



Conversion Factors

Multiply Metric Unit	By	To Obtain English Unit
Kilometre (km)	0.6214	Mile
Metre (m)	1.0936	Yard
Metre (m)	3.28	Foot
Centimetre (cm)	0.328	Foot
Millimetre (mm)	0.3937	Inch
Sq kilometre (km ²)	0.3861	Square mile
Hectare (ha)	2.471	Acre
Sq Metre (m ²)	10.764	Square foot
Sq metre (m ²)	1550	Square foot
Sq centimetre (cm ²)	0.1550	Square inch
Cu centimetre (cm ³)	0.061	Cubic inch
Cu metre (m ³)	1.308	Cubic yard
Litre (L)	61.02	Cubic inch
Litre (L)	0.001308	Cubic yard
Km/h	0.621	mph
Litre (L)	0.2642	U.S. gallon
Litre (L)	0.22	Imperial gallon
Metric ton (t)	0.984	Long ton
Metric ton (t)	1.102	Short ton
Kilogram (kg)	2.205	Pound, avdp.
Gram (g or gr)	0.0353	Ounce, avdp.
Kilonewton (kN)	225	Pound (force)
Newton (N)	0.225	Pound (force)
Cu centimetre (cm ³)	0.0338	Fluid ounce
Kilograms/cu metre	1.686	Pounds/cu yd
Kilograms/cu metre	0.062	Pounds/cu ft
Kilograms/sq cm (kg/cm ²)	14.225	Pounds/sq in
Kilocalorie (kcal)	3.968	Btu
Kilogram-metre (kg.m)	7.233	Foot-pound
Metre-kilogram (m.kg)	7.233	Pound-foot
Metric horsepower (CV)	0.9863	hp
Kilowatt (kW)	1.341	hp
Kilopascal (kPa)	0.145	psi
Bar	14.5	psi
Tons/m ³	1692	Pounds/cu yd
Decalitre	0.283	Bushel
Mile, statute (m)	1.609	Kilometre

Yard (yd)	0.9144	Metre
Multiply Metric Unit	By	To Obtain English Unit
Foot (ft)	0.3048	Metre
Inch (in)	25.4	Millimetre
Sq mile (mile ²)	2.590	Sq kilometre
Acre	0.4047	Hectare
Sq foot (ft ²)	0.0929	Sq metre
Sq inch (in ²)	0.000645	Sq metre
Cu yard (yd ³)	0.7645	Cu metre
Cu inch (in ³)	16.387	Cu centimetre
Cu foot (ft ³)	0.0283	Cu metre
Cu inch (in ³)	0.0164	Litre
Cubic yard (yd ³)	764.55	Litre
mph	1.61	Km/h
Ton – mph	1.459	tkm/h
U.S. gallon (US Gal)	3.785	Litre
U.S. gallon	0.833	Imperial gallon
Long ton (lg ton)	1.016	Metric ton
Short ton (sh ton)	0.907	Metric ton
Pound (lb)	0.4536	Kilogram
Ounce (oz)	28.35	Gram
Pound (lb) (force)	0.00445	Kilonewton
Pound (lb) (force)	4.45	Newton
Fluid oz (fl oz)	29.57	Cu centimetre
lb/cu ft (lb/ft ³)	16.018	Kg/cu metre
lb/cu yd (lb/yd ³)	0.5933	Kg/cu metre
Pounds/sq.in.	0.0703	Kilograms/sq cm
psi	0.0689	Bar
psi	6.89	Kilopascal
Btu	0.2520	Kilogram-calorie
Foot-pound (ft-lb)	0.1383	Kilogram-metre
Horsepower (hp)	1.014	Metric horsepower
Horsepower (hp)	0.7457	Kilowatt
Pounds/cu yd	0.00005928	tons/m ³
Pounds (No. 2 diesel fuel)	0.1413	U.S. gallon
Bushel	3.524	Decalitre

Note: some of the above factors have been rounded for convenience.



