

產品頁架構說明 ITEM PAGE STRUCTURE

產品編號
Item Order No.

產品名稱
Product Name

系統辨別
Classification of Series

S220 鎢鋼圓鼻銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- 2F

· CECRM2 000000 A
· CECR2 000000 A



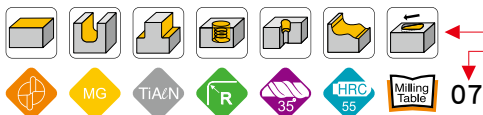
d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

刃徑公差
Diameter Tolerance

R(半徑)	Tolerance(公差)
R	± 0.02

R角公差
Radius Tolerance

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



柄徑公差
Shank Dia. Tolerance

切削方式
Cutting Mode

切削條件表數字
No. of Cutting Condition Table

圖示表示
Icons

刃徑 d	R角 R	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.
1.0	0.2R	2	50	4	2	CECRM2010002	CECRM2010002A
1.0	0.3R	2	50	4	2	CECRM2010003	CECRM2010003A
1.5	0.2R	3	50	4	2	CECRM2015002	CECRM2015002A
1.5	0.3R	3	50	4	2	CECRM2015003	CECRM2015003A
2.0	0.2R	4	50	4	2	CECRM2020002	CECRM2020002A
2.0	0.3R	4	50	4	2	CECRM2020003	CECRM2020003A
2.5	0.2R	5	50	4	2	CECRM2025002	CECRM2025002A
2.5	0.3R	5	50	4	2	CECRM2025003	CECRM2025003A
2.5	0.5R	5	50	4	2	CECRM2025005	CECRM2025005A
3.0	0.3R	6	50	4	2	CECRM2030003	CECRM2030003A
3.0	0.5R	6	50	4	2	CECRM2030005	CECRM2030005A
3.0	1.0R	6	50	4	2	CECRM2030010	CECRM2030010A
4.0	0.3R	8	50	6	2	CECR2040003	CECR2040003A
4.0	0.5R	8	50	6	2	CECR2040005	CECR2040005A
4.0	1.0R	8	50	6	2	CECR2040010	CECR2040010A
5.0	0.5R	10	50	6	2	CECR2050005	CECR2050005A
5.0	1.0R	10	50	6	2	CECR2050010	CECR2050010A
6.0	0.5R	12	50	6	2	CECR2060005	CECR2060005A
6.0	1.0R	12	50	6	2	CECR2060010	CECR2060010A
8.0	0.5R	16	60	8	2	CECR2080005	CECR2080005A
8.0	1.0R	16	60	8	2	CECR2080010	CECR2080010A
8.0	1.5R	16	60	8	2	CECR2080015	CECR2080015A
10.0	0.5R	20	75	10	2	CECR2100005	CECR2100005A
10.0	1.0R	20	75	10	2	CECR2100010	CECR2100010A
10.0	1.5R	20	75	10	2	CECR2100015	CECR2100015A
10.0	2.0R	20	75	10	2	CECR2100020	CECR2100020A
12.0	0.5R	24	75	12	2	CECR2120005	CECR2120005A
12.0	1.0R	24	75	12	2	CECR2120010	CECR2120010A
12.0	1.5R	24	75	12	2	CECR2120015	CECR2120015A
12.0	2.0R	24	75	12	2	CECR2120020	CECR2120020A

切削條件表
Cutting Condition P.262

參考資料
Technical Data P.237

加工型態
Type of Operation

尺寸/規格
Size/Specification

產品編碼
Code No.

頁碼
Page No.

S220 Carbide End Mills
S220 鎢鋼銑刀

標記說明 ICONS GUIDE

螺旋角 Helix Angle		C型 Type C		6刃平刀 Square Type- 6F	
鑽尖角度 Tip Angle		S型 (外冷) Type S		6刃球刀 Ball Nosed- 6F	
倒角夾角 Chamfer Angle		S型 (內冷) Type S With Oil Holes		4刃鉸刀 Reamer- 4F	
加工材質硬度 Work Material Hardness		3倍長 (短刃型) 3xD		6刃鉸刀 Reamer- 6F	
奈米鎢鋼 Nano Micro Grain Carbide		5倍長 (標準型) 5xD		尖角型式 Sharp Comer Type	
極細鎢鋼 Ultra Micro Grain Carbide		7倍長 (長刃型) 7xD		攻面寬型式 Flatland Type	
鎢鋼 Micro Grain Carbide		1刃平刀 Square Type- 1F		倒角型式 Chamfer Type	
頂級高鋁鈦塗層 TOP TIALN Coating		2刃平刀 Square Type- 2F		R角型式 Corner Radius Type	
高鋁鈦塗層 TIALN Coating		2刃球刀 Ball Nosed- 2F		切削條件表 Cutting Table	
氮碳化鈦塗層 TICN Coating		2刃圓鼻刀 Corner Radius- 2F		CN型 CN Type	
鑽石塗層 DIA Coating		3刃平刀 Square Type- 3F		CF型 CF Type	
火狐狸塗層 FIRE Coating		3刃球刀 Ball Nosed- 3F		CH型 CH Type	
頂級鈦矽塗層 TOP TISIN Coating		3刃圓鼻刀 Corner Radius- 3F		極力推薦 Top Recommend	
氮化鉻塗層 CRN Coating		4刃平刀 Square Type- 4F		強力推薦 Highly Recommend	
類鑽塗層 DLC Coating		4刃球刀 Ball Nosed- 4F		一般推薦 Recommend	
彩鑽塗層 RD Coating		4刃圓鼻刀 Corner Radius- 4F		不推薦 NO Recommend	
		5刃平刀 Square Type- 5F			

超精銑 Bright Finishing	A	精銑 Finishing	B	中銑 Semi Finishing	C	粗銑 Roughing	D
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產品包裝說明 Packaging

S220系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「黃色」為主色。
- 加工工件硬度55度以下(泛用系列)。
- S220's packaging-box-color is "yellow".
- Using it for hardened steel with HRC under 55.



M520系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「藍色」為主色。
- 加工工件硬度60度以下(高硬系列)。
- M520's packaging-box-color is "blue".
- Using it for high hardness milling (under 60HRC).



N620系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「紅色」為主色。
- 加工工件硬度45~65度(高速高硬系列)。
- N620's packaging-box-color is "red".
- Using it for high hardness and high speed milling (45~65HRC).



閱讀須知 INFORMATION

感謝您閱讀本型錄。但在此之前，請注意下面訊息。

Thank you for reading this catalog. Before using it, pay attention to the following :

1. 本型錄絕大部份採用公制系統。
 2. 本型錄所列皆為標準規格產品，關於特殊規格，非標準產品，請洽詢本公司。
 3. 內容如有變更，恕不另行通知。
 4. 內容若有錯誤、遺漏，敬請不吝指正，謝謝!
 5. 關於「捨棄式銑刀系列」型錄，請參考另一本。
1. Most of the contents of this catalogue are based on "metric system".
 2. The catalogue is mainly composed of our standard cutting tools products. For special specification or size, contact us, please.
 3. The content is subject to change without prior notice.
 4. If there is any error or miss in the catalogue, please contact us. We'll make it better next time. Thank you.
 5. Please refer to the other, "INDEXABLE MILLING TOOLS" catalogue.

S220系列刀具特色 Features

- 1.用於底硬度材質加工(HRC55以下)。
- 2.採用新鍍膜和超微粒等級原料。
- 1.It is suitable for low hardness materials (under 55HRC).
- 2.We use new coating technology & micro grain carbide material.

M520系列刀具特色 Features

- 1.用於高硬度材質加工(HRC60以下)。
- 2.採用新鍍膜和極細超微粒等級原料。
- 3.更高的耐磨性。
- 1.It specializes in milling the material with HRC under 60.
- 2.We use new coating technology & ultra micro grain carbide material.
- 3.It provides higher wear resistance.

N620系列刀具特色 Features

- 1.用於高硬度材質加工(HRC45~65)。
- 2.採用新鍍膜和奈米等級原料。
- 3.採短刃設計，適合高速。乾式切削可行。
- 4.採刀尖圓角設計，可以減少崩刃。
- 5.更高的耐磨性。
- 1.It for hard materials milling (45~65HRC).
- 2.We use new coating technology & nano micro grain carbide sintered rods.
- 3.Due to "short flute" design, is suitable for high speed milling & air blow possible.
- 4.It could reduce possibility of chipping because of cutting edge with corner radius.
- 5.It provides higher wear resistance.

廠內設備(台南總廠) They are only one part of our facilities.



