

Measurement Conversion

Quantity	Unit			Conversion
	US	Metric	SI	
Length	Inch -- in Foot -- ft (12 in) Mile -- mi (5280 ft)	Millimeter -- mm (10^{-3} m) Centimeter -- cm (10^{-2} m) Meter -- m	Meter -- m	1 in = 2.5400 cm 1 cm = 0.3937 in 1 m = 39.3689 in 1 m = 3.2808 ft 1 ft = 0.3048 m
Area	Square inch -- in ² Square foot-- ft ² (144 in ²) Acre -- 43560 ft ² (approx 210 ft square)	Square cm -- cm ² (10^{-4} m ²) Square meter -- m ²	Square meter -- m ²	1 in ² = 6.4516 cm ² 1 cm ² = 0.1550 in ² 1 ft ² = 0.0929 m ² 1 m ² = 10.764 ft ²
Volume	Ounce, fluid (US) -- oz Gallon (US) -- gal (128 oz) Cubic Foot -- ft ³	Cubic cm -- cm ³ (10^{-6} m ³) Cubic meter -- m ³	Cubic meter -- m ³	1 oz = 29.5736 cm ³ 1 cm ³ = 0.0338 oz 1 gal = 0.1337 ft ³ 1 ft ³ = 7.4805 gal 1 m ³ = 264.1721 gal 1 m ³ = 35.3147 ft ³
Velocity	Feet per Second -- ft/sec Miles per Hour -- MPH	Meters per Second -- m/sec Kilometers per Hour -- KPH	Meters per Second -- m/sec	1 ft/sec = .3048 m/sec 1 m/sec = 3.2808 ft/sec 1 MPH = 1.6093 KPH 1 KPH = 0.6214 MPH
Acceleration	Feet per sec per sec -- ft/sec ²	Meters per sec per sec -- m/sec ²	Meters per sec per sec -- m/sec ²	1 ft/sec ² = .3048 m/sec ²
Mass	Ounce -- oz Pound -- lb (16 oz) Ton -- ton (2000 lbs) (...on Earth...)	Gram -- g Kilogram -- kg (10^3 g)	Gram -- g	1 oz = 28.3495 g 1 g = 0.0353 oz 1 lb = 0.4536 kg 1 kg = 2.2046 lb
Weight of Water	Pound -- lb	Gram -- g		1 cm ³ = 1 g 1 gal = 8.3454 lb 1 ft ³ = 62.4280 lb
Force	Pound Force -- lbf	Kilogram Force -- kgf (...on Earth...)	Newton -- N	1 lbf = 0.4536 kgf 1 kgf = 2.2046 lbf 1 lbf = 4.4482 N 1 kgf = 9.8067 N 1 N = 0.2248 lbf 1 N = 0.1020 kgf
Pressure	Pound Force per Square Inch -- lbf/in ² -- PSI	Kilogram Force per Square Centimeter -- kgf/cm ²	Pascal -- N/m ² -- Pa	1 PSI = 0.0703 kgf/cm ² 1 kgf/cm ² = 14.2233 PSI 1 kgf/cm ² = 98066.5 Pa 1 atmosphere = 14.6959 PSI
Torque or Work	Inch Pound -- in-lbf	Kilogram Centimeter -- kgf-cm	Newton Meters -- N-m	1 in-lbf = 1.15 21 kgf-cm 1 kgf-cm = 0.8679 in-lbf 1 in-lbf = 0.1130 N-m 1 N-m = 8.85 in-lbf 1 N-m = 10.1972 kgf-cm
Power or (Work per Time)	Foot Pounds per Minute HorsePower -- hp	Kilogram Meters per sec	Newton-Meters per Second -- N-m/sec or Watt -- W	1 W = 1 N-m/sec 1 W = 44.2537 ft-lbf/min 1 W = 0.1020 kgf-m/sec 1 hp = 33,000 ft-lbf/min 1 hp = 745.6999 W 1 hp = 76.0402 kgf-m/sec
Torque to Power@RPM	HorsePower -- hp		Watt -- W	hp = (ft-lbf * RPM) / 5,252

