

CONVERSION CHART

To convert into SI units multiply by the given factor
To convert SI into English/Metric divide by the factor

Length (metre) m			Velocity m s⁻¹		
in	2.54	x10 ⁻²	in s ⁻¹	2.54	x10 ⁻²
ft	3.048	x10 ⁻¹	ft s ⁻¹	3.048	x10 ⁻¹
yd	9.144	x10 ⁻¹	ft min ⁻¹	5.08	x10 ⁻³
mile	1.60934	x10 ³	mph	4.4704	x10 ⁻¹
Angstrom		10 ⁻¹⁰	knots (UK)	5.14773	x10 ⁻¹
micron		10 ⁻⁶	cm s ⁻¹		x10 ⁻²
mm		10 ⁻³	km h ⁻¹	2.77778	x10 ⁻¹
cm		10 ⁻²			
Area (metre²) m²			Acceleration m s⁻²		
in ²	6.4516	x10 ²	ft s ⁻²	3.048	x10 ⁻¹
ft ²	9.29030	x10 ²	cm ²		10 ⁻²
yd ²	8.36127	x10 ⁻¹			
acre	4.04686	x10 ³	Flow (volume) m³ s⁻¹		
mile ²	2.58999	x10 ⁶	ft ³ s ⁻¹	2.83168	x10 ⁻²
mm ²		10 ⁻⁶	cfm	4.71947	x10 ⁻⁴
cm ²		10 ⁻⁴	gal s ⁻¹	4.54609	x10 ⁻³
dm ²		10 ⁻²	gal h ⁻¹	1.26280	x10 ⁻⁸
km ²		10 ⁶	litre s ⁻¹	1.00003	x10 ⁻³
			litre h ⁻¹	2.77786	x10 ⁻⁷
			m ³ min ⁻¹	66667	x10 ⁻²
			m ³ h ⁻¹	2.77778	x10 ⁻⁴
Volume (metre³) m³			Flow (mass) kg s⁻¹		
in ³	1.63871	x10 ⁻⁵	lb s ⁻¹	4.53592	x10 ⁻¹
ft ³	2.83168	x10 ⁻²	lb h ⁻¹	1.25998	x10 ⁻⁴
yd ³	7.64555	x10 ⁻¹	ton h ⁻¹	2.82236	x10 ⁻¹
gal (UK)	4.54608	x10 ⁻³	kg h ⁻¹	2.77778	x10 ⁻⁴
gal (US)	3.78543	x10 ⁻³			
barrel (US)	1.58988	x10 ⁻¹			
mm ³		10 ⁻⁹			
cm ³		10 ⁻⁶			
dm ³		x10 ⁻³			
litre	1.00003	x10 ⁻³			
Mass (kilogram) kg			Density kg m⁻³		
grain	6.47989	x10 ⁻⁵	grain ft ⁻³	2.8835	x10 ⁻³
oz	2.83495	x10 ⁻²	grain m ⁻³	6.47989	x10 ⁻⁵
lb	4.53592	x10 ⁻¹	lb in ⁻³	2.76799	x10 ⁴
cwt	5.08023	x10	lb ft ⁻³	1.601 85	x10
ton (UK long)	1.01605	x10 ³	lb gal ⁻¹	9.97763	x10
ton (US long)	9.07185	x10 ²	ton yd ⁻³	1.32894	x10 ³
µg		10 ⁻⁹	g cm ⁻³		10 ³
mg		10 ⁻⁶	g litre ⁻¹	9.99972	x10 ⁻¹
g		10 ⁻³	g m ⁻³		10 ⁻³
tonne metric)		10 ³			

CONVERSION CHART (cont'd)