S220

鎢鋼立銑刀(泛用系列)

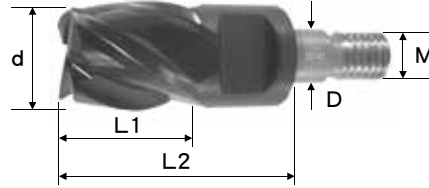
Micro Grain Carbide End Mills
(General Series)



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**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



02

刃徑 d	刃長 L1	全長 L	螺紋M Thread	D	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	19.8	M5×0.8	5.5	4	TC07	CHS41000	CHS41000A
12.0	12	24.5	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	36.5	M10×1.5	10.5	4	TC15	CHS42000	CHS42000A
25.0	25	43.0	M12×1.75	12.5	4	TC19	CHS42500	CHS42500A
32.0	32	51.0	M16×2.0	17.0	4	TC24	CHS43200	CHS43200A

► **鎢鋼抗震刀桿**
Carbide Anti-Vibration Holder / P.44,45

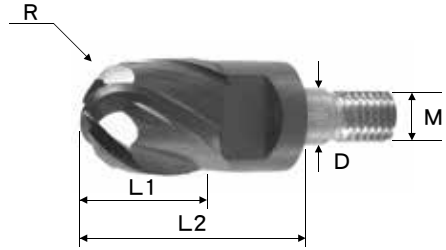
→ **切削條件表** P.265
Cutting Condition

→ **參考資料** P.243
Technical Data

鎖牙式- S220 鎢鋼球型銑刀頭- 標準型- 4刃

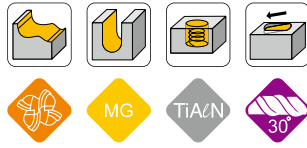
THREAD- S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- Square Type- 4F

· **CHB40000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



05

半徑 R	刃長 L1	全長 L	螺紋M Thread	D	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	19.8	M5×0.8	5.5	4	TC07	CHB40500	CHB40500A
6.0R	12	24.5	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	36.5	M10×1.5	10.5	4	TC15	CHB41000	CHB41000A
12.5R	25	43.0	M12×1.75	12.5	4	TC19	CHB41250	CHB41250A

▶ 鎢鋼抗震刀桿
Carbide Anti-Vibration Holder / P.44,45

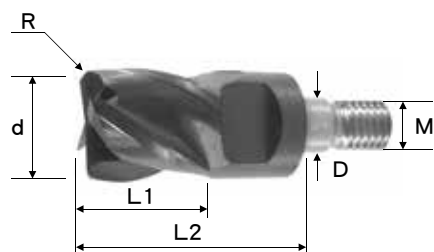
→ 切削條件表 P.268
Cutting Condition

→ 參考資料 P.243
Technical Data

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- Square Type- 4F

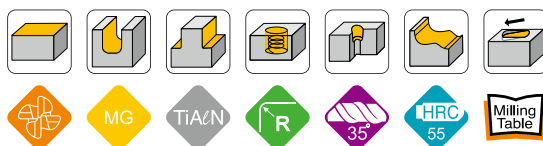
· **CHCR4000000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	±0.02

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



08

刃徑 d	R角 R	刃長 L1	全長 L	螺紋M Thread	D	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	19.8	M5×0.8	5.5	4	TC07	CHCR4100005	CHCR4100005A
10.0	1.0R	10	19.8	M5×0.8	5.5	4	TC07	CHCR4100010	CHCR4100010A
10.0	2.0R	10	19.8	M5×0.8	5.5	4	TC07	CHCR4100020	CHCR4100020A
12.0	1.0R	12	24.5	M6×1.0	6.5	4	TC08	CHCR4120010	CHCR4120010A
12.0	2.0R	12	24.5	M6×1.0	6.5	4	TC08	CHCR4120020	CHCR4120020A
12.0	3.0R	12	24.5	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	36.5	M10×1.5	10.5	4	TC15	CHCR4200020	CHCR4200020A
20.0	3.0R	20	36.5	M10×1.5	10.5	4	TC15	CHCR4200030	CHCR4200030A
20.0	4.0R	20	36.5	M10×1.5	10.5	4	TC15	CHCR4200040	CHCR4200040A

鎢鋼抗震刀桿
Carbide Anti-Vibration Holder / P.44,45

切削條件表
Cutting Condition P.269

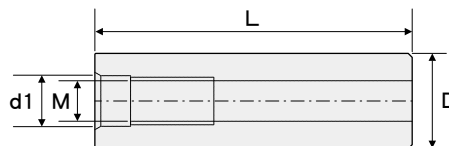
參考資料
Technical Data P.243

S220 Carbide End Mills
S220 鎢鋼銑刀

鎢鋼抗震刀桿

CARBIDE ANTI-VIBRATION HOLDER

· LCL000-000L



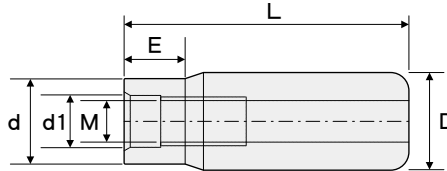
MG

M	D	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**

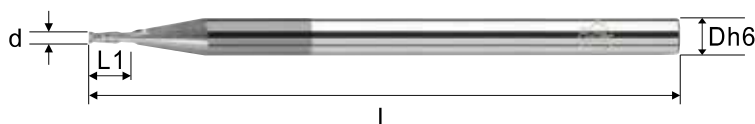


M	d	d1	E	L	D	訂購編號 Order No.
M6 × 1.0	11.7	6.5	30	75	12	LCN011-075L-030E
M6 × 1.0	11.7	6.5	40	100	12	LCN011-100L-040E
M6 × 1.0	11.7	6.5	50	150	12	LCN011-150L-050E
M8 × 1.25	15.7	8.5	40	100	16	LCN015-100L-040E
M8 × 1.25	15.7	8.5	50	150	16	LCN015-150L-050E
M10 × 1.5	19.5	10.5	40	100	20	LCN019-100L-040E
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

S220 鎢鋼平銑刀- 微柄/小柄型- 2刃

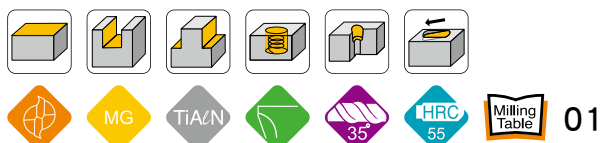
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Micro Diameter

· CESS20000A
· CESM20000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.02

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.
0.2	0.4	50	3	2	CESS20020	CESS20020A
0.25	0.5	50	3	2	CESS20025	CESS20025A
0.3	0.6	50	3	2	CESS20030	CESS20030A
0.35	0.7	50	3	2	CESS20035	CESS20035A
0.4	0.8	50	3	2	CESS20040	CESS20040A
0.5	1.0	50	3	2	CESS20050	CESS20050A
0.6	1.5	50	3	2	CESS20060	CESS20060A
0.7	2.0	50	3	2	CESS20070	CESS20070A
0.8	2.0	50	3	2	CESS20080	CESS20080A
0.9	2.0	50	3	2	CESS20090	CESS20090A
1.0	3.0	50	3	2	CESS20100	CESS20100A
1.5	4.0	50	3	2	CESS20150	CESS20150A
2.0	5.0	50	3	2	CESS20200	CESS20200A
2.5	6.0	50	3	2	CESS20250	CESS20250A
3.0	8.0	50	3	2	CESS20300	CESS20300A
0.2	0.4	50	4	2	CESM20020	CESM20020A
0.25	0.5	50	4	2	CESM20025	CESM20025A
0.3	0.6	50	4	2	CESM20030	CESM20030A
0.35	0.7	50	4	2	CESM20035	CESM20035A
0.4	0.8	50	4	2	CESM20040	CESM20040A
0.5	1.0	50	4	2	CESM20050	CESM20050A
0.6	1.5	50	4	2	CESM20060	CESM20060A
0.7	2.0	50	4	2	CESM20070	CESM20070A
0.8	2.0	50	4	2	CESM20080	CESM20080A
0.9	2.0	50	4	2	CESM20090	CESM20090A
1.0	3.0	50	4	2	CESM20100	CESM20100A
1.5	4.0	50	4	2	CESM20150	CESM20150A
2.0	5.0	50	4	2	CESM20200	CESM20200A
2.5	6.0	50	4	2	CESM20250	CESM20250A
3.0	8.0	50	4	2	CESM20300	CESM20300A
3.5	9.0	50	4	2	CESM20350	CESM20350A
4.0	10.0	50	4	2	CESM20400	CESM20400A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀-標準型-2刃

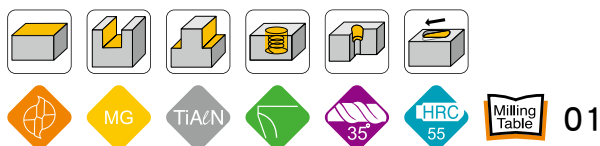
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F

· CES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
1.0	3	50	6	2	CES20100	CES20100A
1.5	4	50	6	2	CES20150	CES20150A
2.0	5	50	6	2	CES20200	CES20200A
2.5	6	50	6	2	CES20250	CES20250A
3.0	8	50	6	2	CES20300	CES20300A
3.5	9	50	6	2	CES20350	CES20350A
4.0	10	50	6	2	CES20400	CES20400A
4.5	11	50	6	2	CES20450	CES20450A
5.0	13	50	6	2	CES20500	CES20500A
5.5	14	50	6	2	CES20550	CES20550A
6.0	15	50	6	2	CES20600	CES20600A
6.5	16	60	8	2	CES20650	CES20650A
7.0	18	60	8	2	CES20700	CES20700A
7.5	18	60	8	2	CES20750	CES20750A
8.0	20	60	8	2	CES20800	CES20800A
8.5	20	75	10	2	CES20850	CES20850A
9.0	22	75	10	2	CES20900	CES20900A
9.5	22	75	10	2	CES20950	CES20950A
10.0	25	75	10	2	CES21000	CES21000A
10.0	30	75	10	2	CES21000300C	CES21000300CA
10.5	25	75	12	2	CES21050	CES21050A
11.0	25	75	12	2	CES21100	CES21100A
11.5	25	75	12	2	CES21150	CES21150A
12.0	30	75	12	2	CES21200	CES21200A
12.0	36	75	12	2	CES21200360C	CES21200360CA
13.0	30	75	14	2	CES2130014	CES2130014A
14.0	30	75	14	2	CES2140014	CES2140014A
15.0	35	100	16	2	CES21500	CES21500A
16.0	35	100	16	2	CES21600	CES21600A
16.0	45	100	16	2	CES21600450C	CES21600450CA
18.0	40	100	18	2	CES2180018	CES2180018A
18.0	40	100	20	2	CES21800	CES21800A
20.0	45	100	20	2	CES22000	CES22000A
25.0	45	100	25	2	CES22500	CES22500A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition P.265

