

CONVERSION FORMULAS

<i>MULTIPLY</i>	<i>BY</i>	<i>TO OBTAIN</i>	<i>MULTIPLY</i>	<i>BY</i>	<i>TO OBTAIN</i>
Atmospheres (Std.)			Horse-power-hours	2547	BTU
760 MM of Mercury at 32° F	14.696	Lbs./sq. inch	Horse-power-hours	0.7457	Kilowatt-hours
Atmospheres	76	Cms. Of mercury	Inches	2,540	Centimeters
Atmospheres	29.92	In. of mercury	Inches	25.4	Millimeters
Atmospheres	33.9	Feet of water	Inches	0.0254	Meters
Atmospheres	1.0333	Kgs./sq.cm.	Inches	0.0833	Foot
Atmospheres	14.7	Lbs./sq. inch	Inches of mercury	0.03342	Atmospheres
Atmospheres	1.058	Tons/sq. ft	Inches of mercury	1.133	Feet of water
Brit. Therm. Units	0.252	Kilogram-calories	Inches of mercury	13.57	Inches of water
Brit. Therm. Units	777.5	Foot-lbs	Inches of mercury	70.73	Lbs./sq. ft.
Brit. Therm. Units	0.000393	Horse-power-hrs.	Inches of mercury	0.4912	Lbs./sq. inch
Brit. Therm. Units	0.293	Watt-hrs.	Inches of water	0.002458	Atmospheres
BTU/min.	12.96	Foot-lbs./sec	Inches of water	0.07355	In. of mercury
BTU/min.	0.02356	Horse-power	Inches of water	0.5781	Ounces/sq. inch
BTU/min.	0.01757	Kilowatts	Inches of water	5.202	Lbs./sq. foot
BTU/min.	17.57	Watts	Inches of water	0.03613	Lbs./sq. inch
Calorie	0.003968	BTU	Kilowatts	56.92	BTU/min.
Centimeters	0.3937	Inches	Kilowatts	1.341	Horse-power
Centimeters	0.0328	Feet	Kilowatts	1000	Watts
Centimeters	0.01	Meters	Kilowatt-hours	3415	BTU
Centimeters	10	Millimeters	Liters	0.2642	Gallons
Centimeters of Merc.	0.01316	Atmospheres	Liters	2.113	Pints (liq.)
Centimeters of Merc.	0.4461	Feet of water	Liters	1.057	Quarts (liq.)
Centimeters of Merc.	136	Kgs./sq. meter	Meters	100	Centimeters
Centimeters of Merc.	0.1934	Lbs./sq. inch	Meters	3.281	Feet
Cubic Feet	2.832x10 ³	Cubic cms.	Meters	39.37	Inches
Cubic Feet	1728	Cubic Inches	Meters	1000	Millimeters
Cubic Feet	0.02832	Cubic Meters	Meters	1.094	Yards
Cubic Feet	0.03704	Cubic yards	Ounces (fluid)	1.805	Cubic Inches
Cubic Feet	7.48052	Gallons U.S.	Ounces (fluid)	0.02957	Liters
Cubic feet/minute	472	Cubic cms./sec.	Ounces/sq. inch	0.0625	Lbs./sq. inch
Cubic feet/minute	0.1247	Gallons/sec.	Ounces/sq. inch	1.73	Inches of water
Cubic foot water	62.4	Pounds @60°F	Pints	0.4732	Liter
Feet	30.48	Centimeters	Pounds (avoir.)	16	Ounces
Feet	12	Inches	Pounds of water	0.01602	Cubic feet
Feet	0.3048	Meters	Pounds of water	27.68	Cubic inches
Feet	1/3	Yards	Pounds of water	0.1198	Gallons
Feet of water	0.0295	Atmospheres	Pounds/sq. foot	0.01602	Feet of water
Feet of water	0.8826	Inches of Mercury	Pounds/sq. foot	0.006945	Pounds/sq. inch
Feet of water	0.03048	Kgs./sq. cm.	Pounds/sq. inch	0.06804	Atmospheres
Feet of water	62.43	Lbs./sq. ft.	Pounds/sq. inch	2.307	Feet of water
Feet of water	0.4335	Lbs./sq. inch	Pounds/sq. inch	2.036	In. of mercury
Feet/min.	0.508	Centimeters/sec	Pounds/sq. inch	27.68	Inches of water
Feet/min.	0.01667	Feet/sec.	Temp.(°C.)+273	1	Abs. temp. (°C)
Feet/min.	0.01829	Kilometers/hr.	Temp.(°C.)+17.78	1.8	Temp. (°F.)
Feet/min.	0.3048	Meters/min.	Temp.(°F.)+460	1	Abs. temp. (°F)
Feet/min.	0.01136	Miles/hr.	Temp.(°F.)-32	5/9	Temp. (°C)
Foot-pounds	0.001286	BTU	Therm	100,000	BTU
Gallons	3785	Cu. Centimeters	Tons (long)	2240	Pounds
Gallons	0.1337	Cubic feet	Ton, Refrigeration	12,000	BTU/hr.
Gallons	231	Cubic inches	Tons (short)	2000	Pounds
Gallons	128	Fluid ounces	Watts	3.415	BTU
Gallons	3.785	Liters	Watts	0.05692	BTU/min.
Gallons Water	8.35	Lbs. water @60°F	Watts	44.26	Foot-pounds/min.
Horse-power	42.44	BTU/min.	Watts	0.7376	Foot-pounds/sec.
Horse-power	33000	Foot-lbs/min.	Watts	0.001341	Horse-power
Horse-power	550	Foot-lbs./sec.	Watts	0.001	Kilowatts
Horse-power	0.7457	Kilowatts	Watt-hours	3.415	BTU/hr.
Horse-power	745.7	Watts	Watt-hours	2655	Foot-pounds
Horse-power (boiler)	33,479	BTU/hr.	Watt-hours	0.001341	Horse-power hrs.
Horse-power (boiler)	9.803	Kilowatts	Watt-hours	0.001	Kilowatt-hours

