

CR-TEC Engineering Data

Conversion Factors

Energy and Work

To Convert From	To	Multiply By
foot-pound (ft-lb)	joule (J)	1.355818
joule (J)	foot-pound (ft-lb)	0.737562

Flow Rate

To Convert From	To	Multiply By
cubic feet per minute (ft ³ /min)	gallons per minute, US (gpm)	7.480520
cubic meters per hour (m ³ /h)	gallons per minute, US (gpm)	264.1721
gallons per minute, US (gpm)	cubic centimeters per minute (cc/min)	3,785.412
gallons per minute, US (gpm)	liters per minute (l/m)	3.785412

Force

To Convert From	To	Multiply By
kilogram force (kgf)	Newton (N)	9.806650
pound force (lbf)	Newton (N)	4.448222
Newton (N)	dyne	100,000

Length

To Convert From	To	Multiply By
inch (in)	millimeter (mm)	25.4
kilometer (km)	mile, US statue	0.621371
mile, US statue	kilometer (km)	1.609344
mile, US statue	mile, US nautical	0.868976
mile, US nautical	mile, US statue	1.150779

Power

To Convert From	To	Multiply By
horsepower, international (hp)	foot-pound per second (ft-lb/s)	550.0000
horsepower, international (hp)	watt (W)	745.6999

Pressure

To Convert From	To	Multiply By
atmosphere, standard	bar	1.013250
atmosphere, standard	millibar	1,013.250
atmosphere, standard	pound per square inch (psi)	14.69595
bar	pound per square inch (psi)	14.50377
foot of water (4°C)	pound per square inch (psi)	0.433528
inch of mercury (0°C)(in Hg)	pound per square inch (psi)	0.491154
inch of water (4°C)	pound per square inch (psi)	0.036127
kilogram per square centimeter (kg/cm ²)	pound per square inch (psi)	14.22334
kilopascal (KPa)	pound per square inch (psi)	0.145038
torr	millimeter of mercury (0°C)(mm Hg)	1.000000

Temperature

To Convert From	To	Multiply By
degree Celsius (°C)	degree Fahrenheit (°F)	=(°Cx1.8)+32
degree Fahrenheit (°F)	degree Celsius (°C)	=(°F-32)/1.8
degree Kelvin (°K)	degree Celsius (°C)	=°K-273.15
degree Rankine (°R)	degree Fahrenheit (°F)	=°R-459.67

Torque

To Convert From	To	Multiply By
Newton meter (Nm)	pound feet (lb-ft)	0.737562
Newton meter (Nm)	pound inch (lb-in)	8.850746
pound feet (lb-ft)	Newton meter (Nm)	1.355818
pound inch (lb-in)	Newton meter (Nm)	0.112985

Velocity

To Convert From	To	Multiply By
kilometers per hour (km/h)	miles per hour (mph)	0.621371
miles per hour (mph)	kilometers per hour (km/h)	1.609344
miles per hour (mph)	nautical miles per hour (knots)	0.868976
nautical miles per hour (knots)	miles per hour (mph)	1.150779

Volume

To Convert From	To	Multiply By
cubic foot (ft ³)	gallon, US	7.480519
cubic meter (m ³)	gallon, US	264.1721
gallon, US	cubic centimeter (cc)	3,785.412
gallon, US	cubic inch (in ³)	231
gallon, US	liter (l)	3.785412