LACO TECHNOLOGIES

# ALTITUDE—PRESSURE CONVERSION TABLE

| ALTITUDE FEET | PRESSURE MBAR (1) | TORR | PSIA | IN. Hg.(2) |
|---|---|---|---|---|
| SEA LEVEL | 1,013 | 760.0 | 14.69 | 29.92 |
| 1,000 | 977.1 | 733.0 | 14.17 | 28.86 |
| 2,000 | 941.9 | 706.6 | 13.66 | 27.82 |
| 3,000 | 908.0 | 681.2 | 13.17 | 26.87 |
| 4,000 | 874.0 | 656.3 | 12.69 | 25.84 |
| 5,000 | 843.1 | 632.5 | 12.23 | 24.90 |
| —1 MILE— | | | | |
| 6,000 | 811.9 | 609.1 | 11.77 | 23.98 |
| 7,000 | 781.8 | 586.5 | 11.34 | 23.09 |
| 8,000 | 752.6 | 564.6 | 10.91 | 22.23 |
| 9,000 | 724.2 | 543.3 | 10.50 | 21.39 |
| 10,000 | 696.7 | 522.7 | 10.10 | 20.58 |
| 11,000 | 670.4 | 502.9 | 9.72 | 19.80 |
| 12,000 | 644.3 | 483.4 | 9.34 | 19.03 |
| 13,000 | 619.6 | 464.8 | 8.99 | 18.30 |
| 14,000 | 595.2 | 446.5 | 8.63 | 17.58 |
| 15,000 | 571.8 | 429.0 | 8.29 | 16.89 |
| 16,000 | 549.2 | 412.0 | 7.96 | 16.22 |
| 17,000 | 527.5 | 395.7 | 7.65 | 15.58 |
| 18,000 | 506.1 | 379.7 | 7.34 | 14.95 |
| 19,000 | 485.9 | 364.5 | 7.05 | 14.35 |
| 20,000 | 465.9 | 349.5 | 6.76 | 13.76 |
| 21,000 | 446.9 | 335.3 | 6.48 | 13.20 |
| 22,000 | 428.3 | 321.3 | 6.21 | 12.65 |
| 23,000 | 410.4 | 307.9 | 5.95 | 12.12 |
| 24,000 | 393.1 | 294.9 | 5.70 | 11.61 |
| 25,000 | 376.6 | 282.5 | 5.46 | 11.12 |
| 26,000 | 360.3 | 270.3 | 5.22 | 10.64 |
| —5 MILES— | | | | |
| 27,000 | 344.7 | 258.6 | 5.03 | 10.18 |
| 28,000 | 329.8 | 247.4 | 4.73 | 9.74 |
| 29,000 | 315.2 | 236.5 | 4.57 | 9.31 |
| 30,000 | 301.4 | 226.1 | 4.37 | 8.90 |
| 31,000 | 288.2 | 216.2 | 4.18 | 8.51 |
| 32,000 | 273.7 | 205.3 | 3.99 | 8.12 |
| 33,000 | 262.7 | 197.1 | 3.81 | 7.76 |
| 34,000 | 250.5 | 187.9 | 3.63 | 7.40 |
| 35,000 | 239.0 | 179.3 | 3.47 | 7.06 |
| 36,000 | 227.9 | 170.9 | 3.30 | 6.73 |
| 37,000 | 217.1 | 162.8 | 3.15 | 6.41 |
| 38,000 | 207.3 | 155.5 | 3.00 | 6.12 |
| 39,000 | 197.5 | 148.1 | 2.86 | 5.83 |
| 40,000 | 188.3 | 141.2 | 2.73 | 5.56 |
| 41,000 | 179.5 | 134.6 | 2.60 | 5.30 |
| 42,000 | 171.1 | 128.3 | 2.48 | 5.05 |
| 43,000 | 162.9 | 122.2 | 2.36 | 4.81 |
| 44,000 | 155.5 | 116.6 | 2.25 | 4.59 |
| 45,000 | 148.4 | 111.3 | 2.15 | 4.38 |
| 46,000 | 141.2 | 105.9 | 2.05 | 4.17 |
| 47,000 | 134.8 | 101.1 | 1.95 | 3.98 |
| 48,000 | 128.4 | 96.27 | 1.85 | 3.79 |
| 49,000 | 122.3 | 91.69 | 1.77 | 3.61 |
| 50,000 | 116.5 | 87.38 | 1.70 | 3.44 |
| 51,000 | 111.1 | 83.31 | 1.61 | 3.28 |
| 52,000 | 106.0 | 79.50 | 1.54 | 3.13 |
| —10 MILES— | | | | |
| 53,000 | 100.9 | 75.69 | 1.46 | 2.98 |
| 54,000 | 96.18 | 72.14 | 1.39 | 2.84 |
| 55,000 | 91.77 | 68.83 | 1.33 | 2.71 |
| 56,000 | 87.72 | 65.79 | 1.27 | 2.59 |
| 57,000 | 83.30 | 62.48 | 1.21 | 2.46 |
| 58,000 | 78.78 | 59.09 | 1.15 | 2.35 |
| 59,000 | 75.86 | 56.90 | 1.10 | 2.24 |
| 60,000 | 72.48 | 54.36 | 1.05 | 2.11 |
| 61,000 | 69.09 | 51.82 | 1.00 | 2.01 |
| 62,000 | 65.71 | 49.28 | .953 | 1.91 |

