THE TRANE COMPANY
COMMERCIAL AIR CONDITIONING DIVISION
DENVER SALES DISTRICT
5654 SOUTH SYRACUSE CIRCLE ENGLEWOOD, COLORADO 80110
(303) 779-0787

F. M. HAYNES
MANAGER

Inches Mercury
x 0.4912 = psi

ALTITUDE CORRECTION FACTORS

(1) ALTITUDE	(2) BAROMETER	(3) SP OR HP CORRECTION RELATIVE DENSITY *	(4) AIR DENSITY	(5) CFM CORRECTION
0	29.92	1.000	.0750	1.000
500	29.38	.981	.0736	1.019
1000	28.85	.964	.0723	1.037
1500	28.33	.947	.0710	1.056
2000	27.82	.930	.0698	1.075
2500	27.31	.913	.0685	1.096
3000	26.81	.896	.0672	1.116
3400	26.42	.883	.0662	1.133
3800	26.03	.870	.0653	1.149
4200	25.65	.858	.0644	1.166
4600	25.27	.845	.0634	1.184
5000 5000	24.89	.832	.0624	1.202
5400	24.52	.819	.0614	1.222
5800	24.16	.807	.0605	1.242
6200	23.80	.794	.0596	1.260
6600	23.45	.784	.0588	1.276
7000	23.10	.774	.0581	1.292
7400	22.70	.760	.0570	1.316
7800	22.39	.746	.0560	1.341
8200	21.97	.734	.0551	1.362
8600	21.68	.725	.0544	1.380
9000	21.38	.715	.0536	1.399
9400	21.06	.704	.0528	1.421
9800	20.73	.693	.0520	1.444
10200	20.42	.682	.0512	1.467
10600	20.13	.672	.0504	1.489
11000	19.83	.662	.0497	1.511
11400	19.54	.653	.0490	1.533
11800	19.24	.643	.0482	1.555
12200	18.95	.633	.0475	1.579
12600	18.65	.623	.0467	1.605
13000	18.36	.613	.0460	1.631
13400	18.06	.603	.0452	1.656
13800	17.77	.594	.0446	1.682
14200	17.47	.584	.0438	1.710
14600	17.18	.574	.0431	1.742
15000	16.88	.564	.0423	1.773

* ALL FIGURES BASED ON 70°F.

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LEGEND & FORMULAS

1.) ALTITUDE
In feet above sea level.

2.) BAROMETER
29.92 inches mercury or 14.7 lbs. per sq. inch atmospheric pressure at sea level with a constant temperature of 70°F.
(1" mercury = .491 lbs. per sq. inch atmos.)

3.) RELATIVE DENSITY (Standard Air)
The ratio of the density of air at sea level (.075 lbs per cu. ft.) to the density of air above or below sea level at a constant temp. of 70°F.

$$\frac{\text{DENSITY - GIVEN ALTITUDE}}{\text{DENSITY - SEA LEVEL}} = \text{RELATIVE DENSITY @ GIVEN ALTITUDE}$$

Static Pressure Correction Factor - The static press. varies as the density @ a constant C.F.M. 4 R.P.M.

$$P_1 = \text{REL. DENS. @ GIVEN ALTITUDE} \times P_2 \quad \text{(Std. Air @ 70°F.)}$$

WHERE:

P_1 = Static Pressure @ Given Altitude
P_2 = Static Pressure @ Sea Level

Horsepower Correction Factor - The brake horsepower varies as the density @ a constant C.F.M. + R.P.M.
BHP @ GIVEN ALT. = REL. DENS. @ GIVEN ALT. x BHP @ SEA LEVEL (Std. Air @ 70°F.)

4.) AIR DENSITY (Standard Air)
The ratio of the relative density of air @ sea level (1.00) compared to the relative density of air above or below sea level @ a constant temp of 70°F.

5.) CFM CORRECTION FACTOR
Used in formula: $Q_1 = Q_2 \times (F_1)$
WHERE:

Q_1 = C.F.M. @ GIVEN ALT. & TEMP.
Q_2 = C.F.M. @ SEA LEVEL & 70°F.
F_1 = C.F.M. CORR. FACTOR