



## Conversion Factors & Equivalents

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