| ALTITUDE FEET | PRESSURE MBAR (1) | TORR | PSIA | IN. Hg.(2) |
|---|---|---|---|---|
| 63,000 | 62.65 | 46.99 | .908 | 1.85 |
| 64,000 | 58.93 | 44.20 | .864 | 1.76 |
| 65,000 | 56.89 | 42.67 | .825 | 1.68 |
| 70,000 | 44.70 | 33.53 | .613 | 1.32 |
| 75,000 | 33.36 | 25.02 | .484 | .985 |
| 80,000 | 27.84 | 20.88 | .404 | .822 |
| 85,000 | 21.89 | 16.46 | .323 | .648 |
| 90,000 | 17.33 | 13.03 | .252 | .513 |
| 95,000 | 14.19 | 10.67 | .209 | .420 |
| 100,000 | 11.01 | 8.28 | .160 | .326 |
| 110,000 | 7.15 | 5.36 | .104 | .211 |
| 120,000 | 4.71 | 3.53 | .0682 | .109 |
| 130,000 | 3.15 | 2.36 | .0456 | .0629 |
| —25 MILES— | | | | |
| 140,000 | 2.13 | 1.60 | .0309 | .0530 |
| 150,000 | 1.47 | 1.10 | .0213 | .0438 |
| | 1.33 | —1000 Microns— | | |
| 160,000 | 1.00 | .752 | .0147 | .0300 |
| 170,000 | .708 | .531 | .0103 | .0209 |
| 180,000 | .491 | .368 | $7.12 \times 10^{-3}$ | .0145 |
| 190,000 | .336 | .252 | 4.88 " | $9.94 \times 10^{-3}$ |
| 200,000 | .225 | .169 | 3.27 " | 6.67 " |
| 210,000 | .148 | .111 | 2.15 " | 4.33 " |
| | .133 | —100 Microns— | | |
| 220,000 | .0948 | .0711 | 1.37 " | 2.80 " |
| 230,000 | .0593 | .0445 | $8.59 \times 10^{-4}$ | 1.75 " |
| 240,000 | .0347 | .0260 | 5.20 " | 1.05 " |
| 250,000 | .0209 | .0157 | 3.03 " | $6.17 \times 10^{-4}$ |
| | .0133 | —10 Microns— | | |
| 260,000 | .0117 | $8.76 \times 10^{-3}$ | 1.70 " | 3.46 " |
| —50 MILES— | | | | |
| 270,000 | $6.37 \times 10^{-3}$ | 4.78 " | $9.24 \times 10^{-5}$ | 1.88 " |
| 280,000 | 3.45 " | 2.59 " | 4.90 " | 1.02 " |
| 290,000 | 1.87 " | 1.40 " | 2.71 " | $5.52 \times 10^{-5}$ |
| | 1.33 " | —1 Micron— | | |
| 300,000 | 1.06 " | $7.99 \times 10^{-4}$ | $1.47 \times 10^{-5}$ | $2.99 \times 10^{-6}$ |
| 350,000 | $7.41 \times 10^{-4}$ | $5.56 \times 10^{-4}$ | $1.89 \times 10^{-6}$ | 2.23 " |
| 400,000 | 1.80 " | 1.35 " | $2.61 \times 10^{-7}$ | $5.32 \times 10^{-7}$ |
