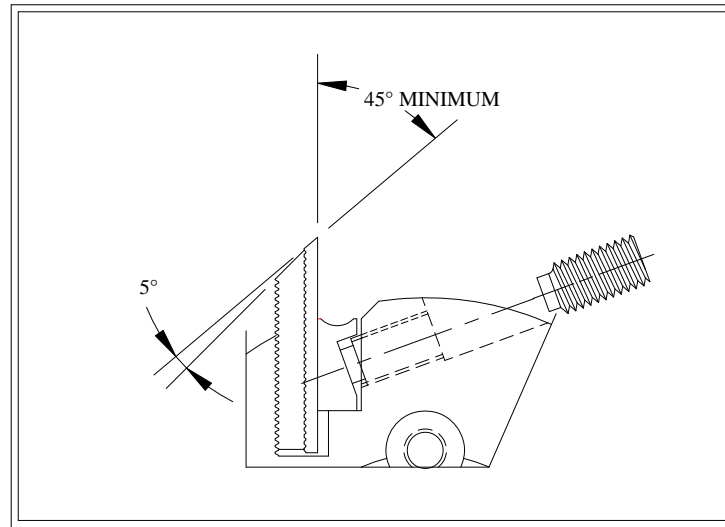


Bak-Pak Grinding Instructions



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. 3,000 RPM 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	$\text{RPM} \times \text{Dia. in inches} \div 3.8197$
Example:	$3600 \times 10'' \div 3.8197 = 9424.82 \text{ ft/min}$
Chip load in inches/tooth	$\text{Feed rate in ft/min} \times 12 \div \text{RPM} \times \text{no. of teeth}$
Example:	$166\text{fpm} \times 12 \div 6000 \times 4 = .083$
Number of teeth	$\text{Feed rate in ft/min} \times 12 \div \text{chip load} \times \text{RPM}$
Example:	$166\text{fpm} \times 12 \div .083 \times 6000 = 4$
Feed rate in ft/min	$\text{Chip load} \times \text{RPM} \times \text{no. of teeth} \div 12$
Example:	$.083 \times 6000 \times 4 \div 12 = 166\text{ft/min}$
Knife marks per inch	$\text{RPM} \times \text{no. of teeth} \div 12 \times \text{feed rate in ft/min}$
Example:	$6000 \times 4 \div 12 \times 166 = 12$
RPM	$\text{Feed rate in ft/min} \times 12 \div \text{no. of teeth} \times \text{chip load}$
Example:	$166 \times 12 \div 4 \times .083 = 6000$

To find:

Inches	millimeters $\div 25.4$	Ounce	Grams $\times .03527$
	$20\text{mm} \div 25.4 = .7874$		$5\text{g} \times .03527 = .17635 \text{ ounces}$
Inches	millimeters $\times .03937$	Grams	Ounces $\times 28.349527$
	$20\text{mm} \times .03937 = .7874$		$.17635 \times 28.349527 = 5 \text{ ounces}$