
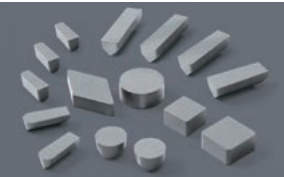
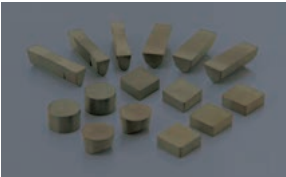
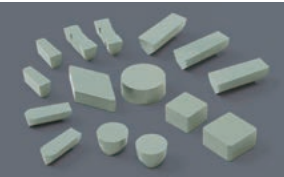




Grooving / Side Turning

Guideline for grooving HRSA materials

BIDEMICS / Ceramic grooving inserts provide high speed capability to your process. Whisker ceramic is the most versatile option in this category. NTK also offers BIDEMICS and SiALON grades for more productivity and stability.

	NEW JX1	SX7	SX5	WA1
				
Speed	●	●	●	●
Feed		●	●	
Versatility	●	●		●
Toughness		●	●	
	Can run at up to 1500 SFM. Double the speed of whisker	Double the feed of whisker	Best for Scale and interruption	Versatile grade

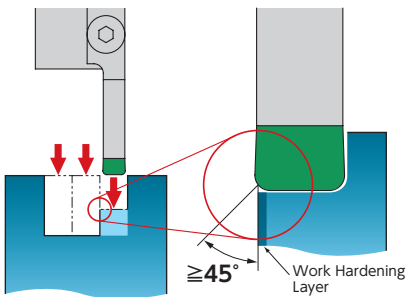
● : 1st choice ● : 2nd choice

Application	Grade	Work material	Cutting speed					Feed					Depth of cut					Coolant
			600	800	1000	1200	1400	1600	.004	.008	.012	.016	.020	.020	.040	.060	.080	
Grooving 	JX1	Overall	1200 (600-1600) SFM					.003 (.002-.004) IPR										WET 
	SX5	Waspalloy	700 (600-800) SFM					.006 (.003-.007) IPR										
	SX7	Overall	750 (600-900) SFM					.0045 (.003-.006) IPR										
	WA1	Overall	800 (600-1100) SFM					.003 (.002-.004) IPR										

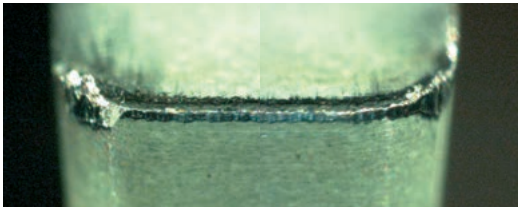
When using SX7/SX5, increase feed rates 100% vs. Whisker Ceramics

When applying JX1, increase speed to over 1000 SFM
When applying SX7 / SX5, increase feed rates 100% vs. Whisker Ceramics

Application Information

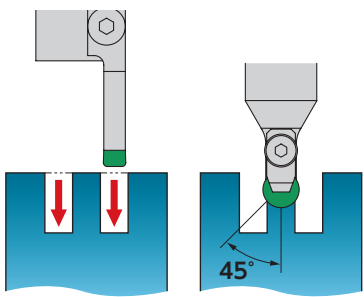


Work Hardening Layer
 $\geq 45^\circ$

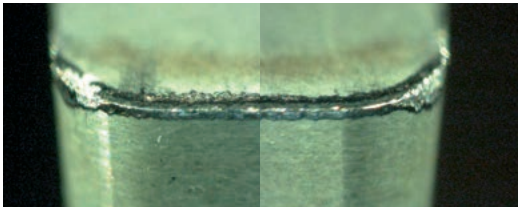


When machining a grooved area with multiple passes, the insert radius engages a potentially work hardened area during the last remaining plunge. This programming procedure sets up the potential of corner radius chipping or notching.

Change to



45°



The grooving insert is plunged down both outside walls thus maintaining a good finish. The remaining material can be removed by using a stronger insert shape such as a RCGX style.