

# PRODUCT APPLICATION GUIDE

A technical bulletin for engineers, contractors and students in the air movement and control industry.

## Metric conversion Factors for Fan Application per AMCA Standard

Quantity	"English" Unit	Metric Unit	Conversion Factor
Volume	cubic feet per minute CFM	cubic meter per second m <sup>3</sup> /s	0.00047195
		cubic meter per minute m <sup>3</sup> /min	0.028317
		cubic meter per hour m <sup>3</sup> /hr	1.6990
		liter per second l/s	0.47195
Pressure	inches of water gauge in. wg	pascal Pa or N/m <sup>2</sup>	248.36
		millimeters mm	25.4
Power	horsepower hp, BHP	watt W or J/s	745.70
		Kilowatt kw	0.7457
Torque	pound-inch lb-in.	newton meter N-m	0.11298
Density	pounds per cubic feet lb/ft <sup>3</sup>	kilogram per cubic meter kg/m <sup>3</sup>	16.018
Speed	revolutions per minute RPM	revolution per second rps	0.01667
Velocity, Tip Speed	feet per minute fpm	meter per second m/s	0.00508
Dimensions	inch in.	millimeter mm	25.4

Multiply "English" Unit by conversion factor to obtain Metric Unit.

For example: 5000 CFM × 0.00047195 = 2.360 m<sup>3</sup>/s

Divide Metric Unit by conversion factor to obtain "English" Unit.

For example: 62.1 Pa / 248.36 = 0.250 in. wg

Quantity	"English" Unit	Metric Unit	Conversion Factor
Area	square foot	square meter m <sup>2</sup>	0.0929
	square inch	square millimeter mm <sup>2</sup>	645.16
Length	foot	millimeter mm	304.8
	foot	meter m	0.3048
	yard	meter m	0.9144
Mass (weight)	ounce	gram g	28.350
	pound	kilogram kg	0.4536
Velocity	feet per second	meters per second m/s	0.3048
	feet per minute	meters per second m/s	0.00508
	miles per hour	meters per second m/s	0.44704
Volume (capacity)	cubic inch	cubic centimeter cm <sup>3</sup>	16.3871
	cubic yard	cubic meter m <sup>3</sup>	0.7646
	gallon (U.S.)	liter l	3.785
	gallon (imperial)	liter l	4.546

Multiply "English" Unit by conversion factor to obtain Metric Unit.

For example: 5000 CFM x 0.00047195 = 2.360 m<sup>3</sup>/s

Divide Metric Unit by conversion factor to obtain "English" Unit.

For example: 62.1 Pa / 248.36 = 0.250 in. wg

