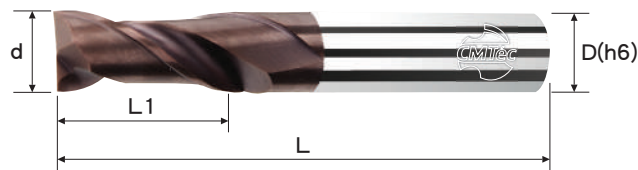


S220 鎢鋼平銑刀- 強力小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Power Cutting- 2F

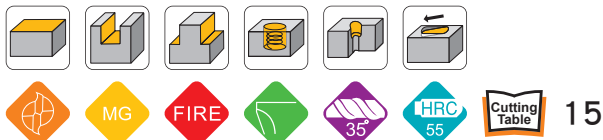
· CESHM20000F

· CESH20000F



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	○



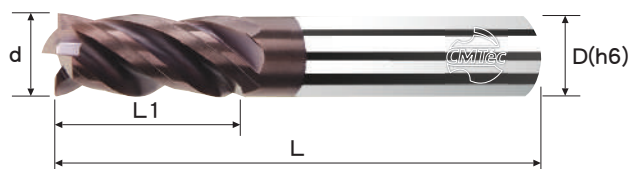
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	5	50	4	2	CESHM20200	CESHM20200F
3.0	8	50	4	2	CESHM20300	CESHM20300F
4.0	10	50	4	2	CESHM20400	CESHM20400F
3.0	8	50	6	2	CESH20300	CESH20300F
4.0	10	50	6	2	CESH20400	CESH20400F
5.0	13	50	6	2	CESH20500	CESH20500F
6.0	15	50	6	2	CESH20600	CESH20600F
8.0	20	60	8	2	CESH20800	CESH20800F
10.0	25	75	10	2	CESH21000	CESH21000F
12.0	30	75	12	2	CESH21200	CESH21200F
16.0	35	100	16	2	CESH21600	CESH21600F

S220 鎢鋼平銑刀- 強力小柄/標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Power Cutting- 4F

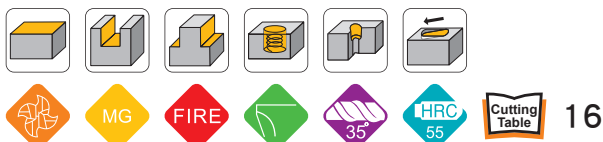
· CESHM40000F

· CESH40000F



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	○



刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	5	50	4	4	CESHM40200	CESHM40200F
3.0	8	50	4	4	CESHM40300	CESHM40300F
4.0	10	50	4	4	CESHM40400	CESHM40400F
3.0	8	50	6	4	CESH40300	CESH40300F
4.0	10	50	6	4	CESH40400	CESH40400F
5.0	13	50	6	4	CESH40500	CESH40500F
6.0	15	50	6	4	CESH40600	CESH40600F
8.0	20	60	8	4	CESH40800	CESH40800F
10.0	25	75	10	4	CESH41000	CESH41000F
12.0	30	75	12	4	CESH41200	CESH41200F
16.0	35	100	16	4	CESH41600	CESH41600F

Table 15

S220 鎢鋼強力型銑刀-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鈦合金 Titanium Alloys		鋁合金 Aluminum Alloys	
工件料號 Material Code	SUS304		Ti5Al2Sn		Ti-6Al-4V		Al 5052 / 6061 / 7075	
硬度 Hardness	—		HRC≒30		HRC>30		—	
切削速度 Vc	54m/min		60m/min		40m/min		120m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
2mm	8,600	515	9,550	375	6,370	240	19,110	150
3mm	5,760	345	6,370	250	4,250	160	12,740	190
4mm	4,320	345	4,780	190	3,180	120	9,550	140
5mm	3,420	345	3,820	150	2,550	95	7,640	190
6mm	2,880	345	3,180	125	2,120	80	6,370	160
8mm	2,160	345	2,390	140	1,590	90	4,780	170
10mm	1,710	360	1,910	160	1,270	105	3,820	190
12mm	1,440	360	1,590	180	1,060	120	3,180	160
16mm	1,200	420	1,190	160	790	110	2,390	190
切削量 Cutting Amount (mm)	Ap=0.5D (D<3, Ap≤0.25D)		Ap=0.5D		Ap=1D		Ap=1D (D<3, Ap≤0.5D)	

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

Table 16

S220 鎢鋼強力型銑刀-4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鈦合金 Titanium Alloys		鋁合金 Aluminum Alloys	
工件料號 Material Code	SUS304		Ti5Al2Sn		Ti-6Al-4V		Al 5052 / 6061 / 7075	
硬度 Hardness	—		HRC≒30		HRC>30		—	
切削速度 Vc	54m/min		60m/min		40m/min		120m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
2mm	8,600	515	9,550	450	6,370	300	19,110	180
3mm	5,760	345	6,370	300	4,250	200	12,740	230
4mm	4,320	345	4,780	225	3,180	150	9,550	170
5mm	3,420	345	3,820	180	2,550	120	7,640	230
6mm	2,880	345	3,180	150	2,120	100	6,370	190
8mm	2,160	345	2,390	180	1,590	125	4,780	200
10mm	1,710	360	1,910	205	1,270	140	3,820	230
12mm	1,440	360	1,590	230	1,060	155	3,180	190
16mm	1,200	420	1,190	210	790	145	2,390	230
切削量 Cutting Amount (mm)	Ap=0.6D Ae≤0.1D		Ap=0.6D Ae≤0.1D		Ap=0.6D Ae≤0.1D		Ap=0.6D Ae≤0.1D	

※ 切削公式 Cutting Formula : S(主軸轉速) = Vc(切削速度) × 1000 / D(外徑) / π (3.14) F(進給速度) = fz(每刃進給量) × Z(刃數) × 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.