

# Application Engineering

## Conversion Factors

To Obtain Length:	Multiply Number of:	By:
cm	inches	2.540
cm	feet	30.48
inches	cm	.3937
inches	feet	12.0
feet	cm	$3.281 \times 10^{-2}$
feet	inches	$8.333 \times 10^{-2}$

### Torque

dyne cm	gm cm	980.7
dyne cm	oz in	$7.062 \times 10^4$
dyne cm	lb ft	$1.356 \times 10^7$
gm cm	dyne cm	$1.020 \times 10^{-3}$
gm cm	oz in	72.01
gm cm	lb ft	$1.383 \times 10^4$
oz in	dyne cm	$1.416 \times 10^{-5}$
oz in	gm cm	$1.389 \times 10^{-2}$
oz in	lb ft	192.0
lb ft	dyne cm	$7.376 \times 10^{-8}$
lb ft	gm cm	$7.233 \times 10^{-5}$
lb ft	oz in	$5.208 \times 10^{-3}$
lb ft	kg m	7.233
lb ft	Nm	.738

### Rotation

degrees/sec	RPM	6.0
degrees/sec	rad/sec	57.30
RPM	degrees/sec	.1667
RPM	rad/sec	9.549
rad/sec	degrees/sec	$1.745 \times 10^{-2}$
rad/sec	RPM	.1047

### Moment of Inertia

gm cm <sup>2</sup>	oz in <sup>2</sup>	182.9
gm cm <sup>2</sup>	lb ft <sup>2</sup>	$4.214 \times 10^5$
gm cm <sup>2</sup>	slug ft <sup>2</sup>	$1.356 \times 10^7$
oz in <sup>2</sup>	gm cm <sup>2</sup>	$5.467 \times 10^{-3}$
oz in <sup>2</sup>	lb ft <sup>2</sup>	$2.304 \times 10^3$
oz in <sup>2</sup>	slug ft <sup>2</sup>	$7.412 \times 10^4$
lb in <sup>2</sup>	lb ft <sup>2</sup>	144.0
lb in sec <sup>2</sup>	lb ft <sup>2</sup>	.37272
lb ft <sup>2</sup>	gm cm <sup>2</sup>	$2.373 \times 10^{-6}$
lb ft <sup>2</sup>	oz in <sup>2</sup>	$4.340 \times 10^{-4}$
lb ft <sup>2</sup>	slug ft <sup>2</sup>	32.17
lb ft <sup>2</sup>	Kgm <sup>2</sup>	23.73
slug ft <sup>2</sup>	gm cm <sup>2</sup>	$7.376 \times 10^{-8}$
slug ft <sup>2</sup>	oz in <sup>2</sup>	$1.349 \times 10^{-5}$
slug ft <sup>2</sup>	lb ft <sup>2</sup>	$3.108 \times 10^{-2}$

### Power

HP	(oz in) (RPM)	$9.917 \times 10^{-7}$
HP	(#ft) (RPM)	$1.904 \times 10^{-4}$
HP	watts	$1.341 \times 10^{-3}$
Watts	(oz in) (RPM)	$7.395 \times 10^{-4}$
Watts	(#ft) (RPM)	.1420
Watts	HP	745.7