CH / LCL

鎢鋼銑刀頭
鎢鋼抗震刀桿

THREAD-CARBIDE END MILLS & CARBIDE ANTI-VIBRATION HOLDER

- 全新整體鎢鋼銑刀頭, 提供平刀、圓鼻刀、球刀型可替換式刀頭, 滿足客戶不同的加工需求.
  Three kind of end mills head(square/corner radius/ ball nosed) satisfied different kind work.
- 提供全長最高300mm, 適合各種精密模具深腔加工用.
  Maximun length with 300mm for any kind of mold machining.
- 適合加工泛用鋼材、鋁合金.
  For general steel and aluminum alloy.
- 適合中加工、精加工用.
  Use for semi finishing cutting, finishing.

CMTéc

/ CEU

CARBIDE ENGRAVING END MILLS- 1 Flute

鎢鋼雕刻刀

❶ 提供刀尖0.1、0.25、0.5、0.75、1.5mm寬度, 讓設計者有更多的選擇.
We provide tip width 0.1, 0.25, 0.5, 0.75 and 1.5mm for designer.

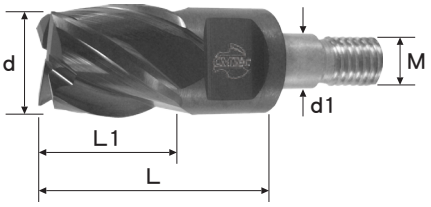
❷ 適合加工泛用鋼材、鋁合金、黃銅、塑膠、木材.
For general steel, aluminum, brass, plastic and wood.

❸ 適合中加工、精加工用.
Use for semi finishing cutting, finishing.

鎖牙式- S220 鎢鋼平銑刀頭- 標準型- 4刃

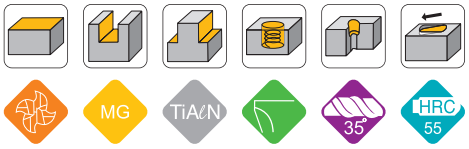
THREAD- S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 4F

· CHS40000A



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	○



179

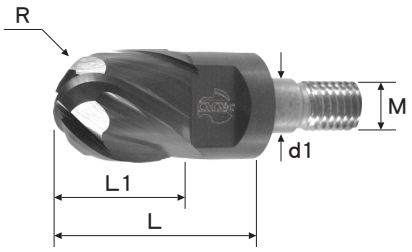
刃徑 d	刃長 L1	全長 L	螺紋M Thread	d1	刃數 F	扳手編號 Wrench	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
8.0	8	17.0	M4×0.7	4.5	4	TC06	CHS40800	CHS40800A
10.0	10	20.0	M5×0.8	5.5	4	TC07	CHS41000	CHS41000A
12.0	12	23.2	M6×1.0	6.5	4	TC08	CHS41200	CHS41200A
16.0	16	30.0	M8×1.25	8.5	4	TC11	CHS41600	CHS41600A
20.0	20	37.2	M10×1.5	10.5	4	TC15	CHS42000	CHS42000A
25.0	25	44.7	M12×1.75	12.5	4	TC19	CHS42500	CHS42500A
32.0	32	55.2	M16×2.0	17.0	4	TC24	CHS43200	CHS43200A

➡ 搭配刀桿 Holder P.029, 030 ➡ 切削條件表 Cutting Condition P.606 ➡ 技術資料 Technical Data P.622

