



## Conversion Factors

### Length (distance)

Inches (in)	x	25.4	= Millimetres (mm)	x	0.0394	= Inches (in)
Feet (ft)	x	0.305	= Metres (m)	x	3.281	= Feet (ft)
Miles	x	1.609	= Kilometres	x	0.621	= Miles

### Volume (capacity)

Cubic Inches (cu in; in <sup>3</sup> )	x	16.387	= Cubic centimetres (cc; cm <sup>3</sup> )	x	0.061	= Cubic Inches (cu in; in <sup>3</sup> )
Imperial Pints (Imp pt)	x	0.568	= Litres (l)	x	1.76	= Imperial Pints (Imp pt)
Imperial Quarts (Imp qt)	x	1.137	= Litres (l)	x	0.88	= Imperial Quarts (Imp qt)
Imperial Quarts (Imp qt)	x	1.201	= US quarts (US qt)	x	0.833	= Imperial Quarts (Imp qt)
US Quarts (US qt)	x	0.946	= Litres (l)	x	1.057	= US Quarts (US qt)
Imperial Gallons (Imp gal)	x	4.546	= Litres (l)	x	0.22	= Imperial Gallons (Imp gal)
Imperial Gallons (Imp gal)	x	1.201	= US gallons (US gal)	x	0.833	= Imperial Gallons (Imp gal)
US Gallons (US gal)	x	3.785	= Litres (l)	x	0.264	= US Gallons (US gal)

### Mass (weight)

Ounces (oz)	x	28.35	= Grams (g)	x	0.035	= Ounces (oz)
Pounds (lb)	x	0.454	= Kilograms (kg)	x	2.205	= Pounds (lb)

### Force

Ounces-force (ozf; oz)	x	0.278	= Newtons (N)	x	3.6	= Ounces-force (ozf; oz)
Pounds-force (lbf; lb)	x	4.448	= Newtons (N)	x	0.225	= Pounds-force (lbf; lb)
Newtons (N)	x	0.1	= Kilograms-force (kgf; kg)	x	9.81	= Newtons (N)

### Pressure

Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )	x	0.070	= Kilograms-force per square centimetre (kgf/cm <sup>2</sup> ; kg/cm <sup>2</sup> )	x	14.223	= Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )
Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )	x	0.068	= Atmospheres (atm)	x	14.696	= Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )
Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )	x	0.069	= Bars	x	14.5	= Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )
Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )	x	6.895	= Kilopascals (kPa)	x	0.145	= Pounds-force per square inch (psi; lbf/in <sup>2</sup> ; lb/in <sup>2</sup> )
Kilopascals (kPa)	x	0.01	= Kilograms-force per square centimetre (kgf/cm <sup>2</sup> ; kg/cm <sup>2</sup> )	x	98.1	= Kilopascals (kPa)

### Torque (moment of force)

Pounds-force inches (lbf in; lb in)	x	1.152	= Kilograms-force centimetre (kgf cm; kg cm)	x	0.868	= Pounds-force inches (lbf in; lb in)
Pounds-force inches (lbf in; lb in)	x	0.113	= Newton metres (Nm)	x	8.85	= Pounds-force inches (lbf in; lb in)
Pounds-force inches (lbf in; lb in)	x	0.083	= Pounds-force feet (lbf ft; lb ft)	x	12	= Pounds-force inches (lbf in; lb in)
Pounds-force feet (lbf ft; lb ft)	x	0.138	= Kilograms-force metres (kgf m; kg m)	x	7.233	= Pounds-force feet (lbf ft; lb ft)
Pounds-force feet (lbf ft; lb ft)	x	1.356	= Newton metres (Nm)	x	0.738	= Pounds-force feet (lbf ft; lb ft)
Newton metres (Nm)	x	0.102	= Kilograms-force metres (kgf m; kg m)	x	9.804	= Newton metres (Nm)

### Power

Horsepower (hp)	x	745.7	= Watts (W)	x	0.0013	= Horsepower (hp)
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### Velocity

