B

Cutting Conditions

NACHI นาชิ

• GSX MILL Four Flutes 1D L9180

	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		26000	510	26000	510	24200	330	17700	220	13700	160	15800	150	13700	110
	2		14000	630	14000	630	13600	430	10000	280	7600	190	8800	200	7600	140
	4		7600	820	7600	820	7200	550	5200	350	4000	250	4600	250	4000	160
	6		5100	870	5100	870	4800	580	3500	370	2700	260	3200	270	2700	180
	8		3800	870	3800	870	3600	580	2600	370	2000	260	2400	270	2000	180
	10		3000	840	3000	840	2900	580	2100	370	1600	260	1900	270	1600	180
	12		2500	840	2500	840	2500	580	1800	370	1400	260	1600	270	1300	180
	16		1800	690	1800	690	1800	470	1300	330	1000	210	1200	220	1000	150
	20		1500	670	1500	670	1450	430	1050	310	800	190	950	190	800	120
	Depth of cut	ap	1D								0.5D					
		ae	0.05D								0.02D					
Grooving	1		26000	420	26000	510	24200	330	17700	220	13700	160	15800	110	8400	50
	2		14000	500	14000	630	13600	430	10000	280	7600	190	8800	130	4600	60
	4		7600	640	7600	820	7200	550	5200	350	4000	250	4600	160	2400	80
	6		5100	690	5100	870	4800	580	3500	370	2700	260	3200	190	1600	100
	8		3800	690	3800	870	3600	580	2600	370	2000	260	2400	190	1200	100
	10		3000	670	3000	840	2900	580	2100	370	1600	260	1900	190	100	100
	12		2500	670	2500	840	2500	580	1800	370	1400	260	1600	190	800	100
	16		1800	550	1800	690	1800	470	1300	330	1000	210	1200	160	600	80
	20		1500	530	1500	670	1450	430	1050	310	800	190	950	130	500	75
	Depth of cut	ap	0.2D		0.5D				0.2D		0.05D		0.2D			
High Speed Milling	1		60000	1200	60000	1200	60000	850	60000	720	48000	500	32000	300	22000	150
	2		47800	2200	47800	2200	47800	1600	39800	1200	31800	900	15900	400	11000	200
	4		23900	2600	23900	2600	23900	1900	19900	1400	15900	1100	8000	490	5500	260
	6		16000	2700	16000	2700	16000	2000	13300	1500	10600	1200	5300	520	3700	330
	8		12000	2700	12000	2700	12000	2000	10000	1500	8000	1200	4000	520	2800	330
	10		9600	2700	9600	2700	9600	2000	8000	1500	6400	1200	3200	520	2200	330
	12		8000	2700	8000	2700	8000	2000	6700	1500	5300	1200	1700	520	1900	330
	16		6000	2200	6000	2200	6000	1600	5000	1200	4000	900	2000	450	1400	290
	20		4800	2000	4800	2000	4800	1400	4000	1100	3200	750	1600	380	1100	240
	Side Milling	ap	1.5D								0.5D				-	
		ae	0.5D								0.02D				-	
	Surface Milling	ap	1.01D													
		ae	0.8D													