more handy stuff

TORQUE

Multiply By							To Obtain
dy · cm	g · cm	N · m × 10 ⁻⁴	N · m	oz · in	lb · in	lb · ft	
1	980.7	1000	10 ⁷	7.062 × 10 ⁴	1.130 × 10 ⁶	1.356 × 10 ⁷	dy · cm
1.020 × 10 ⁻³	1	1.020	1.020 × 10 ⁴	72.01	1.152 × 10 ³	1.383 × 10 ⁴	g · cm
10 ⁻³	9.807 × 10 ⁻¹	1	10 ⁴	70.62	1.130 × 10 ³	1.356 × 10 ⁴	N · m × 10 ⁻⁴
10 ⁻⁷	9.807 × 10 ⁻⁵	10 ⁻⁴	1	7.062 × 10 ⁻³	0.1130	1.356	N · m
1.416 × 10 ⁻⁵	1.389 × 10 ⁻⁷	1.416 × 10 ⁻²	141.6	1	16	192	oz · in
8.850 × 10 ⁻⁷	8.681 × 10 ⁻⁴	8.850 × 10 ⁻⁴	8.850	6.250 × 10 ⁻²	1	12	lb · in
7.375 × 10 ⁻⁸	7.234 × 10 ⁻⁵	7.375 × 10 ⁻⁵	0.7375	5.208 × 10 ⁻³	8.333 × 10 ⁻²	1	lb · ft

PREFIXES FOR SI UNITS

Multiple and Submultiple	Prefix	Symbol
1,000,000,000,000 = 10 ¹²	tera	T
1,000,000,000 = 10 ⁹	giga	G
1,000,000 = 10 ⁶	mega	M
1,000 = 10 ³	kilo	k
100 = 10 ²	hecto	h
10 = 10	deka	da
0.1 = 10 ⁻¹	deci	d
0.01 = 10 ⁻²	centi	c
0.001 = 10 ⁻³	milli	m
0.000 001 = 10 ⁻⁴	micro	μ
0.000 000 001 = 10 ⁻⁹	nano	n
0.000 000 000 001 = 10 ⁻¹²	pico	p
0.000 000 000 000 001 = 10 ⁻¹⁵	femto	f
0.000 000 000 000 000 001 = 10 ⁻¹⁸	atto	a

GREEK ALPHABET

Α	α	Alpha
Β	β	Beta
Γ	γ	Gamma
Δ	δ	Delta
Ε	ε	Epsilon
Ζ	ζ	Zeta
Η	η	Eta
Θ	θ	Theta
Ι	ι	Iota
Κ	κ	Kappa
Λ	λ	Lambda
Μ	μ	Mu
Ν	ν	Nu
Ξ	ξ	Xi
Ο	ο	Omicron
Π	π	Pi
Ρ	ρ	Rho
Σ	ς	Sigma
Τ	τ	Tau
Υ	υ	Upsilon
Φ	φ	Phi
Χ	χ	Chi
Ψ	ψ	Psi
Ω	ω	Omega

POWER

Multiply By			To Obtain
oz · in · RPM	Watts	HP	
1	1352	1.008 × 10 ²	oz · in · RPM
7.345 × 10 ⁻⁴	1	745.7	Watts
9.917 × 10 ⁻⁷	1.341 × 10 ⁻³	1	HP

INERTIA

Multiply By				To Obtain
g · cm ²	kg · m ²	oz · in · s ²	oz · in ²	
1	10 ⁷	7.062 × 10 ⁴	182.9	g · cm ²
10 ⁻⁷	1	7.062 × 10 ⁻³	1.829 × 10 ⁻⁵	kg · m ²
1.416 × 10 ⁻⁵	141.6	1	2.590 × 10 ⁻³	oz · in · s ²
5.467 × 10 ⁻³	5.467 × 10 ⁴	386.09	1	oz · in ²