

Power, Heat, and Work

1 ton refrigeration	= { 12,000 Btu per hour 200 Btu per minute
Latent heat of ice	= 143.33 Btu per pound
1 Btu	= { 777.5 ft-lb 0.293 watthours 252.02 mean calories
1 watthour	= { 2,655.2 ft-lb 3.415 Btu 3600 joules 860.648 mean calories
1 mean calorie	= { 0.003968 Btu 3.085 ft-lb 0.0011619 watthours
1 kilowatt (1000 watts)	= { 1.3405 horsepower 56.92 Btu per minute 44,252.7 ft-lb per minute
1 horsepower	= { 0.746 kilowatt 42.44 Btu per minute 33,000 ft-lb per minute 550 ft-lb per second
1 boiler horsepower	= 33,471.9 Btu per hour

Weight and Volume

1 gal (U. S.)	= { 231 cu in. 0.13368 cu ft
1 British or Imperial gallon	= 277.274 cu in.
1 cu ft	= { 7.4805 gal 1728 cu in.
1 cu ft water at 60 F	= 62.37 lb
1 cu ft water at 212 F	= 59.76 lb
1 gal water at 60 F	= 8.34 lb
1 gal water at 212 F	= 7.99 lb
1 lb (avdp)	= { 16 oz 7000 grains
1 bushel	= 1.244 cu ft
1 short ton	= 2000 lb
1 long ton	= 2240 lb

Pressure

1 lb per square inch	= { 144 lb per square foot 2.0416 in. mercury at 62 F 2.309 ft water at 62 F 27.71 in. water at 62 F
1 oz per square inch	= { 0.1276 in. mercury at 62 F 1.732 in. water at 62 F
1 atmosphere	= { 14.7 lb per square inch 2116.3 lb per square foot 33.974 ft water at 62 F 30 in. mercury at 62 F 29.921 in. mercury at 32 F

1 in. water at 62 F	= { 0.03609 lb per square inch 0.5774 oz per square inch 5.196 lb per square foot
1 ft water at 62 F	= { 0.433 lb per square inch 62.355 lb per square foot
1 in. mercury at 62 F	= { 0.491 lb per square inch 7.86 oz per square inch 1.131 ft water at 62 F 13.57 in. water at 62 F

Metric Units

1 cm	= 0.3937 in.
1 in.	= 2.54 cm
1 m	= 3.281 ft
1 ft	= 0.3048 m
1 sq cm	= 0.155 sq in.
1 sq in.	= 6.45 sq cm
1 sq m	= 10.765 sq ft
1 sq ft	= 0.0929 sq m
1 cu cm	= 0.061 cu in.
1 cu in.	= 16.39 cu cm
1 cu m	= 35.32 cu ft
1 cu ft	= 0.0283 cu m
1 liter	= 1000 cu cm = 0.264 gal
1 kg	= 2.2046 lb
1 lb	= 0.4536 kg
1 metric ton	= 2205 lb (avdp)
1 gram	= 980.59 dynes = 0.002205 lb
1 kilometer per hour	= 0.6214 mph
1 gram per square centimeter	= { 0.0290 in. mercury, at 0 deg C 0.394 in. water, at 15 C
1 kg per square centimeter (metric atmosphere)	= 14.22 lb per square inch
1 gram per cubic centimeter	= { 0.03614 lb per cubic inch 62.43 lb per cubic foot
1 dyne	= 0.00007233 poundals
1 joule	= { 10,000,000 ergs 0.73767 ft-lb
1 metric horsepower	= { 75 kg-m per second 0.986 hp (U. S.)
1 kilogram-calorie (large calorie)	= { 1000 gram-calories (small calorie) 3.97 Btu
1 kilogram-calorie per kilogram	= 1.8 Btu per pound
1 gram-calorie per square centimeter	= 3.687 Btu per square foot
1 gram-calorie per square centimeter per centimeter	= 1.451 Btu per square foot per inch
1 gram-calorie per second per square centimeter for a temperature graduation of 1 deg C per centimeter.	= { 2903 Btu per hour per square foot for a temperature graduation of 1 deg F per inch of thickness.