鎖牙式- S220 鎢鋼球型銑刀頭- 標準型- 4刃

THREAD- S220 MICRO GRAIN CARBIDE END MILLS- Ball Nose- 4F

· CHB40000A



半徑 R	公差 Tolerance
R	±0.02

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

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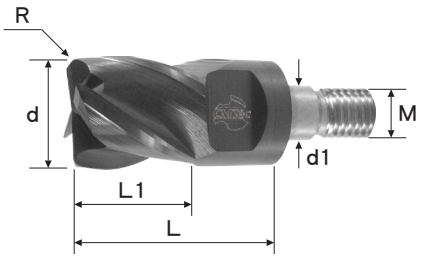
半徑 R	刃長 L1	全長 L	螺紋M Thread	d1	刃數 F	扳手 編號 Wrench	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
4.0R	8	17.0	M4×0.7	4.5	4	TC06	CHB40400	CHB40400A
5.0R	10	20.0	M5×0.8	5.5	4	TC07	CHB40500	CHB40500A
6.0R	12	23.2	M6×1.0	6.5	4	TC08	CHB40600	CHB40600A
8.0R	16	30.0	M8×1.25	8.5	4	TC11	CHB40800	CHB40800A
10.0R	20	37.2	M10×1.5	10.5	4	TC15	CHB41000	CHB41000A
12.5R	25	44.7	M12×1.75	12.5	4	TC19	CHB41250	CHB41250A

➡ 搭配刀桿 Holder P.029, 030
➡ 切削條件表 Cutting Condition P.607
➡ 技術資料 Technical Data P.622

鎖牙式- S220 鎢鋼圓鼻銑刀頭- 標準型- 4刃

THREAD- S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- 4F

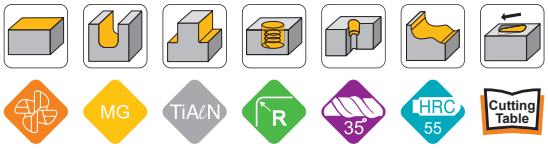
· CHCR4000000A



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

半徑 R	公差 Tolerance
R	±0.02

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



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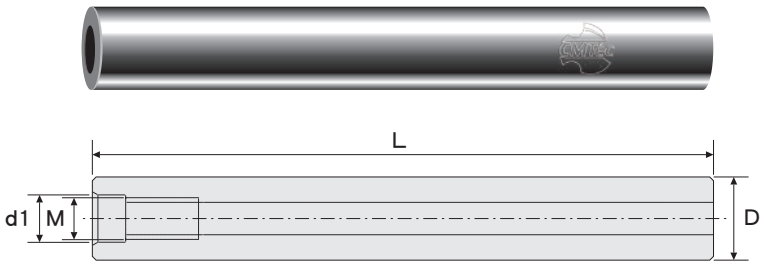
刃徑 d	R角 R	刃長 L1	全長 L	螺紋M Thread	d1	刃數 F	扳手 編號 Wrench	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
8.0	0.5R	8	17.0	M4×0.7	4.5	4	TC06	CHCR4080005	CHCR4080005A
8.0	1.0R	8	17.0	M4×0.7	4.5	4	TC06	CHCR4080010	CHCR4080010A
8.0	2.0R	8	17.0	M4×0.7	4.5	4	TC06	CHCR4080020	CHCR4080020A
10.0	0.5R	10	20.0	M5×0.8	5.5	4	TC07	CHCR4100005	CHCR4100005A
10.0	1.0R	10	20.0	M5×0.8	5.5	4	TC07	CHCR4100010	CHCR4100010A
10.0	2.0R	10	20.0	M5×0.8	5.5	4	TC07	CHCR4100020	CHCR4100020A
12.0	1.0R	12	23.2	M6×1.0	6.5	4	TC08	CHCR4120010	CHCR4120010A
12.0	2.0R	12	23.2	M6×1.0	6.5	4	TC08	CHCR4120020	CHCR4120020A
12.0	3.0R	12	23.2	M6×1.0	6.5	4	TC08	CHCR4120030	CHCR4120030A
16.0	1.0R	16	30.0	M8×1.25	8.5	4	TC11	CHCR4160010	CHCR4160010A
16.0	2.0R	16	30.0	M8×1.25	8.5	4	TC11	CHCR4160020	CHCR4160020A
16.0	3.0R	16	30.0	M8×1.25	8.5	4	TC11	CHCR4160030	CHCR4160030A
20.0	2.0R	20	37.2	M10×1.5	10.5	4	TC15	CHCR4200020	CHCR4200020A
20.0	3.0R	20	37.2	M10×1.5	10.5	4	TC15	CHCR4200030	CHCR4200030A
20.0	4.0R	20	37.2	M10×1.5	10.5	4	TC15	CHCR4200040	CHCR4200040A

