STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Hardness	Priority	Grade	Chip-breaker	Cutting speed *Vc* (m/min)	Feed per tooth *fz* (mm/t)
P	Low carbon steel (C15, C20, etc.)	- 300 HB	First choice	AH3135	NMJ*	100 - 250	0.08 - 0.15
		- 300 HB	For wear resistance	T3225	NMJ*	100 - 300	0.08 - 0.15
		- 300 HB	For finishing	AH3135	MJ	100 - 250	0.08 - 0.20
	Carbon steel and alloy steel (S55C / C55, SCM440 / 42CrMo4, etc.)	- 300 HB	First choice	AH3135	NMJ*	100 - 230	0.08 - 0.15
		- 300 HB	For wear resistance	T3225	NMJ*	100 - 280	0.08 - 0.15
		- 300 HB	For finishing	AH3135	MJ	100 - 230	0.08 - 0.20
	Prehardened steel (NAK80, PX5, etc.)	30 - 40 HRC	First choice	AH3135	NMJ*	100 - 180	0.08 - 0.15
		30 - 40 HRC	For wear resistance	T3225	NMJ*	100 - 200	0.08 - 0.15
		30 - 40 HRC	For finishing	AH3135	MJ	100 - 180	0.08 - 0.20
M	Stainless steel (SUS304 / X5CrNi18-9, SUS316 / X5CrNiMo17-12-3, etc.)	-	First choice	AH3135	NMJ*	90 - 200	0.08 - 0.15
		-	For wear resistance	T3225	NMJ*	90 - 250	0.08 - 0.15
		-	For finishing	AH3135	MJ	90 - 200	0.08 - 0.20
K	Grey cast iron (FC250 / 250, FC300 / 300, etc.)	150 - 250 HB	First choice	AH120	NMJ*	140 - 250	0.08 - 0.15
		150 - 250 HB	For wear resistance	T1215	NMJ*	150 - 300	0.08 - 0.15
		150 - 250 HB	For finishing	AH120	MJ	140 - 250	0.08 - 0.25
	Ductile cast iron (400-15, FCD600 / 600-3, etc.)	150 - 250 HB	First choice	AH120	NMJ*	140 - 250	0.08 - 0.15
		150 - 250 HB	For wear resistance	T1215	NMJ*	150 - 300	0.08 - 0.15
		150 - 250 HB	For finishing	AH120	MJ	140 - 250	0.08 - 0.25
S	Titanium alloys (Ti-6Al-4V, etc.)	-	First choice	AH120	NMJ*	20 - 60	0.08 - 0.15
		-	For finishing	AH120	MJ	20 - 60	0.08 - 0.18
	Heat-resistant alloys (Inconel718, etc.)	-	First choice	AH120	NMJ*	20 - 40	0.08 - 0.13
		-	For finishing	AH120	MJ	20 - 40	0.08 - 0.15

* When using the -NMJ chipbreaker, do not feed higher than 0.15 mm/t.