

Formulas and Conversions

Formulas

$$\text{Media Velocity (fpm or m/s)} = \frac{\text{Airflow (cfm or m}^3\text{/s)}}{\text{Effective Media Area (ft}^2\text{ or m}^2\text{)}}$$

$$\text{Energy Consumption (E) in kWh} = \frac{QPT}{n1000}$$

where Q is Air flow (m³/s)
 P Average pressure loss (Pa)
 T Operation time (hours)
 n Efficiency of fan

Conversions

$$1 \text{ m/s} = 196.8 \text{ fpm}$$

$$1 \text{ Pa} = 1.450 \times 10^{-4} \text{ psi}$$

$$1 \text{ m}^3\text{/s} = 2,119 \text{ cfm}$$

$$1 \text{ Pa} = 4.015 \times 10^{-3} \text{ in. H}_2\text{O}$$

$$1 \text{ KW} = 3,413 \text{ Btu/hr}$$

$$1\text{m}^2 = 10.76 \text{ ft}^2$$

Media Conversions

$$\text{Linear Yards} = \frac{\text{Lineal Feet}}{3}$$

$$\text{Linear Yards} = \frac{\text{Square Yards}}{\text{Width in inches}/36}$$

$$\text{Square Yards} = \frac{\text{Square Feet}}{9}$$

$$\text{Square Yards} = \frac{\text{Linear Feet} \times \text{Width in inches}}{108}$$

$$\text{Linear Feet} = \frac{\text{Square Feet}}{\text{Width in feet}}$$

$$\text{Square Yards} = \frac{\text{Linear Yards} \times \text{Width in inches}}{36}$$

$$\text{Linear Yards} = \frac{\text{Square Feet}/\text{Width in feet}}{3}$$

$$\text{Linear Yards} = \frac{\text{Square Yards} \times 36}{\text{Width in inches}}$$

$$\text{Linear Feet} = \frac{\text{Square Yards} \times 3}{\text{Width in yards}}$$

$$\text{Linear Yards} = \frac{\text{Square Yards} \times 108}{\text{Width in inches}}$$

$$\text{Pounds} = \frac{\text{Square Yards}}{1000} \times (\text{Basis Weight in OSY} \times 62.5)$$

$$\text{Grams per Square Meter} = \text{Ounces per Square Yard} \times 33.91$$

$$\text{Ounces per Square Yard} = \frac{\text{Grams per Square Meter}}{33.91}$$

$$\text{Square Yards} = \text{Square Meters} \times 1.196$$

$$\text{Square Meters} = \frac{\text{Square Yards}}{1.196}$$

$$\text{Centimeters} = \text{Inches} \times 2.54$$

$$\text{Inches} = \frac{\text{Centimeters}}{2.54}$$

Media Pricing Conversions

$$\text{Square Yard Price} = \frac{\text{Linear Yard Price} \times 36}{\text{Width in inches}}$$

$$\text{Square Meter Price} = \text{Square Yard Price} \times 1.196$$

$$\text{Linear Yard Price} = \frac{\text{Square Yard Price} \times \text{Width in inches}}{36}$$

$$\text{Square Yard Price} = \frac{\text{Square Meter Price}}{1.196}$$