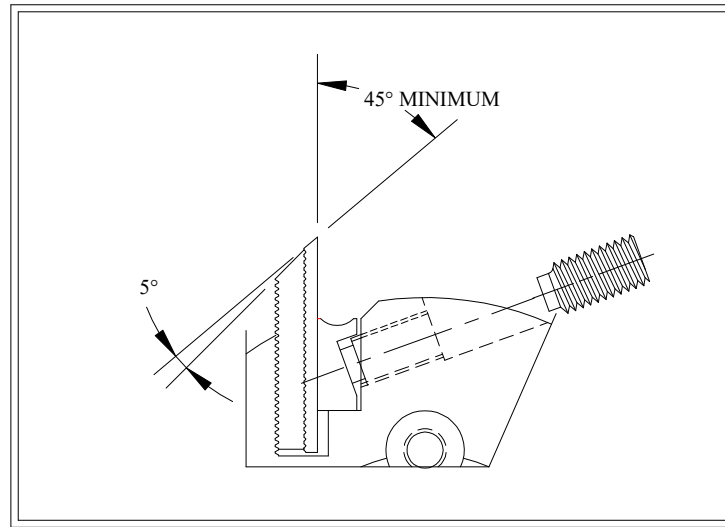


### Bak-Pak Grinding Instructions



Best results are obtained by first grinding the carbide with a 100 to 120 grit diamond wheel and then finish grinding with a grit of 220 to 320 or finer. Approx. 6950 surface feet per minute will generally give best results when both rough and finish grinding. Best results are obtained with a bevel on the carbide of 45 to 50 degrees and with a bevel on the steel backer of 35 to 40 degrees.

Grinding the carbide blank to an angle “sharper” than 45 degrees will produce a cutting edge that will be prone to chipping and premature wear. Jointing may be accomplished by using a 150 to 230 grit aluminum oxide stone.

#### Formulas and Conversions

Rim speed in ft/min

Example:

$$\text{RPM} \times \text{Dia. in inches} \div 3.8197$$

$$3600 \times 10'' \div 3.8197 = 9424.82 \text{ ft/min}$$

Chip load in inches/tooth

Example:

$$\text{Feed rate in ft/min} \times 12 \div \text{RPM} \times \text{no. of teeth}$$

$$166\text{fpm} \times 12 \div 6000 \times 4 = .083$$

Number of teeth

Example:

$$\text{Feed rate in ft/min} \times 12 \div \text{chip load} \times \text{RPM}$$

$$166\text{fpm} \times 12 \div .083 \times 6000 = 4$$

Feed rate in ft/min

Example:

$$\text{Chip load} \times \text{RPM} \times \text{no. of teeth} \div 12$$

$$.083 \times 6000 \times 4 \div 12 = 166\text{ft/min}$$

Knife marks per inch

Example:

$$\text{RPM} \times \text{no. of teeth} \div 12 \times \text{feed rate in ft/min}$$

$$6000 \times 4 \div 12 \times 166 = 12$$

RPM

Example:

$$\text{Feed rate in ft/min} \times 12 \div \text{no. of teeth} \times \text{chip load}$$

$$166 \times 12 \div 4 \times .083 = 6000$$

#### To find:

Inches      millimeters  $\div 25.4$   
                  20mm  $\div 25.4 = .7874$   
 Inches      millimeters  $\times .03937$   
                  20mm  $\times .03937 = .7874$

Ounce      Grams  $\times .03527$   
                  5g  $\times .03527 = .17635$  ounces  
 Grams      Ounces  $\times 28.349527$   
                  .17635  $\times 28.349527 = 5$  ounces