→ 搭配刀桿 Holder P.029, 030 → 切削條件表 Cutting Condition P.606 → 技術資料 Technical Data P.622

鎢鋼抗震刀桿

CARBIDE ANTI- VIBRATION HOLDER

· LCL000-000L



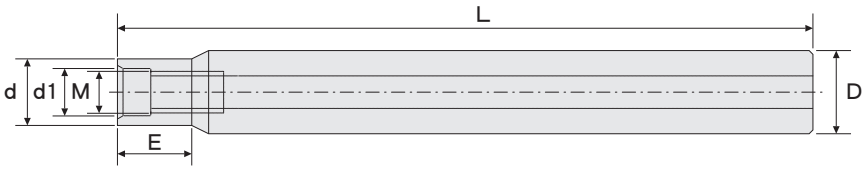
MG

螺紋M Thread	柄徑 D	全長 L	d1	訂購編號 Order No.
M4 × 0.7	8	60	4.5	LCL008-060L
M4 × 0.7	8	100	4.5	LCL008-100L
M4 × 0.7	8	120	4.5	LCL008-120L
M5 × 0.8	10	75	5.5	LCL010-075L
M5 × 0.8	10	100	5.5	LCL010-100L
M5 × 0.8	10	150	5.5	LCL010-150L
M6 × 1.0	12	75	6.5	LCL012-075L
M6 × 1.0	12	100	6.5	LCL012-100L
M6 × 1.0	12	150	6.5	LCL012-150L
M6 × 1.0	12	200	6.5	LCL012-200L
M8 × 1.25	16	100	8.5	LCL016-100L
M8 × 1.25	16	150	8.5	LCL016-150L
M8 × 1.25	16	200	8.5	LCL016-200L
M8 × 1.25	16	250	8.5	LCL016-250L
M10 × 1.5	20	100	10.5	LCL020-100L
M10 × 1.5	20	150	10.5	LCL020-150L
M10 × 1.5	20	200	10.5	LCL020-200L
M10 × 1.5	20	250	10.5	LCL020-250L
M10 × 1.5	20	300	10.5	LCL020-300L
M12 × 1.75	25	100	12.5	LCL025-100L
M12 × 1.75	25	150	12.5	LCL025-150L
M12 × 1.75	25	200	12.5	LCL025-200L
M12 × 1.75	25	250	12.5	LCL025-250L
M12 × 1.75	25	300	12.5	LCL025-300L
M16 × 2.0	32	100	17.0	LCL032-100L
M16 × 2.0	32	150	17.0	LCL032-150L
M16 × 2.0	32	200	17.0	LCL032-200L
M16 × 2.0	32	250	17.0	LCL032-250L
M16 × 2.0	32	300	17.0	LCL032-300L

