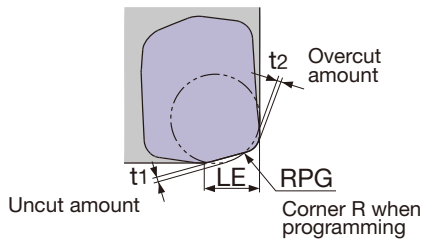


TOOL GEOMETRY ON PROGRAMMING FOR HIGH FEED

The following table shows the amount left uncut (t1) and overcut (t2).



	Max. depth of cut APMX (mm)	LE (mm)	Programmed corner R (mm)	Amount left uncut t1 (mm)	Amount left overcut t2 (mm)
LNMX04-HJ	1.3	4.1	R1.5	0.8	0
	1.3	4.1	R2.0	0.65	0
	1.3	4.1	R2.5	0.5	0.05
	1.3	4.1	R3.0	0.36	0.2
LNMX06-HJ	2.0	6.1	R2.0	1.4	-
	2.0	6.1	R3.0	1.1	-
	2.0	6.1	R3.5	0.91	-
	2.0	6.1	R4.0	0.74	0.05
	2.0	6.1	R5.0	0.41	0.35

STANDARD CUTTING CONDITIONS FOR RADIUS (MJ, ML)

ISO	Workpiece material	Hardness	Priority	Grade	Chip-breaker	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)	
P	Low carbon steel C15, C20, etc.	- 200 HB	First choice	AH3135	MJ	100 - 300	0.2 - 0.6	
		- 200 HB	For low cutting force	AH3135	ML	100 - 300	0.2 - 0.6	
	Carbon steel, Alloy steel C55, 42CrMoS4, etc.	- 300 HB	First choice	AH3135	MJ	100 - 250	0.2 - 0.6	
		- 300 HB	For low cutting force	AH3135	ML	100 - 250	0.2 - 0.6	
M	Prehardened steel NAK80, PX5, etc.	30 - 40 HRC	First choice	AH3135	MJ	100 - 200	0.15 - 0.4	
		30 - 40 HRC	For low cutting force	AH3135	ML	100 - 200	0.15 - 0.4	
M	Austenitic Stainless steel X5CrNi18-9, X5CrNiMo17-12-2, etc.	- 200 HB	First choice	AH3135	MJ	100 - 200	0.2 - 0.6	
		- 200 HB	For low cutting force	AH3135	ML	100 - 200	0.2 - 0.6	
	Martensitic Stainless steel X12Cr113, X20Cr13, etc.	- 200 HB	First choice	AH3135	ML	100 - 300	0.2 - 0.6	
		- 200 HB	For impact resistance	AH3135	MJ	100 - 300	0.2 - 0.6	
K	Grey cast iron 250, 300, etc.	150 - 250 HB	First choice	AH120	MJ	100 - 300	0.2 - 0.6	
		150 - 250 HB	For low cutting force	AH120	ML	100 - 300	0.2 - 0.6	
	Ductile cast iron 400-15, 600-3, etc.	150 - 250 HB	First choice	AH120	MJ	80 - 250	0.2 - 0.6	
		150 - 250 HB	For low cutting force	AH120	ML	80 - 250	0.2 - 0.6	
S	Titanium alloy Ti-6Al-4V, etc.	-	First choice	AH3135	ML	30 - 60	0.15 - 0.6	
		-	For impact resistance	AH3135	MJ	30 - 60	0.15 - 0.6	
	Superalloys Inconel718, etc.	-	First choice	AH120	ML	20 - 50	0.05 - 0.3	
		-	For impact resistance	AH120	MJ	20 - 50	0.05 - 0.3	
H	Hardened steel	SKD61, etc.	40 - 50 HRC	First choice	AH3135	MJ	50 - 150	0.1 - 0.3
			40 - 50 HRC	For wear resistance	AH120	MJ	50 - 150	0.1 - 0.3
		SKD11, etc.	50 - 60 HRC	First choice	AH120	MJ	50 - 70	0.05 - 0.15

