

CUTTING TOOLS & PRECISION TOOLS

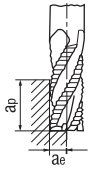
Cutting Conditions GS MILL Roughing L9420



• Side Milling

Work Material Milling Condition	SS, S C Structural Steels, Carbon Steels (150-250 HB)		Cast Irons (FC, FCD)		SCM, NAK, HPM Alloy Steels, Pre Hardened Steels (25-35 HRC)		Hardened Steels (40-50 HRC)		Stainless Steels (SUS304, 316)		Nickel Alloys, Titanium Alloys (20-45 HRC)	
	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
Dia. of Mill mm												
6	4800	1200	5800	1500	3200	380	2600	400	5300	250	1600	90
8	3600	1200	4500	1500	2400	380	2000	400	4000	250	1250	90
10	2800	1200	3500	1500	1900	380	1600	400	3200	250	1000	100
12	2400	1200	2900	1400	1600	400	1300	400	2600	250	800	100
16	1800	900	2200	1100	1200	360	1000	360	2000	210	600	90
20	1400	700	1700	850	850	340	800	300	1600	150	500	80

Side Milling	ap	1.5D						0.3D					
	Pf	0.5D						0.3D					



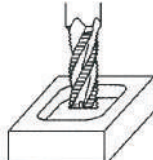
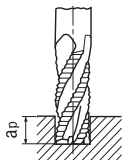
• Grooving

Work Material Milling Condition	SS, S C Structural Steels, Carbon Steels (150-250 HB)		Cast Irons (FC, FCD)		SCM, NAK, HPM Alloy Steels, Pre Hardened Steels (25-35 HRC)		Hardened Steels (40-50 HRC)		Stainless Steels (SUS304, 316)		Nickel Alloys, Titanium Alloys (20-45 HRC)	
	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
Dia. of Mill mm												
6	3600	900	4300	1100	2400	300	1700	260	4200	250	1100	60
8	2700	900	3400	1100	1800	280	1350	260	3200	250	800	60
10	2100	900	2600	1100	1400	280	1100	270	2500	250	650	65
12	1800	900	2200	1100	1200	300	900	270	2100	250	550	70
16	1350	700	1650	850	900	280	700	240	1600	210	400	60
20	1050	520	1350	700	700	260	550	220	1250	170	300	55

	ap	1.0D				0.3D		0.5D		0.3D		
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Grooving

Contour Milling



1. Use highly rigid machining center and holder.
2. Use in wet condition in case of Stainless Steels, Nickel Alloys, Titanium Alloys.
3. In case of contour milling, please reduce feed rate from the value in the chart.
When diameter is under 10 mm, it makes 25% of values in the chart.
When it is above 10 mm, it makes 20% of values in the chart.
However, when horizontal machining center it is used, it does not apply.

Standard Milling Conditions

VICTORY Mills 2 Flutes Long L6416

Work Material Milling Condition	Structural Steels, Carbon Steels SS, S C		Alloy Steels, Pre Hardened Steels SCM, NAK, HPM		Mold Steels Stainless Steels SKD, SUS		Nickel Alloys Titanium Alloys		Cast Irons FC, FCD		Aluminum Alloys Copper Alloys Nonferrous 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
Dia. of Mill mm												
3	4200	80	3200	55	2700	35	2100	25	4800	220	9000	380
5	2500	80	1900	55	1600	35	1300	25	2900	220	5400	380
6	2100	80	1600	55	1300	35	1100	25	2400	220	4500	380
8	1600	80	1200	55	1000	35	800	25	1800	220	3400	380
10	1300	80	960	55	800	35	640	25	1400	220	2700	390
12	1100	80	800	55	660	35	530	25	1200	220	2300	380
15	850	80	640	55	530	35	420	25	960	220	1800	380
20	640	75	480	50	400	30	320	25	720	210	1400	360

D : Dia. of Mill
Side Milling



1. In dry milling (recommend air blow), reduce the rotation and feed to 70% of table values.
2. Adjust milling condition when unusual vibration, different sound occur by cutting.