→ 參考資料 P.243
Technical Data P.243

S220 鎢鋼平銑刀-小柄點數型-2刃

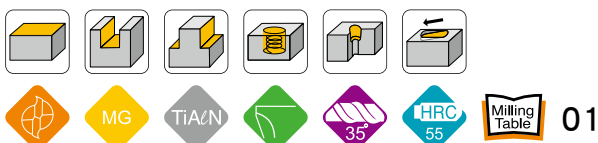
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

CESM20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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.
1.1	3	50	4	2	CESM20110	CESM20110A
1.2	3	50	4	2	CESM20120	CESM20120A
1.3	3	50	4	2	CESM20130	CESM20130A
1.4	3	50	4	2	CESM20140	CESM20140A
1.6	4	50	4	2	CESM20160	CESM20160A
1.7	4	50	4	2	CESM20170	CESM20170A
1.8	4	50	4	2	CESM20180	CESM20180A
1.9	4	50	4	2	CESM20190	CESM20190A
2.1	5	50	4	2	CESM20210	CESM20210A
2.2	5	50	4	2	CESM20220	CESM20220A
2.3	5	50	4	2	CESM20230	CESM20230A
2.4	5	50	4	2	CESM20240	CESM20240A
2.6	6	50	4	2	CESM20260	CESM20260A
2.7	6	50	4	2	CESM20270	CESM20270A
2.8	6	50	4	2	CESM20280	CESM20280A
2.9	6	50	4	2	CESM20290	CESM20290A
3.1	8	50	4	2	CESM20310	CESM20310A
3.2	8	50	4	2	CESM20320	CESM20320A
3.3	8	50	4	2	CESM20330	CESM20330A
3.4	8	50	4	2	CESM20340	CESM20340A
3.6	9	50	4	2	CESM20360	CESM20360A
3.7	9	50	4	2	CESM20370	CESM20370A
3.8	9	50	4	2	CESM20380	CESM20380A
3.9	9	50	4	2	CESM20390	CESM20390A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 點數型- 2刃

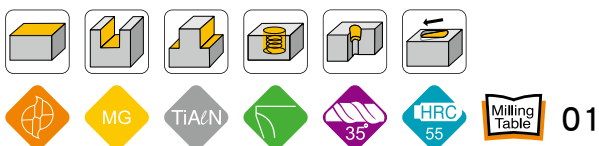
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· **CES20000A**



d(刃徑)	Tolerance(公差)
φ<3	0 ~ -0.02
3 ≤ φ ≤ 10	-0.01 ~ -0.03
10 < φ	-0.01 ~ -0.03

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.
1.1	3	50	6	2	CES20110	CES20110A
1.2	3	50	6	2	CES20120	CES20120A
1.3	3	50	6	2	CES20130	CES20130A
1.4	3	50	6	2	CES20140	CES20140A
1.6	4	50	6	2	CES20160	CES20160A
1.7	4	50	6	2	CES20170	CES20170A
1.8	4	50	6	2	CES20180	CES20180A
1.9	4	50	6	2	CES20190	CES20190A
2.1	5	50	6	2	CES20210	CES20210A
2.2	5	50	6	2	CES20220	CES20220A
2.3	5	50	6	2	CES20230	CES20230A
2.4	5	50	6	2	CES20240	CES20240A
2.6	6	50	6	2	CES20260	CES20260A
2.7	6	50	6	2	CES20270	CES20270A
2.8	6	50	6	2	CES20280	CES20280A
2.9	6	50	6	2	CES20290	CES20290A
3.1	8	50	6	2	CES20310	CES20310A
3.2	8	50	6	2	CES20320	CES20320A
3.3	8	50	6	2	CES20330	CES20330A
3.4	8	50	6	2	CES20340	CES20340A
3.6	9	50	6	2	CES20360	CES20360A
3.7	9	50	6	2	CES20370	CES20370A
3.8	9	50	6	2	CES20380	CES20380A
3.9	9	50	6	2	CES20390	CES20390A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265 Cutting Condition
→ 參考資料 P.243 Technical Data

S220 鎢鋼平銑刀- 點數型- 2刃

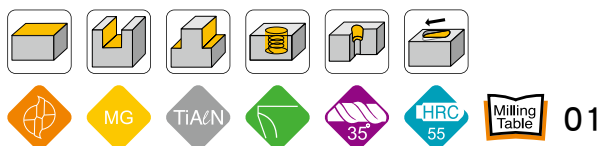
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· CES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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.
4.1	10	50	6	2	CES20410	CES20410A
4.2	10	50	6	2	CES20420	CES20420A
4.3	10	50	6	2	CES20430	CES20430A
4.4	11	50	6	2	CES20440	CES20440A
4.6	11	50	6	2	CES20460	CES20460A
4.7	11	50	6	2	CES20470	CES20470A
4.8	11	50	6	2	CES20480	CES20480A
4.9	11	50	6	2	CES20490	CES20490A
5.1	13	50	6	2	CES20510	CES20510A
5.2	13	50	6	2	CES20520	CES20520A
5.3	13	50	6	2	CES20530	CES20530A
5.4	13	50	6	2	CES20540	CES20540A
5.6	14	50	6	2	CES20560	CES20560A
5.7	14	50	6	2	CES20570	CES20570A
5.8	14	50	6	2	CES20580	CES20580A
5.9	14	50	6	2	CES20590	CES20590A
6.1	15	60	8	2	CES20610	CES20610A
6.2	15	60	8	2	CES20620	CES20620A
6.3	15	60	8	2	CES20630	CES20630A
6.4	15	60	8	2	CES20640	CES20640A
6.6	16	60	8	2	CES20660	CES20660A
6.7	16	60	8	2	CES20670	CES20670A
6.8	16	60	8	2	CES20680	CES20680A
6.9	16	60	8	2	CES20690	CES20690A
7.1	18	60	8	2	CES20710	CES20710A
7.2	18	60	8	2	CES20720	CES20720A
7.3	18	60	8	2	CES20730	CES20730A
7.4	18	60	8	2	CES20740	CES20740A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

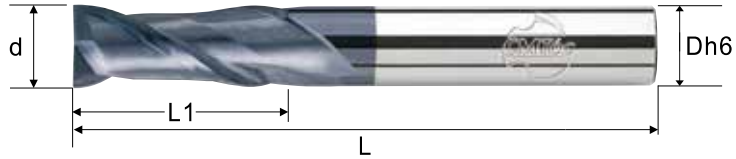
→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 點數型- 2刃

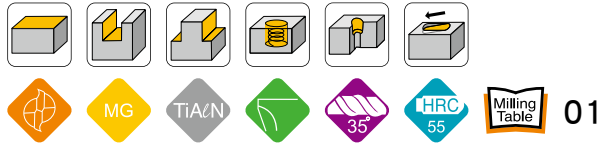
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· CES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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

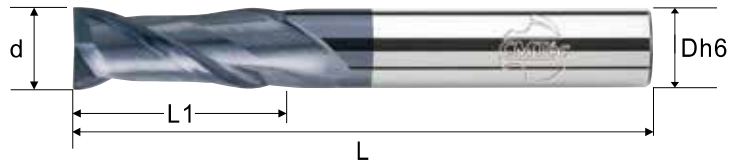


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
7.6	18	60	8	2	CES20760	CES20760A
7.7	18	60	8	2	CES20770	CES20770A
7.8	18	60	8	2	CES20780	CES20780A
7.9	18	60	8	2	CES20790	CES20790A
8.1	20	75	10	2	CES20810	CES20810A
8.2	20	75	10	2	CES20820	CES20820A
8.3	20	75	10	2	CES20830	CES20830A
8.4	20	75	10	2	CES20840	CES20840A
8.6	20	75	10	2	CES20860	CES20860A
8.7	20	75	10	2	CES20870	CES20870A
8.8	20	75	10	2	CES20880	CES20880A
8.9	20	75	10	2	CES20890	CES20890A
9.1	22	75	10	2	CES20910	CES20910A
9.2	22	75	10	2	CES20920	CES20920A
9.3	22	75	10	2	CES20930	CES20930A
9.4	22	75	10	2	CES20940	CES20940A
9.6	22	75	10	2	CES20960	CES20960A
9.7	22	75	10	2	CES20970	CES20970A
9.8	22	75	10	2	CES20980	CES20980A
9.9	22	75	10	2	CES20990	CES20990A
10.1	25	75	12	2	CES21010	CES21010A
10.2	25	75	12	2	CES21020	CES21020A
10.3	25	75	12	2	CES21030	CES21030A
10.4	25	75	12	2	CES21040	CES21040A
10.6	25	75	12	2	CES21060	CES21060A
10.7	25	75	12	2	CES21070	CES21070A
10.8	25	75	12	2	CES21080	CES21080A
10.9	25	75	12	2	CES21090	CES21090A