LINEAR MEASURE

1 Centimeter	0.3937 inches
1 inch	2.54 centimeters
1 decimeter	3.937 inches or 0.328 foot
1 foot	3.048 decimeters
1 meter	39.37 inches or 1.0936 yards
1 yard	0.91444 meter
1 dekometer	1.9884 rods
1 rod	0.5029 dekometer
1 kilometer	0.62137 mile
1 mile	1.6093 kilometers

SQUARE MEASURE

1 square centimeter	0.1550 square inches
1 square inch	6.452 square centimeters
1 square deimeter	0.1076 square foot
1 square foot	9.2903 square decimeter
1 square meter	1.196 square yards
1 square yard	0.8361 square meter
1 acre	160 square rods
1 square rod	0.00625 acres
1 hectacre	2.47 acres
1 acre	0.4047 hectacre
1 square kilometer	0.386 square mile
1 square mile	2.59 square kilometers

WEIGHTS

1 gram	0.03527 ounce
1 ounce	28.35 grams
1 kilogram	2.2046 pounds
1 pound	0.4536 kilogram
1 metric ton	0.98421 English ton
1 English ton	1.016 metric ton

MEASURE OF VOLUME

1 cubic centimeter	0.061 cubic inch
1 cubic inch	16.39 cubic centimeters
1 cubic decimeter	0.0353 cubic foot
1 cubic foot	28.317 cubic decimeters
1 cubic yard	0.7646 cubic meter
1 stere	0.2759 cord
1 cord	3.624 steres
1 liter	0.908 qt. dry or 1.0567 qts. liquid
1 quart dry	1.101 liters
1 quart liquid	0.9463 liter
1 dekaliter	2.6417 gallons or 1.135 pecks
1 gallon	0.3785 dekaliter
1 peck	0.881 dekaliter
1 hektoliter	2.8375 bushels
1 bushel	0.3524 hectoliter

