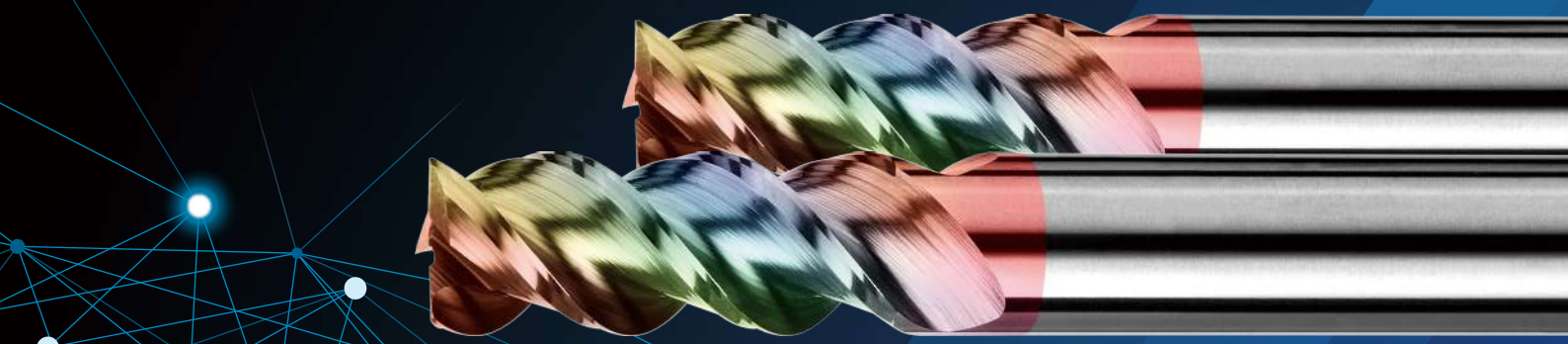
CEXSH 鎢鋼鋁用強力型銑刀

CARBIDE END Mills- POWER CUTTING- For Aluminum

- 特殊刀口設計降低黏附性，實現鋁合金乾式加工。
  Special cutting edge design reduces adhesion, enabling dry machining of aluminum alloy.
- 高螺旋角設計在高速切削中，仍可確保工件高質量的光潔度。
  High helix angle design ensures high surface quality of the workpiece even in high-speed cutting.
- 圓弧形溝槽設計有效提升排屑性能，進而提高加工效率。
  Circular flute geometry design effectively enhances chip removal performance, thereby improving machining efficiency.



鋁合金乾式加工可行!!!

Dry Cutting Aluminum!!!

CMTéc

切削實例 CUT EXAMPLES

- Φ16 mm
- 溝銑加工 Slot Milling
- S：5970 rpm
- F：800 mm/min
- Ap：34 mm

- Φ10 mm
- 溝銑加工 Slot Milling
- S：8500 rpm
- F：1000 mm/min
- Ap：25 mm

- Φ4 mm
- 溝銑加工 Slot Milling
- S：10000 rpm
- F：400 mm/min
- Ap：5 mm

- Φ16 mm
- 側銑加工 Side Milling
- S：5970 rpm
- F：2400 mm/min
- Ap：34 mm
- Ae：2.5 mm

- Φ8 mm
- 溝銑加工 Slot Milling
- S：10000 rpm
- F：800 mm/min
- Ap：20 mm

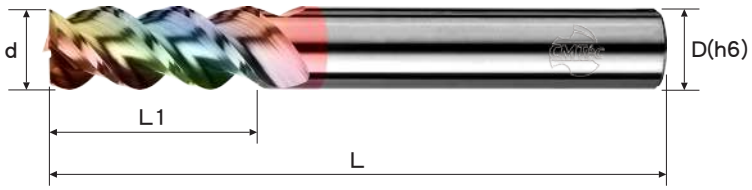
- Φ6 mm
- 溝銑加工 Slot Milling
- S：10000 rpm
- F：600 mm/min
- Ap：10 mm

鋁合金乾式加工
AI6061
N

S220 鎢鋼鋁用平銑刀- 強力型- 3刃

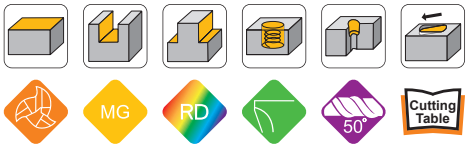
S220 MICRO GRAIN CARBIDE END MILLS FOR ALUMINUM- Power Cutting- 3F

