

Drilling Formulas

SPEEDS & FEEDS (inch)

$$\text{RPM} = \text{SFM} \times 3.82 \div D$$

$$\text{SFM} = \text{RPM} \times D \div 3.82$$

$$\text{IPM} = \text{IPR} \times \text{RPM}$$

$$\text{IPR} = \text{IPM} \div \text{RPM}$$

$$\text{Tim in Cut (sec.)} = \text{Hole Depth (inch)} \div \text{IPM} \times 60$$

METRIC TO INCH CONVERSION

$$\text{SFM} = \text{m/min} \times 3.28$$

$$\text{m/min} = \text{SFM} \div 3.28$$

$$\text{IPM} = \text{mm/min} \div 25.4$$

$$\text{mm/min} = \text{IPM} \times 25.4$$

$$\text{IPR} = \text{mm/rev} \div 25.4$$

$$\text{mm/rev} = \text{IPR} \times 25.4$$

$$\text{mm} = \text{inch} \times 25.4$$

$$\text{inch} = \text{mm} \div 25.4$$

$$\text{bar} = \text{psi} \div 14.5$$

$$\text{psi} = \text{bar} \times 14.5$$

$$\text{gal} = \text{L} \times 3.79$$

$$\text{L} = \text{gal} \div 3.79$$

LEGEND

RPM = revolutions per minute (spindle speed)

SFM = surface feet per minute (cutting speed)

IPM = inches per minute (feed rate)

IPR = inches per revolution (feed per revolution)

m/min (vc) = meters per minute (cutting speed)

mm/min (vf) = millimeters per minute (feed rate)

mm/rev (f) = millimeters per revolution (feed per revolution)

D = tool diameter