

CEXSH POWER CUTTING For Aluminum

CARBIDE END Mills- POWER CUTTING- For Aluminum

- Special cutting edge design reduces adhesion, enabling dry machining of aluminum alloy.
- High helix angle design ensures high surface quality of the workpiece even in high-speed cutting.
- Circular flute geometry design effectively enhances chip removal performance, thereby improving machining efficiency.



**Dry Cutting
Aluminum!!!**



- ϕ 16 mm
- Slot Milling
- S : 5970 rpm
- F : 800 mm/min
- A_p : 34 mm
- ϕ 10 mm
- Slot Milling
- S : 8500 rpm
- F : 1000 mm/min
- A_p : 25 mm

CUT EXAMPLES

- ϕ 4 mm
- Slot Milling
- S : 10000 rpm
- F : 400 mm/min
- A_p : 5 mm

- ϕ 16 mm
- Side Milling
- S : 5970 rpm
- F : 2400 mm/min
- A_p : 34 mm
- A_e : 2.5 mm

- ϕ 8 mm
- Slot Milling
- S : 10000 rpm
- F : 800 mm/min
- A_p : 20 mm

- ϕ 6 mm
- Slot Milling
- S : 10000 rpm
- F : 600 mm/min
- A_p : 10 mm

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Table 72

S220 鎢鋼鋁用強力型銑刀-3刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

加工材質 Material	鋁合金 Aluminum Alloys		銅合金 Copper Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075		C1100	
硬度 Hardness	—		—	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	18,000	810	7,200	290
4mm	13,500	950	5,400	320
5mm	10,800	990	4,320	340
6mm	9,000	1,080	3,600	360
8mm	7,200	1,170	2,700	410
10mm	5,760	1,260	2,030	430
12mm	4,680	1,350	1,710	460
16mm	3,510	1,350	1,260	460
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.1D			

溝銑加工 Slot Milling

加工材質 Material	鋁合金 Aluminum Alloys		銅合金 Copper Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075		C1100	
硬度 Hardness	—		—	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	17,100	590	7,110	270
4mm	13,050	620	5,310	290
5mm	10,350	630	4,230	320
6mm	8,100	720	3,510	330
8mm	7,160	750	2,610	380
10mm	5,670	850	2,070	410
12mm	4,590	900	1,710	440
16mm	3,470	900	1,260	430
切削量 Cutting Amount (mm)	Ap=0.5D			

※ 切削公式 Cutting Formula : S (主軸轉速) = V_c (切削速度) \times 1000 / D (外徑) / π (3.14) F (進給速度) = f_z (每刃進給量) \times Z (刃數) \times S (主軸轉速)

1. 當加工聲音尖銳時，請調降主軸轉速(S) (10~40%)。When the sound is piercing, please lower the spindle speed(S) (10~40%).
2. 當機台震動太大時，請調降進給速度(F) (10~40%)。When the machine is vibrating, please decrease the feed rate(F) (10~40%).
3. 當主軸負載太大時，請調降進給速度(F) (10~40%)。When the spindle load is high, please decrease the feed rate(F) (10~40%).
4. 以上數據為建議值，適當的條件仍需視機台狀況，夾治具品質，潤滑冷卻系統...等而改變。

These are recommended values which depend on the condition of the machine, fixture, lubricating & cooling systems... etc. They may have to be adapted.