

S220 MICRO GRAIN CARBIDE END MILLS FOR ALUMINUM- High Performance- 3F

刃徑 d	公差 Tolerance
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	—
精銑 Finishing	◎
中銑 Semi Finishing	◎◎
粗銑 Roughing	◎◎◎



➡ 切削條件表 P.575
Cutting Condition

➡ 技術資料 P.622
Technical Data

Technical drawing of a double-flute drill bit. The drawing shows the bit's profile with the following dimensions and features:

- C $\times 45^\circ$** : Chamfer angle at the tip.
- d**: Minor diameter (tip diameter).
- D(h6)**: Major diameter (shaft diameter).
- L1**: Length of the cutting edge.
- L**: Total length of the drill bit.
- CMTC**: Brand logo on the shaft.

➡ **切削條件表** P.575
Cutting Condition

➡ **技術資料** P.622
Technical Data

Table 76

S220 鎢鋼鋁用高效型銑刀- 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	
工件料號 Material Code	Al 5052 / 6061 / 7075	
硬度 Hardness	—	
切削速度 Vc	180m/min	
外徑 Diameter	S (rpm)	F (mm/min)
3mm	19,100	970
4mm	14,330	1,140
5mm	11,460	1,200
6mm	9,550	1,300
8mm	7,170	1,400
10mm	5,730	1,500
12mm	4,780	1,600
16mm	3,580	1,600
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.1~0.5D 	

溝銑加工 Slot Milling

加工材質 Material	鋁合金 Aluminum Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075	
硬度 Hardness	—	
切削速度 Vc	180m/min	
外徑 Diameter	S (rpm)	F (mm/min)
3mm	19,100	700
4mm	14,330	740
5mm	11,460	760
6mm	9,550	860
8mm	7,170	900
10mm	5,730	1,020
12mm	4,780	1,080
16mm	3,580	1,080
切削量 Cutting Amount (mm)	Ap=0.5D 	

※ 切削公式 Cutting Formula : $S(\text{主軸轉速}) = Vc(\text{切削速度}) \times 1000 / D(\text{外徑}) / \pi (3.14)$ $F(\text{進給速度}) = fz(\text{每刃進給量}) \times Z(\text{刃數}) \times S(\text{主軸轉速})$

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.