· CEXSH30000R



刃徑 d	公差 Tolerance
Φ<3	0 ~ -0.02
3≦Φ≦10	-0.01 ~ -0.03
10<Φ	-0.01 ~ -0.04

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



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NEW SIZE

切 削 實 例 CUT EXAMPLES

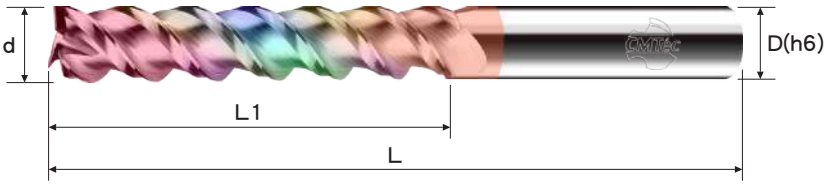
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	6	50	4	3	CEXSHM30200	CEXSHM30200R
3.0	9	50	4	3	CEXSHM30300	CEXSHM30300R
4.0	12	50	4	3	CEXSHM30400	CEXSHM30400R
2.0	6	50	6	3	CEXSH30200	CEXSH30200R
3.0	9	50	6	3	CEXSH30300	CEXSH30300R
4.0	12	50	6	3	CEXSH30400	CEXSH30400R
5.0	15	50	6	3	CEXSH30500	CEXSH30500R
6.0	18	50	6	3	CEXSH30600	CEXSH30600R
8.0	24	60	8	3	CEXSH30800	CEXSH30800R
8.0	35	75	8	3	CEXSH30800350C	CEXSH30800350CR
10.0	30	75	10	3	CEXSH31000	CEXSH31000R
12.0	35	75	12	3	CEXSH31200	CEXSH31200R
16.0	40	100	16	3	CEXSH31600	CEXSH31600R
20.0	45	100	20	3	CEXSH32000	CEXSH32000R

➡ 切削條件表 Cutting Condition P.572 ➡ 技術資料 Technical Data P.622

S220 鎢鋼鋁用平銑刀- 強力長刃型- 3刃

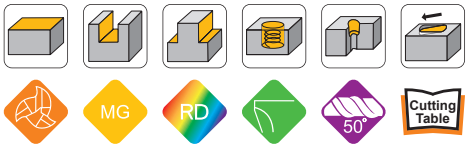
S220 MICRO GRAIN CARBIDE END MILLS FOR ALUMINUM- Power Cutting & Long Flute- 3F

· CEXHF3 0000R



刃徑 d	公差 Tolerance
Φ<3	0 ~ -0.03
3≦Φ≦10	-0.01 ~ -0.04
10<Φ	-0.01 ~ -0.05

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



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NEW SIZE

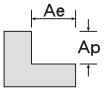
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刃訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	15	60	4	3	CEXHFM30300	CEXHFM30300R
4.0	20	60	4	3	CEXHFM30400	CEXHFM30400R
2.0	10	60	6	3	CEXHF30200	CEXHF30200R
3.0	15	60	6	3	CEXHF30300	CEXHF30300R
4.0	20	60	6	3	CEXHF30400	CEXHF30400R
5.0	25	60	6	3	CEXHF30500	CEXHF30500R
6.0	30	75	6	3	CEXHF30600	CEXHF30600R
8.0	45	100	8	3	CEXHF30800	CEXHF30800R
10.0	55	100	10	3	CEXHF31000	CEXHF31000R
12.0	55	100	12	3	CEXHF31200	CEXHF31200R
14.0	75	150	14	3	CEXHF31400	CEXHF31400R
16.0	75	150	16	3	CEXHF31600	CEXHF31600R
18.0	90	150	18	3	CEXHF31800	CEXHF31800R
20.0	90	150	20	3	CEXHF32000	CEXHF32000R

➡ 切削條件表 Cutting Condition P.572 ➡ 技術資料 Technical Data P.622

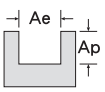
Table 72 S220 鎢鋼鋁用強力型銑刀- 3刃(白刀) 切削條件表

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) = 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.