

BIDEMICS JPO

Industry changing - Super high speed finishing of HRSA materials.

Up to 15 times faster speeds vs. carbide and CBN

Key Points

- Wear resistance provides performance and consistency of machined part straightness
- Offers finishing speeds of 480 m/min

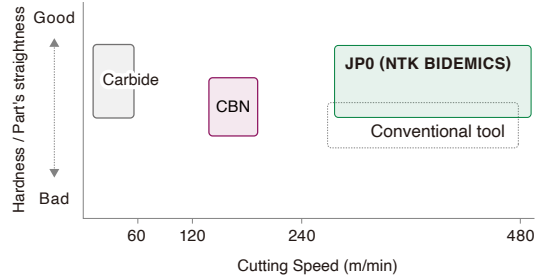
Application Area

Continuous cuts when finishing HRSA materials

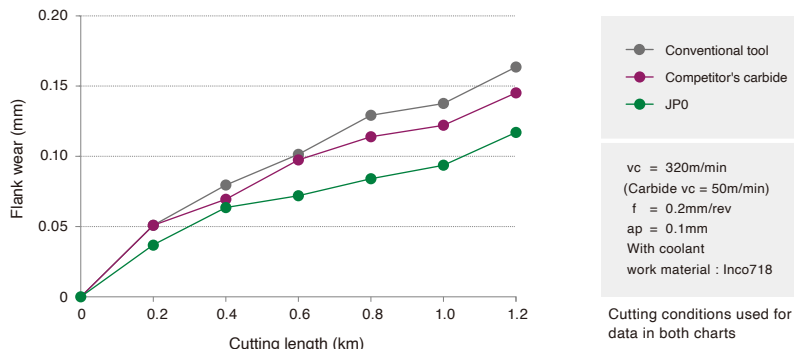
Recommended Cutting Conditions

Grade	Material	Application	Process	Cutting speed (m/min)	Feed (mm/rev)	DOC (mm)	With coolant
JPO	Heat Resistant Super Alloys	Turning	Finishing	180-500	0.05-0.20	0.1-0.7	●

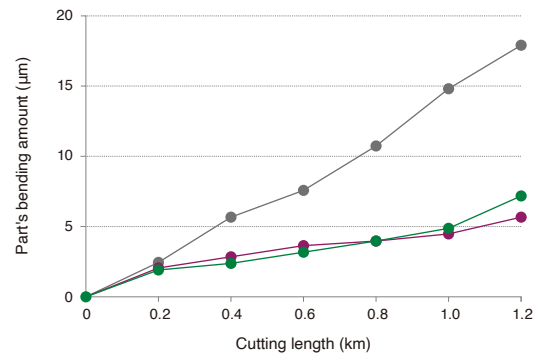
Cutting Speed and Wear Resistance Comparison



Wear Resistance



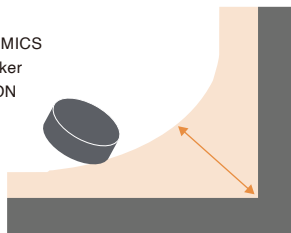
Part's Straightness Performance



Recommended Machining Passes at a Corner

1. Roughing pass

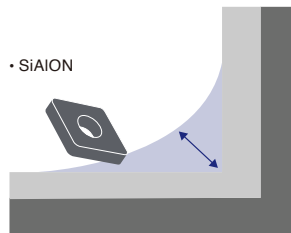
- BIDEMICS
- Whisker
- SIAION



Use a strong geometry insert like a round, RNGN120700, for heavy material removal

2. Semi-finishing pass

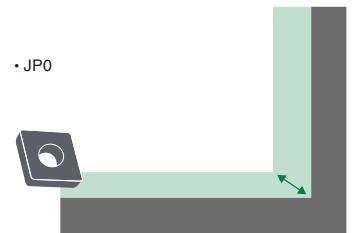
- SIAION



SIAION grades are best to remove extra material at the corner

3. Finishing pass

- JPO



JPO - Machine with a consistent DOC to provide stable tool life

Insert Item List

Geometry	EDP	Item number	Corner R	Grade	Dimensions (mm)		
				JPO	IC	Thickness	Edge preparation
	5106604	CNGA 120404 BQENB	0.4	●	12.7	4.76	Honed edge 0.04
	5106620	120408 BQENB	0.8	●			
	5106612	120412 BQENB	1.2	●			
	5106646	DNGA 150404 BQENB	0.4	●			
	5106653	150408 BQENB	0.8	●			
	5106661	150412 BQENB	1.2	●			
	5106679	VNGA 160404 BQENB	0.4	●	9.525		
	5106687	160408 BQENB	0.8	●			