S220 鎢鋼平銑刀- 英吋型- 2刃

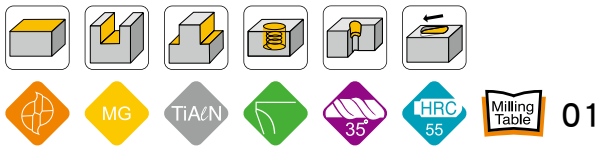
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Inch Diameter

· CEI20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○

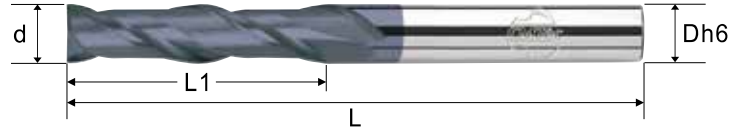


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1/16(1.58)	5	50	4	2	CEI20116	CEI20116A
5/64(1.98)	5	50	4	2	CEI20564	CEI20564A
3/32(2.38)	6	50	4	2	CEI20332	CEI20332A
1/8 (3.18)	10	50	4	2	CEI20108	CEI20108A
5/32(3.97)	10	50	6	2	CEI20532	CEI20532A
3/16(4.76)	13	50	6	2	CEI20316	CEI20316A
1/4 (6.35)	18	60	8	2	CEI20104	CEI20104A
5/16(7.94)	20	60	8	2	CEI20516	CEI20516A
3/8 (9.53)	21	75	10	2	CEI20308	CEI20308A
1/2 (12.7)	25	75	12	2	CEI20102	CEI20102A

S220 鎢鋼平銑刀- 長刃小柄(標準)/特長刃型- 2刃

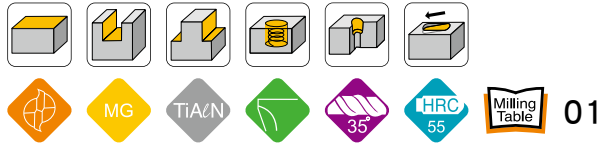
S220 MICRO GRAIN CARBIDE END MILLS- Square Type & (Extra) Long Flute- 2F

- CELFM20000A
- CELF20000A
- CEFF20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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	10	50	4	2	CELFM20200	CELFM20200A
3.0	15	60	4	2	CELFM20300	CELFM20300A
4.0	20	60	4	2	CELFM20400	CELFM20400A
3.0	15	60	6	2	CELF20300	CELF20300A
4.0	20	60	6	2	CELF20400	CELF20400A
5.0	25	75	6	2	CELF20500	CELF20500A
6.0	30	75	6	2	CELF20600	CELF20600A
8.0	35	100	8	2	CELF20800	CELF20800A
10.0	45	100	10	2	CELF21000	CELF21000A
12.0	45	100	12	2	CELF21200	CELF21200A
14.0	70	150	14	2	CELF2140014	CELF2140014A
14.0	70	150	16	2	CELF21400	CELF21400A
16.0	70	150	16	2	CELF21600	CELF21600A
18.0	75	150	20	2	CELF21800	CELF21800A
20.0	75	150	20	2	CELF22000	CELF22000A
25.0	75	150	25	2	CELF22500	CELF22500A
10.0	55	100	10	2	CEFF21000	CEFF21000A
12.0	55	100	12	2	CEFF21200	CEFF21200A
16.0	80	150	16	2	CEFF21600	CEFF21600A
20.0	90	150	20	2	CEFF22000	CEFF22000A

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

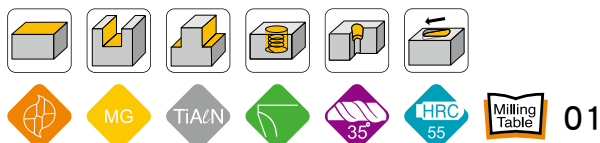
S220 鎢鋼平銑刀-長柄型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Long Shank- 2F

· CELS20000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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.
3.0	8	75	6	2	CELS20300	CELS20300A
4.0	10	75	6	2	CELS20400	CELS20400A
5.0	13	75	6	2	CELS20500	CELS20500A
6.0	15	75	6	2	CELS20600	CELS20600A
8.0	20	100	8	2	CELS20800	CELS20800A
10.0	25	100	10	2	CELS21000	CELS21000A
12.0	30	100	12	2	CELS21200	CELS21200A

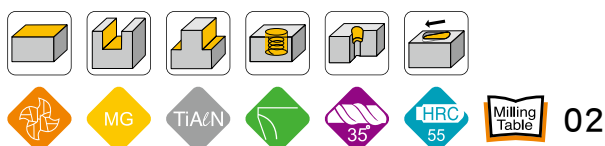
S220 鎢鋼平銑刀-長柄型-4刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Long Shank- 4F

· CELS40000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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.
3.0	8	75	6	4	CELS40300	CELS40300A
4.0	10	75	6	4	CELS40400	CELS40400A
5.0	13	75	6	4	CELS40500	CELS40500A
6.0	15	75	6	4	CELS40600	CELS40600A
8.0	20	100	8	4	CELS40800	CELS40800A
10.0	25	100	10	4	CELS41000	CELS41000A
12.0	30	100	12	4	CELS41200	CELS41200A
16.0	40	150	16	4	CELS41600	CELS41600A
20.0	40	150	20	4	CELS42000	CELS42000A

→ 切削條件表
Cutting Condition P.265

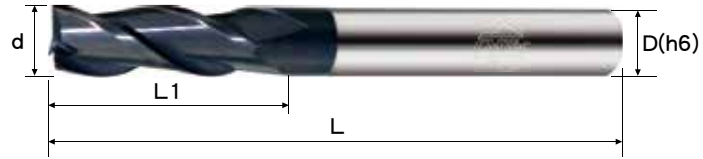
→ 參考資料
Technical Data P.243

S220 鎢鋼平銑刀- 小柄型/標準型- 3刃

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

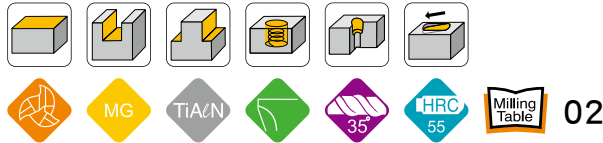
· CESM30000A

· CES30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	3	CESM30200	CESM30200A
2.5	6	50	4	3	CESM30250	CESM30250A
3.0	8	50	4	3	CESM30300	CESM30300A
3.5	9	50	4	3	CESM30350	CESM30350A
4.0	10	50	4	3	CESM30400	CESM30400A
2.0	5	50	6	3	CES30200	CES30200A
2.5	6	50	6	3	CES30250	CES30250A
3.0	8	50	6	3	CES30300	CES30300A
3.5	9	50	6	3	CES30350	CES30350A
4.0	10	50	6	3	CES30400	CES30400A
4.5	11	50	6	3	CES30450	CES30450A
5.0	13	50	6	3	CES30500	CES30500A
5.5	14	50	6	3	CES30550	CES30550A
6.0	15	50	6	3	CES30600	CES30600A
6.5	16	60	8	3	CES30650	CES30650A
7.0	18	60	8	3	CES30700	CES30700A
7.5	18	60	8	3	CES30750	CES30750A
8.0	20	60	8	3	CES30800	CES30800A
8.5	20	75	10	3	CES30850	CES30850A
9.0	22	75	10	3	CES30900	CES30900A
9.5	22	75	10	3	CES30950	CES30950A
10.0	25	75	10	3	CES31000	CES31000A
10.5	25	75	12	3	CES31050	CES31050A
11.0	25	75	12	3	CES31100	CES31100A
11.5	25	75	12	3	CES31150	CES31150A
12.0	30	75	12	3	CES31200	CES31200A
13.0	30	75	14	3	CES3130014	CES3130014A
14.0	30	75	14	3	CES3140014	CES3140014A
15.0	35	100	16	3	CES31500	CES31500A
16.0	35	100	16	3	CES31600	CES31600A



※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

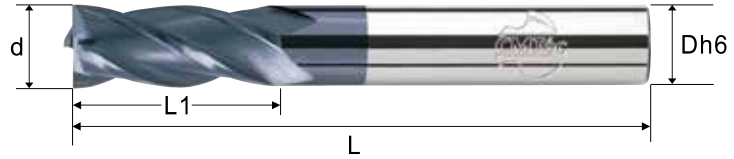
→ 切削條件表 P.265
Cutting Condition P.265

→ 參考資料 P.243
Technical Data P.243

S220 鎢鋼平銑刀-標準型-4刃

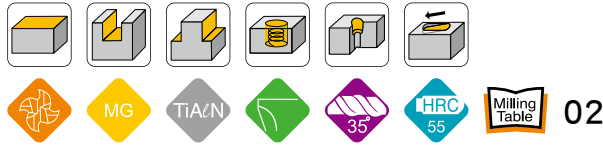
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 4F