<p>Force (Newton) N kg m s⁻²</p> <p>lb force 4.44822</p> <p>dyne 10⁻⁵</p> <p>gm force 9.80665 x10⁻³</p> <p>kg force 9.80665</p> <p>joule cm⁻¹ 10²</p>	<p>Energy or Work or Torque (cont'd)</p> <p>kcal 4.1868 x10³</p> <p>cal (15°C) 4.1855</p> <p>cal (thermochem) 4.184</p> <p>litre atm 1.01328 x10²</p> <p>kWh 3.6 x10⁶</p> <p>erg 10⁻⁷</p> <p>electron-volt 1.602 x10⁻¹⁹</p> <p>lbf ft 1.35582</p> <p>gf cm 9.80665 x10⁻⁵</p> <p>kgf m 9.80665</p> <p>dyne cm x10⁻⁷</p>
<p>Pressure in Pascal (Pa) kg m⁻¹ s⁻² N m⁻²</p> <p>in water 2.49089 x10⁻²</p> <p>ft water 2.98907 x10³</p> <p>in Hg 3.38639 x10³</p> <p>psi (lbf m⁻²) 6.89476 x10³</p> <p>tbf ft⁻² 4.78803 10</p> <p>ton ft in⁻² 1.54443 x10⁷</p> <p>ton ft⁻² 1.07252 x10⁵</p> <p>poundal in⁻² 2.14296 x10²</p> <p>poundal ft⁻² 1.48816</p> <p>mm water (kgf m⁻²) 9.80665</p> <p>cm water 9.80665 x10</p> <p>mm Hg (torr) 1.33322 x10²</p> <p>cm Hg 1.33322 x10³</p> <p>dyne cm⁻¹ 10⁻¹</p> <p>atmosphere 1.01325 x10⁵</p> <p>millibar 10²</p> <p>bar 10⁵</p> <p>Newton mm⁻² 10⁶</p> <p>Newton cm⁻² 10⁴</p>	<p>Viscosity (dynamic) kg m⁻¹ s</p> <p>lb ft⁻¹ s⁻¹ 1.48816</p> <p>lb ft⁻¹ h⁻¹ 4.13378 x10⁻⁴</p> <p>centipoise 10⁻³</p> <p>poise 10⁻¹</p>
<p>Power or Heat Flow Rate in Watt kg m²s⁻³ or Js⁻¹</p> <p>ft lbf s⁻¹ 1.35582</p> <p>hp 7.45700 x10²</p> <p>Btu h⁻¹ 2.93071 x10⁻¹</p> <p>metric hp 7.35499 x10²</p> <p>kcal h⁻¹ 1.163</p>	<p>Viscosity (kinematic) m² s⁻¹</p> <p>ft² s⁻¹ 9.29030 x10⁻²</p> <p>ft² h⁻¹ 2.58054 x10⁻⁵</p> <p>cm² s⁻¹ 10⁻⁴</p> <p>centistokes 10⁻⁶</p> <p>Stoke 10⁻⁴</p> <p>m⁻² h⁻¹ 2.77778 x10⁻⁴</p>
<p>Energy or Work or Torque Joule kg m²s⁻² N m W s</p> <p>ft lbf 1.35582</p> <p>ft poundal 4.21401 x10⁻²</p> <p>hp h 2.68452 x10⁶</p> <p>Btu 1.05506 x10³</p> <p>therm 1.05506 x10⁸</p> <p>CHU 1.89910 x10³</p> <p>cal 4.1868</p>	<p>Calorific Value (mass basis) in J kg⁻¹ m² s⁻²</p> <p>Btu lb⁻¹ 2.326 x10³</p> <p>cal g⁻¹ 4.1868 x10³</p> <p>kcal kg⁻¹ 4.1868 x10³</p>
<p>Energy or Work or Torque Joule kg m²s⁻² N m W s</p> <p>ft lbf 1.35582</p> <p>ft poundal 4.21401 x10⁻²</p> <p>hp h 2.68452 x10⁶</p> <p>Btu 1.05506 x10³</p> <p>therm 1.05506 x10⁸</p> <p>CHU 1.89910 x10³</p> <p>cal 4.1868</p>	<p>Calorific Value (volume basis) in J m⁻³ kg m⁻¹ s⁻²</p> <p>Btu ft³ 3.72589 x10⁴</p> <p>kcal m³ 4.1868 x10³</p>
<p>Energy or Work or Torque Joule kg m²s⁻² N m W s</p> <p>ft lbf 1.35582</p> <p>ft poundal 4.21401 x10⁻²</p> <p>hp h 2.68452 x10⁶</p> <p>Btu 1.05506 x10³</p> <p>therm 1.05506 x10⁸</p> <p>CHU 1.89910 x10³</p> <p>cal 4.1868</p>	<p>Surface Tension in J m⁻² kg s⁻² Nm⁻¹</p> <p>dyne cm⁻¹ 10⁻³</p> <p>erg cm⁻² 10⁻³</p>