STANDARD CUTTING CONDITIONS FOR HIGH FEED (HJ)

LNMX04-HJ

ISO	Workpiece material	Hardness	Priority	Grade	Chip-breaker	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)	
P	Low carbon steel C15, C20, etc.	- 300HB	First choice For wear resistance	AH3135 AH120	HJ	100 - 300	0.5 - 1.3	
	Carbon steel, Alloy steel C55, 42CrMoS4, etc.	- 300HB	First choice For wear resistance	AH3135 AH120	HJ	100 - 250	0.5 - 1.3	
	Prehardened steel NAK80, PX5, etc.	30 - 40HRC	First choice For wear resistance	AH3135 AH120	HJ	100 - 200	0.4 - 1	
M	Austenitic Stainless steel X5CrNi18-9, X5CrNiMo17-12-2, etc.	- 200HB	First choice	AH3135	HJ	100 - 200	0.3 - 0.9	
	Martensitic Stainless steel X12Cr113, X20Cr13, etc.	- 200HB	First choice	AH3135	HJ	100 - 300	0.3 - 0.9	
K	Grey cast iron 250, 300, etc.	150 - 250HB	First choice For impact resistance	AH120 AH3135	HJ	100 - 300	0.5 - 1.3	
	Ductile cast iron 400-15, 600-3, etc.	150 - 250HB	First choice For impact resistance	AH120 AH3135	HJ	80 - 250	0.5 - 1.3	
S	Titanium alloy Ti-6Al-4V, etc.	150 - 250HB	First choice	AH3135	HJ	30 - 60	0.3 - 0.7	
	Superalloys Inconel718, etc.	150 - 250HB	First choice	AH120	HJ	20 - 50	0.1 - 0.3	
H	Hardened steel	SKD61, etc.	40 - 50HRC	First choice For wear resistance	AH3135 AH120	HJ	50 - 150	0.1 - 0.5
		SKD11, etc.	50 - 60HRC	First choice	AH120	HJ	50 - 70	0.05 - 0.2

LNMX06-HJ

ISO	Workpiece material	Hardness	Priority	Grade	Chip-breaker	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)	
P	Low carbon steel C15, C20, etc.	- 300HB	First choice For wear resistance	AH3135 AH120	HJ	100 - 300	0.3 - 1.1	
	Carbon steel, Alloy steel C55, 42CrMoS4, etc.	- 300HB	First choice For wear resistance	AH3135 AH120	HJ	100 - 250	0.3 - 1.1	
	Prehardened steel NAK80, PX5, etc.	30 - 40HRC	First choice For wear resistance	AH3135 AH120	HJ	100 - 200	0.2 - 0.7	
M	Austenitic Stainless steel X5CrNi18-9, X5CrNiMo17-12-2, etc.	- 200HB	First choice	AH3135	HJ	100 - 200	0.2 - 0.7	
	Martensitic Stainless steel X12Cr113, X20Cr13, etc.	- 200HB	First choice	AH3135	HJ	100 - 300	0.2 - 0.7	
K	Grey cast iron 250, 300, etc.	150 - 250HB	First choice For impact resistance	AH120 AH3135	HJ	100 - 300	0.3 - 1.1	
	Ductile cast iron 400-15, 600-3, etc.	150 - 250HB	First choice For impact resistance	AH120 AH3135	HJ	80 - 250	0.3 - 1.1	
S	Titanium alloy Ti-6Al-4V, etc.	150 - 250HB	First choice	AH3135	HJ	30 - 60	0.15 - 0.6	
	Superalloys Inconel718, etc.	150 - 250HB	First choice	AH120	HJ	20 - 50	0.05 - 0.3	
H	Hardened steel	SKD61, etc.	40 - 50HRC	First choice For wear resistance	AH3135 AH120	HJ	50 - 150	0.1 - 0.3
		SKD11, etc.	50 - 60HRC	First choice	AH120	HJ	50 - 70	0.05 - 0.15