· **CES40000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
3.0	8	50	6	4	CES40300	CES40300A
3.5	9	50	6	4	CES40350	CES40350A
4.0	10	50	6	4	CES40400	CES40400A
4.5	11	50	6	4	CES40450	CES40450A
5.0	13	50	6	4	CES40500	CES40500A
5.5	14	50	6	4	CES40550	CES40550A
6.0	15	50	6	4	CES40600	CES40600A
6.5	16	60	8	4	CES40650	CES40650A
7.0	18	60	8	4	CES40700	CES40700A
7.5	18	60	8	4	CES40750	CES40750A
8.0	20	60	8	4	CES40800	CES40800A
8.5	20	75	10	4	CES40850	CES40850A
9.0	22	75	10	4	CES40900	CES40900A
9.5	22	75	10	4	CES40950	CES40950A
10.0	25	75	10	4	CES41000	CES41000A
10.0	30	75	10	4	CES41000300C	CES41000300CA
10.5	25	75	12	4	CES41050	CES41050A
11.0	25	75	12	4	CES41100	CES41100A
11.5	25	75	12	4	CES41150	CES41150A
12.0	30	75	12	4	CES41200	CES41200A
12.0	36	75	12	4	CES41200360C	CES41200360CA
13.0	30	75	14	4	CES4130014	CES4130014A
14.0	30	75	14	4	CES4140014	CES4140014A
15.0	35	100	16	4	CES41500	CES41500A
16.0	35	100	16	4	CES41600	CES41600A
16.0	45	100	16	4	CES41600450C	CES41600450CA
18.0	40	100	18	4	CES4180018	CES4180018A
18.0	40	100	20	4	CES41800	CES41800A
20.0	45	100	20	4	CES42000	CES42000A
25.0	45	100	25	4	CES42500	CES42500A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

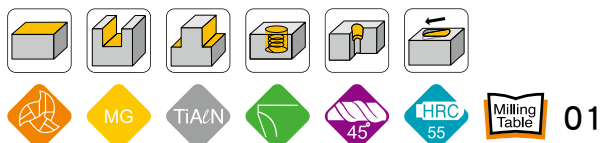
S220 鎢鋼平銑刀- 高導粗精型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Semi- Finishing- 3F

· CER30000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
6.0	15	50	6	3	CER30600	CER30600A
8.0	20	60	8	3	CER30800	CER30800A
10.0	25	75	10	3	CER31000	CER31000A
12.0	30	75	12	3	CER31200	CER31200A
16.0	40	100	16	3	CER31600	CER31600A
20.0	45	100	20	3	CER32000	CER32000A

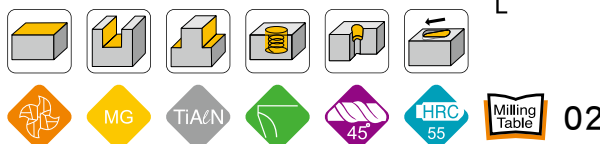
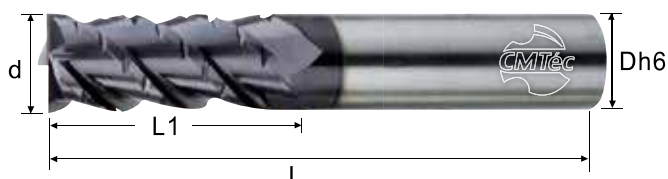
S220 鎢鋼平銑刀- 高導粗精型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Semi- Finishing- 4F

· CER40000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
6.0	15	50	6	4	CER40600	CER40600A
8.0	20	60	8	4	CER40800	CER40800A
10.0	25	75	10	4	CER41000	CER41000A
12.0	30	75	12	4	CER41200	CER41200A
16.0	40	100	16	4	CER41600	CER41600A
20.0	45	100	20	4	CER42000	CER42000A

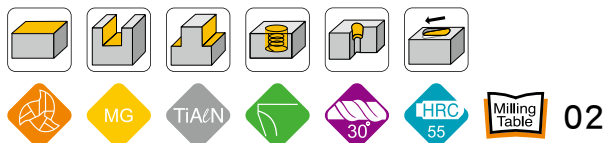
S220 鎢鋼粗銑平銑刀- 標準型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- Roughing- 3F

· CERR30000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05
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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	3	CERR30600A
8.0	20	60	8	3	CERR30800A
10.0	25	75	10	3	CERR31000A
12.0	30	75	12	3	CERR31200A
16.0	40	100	16	3	CERR31600A
20.0	45	100	20	3	CERR32000A

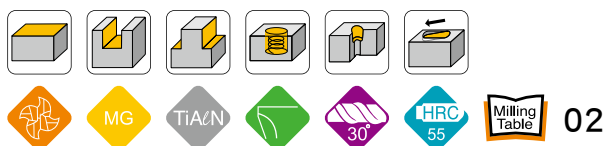
S220 鎢鋼粗銑平銑刀- 標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Roughing- 4F

· CERR40000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05
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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	4	CERR40600A
8.0	20	60	8	4	CERR40800A
10.0	25	75	10	4	CERR41000A
12.0	30	75	12	4	CERR41200A
16.0	40	100	16	4	CERR41600A
20.0	45	100	20	4	CERR42000A

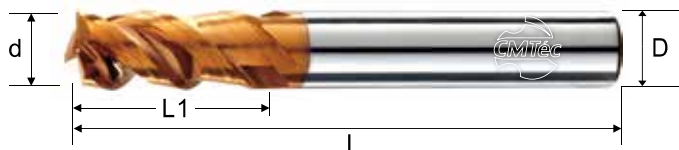
→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 不等分割雙心徑型- 3刃

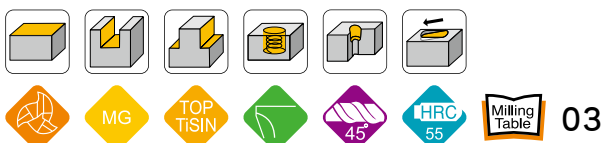
MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- 3F

· CEP30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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



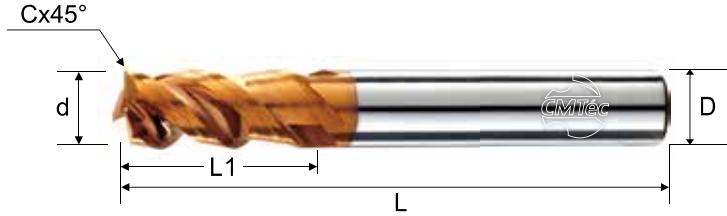
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	5	50	6	3	CEP30200	CEP30200A
3.0	7	50	6	3	CEP30300	CEP30300A
4.0	10	50	6	3	CEP30400	CEP30400A
5.0	12	50	6	3	CEP30500	CEP30500A
6.0	14	50	6	3	CEP30600	CEP30600A
8.0	18	60	8	3	CEP30800	CEP30800A
9.0	22	75	10	3	CEP30900	CEP30900A
10.0	22	75	10	3	CEP31000	CEP31000A
12.0	26	75	12	3	CEP31200	CEP31200A
14.0	30	75	14	3	CEP31400	CEP31400A
16.0	34	100	16	3	CEP31600	CEP31600A
20.0	42	100	20	3	CEP32000	CEP32000A

→ 切削條件表 Cutting Condition P.266 → 參考資料 Technical Data P.243

S220 鎢鋼平銑刀- 不等分割雙心徑倒角型- 3刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Chamfering- 3F

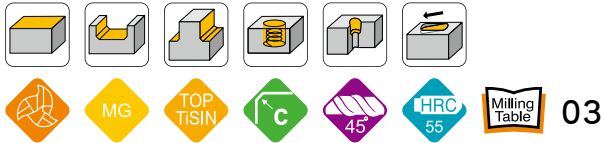
· CEP30000-C0000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

C角	Tolerance(公差)
C	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

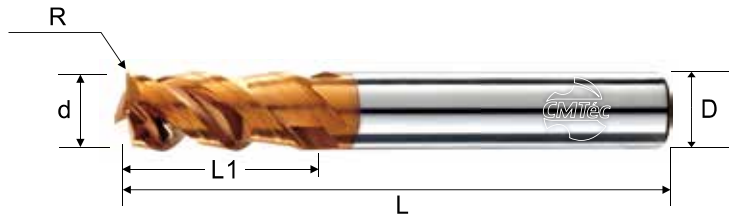


刃徑 d	倒C角 C	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	0.03	5	50	6	3	CEP30200-C0003	CEP30200-C0003A
3.0	0.04	7	50	6	3	CEP30300-C0004	CEP30300-C0004A
4.0	0.05	10	50	6	3	CEP30400-C0005	CEP30400-C0005A
4.5	0.05	12	50	6	3	CEP30450-C0005	CEP30450-C0005A
5.0	0.06	12	50	6	3	CEP30500-C0006	CEP30500-C0006A
5.5	0.06	14	50	6	3	CEP30550-C0006	CEP30550-C0006A
6.0	0.08	14	50	6	3	CEP30600-C0008	CEP30600-C0008A
7.5	0.10	18	60	8	3	CEP30750-C0010	CEP30750-C0010A
8.0	0.10	18	60	8	3	CEP30800-C0010	CEP30800-C0010A
10.0	0.13	22	75	10	3	CEP31000-C0013	CEP31000-C0013A
11.5	0.15	26	75	12	3	CEP31150-C0015	CEP31150-C0015A
12.0	0.15	26	75	12	3	CEP31200-C0015	CEP31200-C0015A
14.0	0.18	30	75	14	3	CEP31400-C0018	CEP31400-C0018A
16.0	0.20	34	100	16	3	CEP31600-C0020	CEP31600-C0020A
20.0	0.25	42	100	20	3	CEP32000-C0025	CEP32000-C0025A

