

ENGINEERING UNIT CONVERSIONS

FOURTH EDITION

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MULTIPLY	BY	TO OBTAIN
foot-lbf/sec	4.6227	Btu/hr
	0.077045	Btu/min
	0.0012841	Btu/sec
	1.355818×10^7	dyne-cm/sec
	1.355818×10^7	ergs/sec
	3600.	foot-lbf/hr
	60.	foot-lbf/min
	13,826.	gram-cm/sec
	0.0018434	horsepower (metric)
	0.0018182	horsepower (U.S.)
	1.355818	joules/sec
	0.019433	kilogram-cal/min
	3.2388×10^{-4}	kilogram-cal/sec
	0.13826	kilogram-m/sec
0.001355818	kilowatts	
906.272	lumens	
1.355818	watts	
foot-poundals	3.994×10^{-5}	Btu
	0.4159	cubic centimeter-atm
	1.469×10^{-5}	cubic foot-atm
	421,401.	dyne-cm
	421,401.	ergs
	0.031081	foot-lbf
	0.010067	gram-cal
	429.7	gram-cm
	1.570×10^{-8}	horsepower-hr (U.S.)
	0.04214011	joules
	1.007×10^{-5}	kilogram-cal
	0.004297	kilogram-m
	1.171×10^{-8}	kilowatt-hr
	4.1589×10^{-4}	liter-atm
0.42141	megalergs	
1.170×10^{-5}	watt-hr	
fortnights	14.	days
	2.	weeks
furlongs	10.	chains (Gunter's or surveyor's)
	6.6	chains (Ramsden's or engineer's)
	660.	feet
	0.201168	kilometers
	1000.	links (Gunter's or surveyor's)
	660.	links (Ramsden's or engineer's)
	201.168	meters
	0.125	miles
	264.	paces
	40.	rods (also perches or poles)
220.	yards	

MULTIPLY	BY	TO OBTAIN
g's (accel. due to gravity)	980.665	centimeters/sec ²
	32.174	feet/sec ²
	980.665	galileos
	386.089	inches/sec ²
	35.3039	kilometers/hr-sec
	9.80665	meters/sec ²
	1316.21	miles/hr-min
galileos ("gals")	21.9369	miles/hr-sec
	32.174	pound (mass)-ft/lbf-sec ²
	1.	centimeters/sec ²
	0.03281	feet/sec ²
	0.0010197	g (gravity)
	0.036	kilometers/hr-sec
	0.01	meters/sec ²
gallons (Imperial)	1.3422	miles/hr-min
	0.02237	miles/hr-sec
	4546.	cubic centimeters
	0.16054	cubic feet
	4.546×10^{-3}	cubic meters
	5.946×10^{-3}	cubic yards
gallons (U.S., dry)	1.20094	gallons (U.S., liquid)
	4.546	liters
	0.125	bushels
	4405.	cubic centimeters
	0.15556	cubic feet
	268.80	cubic inches
gallons (U.S., liquid)	4.404884×10^{-3}	cubic meters
	0.00576	cubic yards
	1.16365	gallons (U.S., liquid)
	4.4049	liters
	0.5	pecks
	9.309	pints (U.S., liquid)
	4.	quarts (U.S., dry)
	4.6546	quarts (U.S., liquid)

MULTIPLY	BY	TO OBTAIN
gram-cm ²	0.001	kilogram-cm ²
	1.0×10^{-7}	kilogram-m ²
	2.373×10^{-6}	pound-ft ²
	3.4172×10^{-4}	pound-in ²
gram-cm/sec	5.573×10^{-6}	Btu/min
	9.288×10^{-8}	Btu/sec
	980.665	dyne-cm/sec
	980.665	ergs/sec
	0.2604	foot-lbf/hr
	0.004340	foot-lbf/min
	7.233×10^{-5}	foot-lbf/sec
	1.3333×10^{-7}	horsepower (metric)
	1.3151×10^{-7}	horsepower (U.S.)
	9.80665×10^{-5}	joules/sec
	1.4056×10^{-6}	kilogram-cal/min
	2.343×10^{-8}	kilogram-cal/sec
	1.0×10^{-5}	kilogram-m/sec
9.80665×10^{-8}	kilowatts	
0.06555	lumens	
9.8067×10^{-5}	watts	
gram-sec/cm ²	980.665	poises
	2.0482	pound-sec/ft ²
	0.014223	pound-sec/in ²
gravities	(see g's)	
grays	1.0	joule/kg
	100.	rads
gross	12.	dozens
	144.	units

MULTIPLY	BY	TO OBTAIN
hands	10.16	centimeters
	5.333	digits
	0.333333	feet
	4.	inches
	0.1016	meters
	0.133333	paces
	1.333	palms
	0.4444	spans
	0.111111	yards
hectares	2.47104	acres
	100.	ares
	10,000.	centares
	9.8842	roods
	0.003861	sections
	24.7104	square chains (Gunter's or surveyor's)
	107,639.	square feet
	0.01	square kilometers
	247.104	square links (Gunter's or surveyor's)
	10,000.	square meters
	0.00386102	square miles
395.369	square rods (also square perches)	
11,959.9	square yards	
1.07250×10^{-4}	townships	
hectograms	100.	grams
	0.1	kilograms
	3.5274	ounces (avoir)
	0.22046	pounds (avoir)
hectoliters	3.532	cubic feet
	26.42	gallons (U.S., liquid)
	100.	liters
hectometers	328.1	feet
	0.1	kilometers
	100.	meters
hefners	0.9	bougie decimales
	0.9	candles (int'l)
	0.0937	carcel units
	0.9	English sperm candles
	0.9	lumens/sterad
	0.9	pentane candles
hemispheres	0.5	spheres
	360.	spherical degrees
	4.	spherical right angles
	20,626.5	square degrees
	6.28319	steradians
	0.5	steregons