

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Hardness	Priority	Grades	Chip-breaker	Cutting speed Vc (sfm)	Feed per tooth fz (ipt)
P	Low carbon steels (1015, 1020, etc.)	- 300 HB	First choice	AH3135	MJ	330 - 830	0.003 - 0.012
		- 300 HB	For low cutting force	AH3135	NMJ	330 - 830	0.003 - 0.006
	Carbon steels, Alloy steels (1055, 4140, etc.)	- 300 HB	First choice	AH3135	MJ	330 - 760	0.003 - 0.012
		- 300 HB	For low cutting force	AH3135	NMJ	330 - 760	0.003 - 0.006
	Prehardened steel (NAK80, PX5, etc.)	30 - 40 HRC	First choice	AH3135	MJ	330 - 590	0.003 - 0.010
		30 - 40 HRC	For low cutting force	AH3135	NMJ	330 - 590	0.003 - 0.006
M	Stainless steels (304, 316, etc.)	-	First choice	AH3135	MJ	300 - 660	0.003 - 0.010
		-	For low cutting force	AH3135	NMJ	300 - 660	0.003 - 0.006
K	Grey cast irons (No.25, No.30, etc.)	150 - 250 HB	First choice	AH120	MJ	460 - 830	0.003 - 0.012
		150 - 250 HB	For low cutting force	AH120	NMJ	460 - 830	0.003 - 0.006
	Ductile cast irons (60-40-18, 80-55-06, etc.)	150 - 250 HB	First choice	AH120	MJ	360 - 660	0.003 - 0.010
		150 - 250 HB	For low cutting force	AH120	NMJ	360 - 660	0.003 - 0.006
S	Titanium alloys (Ti-6Al-4V, etc.)	-	First choice	AH120	MJ	70 - 200	0.003 - 0.008
		-	For low cutting force	AH120	NMJ	70 - 200	0.003 - 0.006
	Heat-resistant alloys (Inconel718, etc.)	-	First choice	AH120	MJ	70 - 130	0.003 - 0.007
		-	For low cutting force	AH120	NMJ	70 - 130	0.003 - 0.006

Note: See page 9 for more information about grades.

When you use the NMJ chipbreaker, please set up the feed less than 0.006 ipt.