INCH CONVERSIONS

Fraction of an inch	Decimal Equivalent	Metric Equivalent
1/32	0.03125	0.07937 mm
1/16	0.0625	1.5875 mm
3/32	0.09375	2.3812 mm
1/8	0.125	3.1750 mm
5/32	0.15625	3.9687 mm
3/16	0.1875	4.7625 mm
7/32	0.21875	5.5562 mm
1/4	0.25	6.3500 mm
9/32	0.28125	7.1437 mm
5/16	0.3125	7.9375 mm
11/32	0.34375	8.7312 mm
3/8	0.375	9.5250 mm
13/32	0.40625	10.3187 mm
7/16	0.4375	11.1125 mm
15/32	0.46875	11.9062 mm
1/2	0.5	12.7000 mm
17/32	0.53125	13.4937 mm
9/16	0.5625	14.2875 mm
19/32	0.59375	15.0812 mm
5/8	0.625	15.8750 mm
21/32	0.65625	16.6687 mm
11/16	0.6875	17.4625 mm
23/32	0.71875	18.2562 mm
3/4	0.75	19.0500 mm
25/32	0.78125	19.8437 mm
13/16	0.8125	20.6375 mm
27/32	0.84375	21.4312 mm
7/8	0.875	22.2250 mm
29/32	0.90625	23.0187 mm
15/16	0.9375	23.8125 mm
31/32	0.96875	24.6062 mm
1 Inch	1	25.4000 mm

ENGLISH-METRIC CONVERSION FACTORS

BTU	X	252 = Calories ¹	Kilograms per SQ CM	X	32.81 = Feet of Water
Cubic Feet	X	28,320 = Cubic Centimeters		X	28.96 = Inches of Mercury
	X	28.32 = Liters		X	2048 = Pounds/ Square Foot
Cubic Feet per Minute	X	472 = Cubic Cent. Per Second		X	14.22 = Pounds/Square Inch
Cubic Inches	X	16.39 = Cubic Centimeters	Kilocalories ²	X	1000 = Calories ¹
Cubic Meters	X	28.38 = Bushels (Dry)		X	3.97 = BTU
	X	35.31 = Cubic Feet	Kilometers	X	3281 = Feet
	X	1.308 = Cubic Yards		X	1094 = Yards
	X	264.2 = Gallons (U.S. Liq.)	Kilowatts	X	860.5 = Kilocalories ² / Hour
	X	1000 = Liters	Liters	X	61.02 = Cubic Inches
	X	2113 = Pints (U.S. Liq.)		X	1.057 = Quarts (U.S. Liq.)
	X	1057 = Quarts (U.S. Liq.)	Meters	X	3.281 = Feet
Cubic Yards	X	764.6 = Liters		X	39.37 = Inches
Drams	X	1.772 = Grams		X	1.094 = Yards
Feet	X	30.48 = Centimeters	Ounces (Avoir.)	X	28.35 = Grams
	X	304.8 = Millimeters	Ounces (Troy)	X	31.10 = Grams
Feet per Second	X	1.097 = Kilometers / Hour	Pints (U.S. Liq.)	X	473.2 = Cubic Centimeters
Gallons	X	3785 = Cubic Centimeters	Pounds	X	435.6 = Grams
	X	3.785 = Liters	Pounds per Cubic Foot	X	16.02 = Kilograms / Cubic Meter
Grams	X	15.43 = Grains	Pounds per Cubic Inch	X	27.68 = Grams / Cubic Cent.
	X	1000 = Milligrams	Quarts	X	946.4 = Cubic Centimeters
Grams per Cubic CM	X	62.4 = Pounds per Cubic Foot	Square Feet	X	929 = Square Centimeters
Grams per Liter	X	1000 = Parts per Million	Square Inches	X	6.45 = Square Centimeters
Grams per SQ CM	X	2.05 = Pounds per Square Foot	Square Meters	X	10.76 = Square Feet
Horsepower (English)	X	1.014 = Horsepower (Metric)		X	1,550 = Square Inches
Horsepower	X	641.1 = Kilocalories ²		X	1.196 = Square Yards
Inches	X	2.54 = Centimeters	Tons (Short)	X	907.2 = Kilograms
	X	25.4 = Millimeters	Tons (Metric)	X	1.102 = Tons (Short)
Inches of Mercury	X	345.3 = Kilograms per Square Meter	Watts	X	860.5 = Calories ¹ per Hour
	X	34.53 = Grams Per Sq. Centimeters	Yards	X	91.44 = Centimeters
Kilograms	X	1000 = Grams			
	X	2.205 = Pounds			

