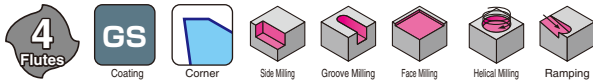


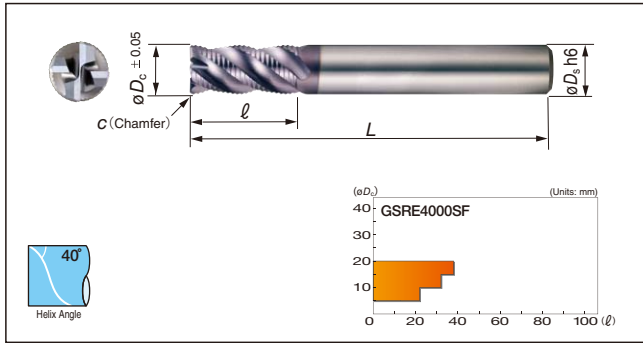


GS MILL Roughing

GSRE 4000 SF Type



Coated Carbide	Carbon Steel	Alloy Steel	Al Alloy	Copper Alloy	Graphite	CFRP	Hardened Steel 45 to 55 HRC	Stainless Steel	Ti Alloy	Cast Iron	Al Alloy	Copper Alloy	Graphite	CFRP
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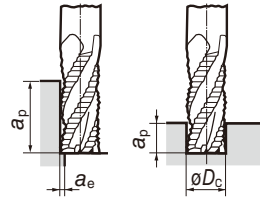
Body

Cat. No.	Stock	Dimensions (mm)				
		$\varnothing D_c$	ℓ	L	c	$\varnothing D_s$
GSRE 4060SF	●	6.0	13	50	0.3	6
4070SF	●	7.0	16	60	0.3	8
4080SF	●	8.0	19	60	0.4	8
4090SF	●	9.0	19	70	0.4	10
4100SF	●	10.0	22	70	0.5	10
GSRE 4110SF	●	11.0	22	75	0.5	12
4120SF	●	12.0	26	75	0.6	12
4140SF	●	14.0	26	90	0.6	16
4160SF	●	16.0	32	90	0.8	16
4180SF	●	18.0	32	100	0.8	20
GSRE 4200SF	●	20.0	38	100	1.0	20

Grade: ACZ20W

Recommended Cutting Conditions

- If the machine cannot achieve the standard spindle speed, please use the max. spindle speed available.
- If cutting noise and vibration are present, please reduce the cutting conditions accordingly.



Side Milling

Work Material Cond.	Structural Steel, Carbon Steel (150 to 250HB)		Cast Iron FC, FCD		Alloy Steel SCM (25 to 35HRC)		Hardened Steel (45 to 50HRC)		Stainless Steel SUS304, SUS316		Heat Resistant Steel Titanium Alloy		
	D_c (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)
6.0	4,800	1,200	5,800	1,500	3,200	380	2,600	400	5,300	250	1,600	90	
7.0	4,100	1,200	5,000	1,500	2,700	380	2,200	400	4,500	250	1,350	90	
8.0	3,600	1,200	4,500	1,500	2,400	380	2,000	400	4,000	250	1,250	90	
9.0	3,200	1,200	4,000	1,500	2,100	380	1,800	400	3,500	250	1,050	90	
10.0	2,800	1,200	3,500	1,500	1,900	380	1,600	400	3,200	250	1,000	100	
11.0	2,600	1,200	3,000	1,400	1,700	380	1,500	400	2,900	250	900	100	
12.0	2,400	1,200	2,900	1,400	1,600	400	1,300	400	2,600	250	800	100	
14.0	2,200	1,100	2,600	1,300	1,300	380	1,100	350	2,200	200	700	100	
16.0	1,800	900	2,200	1,100	1,200	380	1,000	350	2,000	180	600	100	
18.0	1,400	700	1,800	900	1,000	380	900	300	1,800	150	550	100	
20.0	1,400	700	1,700	850	850	380	800	300	1,600	150	500	100	
Standard	a_p	1.5 D_c						0.3 D_c					
Depth-of-cut	a_e	0.5 D_c						0.3 D_c					

Groove Milling

Work Material Cond.	Structural Steel, Carbon Steel (150 to 250HB)		Cast Iron FC, FCD		Alloy Steel SCM (25 to 35HRC)		Hardened Steel (45 to 50HRC)		Stainless Steel SUS304, SUS316		Heat Resistant Steel Titanium Alloy		
	D_c (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)
6.0	3,600	900	4,300	1,100	2,400	300	1,700	260	4,200	250	1,100	60	
7.0	3,000	900	3,700	1,100	2,000	280	1,500	260	3,600	250	900	60	
8.0	2,700	900	3,400	1,100	1,800	280	1,350	260	3,200	250	800	60	
9.0	2,400	900	3,000	1,100	1,600	280	1,200	260	2,800	250	700	60	
10.0	2,100	900	2,600	1,100	1,400	280	1,100	270	2,500	250	650	65	
11.0	2,000	900	2,300	1,100	1,300	280	1,000	270	2,300	250	600	70	
12.0	1,800	900	2,200	1,100	1,200	300	900	270	2,100	250	550	70	
14.0	1,600	800	2,000	1,000	1,000	290	750	240	1,800	180	450	65	
16.0	1,350	650	1,650	850	900	280	700	240	1,600	160	400	65	
18.0	1,200	550	1,500	750	800	280	600	230	1,400	140	350	60	
20.0	1,050	500	1,350	700	700	280	550	210	1,250	125	300	60	
Standard	a_p	1.0 D_c						0.5 D_c					

I Coated Endmills Square 2 Flutes 3 Flutes 4 Flutes 6 Flutes 8 Flutes Radius Ballnose DLC SUMIDIA Coat Long Neck Uncoated CBN PCD