Metric Unit Equivalents		English Unit Equivalents	
1 km	1000m	1 mile	1760 yd
1 m	100cm	1 yd	3ft
1 cm	10mm	1 ft	12 in
1 km ²	100ha	1 sq mile	640 acres
1 ha	10,000m ²	1 acre	43.560 sq ft
1 m ²	10,000 cm ²	1 sq ft	144 sq in
1 cm ²	100m ²	1 cu ft	7.48 gal liq
1 m ³	1000 litres	1 gal	231 cu in
1 litre	1000cm ³		4 quarts liq
1 metric ton	1000kg	1 quart	32 fl oz
1 quintal	100kg	1 fl oz	1.80 cu in
1 N	0.10197 kg*m/s ²	1 sh ton	2000lb
1 kg	1000g	1 lg ton	2240 lb
1g	1000mg	1 lb	16 oz, avdp
1 bar	14.504 psi	1 Btu	778 ft lb
1 cal	427 kg*m		0.000393 hph
	0.0016cv*h		0.000293 kwh
	0.00116kw*h	1 mechanical hp	550 ft/lb/sec
		1 atmosph.	14.7 lb/in ²



SPEED CONVERSION

Km/h Equivalents in m/min				MPH Equivalents in FPM			
km/h	m/min	km/h	m/min	mph	fpm	mph	fpm
1	16.7	21	350.0	1	88	21	1848
2	33.3	22	366.7	2	176	22	1936
3	50.0	23	383.3	3	264	23	2024
4	66.7	24	400.4	4	352	24	2112
5	83.3	25	416.7	5	440	25	2200
6	100.0	26	433.3	6	528	26	2288
7	116.7	27	450.0	7	616	27	2376
8	133.3	28	466.7	8	704	28	2464
9	150.0	29	483.3	9	792	29	2552
10	166.7	30	500.0	10	880	30	2640
11	183.3	31	516.7	11	968	31	2728
12	200.0	32	533.3	12	1056	32	2816
13	216.7	33	550.0	13	1144	33	2904
14	233.3	34	566.7	14	1232	34	2992
15	250.0	35	583.3	15	1320	35	3080
16	266.7	36	600.0	16	1408	36	3168
17	283.3	37	616.7	17	1496	37	3256
18	300.0	38	633.3	18	1584	38	3344
19	316.7	39	650.0	19	1672	39	3432
20	333.3	40	666.7	20	1760	40	3520

Note: Since 1 km/h equals 16.7 m/min (1000 / 60), to interpolate add 1.67 m/min for each 0.1 km/h.

Note: since 1 mph equals 88 fpm (5280 / 60), to interpolate add 8.8 fpm for every 0.1 mph.

$$1 \text{ mph} = 26.9 \text{ m/min}$$



METRIC UNIT EQUIVALENTS

1 km	=	1000 m
1 m	=	100 cm
1 cm	=	10 mm
1 km²	=	100 ha
1 ha	=	10,000 m²
1 m²	=	10,000 cm²
1 cm²	=	100 mm²
1 m³	=	1000 litre
1 litre	=	1000 cm³
1 metric ton	=	1000 kg
1 quintal	=	100 kg
1 N	=	0.10197 kg*m/s²
1 kg	=	1000 g
1 g	=	1000 mg
1 bar	=	14.504 psi
1 cal	=	427 kg*m
	=	0.0016 cv*h
	=	0.00116 kw*h
 Torque Unit		
1 CV	=	75 kg*m/s
1 kg/cm²	=	0.97 atmosph.



POWER UNIT EQUIVALENTS

kW	=	Kilowatt
hp	=	Mechanical Horsepower
CV	=	Cheval Vapeur (Steam Horsepower) French Designation For Metric Horsepower
PS	=	Pferdstarke (Horsepower) German Designation For Metric Horsepower.
1 hp	=	1.014 CV = 1.014 PS
1 PS	=	1 CV = 0.986 hp
	=	0.7355 kW
1 kW	=	1.341 hp
	=	1.36 CV
	=	1.36 PS