¹Calorie = Small Calorie = Gram-Calorie

²Kilocalorie = Large Calorie = Kilogram-Calorie

NOTE: To reverse the above conversion, divide by the conversion factor. Example: Calories ÷ 252 = BTU

ENGLISH CONVERSION FACTORS

Acres	X 43,560	= Square Feet
	X 33.9	= Feet Water @40°F
Atmospheres	X 29.92	= Inches of Mercury @32°F
	X 14.7	= Pounds per Square Inch
Barrels (U.S. Liquid)	X 31.5	= Gallons
	X 1.245	= Cubic Feet
Bushels	X 32	= Quarts (Dry)
	X 4	= Pecks
Cubic Feet	X 1728	= Cubic Inches
	X 7.48	= Gallons (U.S. Liquid)
Cubic Yards	X 27	= Cubic Feet
	X 202	= Gallons (U.S. Liquid)
Gallons	X 231	= Cubic Inches
Grains (Avoir.)	X 1.0	= Grains (Troy)
Horsepower	X 2545	= BTU/Hr.
	X 745.7	= Watts
Kilowatts	X 1.34	= Horsepower
	X 1000	= Watts
Ounces (Avoir.)	X 16	= Dram
	X 437.5	= Grains
Ounces (Fluid)	X 1.81	= Cubic Inches
Ounces (Troy)	X 480	= Grains
	X 1.097	= Ounces (Avoir.)
Pounds (Avoir.)	X 256	= Drams
	X 7000	= Grains
	X 16	= Ounces (Avoir.)
	X 14.58	= Ounces (Troy)
Pounds (Troy)	X 1.22	= Pounds (Troy)
	X 5760	= Grains
	X 13.17	= Ounces (Avoir.)
Pounds (Troy)	X 12	= Ounces (Troy)
	X 2.31	= Feet of Water
Pounds/Sq. In.	X 144	= Pounds/Sq. Ft.
	X 57.57	= Cubic Inches
Quarts (Liquid)	X 57.57	= Cubic Inches
Square Feet	X 144	= Square Inches
Square Yards	X 9	= Square Feet
	X 1296	= Square Inches
Tons (Short)	X 2000	= Pounds
Tons(Long)	X 1.12	= Tons (Short)
Tons of Refrigeration	X 12000	= BTU per Hour
Watts	X 3.41	= BTU per Hour

NOTE: To reverse the above conversions divide by the conversion factor.

Example: Gallons ÷ 7.48 = Cubic Feet

METRIC CONVERSION FACTORS

Atmospheres	X 76	= Centimeters of Mercury
	X 1.0333	= Kilograms per sq. Centimeter
Centimeters	X 10	= Millimeters
CM of Mercury	X 136	= Kilograms per square Meter
Cubic Meters	X 1,000,000	= Cubic Centimeters
	X 1,000	= Liters
Dekograms	X 10	= Grams
Dekaliters	X 10	= Liters
Dekameters	X 10	= Meters
Grams	X 1,000	= Milligrams
Kilocalories ²	X 1,000	= Calories ¹
Kilograms	X 1,000	= Grams
Kiloliters	X 1,000	= Liters
Kilometers	X 1,000	= Meters
Kilowats	X 860.5	= Kilocalories ² per Hour
Liters	X 1,000	= Cubic Centimeters
Meters	X 100	= Centimeters
	X 1,000	= Millimeters
Milliliters	X 1.0	= Cubic Centimeters
Square Centimete	X 100	= Square Millimeters
Square Meters	X 10,000	= Square Centimeters
Watts	X 860.5	= Calories ¹ per Hour

¹Calorie = Small Calorie = Gram-Calorie

²Kilocalorie = Large Calorie = Kilogram-Calorie

NOTE: To Reverse the abvove conversions, divide by the conversion factor.

Example: Liters ÷ 1000 = Cubic Centimeters

APPROXIMATE METRIC EQUIVALENTS

1 decimeter	4 inches
1 liter	1.06 quarts liquid, 0.9 quart dry
1 meter	1.1 yards
1 kilometer	5/8 of a mile
1 hektoliter	2-5/8 bushels
1 hectacre	2-1/2 acres
1 kilogram	2-1/5 pounds
1 stere, or cubic meter	1/4 of a cord
1 metric ton	2,200 pounds