S220 鎢鋼平銑刀- 不等分割雙心徑圓角型- 3刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Corner Radius- 3F

· CEP30000-R0000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

R角	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



03

刃徑 d	R角 R	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.
3.0	0.15R	7	50	6	3	CEP30300-R0015	CEP30300-R0015A
4.0	0.2R	10	50	6	3	CEP30400-R0020	CEP30400-R0020A
5.0	0.2R	12	50	6	3	CEP30500-R0020	CEP30500-R0020A
6.0	0.2R	14	50	6	3	CEP30600-R0020	CEP30600-R0020A
8.0	0.5R	18	60	8	3	CEP30800-R0050	CEP30800-R0050A
10.0	0.5R	22	75	10	3	CEP31000-R0050	CEP31000-R0050A
12.0	0.5R	26	75	12	3	CEP31200-R0050	CEP31200-R0050A
16.0	0.5R	34	100	16	3	CEP31600-R0050	CEP31600-R0050A
20.0	0.5R	42	100	20	3	CEP32000-R0050	CEP32000-R0050A

S220 鎢鋼平銑刀- 不等分割雙心徑倒角型- 4刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Chamfering- 4F

· CEP40000-C0000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

C角	Tolerance(公差)
C	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



04

刃徑 d	倒C角 C	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.
3.0	0.04	7	50	6	4	CEP40300-C0004	CEP40300-C0004A
4.0	0.05	10	50	6	4	CEP40400-C0005	CEP40400-C0005A
5.0	0.06	12	50	6	4	CEP40500-C0006	CEP40500-C0006A
6.0	0.08	14	50	6	4	CEP40600-C0008	CEP40600-C0008A
8.0	0.10	18	60	8	4	CEP40800-C0010	CEP40800-C0010A
10.0	0.13	22	75	10	4	CEP41000-C0013	CEP41000-C0013A
12.0	0.15	26	75	12	4	CEP41200-C0015	CEP41200-C0015A
16.0	0.20	34	100	16	4	CEP41600-C0020	CEP41600-C0020A
20.0	0.25	42	100	20	4	CEP42000-C0025	CEP42000-C0025A
25.0	0.30	52	125	25	4	CEP42500-C0030	CEP42500-C0030A

S220 鎢鋼平銑刀- 不等分割雙心徑圓角型- 4刃

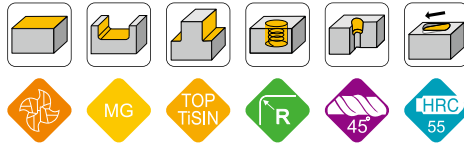
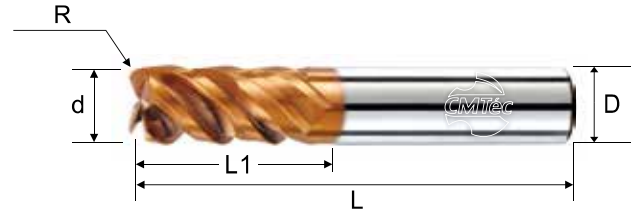
MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Corner Radius- 4F

· **CEP4~~0000~~-R~~0000~~A**

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

R角	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



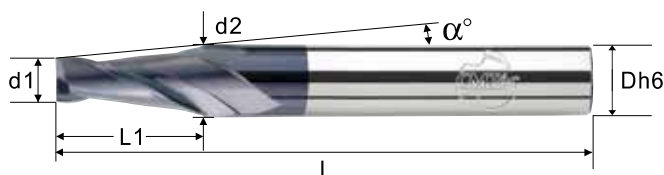
04

刃徑 d	R角 R	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.
6.0	0.2R	14	50	6	4	CEP40600-R0020	CEP40600-R0020A
8.0	0.5R	18	60	8	4	CEP40800-R0050	CEP40800-R0050A
10.0	0.5R	22	75	10	4	CEP41000-R0050	CEP41000-R0050A
12.0	0.5R	26	75	12	4	CEP41200-R0050	CEP41200-R0050A
16.0	0.5R	34	100	16	4	CEP41600-R0050	CEP41600-R0050A
20.0	0.5R	42	100	20	4	CEP42000-R0050	CEP42000-R0050A
25.0	0.5R	52	125	25	4	CEP42500-R0050	CEP42500-R0050A

S220 鎢鋼斜度銑刀- 標準型- 2刃

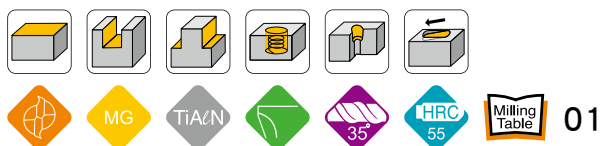
S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

· CETF20000000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05

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



先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	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.
1.0	0.5°	4	1.07	50	4	2	CETF2010005	CETF2010005A
1.0	1°	4	1.14	50	4	2	CETF2010010	CETF2010010A
1.0	1.5°	4	1.21	50	4	2	CETF2010015	CETF2010015A
1.0	2°	4	1.28	50	4	2	CETF2010020	CETF2010020A
1.0	2.5°	4	1.35	50	4	2	CETF2010025	CETF2010025A
1.0	3°	4	1.42	50	4	2	CETF2010030	CETF2010030A
1.0	5°	4	1.70	50	4	2	CETF2010050	CETF2010050A
1.0	7°	4	1.98	50	4	2	CETF2010070	CETF2010070A
1.0	10°	4	2.41	50	4	2	CETF20100100	CETF20100100A
1.0	15°	4	3.14	50	4	2	CETF20100150	CETF20100150A
1.5	0.5°	5	1.59	50	4	2	CETF2015005	CETF2015005A
1.5	1°	5	1.68	50	4	2	CETF2015010	CETF2015010A
1.5	1.5°	5	1.76	50	4	2	CETF2015015	CETF2015015A
1.5	2°	5	1.85	50	4	2	CETF2015020	CETF2015020A
1.5	2.5°	5	1.93	50	4	2	CETF2015025	CETF2015025A
1.5	3°	5	2.02	50	4	2	CETF2015030	CETF2015030A
1.5	5°	5	2.37	50	4	2	CETF2015050	CETF2015050A
2.0	0.5°	6	2.10	50	4	2	CETF2020005	CETF2020005A
2.0	1°	6	2.21	50	4	2	CETF2020010	CETF2020010A
2.0	1.5°	6	2.31	50	4	2	CETF2020015	CETF2020015A
2.0	2°	6	2.41	50	4	2	CETF2020020	CETF2020020A
2.0	2.5°	6	2.52	50	4	2	CETF2020025	CETF2020025A
2.0	3°	6	2.62	50	4	2	CETF2020030	CETF2020030A
2.0	5°	6	3.05	50	4	2	CETF2020050	CETF2020050A
2.0	7°	6	3.47	50	4	2	CETF2020070	CETF2020070A
2.0	10°	6	4.11	50	6	2	CETF20200100	CETF20200100A
2.0	15°	6	5.22	50	6	2	CETF20200150	CETF20200150A
2.5	0.5°	8	2.64	50	4	2	CETF2025005	CETF2025005A
2.5	1°	8	2.78	50	4	2	CETF2025010	CETF2025010A
2.5	1.5°	8	2.91	50	4	2	CETF2025015	CETF2025015A
2.5	2°	8	3.05	50	4	2	CETF2025020	CETF2025020A
2.5	2.5°	8	3.20	50	4	2	CETF2025025	CETF2025025A
2.5	3°	8	3.33	50	4	2	CETF2025030	CETF2025030A
2.5	5°	8	3.90	50	4	2	CETF2025050	CETF2025050A

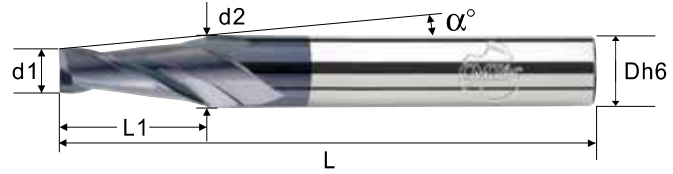
→ 切削條件表
Cutting Condition P.265

→ 參考資料
Technical Data P.243

S220 鎢鋼斜度銑刀- 標準型- 2刃

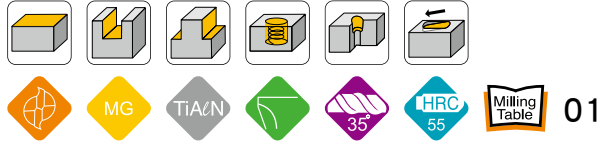
S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

