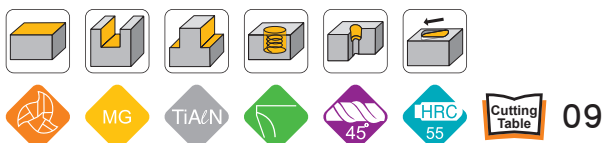


S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- 3F

Technical drawing of a double-flute drill bit. The drawing shows the bit's geometry with the following dimensions labeled:

- d : Diameter of the drill bit.
- L_1 : Length of the cutting edge (flute length).
- L : Total length of the drill bit.
- $D(h6)$: Diameter of the shank, indicating a tolerance of h6.

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



➡ 切削條件表 P.539
Cutting Condition

➡ 技術資料 P.622
Technical Data

Table 09

S220 鎢鋼高導型銑刀- 3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

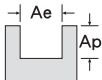
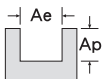
加工材質 Material	合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels	
工件料號 Material Code	SCM,SKT,SKD		SKT,SKD		SKT,SKD	
硬度 Hardness	HRC30~45		HRC45~55		HRC55~63	
切削速度 Vc	27m/min		18m/min		16m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	2,880	75	1,890	75	1,710	70
4mm	2,160	80	1,440	80	1,300	75
5mm	1,710	80	1,170	80	1,040	70
6mm	1,440	155	990	110	860	90
8mm	1,080	155	720	110	650	90
10mm	860	155	580	90	520	75
12mm	720	155	480	80	430	65
14mm	600	130	450	75	410	60
16mm	540	120	360	75	320	55
18mm	480	100	350	60	310	50
20mm	430	95	290	65	270	45
切削量 Cutting Amount (mm)	Ap=0.1D 					

Table 10

M520 極細鎢鋼銑刀- 6刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels	
工件料號 Material Code	SCM,SKT,SKD		SKT,SKD		SKT,SKD	
硬度 Hardness	HRC30~45		HRC45~55		HRC55~63	
切削速度 Vc	27m/min		18m/min		16m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	2,880	75	1,890	75	1,710	70
4mm	2,160	80	1,440	80	1,300	75
5mm	1,710	80	1,170	80	1,040	70
6mm	1,440	155	990	110	860	90
8mm	1,080	155	720	110	650	90
10mm	860	155	580	90	520	75
12mm	720	155	480	80	430	65
14mm	600	130	450	75	410	60
16mm	540	120	360	75	320	55
18mm	480	100	350	60	310	50
20mm	430	95	290	65	270	45
切削量 Cutting Amount (mm)	Ap=0.1D 					

※ 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.