



Conversion Factors & Equivalents

1 Atmosphere	= 760	mm of mercury	1 Kilogram/sq cm	= 0.9678	atmosphere
1 Atmosphere	= 33.91	ft of water (4°C)		= 32.81	feet of water
1 Atmosphere	= 29.92	in. of mercury (0°C)		= 28.96	inches of mercury
1 Atmosphere	= 14.969	psi	1 Kilogram-calories	= 3.969	Btu
1 Bar	= 0.9869	atmosphere		= 3087	ft-lb
1 British thermal unit	= 777.6	foot-lbs		= 4186	joules
1 British thermal unit	= 252.0	gram-calories	1 Kilometer	= 3281	feet
1 British thermal unit	= 1054.8	joules		= 0.6214	miles
1 British thermal unit	= 0.2930x10	kilowatt hours	1 Kilometer/hr	= 54.68	feet/min
1 Btu\hr	= 0.2930	watts	1 Kilowatt	= 56.89	Btu/min
1 Btu\hr° ft² F deg	= 2.0345x10 ³	watts/in ² F deg		= 1.341	horsepower
	= 5.678x10 ⁴	watts/cm² °C	1 Kilowatt-hr	= 3413	Btu
Celsius	= (1.8°C) + 32	Fahrenheit		= 3.6 x 10 ⁶	joules
1 Centimeter	= 0.3937	inches		= 860	kilogram-calories
1 Cm of mercury (0°C)	= 0.4460	feet of water	1 Meter	= 3.281	feet
	= 0.1934	pounds/sq in.		= 39.37	inches
1 Circular mil	= 0.7854	square mils		= 1.094	yards
1 Cubic centimeter	= 0.06102	cubic inches	1 Mile (nautical)	= 6080	feet
1 Cubic foot	= 1728	cubic inches	1 Mile (standard)	= 5280	feet
	= 0.02832	cubic metres	1 Mile/hr	= 88.0	feet/min
	= 28.32	litres		= 0.03937	inches
	= 7.481	gallons	1 mm	= 39.37	miles
1 Cubic foot/min	= 0.472	litres/sec	1 Newton / Sq meter	= 1.0	pascals
1 Cubic foot/sec	= 448.8	gallons/min	1 Ounce	= 28.35	grams
1 Cubic inch	= 16.387	cubic cm		= 0.0625	pounds
	= 0.016387	litres	1 Pint (liquid)	= 473.2	cubic cm
1 Cubic meter	= 35.31	cubic feet		= 28.87	cubic inches
	= 1.308	cubic yards		= 0.4732	litres
	= 264.2	gallons	1 Pound	= 7000	grains
	= 1000.0	litres		= 453.6	grains
CFM x 0.000472	= m ³ /s			= 4.448	newton
1 Erg	= 1.0	cm-dynes		= 0.4536	kg
Fahrenheit	= (F - 32)\1.8	Celsius	1 sq cm	= 0.1550	sq inches
1 Foot	= 0.3048	meters	1 sq foot	= 144.0	sq inches
1 Foot of water (68 F)	= 0.4335	lb/sq in		= 0.09290	sq meters
1 Foot\min	= 0.01136	miles/hr	1 sq inch	= 6.452	sq cm
1 Foot - pound	= 1.383 x 10 ⁴	cm-grams		= 406	sq mils
	= 1.356	joules	1 sq meter	= 10.764	sq feet
FPM x	= m/s			= 1.1960	sq yards
1 Gallon	= 231.0	cubic inches	1 sq mm	= 0.1550	sq inches
	= 3.785	litres	1 sq yard	= 9.0	sq feet
	= 8.346	lb of water (68 F)		= 0.8361	sq meters
1 Gram	= 0.3527	ounces (avdp)	TEMPERATURE:		
	= 2.205 x 10 ³	pounds	Kelvin	= Celsius + 273	
1 Gram-calorie	= 3.969 x 10 ³	Btu	Rankine	= Fahrenheit + 460	
	= 1.163 x 10 ³	watt-hours	1 Ton (Long)	= 1016	kg
1 Horsepower	= 42.41	Btu/min		= 2240	pounds
	= 33 000	ft-lb/min	1 Ton (Short)	= 907.2	kg
	= 550	ft-lb/sec		= 2000	pounds
	= 0.7457	kilowatts	1 Ton (Refrigeration)	= 12 000	Btu/hr
1 Inch	= 25.40	millimeters		= 3.517	kilowatt-hr
	= 1.133	ft of water		= 12.65	megajoule
1 Inch of mercury	= 0.4912	lb/sq in	1 Ton (Metric)	= 1000	kg
	= 0.03453	kg/sq cm		= 2205	pounds
1 Inch of water (0°C)	= 0.07361	inches of mercury	1 Torr	= 1.0	mm hg
	= 0.03613	lb/sq in	1 Watt	= 3.413	Btu/hr
Inches WG x 250	= N/m ²			= 0.8598	kg-calories/hr
1 Joule	= 9.480 x 10 ⁴	Btu	1 Watt-second	= 1.0	joule
	= 0.7376	tf-lb		= 0.8598	kg-calories/hr
	= 2.389 x 10 ⁴	kg-calories			
	= 2.778 x 10 ⁴	watt hours			
1 Kilogram	= 2.205	pounds			