

**Step 3 • Select grade and speed**
**Recommendations for Grade and Speed Selection • SFM (m/min)**

workpiece material	P	M	K	N	S
insert style	chip control or neutral	chip control or positive	neutral	positive	positive
optimum cutting conditions	KCU10/KC5010 160-750 (50-230)	KCU10/KC5010 160-600 (50-185)	KCU10/KC5010 230-700 (70-210)	KC5410 230-1300 (70-390)	KCU10/KC5010 65-400 (20-120)
first choice	KCU25/KC5025 130-650 (40-200)	KCU25/KC5025 130-450 (40-135)	KCU25/KC5025 200-475 (60-145)	KCU25/KC5025 160-1150 (50-360)	KCU25/KC5025 35-330 (10-100)

**Example**

Chip control .....NT-K or NT-CK (partial profile only)  
 Neutral .....NT, NT-C, NTF, NTC, NJ, NJF, NDC-V, NA, NDC, NTB-A/B  
 Positive .....NTP, NTK, NJP, NJK

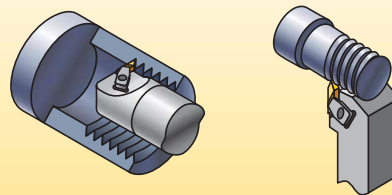
**Step 4 • Select holder from catalog page**
**What you need to know:**

- External/internal operation.
- Minimum bore diameter (for internal operations).
- Hand of tool.
- Insert size (gage insert).

NOTE: The insert size must match the gage insert size of your toolholder selection.

catalog number	gage insert
NSR-163D	N.3R
NSR-164D	N.4R

NOTE: Top Notch toolholders and boring bars are listed with a gage insert to indicate the size and hand required. They are compatible with both grooving and threading inserts of the same size.

**Select the Appropriate Holder for the Insert Size and Hand:**


NOTE: Optimize your threading operation by using the proper infeed angle and the recommended infeed values.

**Step 5 • Select insert and holder from catalog page**
**Top Notch Threading Example**

Application .....8 TPI Acme internal right-hand thread  
 Material .....alloy steel  
 Workpiece diameter .....4.5" (114.3mm)  
 good cutting conditions  
 feed toward the chuck

**Recommendation**

Insert .....NA3L8  
 Grade .....KC5010  
 Insert size ......3  
 Boring bar .....A40NER3 (inch)  
 A50UNNTOR4 (metric)  
 Gage insert.....N.3L  
 Speed .....500 SFM (150 m/min)  
 Infeed passes .....12 passes