鎢鋼抗震刀桿- 頸型

CARBIDE ANTI- VIBRATION HOLDER- NECK

· LCN000-000L-000E



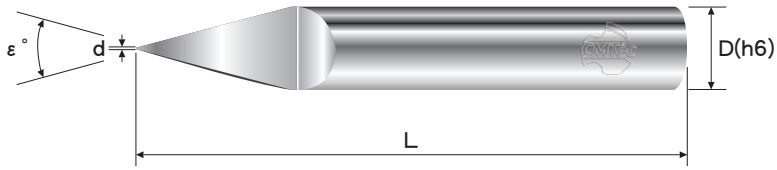
MG

螺紋M Thread	刃徑 d	d1	有效長 E	全長 L	柄徑 D	訂購編號 Order No.
M6 × 1.0	11.7	6.5	30	75	12	LCN011-075L-030E
M6 × 1.0	11.7	6.5	40	100	12	LCN011-100L-040E
M6 × 1.0	11.7	6.5	50	150	12	LCN011-150L-050E
M8 × 1.25	15.7	8.5	40	100	16	LCN015-100L-040E
M8 × 1.25	15.7	8.5	50	150	16	LCN015-150L-050E
M10 × 1.5	19.5	10.5	40	100	20	LCN019-100L-040E
M10 × 1.5	19.5	10.5	50	150	20	LCN019-150L-050E
M10 × 1.5	19.5	10.5	60	200	20	LCN019-200L-060E
M12 × 1.75	24.5	12.5	40	100	25	LCN024-100L-040E
M12 × 1.75	24.5	12.5	50	150	25	LCN024-150L-050E
M12 × 1.75	24.5	12.5	60	200	25	LCN024-200L-060E
M12 × 1.75	24.5	12.5	80	250	25	LCN024-250L-080E
M16 × 2.0	31.5	17.0	40	100	32	LCN031-100L-040E
M16 × 2.0	31.5	17.0	50	150	32	LCN031-150L-050E
M16 × 2.0	31.5	17.0	60	200	32	LCN031-200L-060E
M16 × 2.0	31.5	17.0	80	250	32	LCN031-250L-080E

鎢鋼雕刻刀- 標準型- 1刃

CARBIDE ENGRAVING END MILLS- Standard- 1F

· CEUM000000
· CEU000000



加工材質：鋼材、鋁合金、黃銅、塑膠、木材。
For steel, aluminum, brass, plastic, wood.
※ 其他刃徑公差規格依需求生產。
Special tolerance(ϕ) is on request.

超精銑 Bright Finishing	—
精銑 Finishing	◎
中銑 Semi Finishing	○
粗銑 Roughing	—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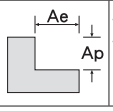
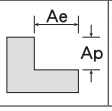
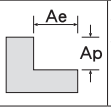
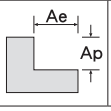
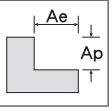
頂角 ε °	刃徑 d	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
30°	0.10	50	4	1	CEUM001030
30°	0.25	50	4	1	CEUM002530
30°	0.50	50	4	1	CEUM005030
30°	0.75	50	4	1	CEUM007530
30°	0.10	50	6	1	CEU001030
30°	0.25	50	6	1	CEU002530
30°	0.50	50	6	1	CEU005030
30°	0.75	50	6	1	CEU007530
60°	0.10	50	4	1	CEUM001060
60°	0.25	50	4	1	CEUM002560
60°	0.50	50	4	1	CEUM005060
60°	0.75	50	4	1	CEUM007560
60°	1.50	50	4	1	CEUM015060
60°	0.10	50	6	1	CEU001060
60°	0.25	50	6	1	CEU002560
60°	0.50	50	6	1	CEU005060
60°	0.75	50	6	1	CEU007560
60°	1.50	50	6	1	CEU015060
90°	0.10	50	4	1	CEUM001090
90°	0.25	50	4	1	CEUM002590
90°	0.50	50	4	1	CEUM005090
90°	0.75	50	4	1	CEUM007590
90°	1.50	50	4	1	CEUM015090
90°	0.10	50	6	1	CEU001090
90°	0.25	50	6	1	CEU002590
90°	0.50	50	6	1	CEU005090
90°	0.75	50	6	1	CEU007590
90°	1.50	50	6	1	CEU015090

➡ 切削條件表 Cutting Condition P.555 ➡ 技術資料 Technical Data P.622

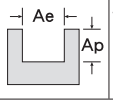
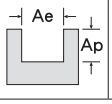
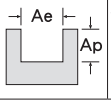
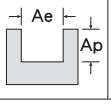
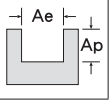
Table 179 CHS / CHCR 鎖牙式- S220鎢鋼銑刀頭 4刃 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鋁合金 Aluminum Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SKT,SKD		SUS304		Al 5052 / 6061 / 7075	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		—		—	
切削速度 Vc	120m/min		100m/min		65m/min		65m/min		170m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
8mm	4,780	1,000	3,980	800	2,590	520	2,590	620	6,770	1,090
10mm	3,810	920	3,190	770	2,070	420	2,070	500	5,420	870
12mm	3,190	770	2,660	640	1,730	350	1,730	420	4,520	730
16mm	2,390	580	1,990	480	1,300	260	1,300	320	3,390	550
20mm	1,910	450	1,600	390	1,040	210	1,040	250	2,710	440
25mm	1,530	370	1,280	310	830	170	830	200	2,170	350
備註 Remarks	Ap≦0.5D Ae≦0.15D 		Ap≦0.5D Ae≦0.15D 		Ap≦0.5D Ae≦0.1D 		Ap≦0.5D Ae≦0.1D 		Ap≦0.5D Ae≦0.2D 	