Miles per hour (miles/hr; mph)	x	1.609	= Kilometres per hour	x	0.621	= Miles per hour (miles/hr; mph)
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### Fuel Consumption\*

Miles per gallon, Imperial (mpg)	x	0.354	= Kilometres per litre (km/l)	x	2.825	= Miles per gallon, Imperial (mpg)
Miles per gallon, US (mpg)	x	0.425	= Kilometres per litre (km/l)	x	2.352	= Miles per gallon, US (mpg)

### Temperature

Degrees Fahrenheit	= (°C x 1.8) + 32	Degrees Celsius (Degrees Centigrade: °C)	= (°F - 32) x 0.56
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\* It is common practise to convert from miles per gallon (mpg) to litres /100 kilometres (l/100km), where mpg (Imperial) x l/100km = 282 and mpg (US) x l/100 km = 235



## Conversion Factors (Cont'd)

### Pressure

Multiply	By	Giving
Ins. Of Water	0.0361	Psi
Ins. Of Water	0.0735	Ins. Of Mercury
Feet Of Water	0.4332	Psi
Feet Of Water	0.8824	Ins. Of Mercury
Feet Of Water	0.305	Metres Of Water
Ins. Of Mercury	0.4912	Psi
Ins. Of Mercury	13.6	Ins. Of Water
Cms Of Mercury	0.1934	Psi
Bars	14.5	Psi
Bars	33.5	Feet Of Water
Bars	750	MM Of Mercury
Psi	27.71	Ins. Of Water
Psi	2.312	Feet Of Water
Psi	2.04	Ins. Of Mercury
Psi	0.0689	Bars
Psi	0.0703	Kg. Per. Sq. Cm
Psi	703.08	Kg. Per. Sq. Cm
Kg. Per Sq. Cm	14.223	Psi
Kg. Per. Sq. M	0.00142	Psi

### Weight

Multiply	By	Giving
Cu. Ins Of Water	0.0361	Lbs ( 15°C)
Cu. Ft Of Water	62.4	Lbs ( 15°C)
Imp. Gall. Water	10.0	Lbs ( 15°C)
U.S Gall. Water	8.33	Lbs ( 15°C)
Litres Water	2.2	Lbs ( 15°C)
Kilogram	2.2	Lbs

### Capacity

Multiply	By	Giving
Cubic Ins	16.39	Cubic Centimetres
Cubic Ins	1728	Cubic Feet
Cubic Feet	28,316.83	Cubic Centimetres
Cubic Feet	6.23	Imp. Gallons
Cubic Feet	7.4805	U.S Gallons
Cubic Feet	28.375	Litres
Imp Gallons	277.27	Cubic Ins
U.S Gallons	231.00	Cubic Ins
Imp Gallons	1.2	U.S Gallons
Imp Gallons	4.537	Litres
U.S Gallons	3.785	Litres
U.S Gallons	0.1337	Cubic Feet
Litres	61.0	Cubic Ins
Litres	0.0353	Cubic Feet
Litres	0.22	Imp. Gallons
Litres	0.2642	U.S Gallons
Cubic Metres	35.315	Cubic Feet
Cubic Feet	0.02832	Cubic Metres
Barrels (Oil)	42	U.S Gallons
Barrels (Imp)	36	Imp. Gallons
Barrels (Imp)	164.00	Litres
Barrels (Oil)	159.00	Litres

### Density

Multiply	By	Giving
Lbs. Per Cu. In.	27.68	Grams Per Cu. Cm
Gr. Per. Cu. Cm	0.03613	Lb. Per Cu. In.
Lb Per Cu. Ft	16.0180	Kg. Per Cu. Metre
Kg. Per. Cu. M	0.06243	Lb. Per Cu. Foot

### Area

Multiply	By	Giving
Sq. Ins.	6.4516	Sq. Cms.
Sq. Cms.	0.155	Sq. Ins.
Sq. Cms.	0.00108	Sq. Feet.
Sq. Ft.	929.03	Sq. Cms.

