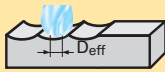



Formulae

Milling Formulas - INCH Values

Symbol	Description		Formula
SFM	Surface Feet / Minute		$SFM = \frac{RPM \times D}{3.82}$
RPM	Revolutions / Minute		$RPM = \frac{SFM \times 3.82}{D}$
IPT	Feed / Tooth		$IPT = \frac{IPM}{z \times RPM}$
IPM	Inches / Minute		$IPM = IPT \times RPM \times z$
D _(eff)	Effective Diameter		$D(eff) = 2 \times \sqrt{R^2 - (R - D_1)^2}$

Symbol key: D = tool diameter (in.) z = no. of flutes R = radius D₁ = DOC (ap)

Milling Formulas - METRIC Values

Symbol	Description		Formula
V _c	Surface Meters / Minute		$V_c = \frac{\pi \times D \times n}{1000}$
n	Revolutions / Minute		$n = \frac{V_c \times 1000}{\pi \times D}$
f _z	Feed / Tooth		$f_z = \frac{vf}{n \times z}$
V _f	Millimeters / Minute		$vf = (n) \times (z) \times (fz)$
D _(eff)	Effective Diameter		$D(eff) = 2 \times \sqrt{D \times ap - ap^2}$

Symbol key: π = 3.1416 D = tool diameter (mm) z = no. of flutes ap = depth of cut