

STANDARD CUTTING CONDITIONS

Bore, shank type

ISO	Workpiece materials	Hardness	Priority	Grades	Cutting speed V _c (m/min)	Feed per tooth f _z (mm/t)	
P	Low carbon steel (S15C / C15E4, SS400 / E275A, etc.)	- 200 HB	First choice	AH3135	100 - 250	0.12 - 0.3	
		- 200 HB	Priority on wear resistance	T3225	150 - 350	0.08 - 0.2	
	Carbon steel and alloy steel (S55C / C55, SCM440 / 42CrMo4, etc.)	- 300 HB	First choice	AH3135	100 - 230	0.1 - 0.25	
		- 300 HB	Priority on wear resistance	T3225	150 - 350	0.08 - 0.2	
	Prehardend steel (NAK80, PX5, etc.)	30 - 40 HRC	First choice	AH3135	100 - 230	0.1 - 0.25	
		30 - 40 HRC	Priority on wear resistance	T3225	120 - 350	0.08 - 0.2	
M	Stainless steel (SUS304 / X5CrNi18-9, etc.)	-	First choice	AH3135	90 - 180	0.1 - 0.25	
K	Grey cast iron (FC250 / 250, etc.)	150 - 250 HB	First choice	AH120	140 - 250	0.12 - 0.3	
		150 - 250 HB	Priority on wear resistance	T1215	120 - 350	0.08 - 0.2	
	Ductile cast iron (FCD400, FCD600 / 600-3, etc.)	150 - 250 HB	First choice	AH120	110 - 200	0.12 - 0.3	
		150 - 250 HB	Priority on wear resistance	T1215	120 - 350	0.08 - 0.2	
S	Titanium alloys (Ti-6Al-4V, etc.)	-	First choice	AH725	30 - 60	0.08 - 0.2	
	Superalloys (Inconel718, etc.)	-	First choice	AH725	20 - 50	0.06 - 0.1	
H	Hardened steel	(SKD61 / X40CrMoV5-1, etc.)	40 - 50 HRC	First choice	AH725	45 - 70	0.08 - 0.15
		(SKD11 / X153CrMoV12, etc.)	50 - 60 HRC	First choice	AH725	40 - 65	0.06 - 0.1

Roughing type

ISO	Workpiece materials	Hardness	Priority	Grades	Cutting speed V _c (m/min)	Feed per tooth f _z (mm/t)	
P	Low carbon steel (S15C / C15E4, SS400 / E275A, etc.)	- 200 HB	First choice	AH3135	100 - 250	0.1 - 0.25	
		- 300 HB	Priority on wear resistance	T3225	150 - 350	0.1 - 0.2	
	Carbon steel and alloy steel (S55C / C55, SCM440 / 42CrMo4, etc.)	- 300 HB	First choice	AH3135	100 - 200	0.1 - 0.2	
		- 300 HB	Priority on wear resistance	T3225	150 - 300	0.1 - 0.2	
	Prehardend steel (NAK80, PX5, etc.)	30 - 40 HRC	First choice	AH3135	100 - 200	0.1 - 0.2	
		30 - 40 HRC	Priority on wear resistance	T3225	120 - 300	0.1 - 0.2	
M	Stainless steel (SUS304 / X5CrNi18-9, etc.)	-	First choice	AH3135	90 - 150	0.1 - 0.25	
K	Grey cast iron (FC250 / 250, etc.)	150 - 250 HB	First choice	AH120	100 - 250	0.1 - 0.25	
		150 - 250 HB	Priority on wear resistance	T1215	120 - 350	0.1 - 0.25	
	Ductile cast iron (FCD400, FCD600 / 600-3, etc.)	150 - 250 HB	First choice	AH120	100 - 200	0.1 - 0.25	
		150 - 250 HB	Priority on wear resistance	T1215	120 - 350	0.1 - 0.25	
S	Titanium alloys (Ti-6Al-4V, etc.)	-	First choice	AH725	20 - 50	0.06 - 0.15	
	Superalloys (Inconel718, etc.)	-	First choice	AH725	20 - 40	0.06 - 0.1	
H	Hardened steel	(SKD61 / X40CrMoV5-1, etc.)	40 - 50 HRC	First choice	AH725	30 - 60	0.08 - 0.15
		(SKD11 / X153CrMoV12, etc.)	50 - 60 HRC	First choice	AH725	25 - 55	0.06 - 0.1