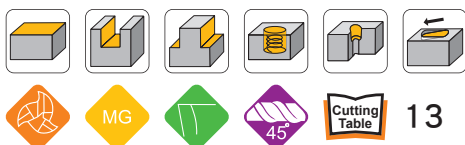


S220 MICRO GRAIN CARBIDE END MILLS FOR ALUMINUM- Wave Edge Type- 3F

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	◎



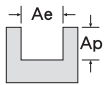
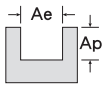
➡ 切削條件表 P.541
Cutting Condition

➡ 技術資料 P.622
Technical Data

Table 13

S220 鎢鋼鋁用波浪型銑刀- 3刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

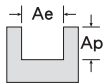
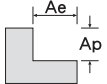
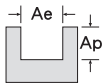
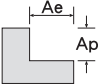
加工材質 Material	鋁合金 Aluminum Alloys			
工件料號 Material Code	Al 5052 / 6061 / 7075			
切削速度 Vc	200m/min		250m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
6mm	10,600	2,000	13,200	2,300
8mm	8,000	1,500	10,000	2,000
10mm	6,400	1,200	8,000	1,900
12mm	5,300	1,000	6,600	1,600
16mm	4,000	750	5,000	1,200
20mm	3,200	600	4,000	960
切削量 Cutting Amount (mm)	Ap=1D 		Ap=0.5D 	

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

Table 14

S220 鎢鋼波浪型銑刀- 2 / 3 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	鈦合金 Titanium Alloys		鈦合金 Titanium Alloys		鈦合金 Titanium Alloys		鈦合金 Titanium Alloys	
工件料號 Material Code	Ti-6Al-4V		Ti5Al2Sn		Ti-6Al-4V		Ti5Al2Sn	
硬度 Hardness	HRC>30		HRC≒30		HRC>30		HRC≒30	
切削速度 Vc	40m/min		60m/min		40m/min		60m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
6mm	2,120	100	3,180	150	2,120	80	3,180	125
8mm	1,590	125	2,390	180	1,590	90	2,390	140
10mm	1,270	140	1,910	205	1,270	105	1,910	160
12mm	1,060	155	1,590	230	1,060	120	1,590	180
16mm	790	145	1,190	210	790	110	1,190	160
20mm	630	150	950	220	630	115	950	170
切削量 Cutting Amount (mm)	Ap=0.5D (2F / 3F) 		Ap=0.6D Ae=0.1D (4F) 		Ap=1D (2F / 3F) 		Ap=1.2D Ae=0.1D (4F) 	
備註 Remarks	※ 側銑時依上表可適時提高(溝銑)30%以上。 Side Milling could increase than 30% from Slotting one.							

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

- 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%).
- 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%).
- 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%).
- 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.