| 450,000 | $7.05 \times 10^{-5}$ | $5.29 \times 10^{-6}$ | 1.22 " | 2.48 " |
| 500,000 | 4.97 " | 3.73 " | $7.22 \times 10^{-8}$ | 1.47 " |
| —100 MILES— | | | | |
| 600,000 | 2.35 " | $1.76 \times 10^{-6}$ | $3.41 \times 10^{-8}$ | $6.54 \times 10^{-8}$ |
| 700,000 | 1.20 " | $9.02 \times 10^{-7}$ | 1.80 " | 3.07 " |
| 800,000 | $6.87 \times 10^{-6}$ | 5.16 " | $9.97 \times 10^{-9}$ | 2.03 " |
| 900,000 | 3.95 " | 2.97 " | 5.74 " | 1.17 " |
| 1,000,000 | 2.37 " | 1.78 " | 3.44 " | $7.00 \times 10^{-9}$ |
| —200 MILES— | | | | |
| 1,100,000 | 1.47 " | 1.10 " | 2.11 " | 4.30 " |
| 1,200,000 | $9.21 \times 10^{-7}$ | $6.91 \times 10^{-8}$ | 1.04 " | 2.72 " |
| 1,300,000 | 5.96 " | 4.47 " | $8.64 \times 10^{-10}$ | 1.76 " |
| 1,400,000 | 3.96 " | 2.97 " | 5.74 " | 1.12 " |
| 1,500,000 | 2.71 " | 2.03 " | 3.87 " | $7.88 \times 10^{-10}$ |
| 1,600,000 | 1.44 " | 1.08 " | 2.66 " | 5.42 " |
| 1,700,000 | 1.27 " | $9.66 \times 10^{-9}$ | 1.87 " | 3.80 " |
| 1,800,000 | $9.15 \times 10^{-8}$ | 6.86 " | 1.33 " | 2.70 " |
| 1,900,000 | 6.53 " | 4.95 " | $9.57 \times 10^{-11}$ | 1.95 " |
| 2,000,000 | 4.81 " | 3.61 " | 6.97 " | 1.42 " |
| —400 MILES— | | | | |

1) To obtain the recognized SI Unit Pa (Pascal = Newtons/ Square Meter) multiply MBAR X 100 or TORR X 133.3.

(2) The Inch scale is often expressed in reverse (30" of Vacuum). Subtract the value in the IN. Hg. column from 30 to obtain "Inches of Vacuum".

## CONVERSION FACTORS

1 mm. Hg.
0.03937 In. Hg.
0.5357 In $H_2O$ @15 Deg C
0.019339 PSIA

1 Micron Hg.=0.001 mm. Hg. @32 Deg F=1,000 Microns 0.00003937 in. Hg.
0.00001934 PSIA

1 PSIA =2.006 In. Hg.
27.70 In. $H_2O$
51.7147 mm. Hg.

1 inch Hg.= 0.49116 PSIA
@32 Deg F 25.400 mm.Hg.
13.61 in $H_2O$

1 Standard Atmosphere = 29.921 in. Hg. @ 32Deg F
760 mm. Hg.
14.696 PSIA

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