

Table C.1.c: Air Density Factors to Convert from Indicated Flow to Volumetric Flow.

Temp. of air through the Metering Plate (F)	Elevation (feet)										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
0	0.933	0.950	0.968	0.986	1.005	1.023	1.043	1.062	1.083	1.104	1.125
10	0.943	0.961	0.978	0.996	1.016	1.034	1.054	1.074	1.095	1.116	1.138
20	0.953	0.971	0.989	1.007	1.026	1.045	1.065	1.085	1.106	1.128	1.150
30	0.963	0.981	0.999	1.017	1.037	1.056	1.076	1.097	1.118	1.139	1.162
40	0.973	0.991	1.009	1.028	1.048	1.067	1.087	1.108	1.129	1.151	1.173
50	0.983	1.001	1.019	1.038	1.058	1.077	1.098	1.119	1.140	1.162	1.185
60	0.992	1.010	1.029	1.048	1.068	1.088	1.108	1.130	1.152	1.174	1.197
70	1.002	1.020	1.039	1.058	1.078	1.098	1.119	1.140	1.163	1.185	1.208
80	1.011	1.030	1.049	1.068	1.089	1.109	1.130	1.151	1.174	1.196	1.219
90	1.021	1.039	1.058	1.078	1.099	1.119	1.140	1.162	1.184	1.207	1.231
100	1.030	1.049	1.068	1.088	1.109	1.129	1.150	1.172	1.195	1.218	1.242
110	1.039	1.058	1.078	1.097	1.118	1.139	1.161	1.183	1.206	1.229	1.253
120	1.048	1.067	1.087	1.107	1.128	1.149	1.171	1.193	1.216	1.240	1.264
130	1.057	1.076	1.096	1.117	1.138	1.159	1.181	1.203	1.227	1.250	1.275
140	1.066	1.085	1.106	1.126	1.148	1.169	1.191	1.213	1.237	1.261	1.285
150	1.075	1.094	1.115	1.135	1.157	1.178	1.201	1.224	1.247	1.271	1.296

Volumetric Flow = Indicated Flow x Sqrt (0.075/air density) where air density is the density of air, in lbs/ft³, going through the Metering Plate.

Table C.1.d: Air Density Factors to Convert from Indicated Flow to SCFM.

Temp. of air through the Metering Plate (F)	Elevation (feet)										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
0	1.071	1.052	1.033	1.014	0.995	0.977	0.959	0.941	0.923	0.906	0.889
10	1.060	1.041	1.022	1.004	0.985	0.967	0.949	0.931	0.913	0.896	0.879
20	1.049	1.030	1.011	0.993	0.974	0.957	0.939	0.921	0.904	0.887	0.870
30	1.038	1.020	1.001	0.983	0.964	0.947	0.929	0.912	0.895	0.878	0.861
40	1.028	1.009	0.991	0.973	0.955	0.937	0.920	0.903	0.886	0.869	0.852
50	1.018	0.999	0.981	0.963	0.945	0.928	0.911	0.894	0.877	0.860	0.844
60	1.008	0.990	0.972	0.954	0.936	0.919	0.902	0.885	0.868	0.852	0.836
70	0.998	0.980	0.962	0.945	0.927	0.911	0.894	0.877	0.860	0.844	0.828
80	0.989	0.971	0.954	0.936	0.919	0.902	0.885	0.869	0.852	0.836	0.820
90	0.980	0.962	0.945	0.928	0.910	0.894	0.877	0.861	0.844	0.828	0.813
100	0.971	0.954	0.936	0.919	0.902	0.886	0.869	0.853	0.837	0.821	0.805
110	0.962	0.945	0.928	0.911	0.894	0.878	0.862	0.845	0.829	0.814	0.798
120	0.954	0.937	0.920	0.903	0.886	0.870	0.854	0.838	0.822	0.807	0.791
130	0.946	0.929	0.912	0.896	0.879	0.863	0.847	0.831	0.815	0.800	0.785
140	0.938	0.921	0.905	0.888	0.871	0.856	0.840	0.824	0.808	0.793	0.778
150	0.930	0.914	0.897	0.881	0.864	0.849	0.833	0.817	0.802	0.787	0.772

SCFM = Indicated Flow x Sqrt (air density/0.075) where air density is the density of air, in lbs/ft³, going through the Metering Plate.