溝銑加工 Slot Milling

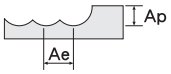
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鋁合金 Aluminum Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SKT,SKD		SUS304		Al 5052 / 6061 / 7075	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		—		—	
切削速度 Vc	90m/min		70m/min		50m/min		50m/min		150m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
8mm	3,590	720	2,790	560	1,990	320	1,990	400	5,970	900
10mm	2,870	600	2,230	450	1,600	250	1,600	320	4,780	720
12mm	2,390	500	1,860	380	1,330	220	1,330	270	3,980	600
16mm	1,800	380	1,400	280	1,000	150	1,000	200	2,990	450
20mm	1,440	300	1,120	230	800	130	800	150	2,390	360
25mm	1,150	250	900	180	640	100	640	130	1,910	290
備註 Remarks	Ap≦0.3D 		Ap≦0.3D 		Ap≦0.1D 		Ap≦0.25D 		Ap≦0.3D 	

※ 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.

Table 180 CHB 鎖牙式- S220鎢鋼球刀頭 4刃 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

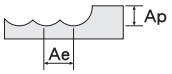
加工材質 Material	碳素鋼 / 合金鋼 Carbon Steels Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鋁合金 Aluminum Alloys	
工件料號 Material Code	S35C,S45C,S50C SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		Al 5052 / 6061 / 7075	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		—		—	
切削速度 Vc	120m/min		100m/min		65m/min		65m/min		170m/min	
半徑 R	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
4.0R	4,780	1,440	3,980	1,200	2,590	520	2,590	650	6,770	1,700
5.0R	3,810	1,150	3,190	960	2,070	420	2,070	520	5,420	1,470
6.0R	3,190	960	2,660	800	1,730	350	1,730	440	4,520	1,360
8.0R	2,390	720	1,990	600	1,300	260	1,300	330	3,390	1,020
10.0R	1,910	580	1,600	480	1,040	210	1,040	260	2,710	820
12.5R	1,530	460	1,280	390	830	170	830	210	2,170	650
備註 Remarks	Ap=0.05D Ae=0.15D 				Ap=0.04D Ae=0.1D		Ap=0.05D Ae=0.15D		Ap=0.05D Ae=0.15D	

※ 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.

