

METRIC

SPINDLE SPEED

$$n = V_c \times 318 \div D$$

$$\text{RPM} = (\text{m/min}) \times 318 \div \varnothing$$

TABLE FEED END MILL

$$V_f = f_z \times Z \times n$$

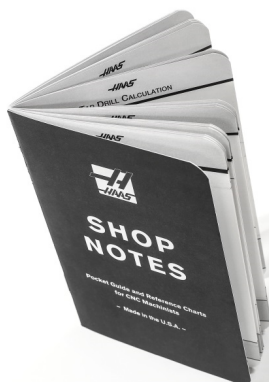
$$\text{mm/min} = \text{Feed per Tooth} \times \text{Number of Teeth} \times \text{RPM}$$

FEED DRILLS

$$V_f = f_n \times n$$

$$\text{mm/min} = \text{Feed per Rev.} \times \text{RPM}$$

V_c	Cutting Speed (m/min)
π	Pi (3.14, our \varnothing to Circ. ratio)
D	Tool Diameter (mm)
n	rev/min (RPM, S-Code)
V_f	Table Feed (mm/min, F-Code)
f_z	Feed per Tooth (mm)
f_n	Feed per Revolution (mm)
Z	Number of Flutes
a_e	Width of Cut, Radial Depth of Cut
a_p	Depth of Cut, Axial Depth of Cut



Download **Haas Shop Notes**, the Machinist's CNC Reference Guide, from diy.Haascnc.com for more tips and formulas