· CETF20000000A



d(刀徑)	Tolerance(公差)
Φ	0 ~ -0.05

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

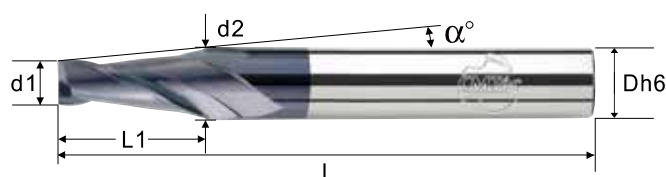


先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	0.5°	10	3.17	50	6	2	CETF2030005	CETF2030005A
3.0	1°	10	3.35	50	6	2	CETF2030010	CETF2030010A
3.0	1.5°	10	3.52	50	6	2	CETF2030015	CETF2030015A
3.0	2°	10	3.69	50	6	2	CETF2030020	CETF2030020A
3.0	2.5°	10	3.87	50	6	2	CETF2030025	CETF2030025A
3.0	3°	10	4.05	50	6	2	CETF2030030	CETF2030030A
3.0	5°	10	4.75	50	6	2	CETF2030050	CETF2030050A
3.0	7°	12	6.00	50	6	2	CETF2030070	CETF2030070A
3.0	10°	12	7.22	60	8	2	CETF20300100	CETF20300100A
3.0	15°	12	9.40	75	10	2	CETF20300150	CETF20300150A
4.0	0.5°	15	4.26	50	6	2	CETF2040005	CETF2040005A
4.0	1°	15	4.52	50	6	2	CETF2040010	CETF2040010A
4.0	1.5°	15	4.79	50	6	2	CETF2040015	CETF2040015A
4.0	2°	15	5.04	50	6	2	CETF2040020	CETF2040020A
4.0	2.5°	15	5.31	50	6	2	CETF2040025	CETF2040025A
4.0	3°	15	5.57	50	6	2	CETF2040030	CETF2040030A
4.0	5°	15	6.62	60	8	2	CETF2040050	CETF2040050A
4.0	7°	16	8.00	60	8	2	CETF2040070	CETF2040070A
4.0	10°	17	10.00	75	10	2	CETF20400100	CETF20400100A
4.0	15°	14.9	12.00	75	12	2	CETF20400150	CETF20400150A
5.0	0.5°	20	5.34	60	6	2	CETF2050005	CETF2050005A
5.0	1°	20	5.70	60	6	2	CETF2050010	CETF2050010A
5.0	1.5°	19.6	6.00	60	6	2	CETF2050015	CETF2050015A
5.0	2°	20	6.39	60	8	2	CETF2050020	CETF2050020A
5.0	2.5°	20	6.74	60	8	2	CETF2050025	CETF2050025A
5.0	3°	20	7.10	60	8	2	CETF2050030	CETF2050030A
5.0	5°	20	8.50	75	10	2	CETF2050050	CETF2050050A
5.0	7°	20	10.00	75	10	2	CETF2050070	CETF2050070A
5.0	10°	20	12.00	75	12	2	CETF20500100	CETF20500100A

S220 鎢鋼斜度銑刀-標準型-2刃

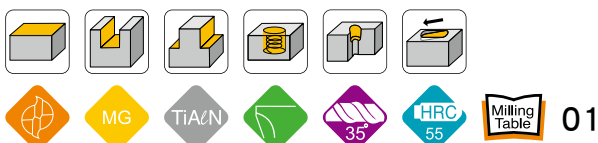
S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

· CETF20000000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05

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



先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	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.
6.0	0.5°	20	6.35	60	8	2	CETF2060005	CETF2060005A
6.0	1°	20	6.70	60	8	2	CETF2060010	CETF2060010A
6.0	1.5°	20	7.05	60	8	2	CETF2060015	CETF2060015A
6.0	2°	20	7.40	60	8	2	CETF2060020	CETF2060020A
6.0	2.5°	20	7.75	60	8	2	CETF2060025	CETF2060025A
6.0	3°	20	8.10	75	10	2	CETF2060030	CETF2060030A
6.0	5°	20	9.50	75	10	2	CETF2060050	CETF2060050A
6.0	7°	24	12.00	75	12	2	CETF2060070	CETF2060070A
6.0	10°	22	14.00	75	14	2	CETF20600100	CETF20600100A
8.0	0.5°	25	8.44	75	10	2	CETF2080005	CETF2080005A
8.0	1°	25	8.87	75	10	2	CETF2080010	CETF2080010A
8.0	1.5°	25	9.31	75	10	2	CETF2080015	CETF2080015A
8.0	2°	25	9.75	75	10	2	CETF2080020	CETF2080020A
8.0	3°	25	10.62	75	12	2	CETF2080030	CETF2080030A
8.0	5°	25	12.37	75	14	2	CETF2080050	CETF2080050A
8.0	7°	32	16.00	100	16	2	CETF2080070	CETF2080070A
8.0	10°	28	18.00	100	18	2	CETF20800100	CETF20800100A
10.0	0.5°	35	10.61	75	12	2	CETF2100005	CETF2100005A
10.0	1°	35	11.22	75	12	2	CETF2100010	CETF2100010A
10.0	1.5°	35	11.83	75	12	2	CETF2100015	CETF2100015A
10.0	2°	35	12.44	75	14	2	CETF2100020	CETF2100020A
10.0	3°	35	13.67	75	14	2	CETF2100030	CETF2100030A
10.0	5°	34.2	16.00	100	16	2	CETF2100050	CETF2100050A

→ 切削條件表 P.265 Cutting Condition
 → 參考資料 P.243 Technical Data

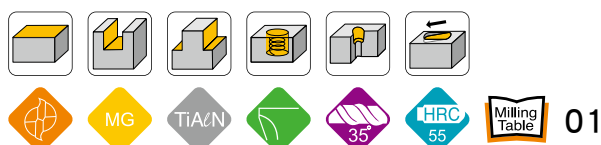
S220 鎢鋼平銑刀- 長頸型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type & Long Neck- 2F

CEN20000000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.02
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○



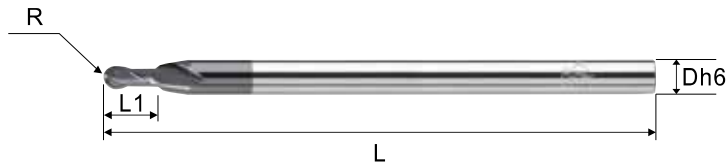
刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0	1.5	7.5	50	4	2	CEN20100075	CEN20100075A
1.0	1.5	11.5	50	4	2	CEN20100115	CEN20100115A
1.2	2.0	8.0	50	4	2	CEN20120080	CEN20120080A
1.2	2.0	12.0	50	4	2	CEN20120120	CEN20120120A
1.5	2.5	10.5	50	4	2	CEN20150105	CEN20150105A
1.5	2.5	18.5	50	4	2	CEN20150185	CEN20150185A
1.8	3.0	11.0	50	4	2	CEN20180110	CEN20180110A
1.8	3.0	19.0	50	4	2	CEN20180190	CEN20180190A
2.0	3.0	11.0	50	4	2	CEN20200110	CEN20200110A
2.0	3.0	19.0	50	4	2	CEN20200190	CEN20200190A
2.0	3.0	23.0	60	4	2	CEN20200230	CEN20200230A
2.5	3.5	15.5	50	4	2	CEN20250155	CEN20250155A
2.5	3.5	23.5	60	4	2	CEN20250235	CEN20250235A
3.0	4.5	16.5	60	6	2	CEN20300165	CEN20300165A
3.0	4.5	24.5	75	6	2	CEN20300245	CEN20300245A
4.0	6.0	26.0	75	6	2	CEN20400260	CEN20400260A
4.0	6.0	36.0	75	6	2	CEN20400360	CEN20400360A

→ 切削條件表 Cutting Condition P.265 → 參考資料 Technical Data P.243

S220 鎢鋼球型銑刀-微柄/小柄型-2刃

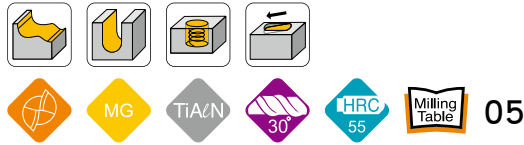
S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 2F- Micro Diameter

- CEBS20000A
- CEBM20000A



R(半徑)	Tolerance(公差)
R	±0.02

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



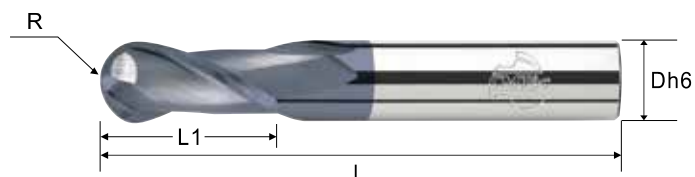
半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
0.1R	0.4	50	3	2	CEBS20010	CEBS20010A
0.15R	0.6	50	3	2	CEBS20015	CEBS20015A
0.2R	0.8	50	3	2	CEBS20020	CEBS20020A
0.25R	1.0	50	3	2	CEBS20025	CEBS20025A
0.3R	1.2	50	3	2	CEBS20030	CEBS20030A
0.35R	1.4	50	3	2	CEBS20035	CEBS20035A
0.4R	1.6	50	3	2	CEBS20040	CEBS20040A
0.45R	1.8	50	3	2	CEBS20045	CEBS20045A
0.5R	2.0	50	3	2	CEBS20050	CEBS20050A
0.6R	2.4	50	3	2	CEBS20060	CEBS20060A
0.7R	2.8	50	3	2	CEBS20070	CEBS20070A
0.75R	3.0	50	3	2	CEBS20075	CEBS20075A
0.8R	3.2	50	3	2	CEBS20080	CEBS20080A
0.9R	3.6	50	3	2	CEBS20090	CEBS20090A
1.0R	4.0	50	3	2	CEBS20100	CEBS20100A
1.5R	6.0	50	3	2	CEBS20150	CEBS20150A
0.1R	0.4	50	4	2	CEBM20010	CEBM20010A
0.15R	0.6	50	4	2	CEBM20015	CEBM20015A
0.2R	0.8	50	4	2	CEBM20020	CEBM20020A
0.25R	1.0	50	4	2	CEBM20025	CEBM20025A
0.3R	1.2	50	4	2	CEBM20030	CEBM20030A
0.35R	1.4	50	4	2	CEBM20035	CEBM20035A
0.4R	1.6	50	4	2	CEBM20040	CEBM20040A
0.45R	1.8	50	4	2	CEBM20045	CEBM20045A

