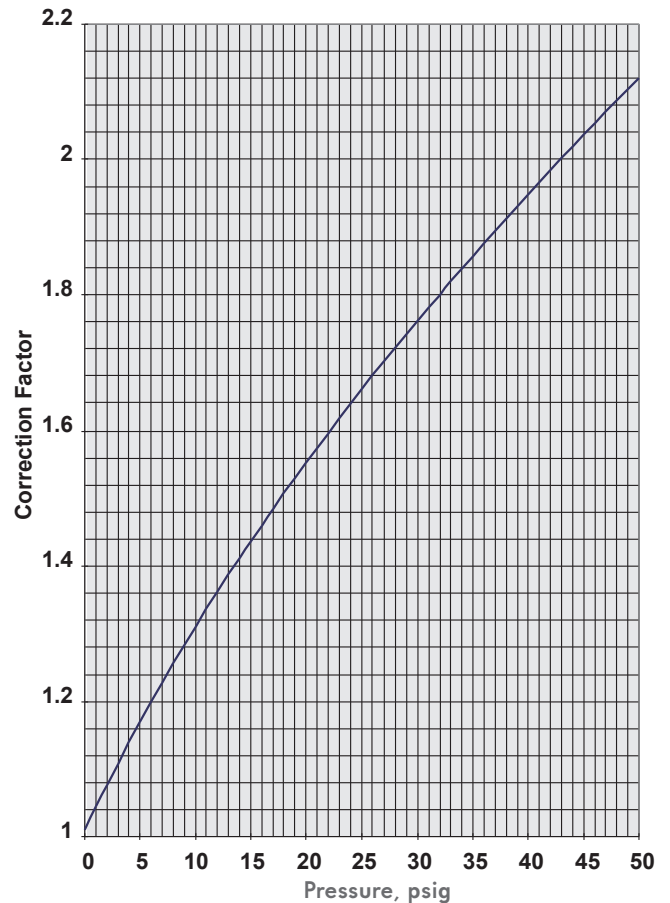


Chart 2. Pressure Correction Factor



ALTITUDE CORRECTION FACTOR FOR AIR OR GAS

Altitude		Factor = \sqrt{G}
feet	meters	
1500	457.2	0.983
2000	609.6	0.975
2500	762.0	0.965
3000	914.4	0.958
3500	1067	0.947
4000	1219	0.939
4500	1372	0.932

Altitude		Factor = \sqrt{G}
feet	meters	
5000	1524	0.921
5500	1676	0.913
6000	1829	0.905
6500	1981	0.898
7000	2133	0.886
7500	2286	0.878
8000	2438	0.870