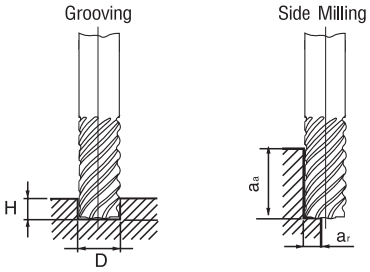
B

Cutting Conditions

NACHI นาชิ

• X's-mill Geo L9322, X's-mill Geo Radius



1. When dry milling, reduce the rotation and feed to 70% of table values.
2. Adjust milling condition when an unusual vibration, different sound occur by cutting.

Work Material / Milling Condition / Dia. of Mill mm		SS, S-C, FC-Structural Steels, Carbon Steels, Cast Irons (150 ~ 250HB)		SCM, NAK, HPM Alloy Steels, Pre-Hardened Steels (25 ~ 35HRC)		Hardened Steels (40 ~ 50HRC)		Stainless Steels (SUS304, 316)		Nickel Alloys Titanium Alloys (20 ~ 45HRC)	
		Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min
2		9000	720	6000	430	4000	320	5500	320	2600	120
4		6600	800	4500	450	3000	380	4000	320	2000	120
6		4800	960	3000	480	2500	380	3000	480	1200	120
8		3600	1000	2200	610	2000	400	2000	520	1000	140
10		2800	1000	1800	610	1500	400	1700	550	800	160
12		2400	950	1500	550	1200	380	1500	500	700	140
14		2200	880	1300	490	1000	360	1200	430	600	130
16		1800	650	1100	420	800	300	1000	360	500	120
18		1600	580	1000	360	750	270	900	340	450	110
20		1400	500	900	330	700	250	820	300	400	100
Depth of cut	aa	1.5D									
	ar	0.1D				0.05D		0.1D		0.05D	
	H	1D				0.2D		0.3D		0.2D	

When Grooving stainless steels, reduce the rotation to 60%, and the feed to 40% of table values.

• GSX MILL Two Flutes 1.5D/2D L9150, L9168

	Work Material / Milling Condition / Dia. of Mill mm		Structural Steels SS		Carbon Steels Cast Irons S-C, FC- (150~250HB)		Alloy Steels Heat treated Steels SCM, NAK, HPM (25~35HRC)		Haedened Steels (35~45HRC)		Haedened Steels (45~55HRC)		Stainless Steels (SUS304, 316)		Nickel Alloys Titanium Alloys	
			Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min
Side Milling	1		19600	250	19600	250	18300	180	12700	100	9000	60	11000	70	9000	50
	2		11200	340	11200	340	10500	240	7300	130	5300	80	6400	90	5300	70
	4		6400	460	6400	460	6000	320	4200	180	3000	110	3600	120	3000	90
	6		4600	560	4600	560	4300	400	3000	210	2200	130	2700	140	2200	100
	8		3400	560	3400	560	3200	400	2200	210	1600	130	2000	140	1600	100
	10		2800	560	2800	560	2600	400	1800	210	1300	130	1600	140	1300	100
	12		2300	560	2300	560	2200	400	1500	210	1100	130	1300	140	1100	100
	16		1700	450	1700	450	1600	320	1100	180	800	100	1000	110	800	85
	20		1350	380	1350	380	1300	280	900	160	650	90	800	100	650	75
	Depth of cut	ap	1.5D								1D					
		ae	0.05D								0.02D					
Grooving	1		19600	200	19600	250	18300	180	12700	100	9000	60	11000	50	4500	20
	2		11200	270	11200	340	10500	240	7300	130	5300	80	6400	65	2650	25
	4		6400	370	6400	460	6000	320	4200	180	3000	110	3600	80	1500	35
	6		4600	450	4600	560	4300	400	3000	210	2200	130	2650	100	1100	40
	8		3400	450	3400	560	3200	400	2200	210	1600	130	2000	100	800	40
	10		2800	450	2800	560	2600	400	1800	210	1300	130	1600	100	650	40
	12		2300	450	2300	560	2200	400	1500	210	1100	130	1300	100	500	40
	16		1700	360	1700	450	1600	320	1100	180	800	100	1000	80	400	35
	20		1350	300	1350	380	1300	280	900	160	650	90	800	70	320	30
	Depth of cut	ap	0.2D		0.5D				0.2D		0.05D		0.2D			