Table 41 N620 奈米鎢鋼短刃長頸型球刀- 2刃(鍍膜) 切削條件表

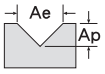
SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	合金鋼 Alloy Steels				合金鋼 Alloy Steels				調質鋼 Hardened Steels				調質鋼 Hardened Steels				鑄鐵 Cast Iron			
工件料號 Material Code	SCM,SKT,SKD				SCM,SKT,SKD				SKT,SKD				SKT,SKD				FC,FCD			
硬度 Hardness	HRC20~30				HRC30~45				HRC45~55				HRC55~63				HRC<30			
切削速度 Vc	79m/min				73m/min				56m/min				31m/min				79m/min			
半徑 R	S (rpm)	F (mm/min)	Ap (mm)	Ae (mm)	S (rpm)	F (mm/min)	Ap (mm)	Ae (mm)	S (rpm)	F (mm/min)	Ap (mm)	Ae (mm)	S (rpm)	F (mm/min)	Ap (mm)	Ae (mm)	S (rpm)	F (mm/min)	Ap (mm)	Ae (mm)
0.30R- 3E	27,000	360	0.03	0.12	22,500	225	0.03	0.12	21,600	180	0.03	0.06	15,300	135	0.02	0.04	27,000	360	0.03	0.12
0.30R- 4E	27,000	360	0.03	0.12	22,500	225	0.03	0.12	21,600	180	0.03	0.06	15,300	135	0.02	0.04	27,000	360	0.03	0.12
0.40R- 4E	24,300	540	0.04	0.16	20,700	405	0.04	0.16	18,900	270	0.04	0.08	13,050	180	0.04	0.08	24,300	540	0.04	0.16
0.40R- 6E	21,600	360	0.04	0.12	18,900	225	0.04	0.12	17,100	180	0.02	0.04	10,800	135	0.02	0.04	21,600	360	0.04	0.12
0.50R- 6E	18,900	360	0.05	0.20	17,100	270	0.05	0.20	14,400	180	0.05	0.10	10,350	135	0.05	0.10	18,900	360	0.05	0.20
0.50R- 8E	18,900	360	0.05	0.15	17,100	270	0.05	0.15	14,400	180	0.03	0.05	10,350	135	0.03	0.05	18,900	360	0.05	0.15
0.75R- 9E	15,300	540	0.08	0.30	13,500	270	0.08	0.30	10,800	225	0.08	0.15	7,200	180	0.08	0.15	15,300	540	0.08	0.30
0.75R- 12E	15,300	540	0.08	0.23	13,500	270	0.08	0.23	10,800	225	0.08	0.15	7,200	180	0.08	0.15	15,300	540	0.08	0.23
1.00R- 12E	12,600	630	0.10	0.40	11,700	450	0.10	0.40	9,000	270	0.10	0.20	4,950	180	0.10	0.20	12,600	630	0.10	0.40
1.00R- 16E	12,600	630	0.10	0.30	11,700	450	0.10	0.30	9,000	270	0.06	0.10	4,950	180	0.06	0.10	12,600	630	0.10	0.30
1.50R- 12E	9,000	540	0.15	0.60	7,650	270	0.15	0.60	5,850	225	0.15	0.30	2,700	135	0.15	0.30	9,000	540	0.15	0.60
1.50R- 25E	9,000	540	0.15	0.60	7,650	270	0.15	0.60	5,850	225	0.09	0.15	2,700	135	0.09	0.15	9,000	540	0.15	0.60
2.00R- 25E	6,300	540	0.20	0.80	5,400	360	0.20	0.80	4,500	225	0.20	0.40	2,250	90	0.20	0.40	6,300	540	0.20	0.80
2.00R- 30E	6,300	540	0.20	0.80	5,400	360	0.20	0.80	4,500	225	0.12	0.20	2,250	90	0.12	0.20	6,300	540	0.20	0.80
2.50R- 30E	5,400	450	0.25	1.00	4,500	450	0.25	1.00	3,600	225	0.25	0.50	2,700	90	0.25	0.50	5,400	450	0.25	1.00
2.50R- 40E	5,400	450	0.25	1.00	4,500	450	0.25	1.00	3,600	225	0.25	0.50	2,700	90	0.25	0.50	5,400	450	0.25	1.00
3.00R- 30E	4,500	450	0.30	1.20	3,600	360	0.30	1.20	3,600	270	0.30	0.60	2,700	180	0.30	0.60	4,500	450	0.30	1.20
3.00R- 45E	4,500	450	0.30	1.20	3,600	360	0.30	1.20	3,600	270	0.30	0.60	2,700	180	0.30	0.60	4,500	450	0.30	1.20
切削量 Cutting Amount (mm)																				

※ 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 42 鎢鋼雕刻銑刀- 1刃(白刃) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鋁合金 Aluminum Alloys		高溫合金 High-Temp Alloys		非金屬 Non-metal	
工件料號 Material Code	S35C,S45C,S50C		SUS304		FC,FCD		Al 6061		Ti-6Al-4V		塑膠 Plastic	
硬度 Hardness	—		—		HRC<30		—		HRC<30		—	
切削速度 Vc	75m/min		40m/min		75m/min		75m/min		30m/min		75m/min	
角度 Angle	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
30°	6,000	90	3,180	70	6,000	150	6,000	150	2,390	70	6,000	220
60°	6,000	120	3,180	100	6,000	200	6,000	200	2,390	100	6,000	300
切削量 Cutting Amount (mm)	Ap≦0.25 											

※ 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.