

## METRIC / IMPERIAL CONVERSION CHART

| Quantity           | Metric Unit                                | Imperial Unit               | Metric to Imperial unit                                 | Imperial to Metric Unit                               |
|--------------------|--|-----------------------------|---|---|
| Length             | millimetre (mm) or centimetre (cm)         | Inch (in)                   | 1 cm = 0.394'   | 1 inch = 25.4 mm                                      |
|                    | centimetre (cm) or metre (m)               | foot (ft)                   | 1 m = 3.28'   | 1' = 30.5 cm  |
|                    | meter (m)                                  | yard (yd)                   | 1 m = 1.09 yd   | 1 yd = 0.914 m  |
|                    | kilometre (km)                             | mile                        | 1 km = 0.621 mile                                       | 1 mile = 1.61 km                                      |
| Temperature        | Celsius                                    | Fahrenheit                  | $^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$ | $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \div 1.8$ |
| Mass               | gram (g)                                   | ounce (oz)                  | 1 g = 0.0353 oz   | 1 oz = 28.3 g   |
|                    | gram (g) or kilogram (kg)                  | pound (lb)                  | 1 kg = 2.20 lb  | 1 lb = 454 g  |
|                    | tonne (t)                                  | ton                         | 1 tonne = 0.984 ton                                     | 1 ton = 1.02 tonne                                    |
| Volume<br>(fluids) | millilitre (mL)                            | fluid ounce (fl oz)         | 1 mL = 0.0352 fl oz                                     | 1 fl oz = 28.4 mL                                     |
|                    | millilitre (mL) or litre (L)               | pint (pt)                   | 1 litre = 1.76 pint                                     | 1 pint = 568 mL                                       |
|                    | litre (L) or cubic metre (m <sup>3</sup> ) | gallon (gal)                | 1 m <sup>3</sup> = 220 gallons                          | 1 gal = 4.55 litre                                    |
| Force              | Newton (N)                                 | pound force (lbf)           | 1 N = 0.225 lbf   | 1 lbf = 4.45 N  |
| Pressure           | Kilopascal (kPa)                           | pound per square inch (psi) | 1 kPa = 0.145 psi                                       | 1 psi = 6.89 kPa                                      |
|                    | millibar (mb)<br>10 mb = 1 kPa             | inch of mercury (inHg)      | 1 mb = 0.0295 inHg                                      | 1 inHg = 33.9 mb                                      |
| Velocity           | kilometres per hour (km/h)                 | Miles per hour (mph)        | 1 km/h = 0.621 mph                                      | 1 mph = 1.61 km/h                                     |
| Power              | kilowatt (kW)                              | horsepower (hp)             | 1 kW = 1.34 hp  | 1 hp = 0.746 kW                                       |
| Torque             | newton metres (Nm)                         | pounds-feet (lbs-ft)        | 1 Nm = 0.738 lbs-ft                                     | 1 lbs-ft = 1.35 Nm                                    |
| Fuel Economy       | litres per 100km (L/100km)                 | miles per gallon (mpg)      | $L/100\text{km} = 282.48 \div \text{mpg}$               | $\text{mpg} = 282.48 \div L/100\text{km}$             |
| Engine Capacity    | litres (L)                                 | cubic inches (ci)           | 1 L = 61 ci   | 1 ci = 0.016 L  |



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|               |                                  |                             |                    |                    |
|---------------|----------------------------------|-----------------------------|--------------------|--------------------|
| <b>Vacuum</b> | kilopascal (kPa)                 | inches of mercury<br>(inHg) | 1 kPa = 0.295 inHg | 1 inHg = 3.386 kPa |
|               | centimeters of<br>mercury (cmHg) | inches of mercury<br>(inHg) | ÷ 2.533            | x 2.533            |
|               | millimeters of<br>mercury (mmHg) | inches of mercury<br>(inHg) | ÷ 25.333           | x 25.333           |

| 1 Nm = 0.738 ft/lb |                |                  |                |
|--------------------|----------------|------------------|----------------|
| Newton<br>Metres   | Foot<br>Pounds | Newton<br>Metres | Foot<br>Pounds |
| 5                  | 3.7            | 55               | 40             |
| 10                 | 7.4            | 60               | 44             |
| 15                 | 11             | 65               | 48             |
| 20                 | 15             | 70               | 52             |
| 25                 | 18             | 75               | 55             |
| 30                 | 22             | 80               | 59             |
| 35                 | 26             | 85               | 63             |
| 40                 | 30             | 90               | 66             |
| 45                 | 33             | 95               | 70             |
| 50                 | 37             | 100              | 74             |

| 1 ft/lb = 1.35 Nm |                  |                |                  |
|-------------------|------------------|----------------|------------------|
| Foot<br>Pounds    | Newton<br>Metres | Foot<br>Pounds | Newton<br>Metres |
| 5                 | 6.8              | 55             | 74               |
| 10                | 14               | 60             | 81               |
| 15                | 20               | 65             | 88               |
| 20                | 27               | 70             | 95               |
| 25                | 34               | 75             | 101              |
| 30                | 40               | 80             | 108              |
| 35                | 47               | 85             | 115              |
| 40                | 54               | 90             | 122              |
| 45                | 61               | 95             | 128              |
| 50                | 68               | 100            | 135              |

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| 1 inch = 25.4 mm |       |      |       |
|------------------|-------|------|-------|
| thou             | mm    | thou | mm    |
| 1                | 0.025 | 25   | 0.635 |
| 2                | 0.051 | 30   | 0.762 |
| 3                | 0.076 | 35   | 0.889 |
| 4                | 0.102 | 40   | 1.02  |
| 5                | 0.127 | 45   | 1.14  |
| 6                | 0.152 | 50   | 1.27  |
| 7                | 0.178 | 60   | 1.52  |
| 8                | 0.203 | 70   | 1.78  |
| 9                | 0.229 | 80   | 2.03  |
| 10               | 0.254 | 90   | 2.29  |
| 12               | 0.305 | 100  | 2.54  |
| 14               | 0.356 | 150  | 3.81  |
| 16               | 0.406 | 200  | 5.08  |
| 18               | 0.457 | 250  | 6.35  |
| 20               | 0.508 | 500  | 12.7  |

| 1 mm = 0.0394 Inch |      |      |      |
|--------------------|------|------|------|
| mm                 | thou | mm   | thou |
| 0.05               | 2    | 0.8  | 32   |
| 0.1                | 4    | 0.85 | 34   |
| 0.15               | 6    | 0.9  | 36   |
| 0.2                | 8    | 0.95 | 38   |
| 0.25               | 10   | 1.0  | 40   |
| 0.3                | 12   | 1.1  | 43   |
| 0.35               | 14   | 1.2  | 47   |
| 0.4                | 16   | 1.3  | 51   |
| 0.45               | 18   | 1.4  | 55   |
| 0.5                | 20   | 1.5  | 59   |
| 0.55               | 22   | 1.6  | 63   |
| 0.6                | 24   | 1.7  | 67   |
| 0.65               | 26   | 1.8  | 71   |
| 0.7                | 28   | 1.9  | 75   |
| 0.75               | 30   | 2.0  | 79   |