MOISTURE CONTENT
OF
AIR RELATIVE TO AIR FLOW

by
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Conditions for Warm, Humid Climates

(CFM) Air flow:	Ft^3/Min
Density of air (at sea level, 90°F):	$0.0722\ lb/Ft^3$
Moisture content of air:	165 grains/lb (dry air)
Number of grains per pound of dry air:	7000 grains/lb (dry air)

$$(CFM)\ \frac{Ft^3}{Min}\ \text{x}\ 0.0722\frac{lb}{Ft^3} = (CFM)\ \text{x}\ .0722\frac{lbs}{Min}$$

$$(CFM)\ \text{x}\ .0722\frac{lb}{Min}\ \text{x}\ 165\frac{Grains}{lb} = (CFM)\ 11.91\frac{Grains}{Min}$$

$$(CFM)\ 11.91\frac{Grains}{Min} \div\ 7000\frac{Grains}{lb} = (CFM)\ .0017\frac{lb}{Min}$$

$$(CFM)\ .0017\frac{lb(water)}{Min}\ \text{x}\ .12\frac{Gal}{lb} = (CFM)\ .0002\frac{Gal}{Min}$$

$$(CFM)\ .0002\frac{Gal}{Min}\ \text{x}\frac{60\,Min}{Hr} = (CFM)\ .0123\frac{Gal}{Hr}$$

(CFM) x .0123 = Gallons of Water Per Hour