



## MASS

1 kilogramme, kg	=	2.204 pound, lb
1 metric ton, tonne	=	1000 kilogramme, kg

## LENGTH

1 foot, ft	=	0.3048 metre, m
1 inch, in	=	25.4 millimetre, mm
1 metre, m	=	3.28 foot, ft
	=	39.37 inch, in

## AREA

1 square inch, in <sup>2</sup>	=	645.2 square millimetre, mm <sup>2</sup>
1 square metre, m <sup>2</sup>	=	10.76 square foot, ft <sup>2</sup>
	=	1550 square inch, in <sup>2</sup>
	=	1.196 square yard, yd <sup>2</sup>

## VOLUME

1 cubic inch, in <sup>3</sup>	=	16387 cubic millimetre, mm <sup>3</sup>
1 cubic foot, ft <sup>3</sup>	=	0.0283 cubic metre, m <sup>3</sup>
	=	6.24 imperial gallon, gal
	=	28.32 litre, l
1 U.S. gallon, US gal	=	0.833 imperial gallon, gal

## FOR WATER

1 cubic foot of water weighs	62.4 pound
1 imperial gallon of water weighs	10 pound
1 cubic metre of water weighs	1000 kilogramme
1 litre of water weighs	1 kilogramme

## PREFIXES

	Symbol	Factor
tera	T	10 <sup>12</sup>
giga	G	10 <sup>9</sup>
mega	M	10 <sup>6</sup>
kilo	k	10 <sup>3</sup>
hecto*)	h	10 <sup>2</sup>
deca*)	da	10
deci*)	d	10 <sup>-1</sup>
centi*)	c	10 <sup>-2</sup>
milli	m	10 <sup>-3</sup>
micro	u	10 <sup>-6</sup>
nano	n	10 <sup>-9</sup>
pico	p	10 <sup>-12</sup>
femto	f	10 <sup>-15</sup>
atto	a	10 <sup>-18</sup>

\*) These prefixes are not recommended for scientific or engineering use.

## PRESSURE

1 bar	=	14.504 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	100 kilonewton/sq. metre, kN/m <sup>2</sup>
	=	1.020 kilogramme-force/square centimetre, kgf/cm <sup>2</sup>
1 foot of water	=	0.4332 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	0.8824 inch of mercury, in Hg
	=	29.87 millibar, mbar
1 kilogramme-force/sq. centimetre, kgf/cm <sup>2</sup>	=	14.223 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	98.07 kilonewton/sq. metre, kN/m <sup>2</sup>
	=	0.9807 bar
1 kilonewton/sq. metre, kN/m <sup>2</sup> , (kilopascal, kPa)	=	0.145 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	0.0102 kilogramme-force/square centimetre, kgf/cm <sup>2</sup>
	=	0.01 bar
1 pound-force/sq. inch, lbf/in <sup>2</sup> (psi)	=	6.895 kilonewton/sq. metre, kN/m <sup>2</sup>
	=	0.0703 kilogramme-force/square centimetre, kgf/cm <sup>2</sup>
	=	0.0689 bar
1 standard atmosphere, atm	=	14.696 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	1.013 bar
1 torr	=	1 millimetre of mercury, mm Hg
	=	0.0193 pound-force/sq. inch, lbf/in <sup>2</sup>
	=	1.333 millibar, mbar

## FLOWRATE

1 cubic foot/minute, ft <sup>3</sup> /min	=	1.698 cubic metre/hour, m <sup>3</sup> /h
1 litre/second, l/s	=	13.22 imperial gallon/minute, gal/min
	=	793 imperial gallon/hour, gal/h
<b>For Gases</b>		
1 standard cubic foot/min, SCFM (measured at 1 atm, 60 °F)	=	1.605 normal cubic metre/hour, Nm <sup>3</sup> /h (measured at 1 atm, 0 °C)

## DENSITY

1 kilogramme/cubic metre, kg/m <sup>3</sup>	=	1 gramme/litre, g/l
	=	0.0624 pound/cubic foot, lb/ft <sup>3</sup>
1 pound/cubic foot, lb/ft <sup>3</sup>	=	16.018 kilogramme/cubic metre, kg/m <sup>3</sup>

## ENERGY & POWER

1 British thermal unit, Btu	=	1.055 kilojoule, kJ
1 therm	=	10 <sup>5</sup> British thermal unit, Btu
1 British thermal unit/pound, Btu/lb	=	2.326 kilojoule/kilogramme, kJ/kg
1 kilocalorie, kcal	=	4.187 kilojoule, kJ
1 kilowatt, kW	=	1 kilojoule/second, kJ/s
	=	1.341 horsepower, hp
	=	0.948 British thermal unit/second, Btu/s