

English to Metric

MULTIPLY	BY	TO OBTAIN
Inches	25.4	Millimetres
Inches	2.54	Centimetres
Feet	.3048	Metres
Inches per minute	25.4	Millimetres per minute
Cubic Inches per minute	16.387	Cubic Centimetres per minute
Surface Feet per minute	.3048	Surface Metres per minute

Metric to English

MULTIPLY	BY	TO OBTAIN
Millimetres	.0394	Inches
Centimetres	.3937	Inches
Metres	3.2808	Feet
Millimetres per minute	.0394	Inches per minute
Cubic Centimetres per minute	.0610	Cubic Inches per minute
Surface Metres per minute	3.2808	Surface Feet per minute

Using Formulas

Milling

$$\text{Cutting Speed } V_c = \frac{d \times \pi \times n}{1000} \quad (\text{m/min})$$

$$\text{Spindle Speed } n = \frac{V_c \times 1000}{\pi \times d} \quad (\text{rpm})$$

Rev per min

$$\text{Feed per Tooth } F_z = \frac{V_f}{z \times n} \quad (\text{mm})$$

$$\text{Table Feed } V_f = f_z \times z \times n \quad (\text{mm/min})$$

Symbols

$$\text{Cutting Speed} = V_c \quad (\text{m/min})$$

$$\text{No. of Flutes} = z$$

$$\text{Feed per Tooth} = F_z \quad (\text{mm})$$

$$\text{Spindle Speed} = n \quad (\text{rpm})$$

$$\text{Tool Diameter} = d \quad (\text{mm})$$

$$\pi = 3.142$$