

Conversion Factors

The following table gives conversions of Imperial and discontinued Metric units in to preferred SI units and others acceptable units. For most practical the approximate conversion will prove adequate but for more critical use the second set of conversion factors should be used.

Form Old Unit	To SI Unit	Approximate conversion	Accuracy	Conversion for greater accuracy
Pressure				
Ibf/in ² (psig)	bar	x7 then ÷ 100	1.5%	÷ 14.5
Ibf/in ² (psig)	N/m ²	x7000	1.5%	x6895
Ibf/in ² (psig)	kilopascal (kpa)	x7	1.5%	x6.9
Ibf/in ² (psig)	megapascal (Mpa)	x7 then ÷ 1000	1.5%	x6.9 then ÷ 1000
KGf/cm ² or kp/cm ²	bar	x1	2.0%	x0.98
KGf/cm ² or kp/cm ²	N/m ²	x100000	2.0%	x98070
KGf/cm ² or kp/cm ²	kilopascal(kpa)	x100	2.0%	x98
KGf/cm ² or kp/cm ²	megapascal (Mpa)	÷ 10	2.0%	x0.98
Atmosphere (Standard)	bar	x1	1.3%	x1.013
Atmosphere (Standard)	N/m ²	x100000	1.3%	x101300
Atmosphere (Standard)	kilopascal(kpa)	x100	1.3%	x101.3
Atmosphere (Standard)	megapascal (Mpa)	÷ 10	1.3%	x0.101
Inches Water Gauge (in H ₂ O)	milibar (mbar)	x10 then ÷ 4	0.6%	x2.49
Millimeters Water Gauge (mm H ₂ O)	milibar (mbar)	x10	2.0%	x0.098
Millimeters of Mercury (mm Hg)	milibar (mbar)	x9 then ÷ 7	0.04%	x1.33
Torr	milibar (mbar)	x9 then ÷ 7	0.04%	x1.33
Tons/in ²	bar	x1000 then ÷ 7	7.5%	x154
Tons/ft ²	bar	x1	1.5%	X1.07
*Also known as a 'technical' atmosphere				
Flow				
Cubic feet per minute (cfm)	Cubic Decimeters/second (dm ³ /s)	÷ 2	5.9%	x4.472
Cubic feet per minute (cfm)	Cubic meters/second (m ³ /s)	÷ 2 then 1000	5.9%	x0.472 then ÷ 1000
Cubic feet per hour	Cubic decimeters/second (dm ³ /s)	x8 then 1000	1.7%	x7.9 then ÷ 1000
Litres/minute (L/m)	Cubic decimeters/second (dm ³ /s)	x2 then 100	20%	÷ 60
Cubic metres/hour (m ³ /h)	Cubic decimeters/second (dm ³ /s)	÷ 4	10%	x0.28
*The litre is equal to 1 cubic decimetre (dm ³) within 28 parts per million and for most practical purpose can be considered to be the same. For more precise work, increase the volume in litres by 1 part in 36000 to find the volume in dm ³ .				
Force (Weight)				
Pound - force (lbf)	newtöne (N)	x4	10%	x9 then ÷ 2
Kilopound (kp)	newtöne (N)	x10	2%	x9.8
Torque				
Pound - force foot (lbf ft)	newtöne-metre (N m)	x3 then ÷ 2	10%	x1.36
Pound - force inches (lbf ft)	newtöne-metre (N m)	÷ 10%	11%	x0.11
Length				
Inch (in)	millimetres (mm)	÷ 4 then x100	1.6%	x25.4
Foot (ft)	meter (m)	÷ 3 then x10	1.6%	x0.305
Yard (yd)	meter (m)	x1	9%	x12 then ÷ 13
n/16 inch	millimeters (mm)	'n'x3 then ÷ 2	5.5%	x1.6
n/1000 inch	millimeters (mm)	'n' ÷ 4 then ÷ 10	1.6%	x0.0254
Mile (ml)	kilometer (km)	x1.5	6.8%	x1.609
Mass				
Pound (lb)	kilogramme (mm)	÷ 2	10%	x0.45
Pound (lb)	gramme (g)	x1000 then ÷ 2	10%	x454
Ounce (oz)	gramme (g)	x30	6%	x28.4
Long Ton (UK)	Tonne (t)	x1	1.6%	x1.02
Short Ton (USA)	tonne (t)	x9 then ÷ 10	0.8%	x0.91
Power				
Horsepower (hp)	watt (W)	x3 then ÷ 4 then x1000	0.6%	x746
Horsepower (hp)	kilowatt (kw)	x3 then ÷ 4	0.6%	x0.746
Energy, Work				
Foot-pound-force (ft.lbf)	Joule (J)	x9 then ÷ 7	5.5%	x1.35
Kilogramme-force metres (kgf. m)	Joule (J)	x10	1.3%	x9.807
British thermal unit (Btu)	Joule (J)	x1000	5.5%	x1055
Volume				
Gallon (UK) (gal)	litre (L)	x5	10%	x4.54
Gallon (UK) (gal)	litre (L)	x4	5.7%	x3.79
Pint (UK) (pt)	litre (L)	x6 then ÷ 10	5.6%	x0.57
Pint (USA) (pt)	litre (L)	÷ 2	5.7%	x0.47
Fluid ounce (UK) (fl oz)	Cubic centimetre (cm ³)	x30	5.6%	x28.4
Fluid ounce (UK) (fl oz)	Cubic centimeter (cm ³)	x30	1.4%	x29.6
Temperature				
Fahrenheit (°F)	Celsius (°C)	÷ 32 then ÷ 2	10% between 0°F and 400°F	+40 then x 5 then ÷ 9 then ÷ 40 then

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical specifications and Dimensions without prior notice.

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