S220 鎢鋼球型銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 2F

· CEBM20000A

· CEB20000A



R(半徑)	Tolerance(公差)
R	±0.02

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



05

半徑 R	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.
0.5R	2.0	50	4	2	CEBM20050	CEBM20050A
0.6R	2.4	50	4	2	CEBM20060	CEBM20060A
0.7R	2.8	50	4	2	CEBM20070	CEBM20070A
0.75R	3.0	50	4	2	CEBM20075	CEBM20075A
1.0R	4.0	50	4	2	CEBM20100	CEBM20100A
1.25R	5.0	50	4	2	CEBM20125	CEBM20125A
1.5R	6.0	50	4	2	CEBM20150	CEBM20150A
1.75R	7.0	50	4	2	CEBM20175	CEBM20175A
2.0R	8.0	50	4	2	CEBM20200	CEBM20200A
1.0R	4	50	6	2	CEB20100	CEB20100A
1.25R	5	50	6	2	CEB20125	CEB20125A
1.5R	6	50	6	2	CEB20150	CEB20150A
2.0R	8	50	6	2	CEB20200	CEB20200A
2.5R	10	50	6	2	CEB20250	CEB20250A
3.0R	12	50	6	2	CEB20300	CEB20300A
3.5R	14	60	8	2	CEB20350	CEB20350A
4.0R	16	60	8	2	CEB20400	CEB20400A
5.0R	20	75	10	2	CEB20500	CEB20500A
6.0R	24	75	12	2	CEB20600	CEB20600A
8.0R	32	100	16	2	CEB20800	CEB20800A
10.0R	40	100	20	2	CEB21000	CEB21000A

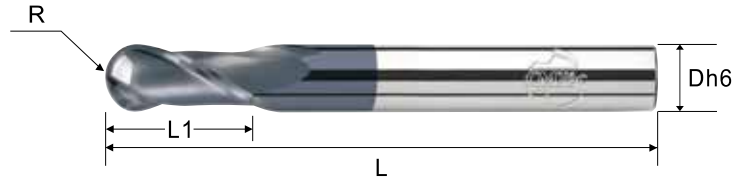
S220 Carbide End Mills

S220鎢鋼銑刀

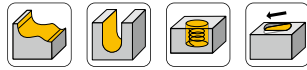
S220 鎢鋼球型銑刀- 小長柄/長柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank- 2F

- **CEBML20000A**
- **CEBL20000A**



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○

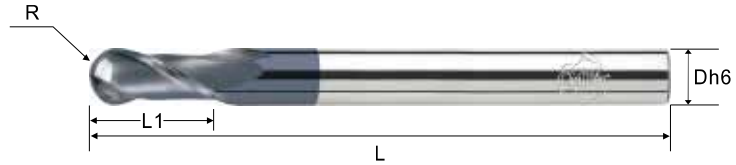


半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
0.5R	2	75	4	2	CEBML20050	CEBML20050A
0.75R	3	75	4	2	CEBML20075	CEBML20075A
1.0R	4	75	4	2	CEBML20100	CEBML20100A
1.25R	5	75	4	2	CEBML20125	CEBML20125A
1.5R	6	75	4	2	CEBML20150	CEBML20150A
1.75R	7	75	4	2	CEBML20175	CEBML20175A
2.0R	8	75	4	2	CEBML20200	CEBML20200A
1.0R	4	75	6	2	CEBL20100	CEBL20100A
1.5R	6	75	6	2	CEBL20150	CEBL20150A
2.0R	8	75	6	2	CEBL20200	CEBL20200A
2.5R	10	75	6	2	CEBL20250	CEBL20250A
3.0R	12	75	6	2	CEBL20300	CEBL20300A
4.0R	16	100	8	2	CEBL20400	CEBL20400A
5.0R	20	100	10	2	CEBL20500	CEBL20500A
6.0R	24	100	12	2	CEBL20600	CEBL20600A
8.0R	32	150	16	2	CEBL20800	CEBL20800A
10.0R	40	150	20	2	CEBL21000	CEBL21000A

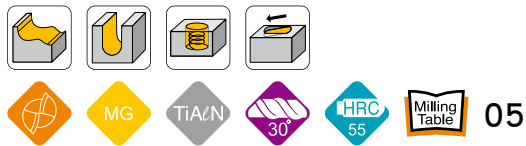
S220 鎢鋼球型銑刀- 小特長柄/特長柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Extra Long Shank- 2F

· CEBMLL20000A
 · CEBLL20000A



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○



半徑 R	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.
1.0R	4	100	4	2	CEBMLL20100	CEBMLL20100A
1.5R	6	100	4	2	CEBMLL20150	CEBMLL20150A
2.0R	8	100	4	2	CEBMLL20200	CEBMLL20200A
1.0R	4	100	6	2	CEBLL20100	CEBLL20100A
1.5R	6	100	6	2	CEBLL20150	CEBLL20150A
2.0R	8	100	6	2	CEBLL20200	CEBLL20200A
2.5R	10	100	6	2	CEBLL20250	CEBLL20250A
3.0R	12	100	6	2	CEBLL20300	CEBLL20300A
4.0R	16	150	8	2	CEBLL20400	CEBLL20400A
5.0R	20	150	10	2	CEBLL20500	CEBLL20500A
6.0R	24	150	12	2	CEBLL20600	CEBLL20600A
8.0R	32	200	16	2	CEBLL20800	CEBLL20800A
10.0R	40	200	20	2	CEBLL21000	CEBLL21000A

S220 鎢鋼球型銑刀- 標準型- 3刃

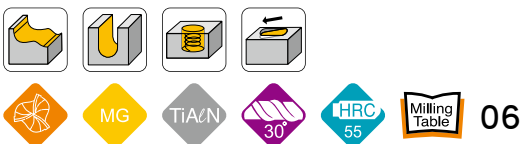
S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 3F

· **CEB30000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	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.
1.0R	4	50	6	3	CEB30100	CEB30100A
1.5R	6	50	6	3	CEB30150	CEB30150A
2.0R	8	50	6	3	CEB30200	CEB30200A
2.5R	10	50	6	3	CEB30250	CEB30250A
3.0R	12	50	6	3	CEB30300	CEB30300A
3.5R	14	60	8	3	CEB30350	CEB30350A
4.0R	16	60	8	3	CEB30400	CEB30400A
5.0R	20	75	10	3	CEB30500	CEB30500A
6.0R	24	75	12	3	CEB30600	CEB30600A
8.0R	32	100	16	3	CEB30800	CEB30800A
10.0R	40	100	20	3	CEB31000	CEB31000A

S220 鎢鋼球型銑刀- 小長柄/長柄型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank- 4F

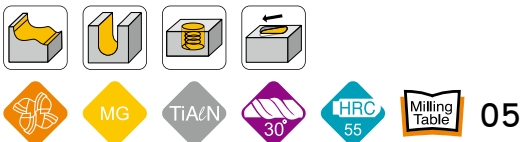
· CEBML40000A

· CEBL40000A



R(半徑)	Tolerance(公差)
R	±0.02

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精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

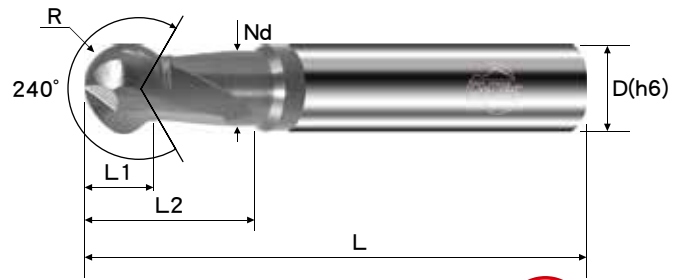


半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	4	75	4	4	CEBML40100	CEBML40100A
1.25R	5	75	4	4	CEBML40125	CEBML40125A
1.5R	6	75	4	4	CEBML40150	CEBML40150A
1.75R	7	75	4	4	CEBML40175	CEBML40175A
2.0R	8	75	4	4	CEBML40200	CEBML40200A
3.0R	12	75	6	4	CEBL40300	CEBL40300A
4.0R	16	100	8	4	CEBL40400	CEBL40400A
5.0R	20	100	10	4	CEBL40500	CEBL40500A
6.0R	24	100	12	4	CEBL40600	CEBL40600A
8.0R	32	150	16	4	CEBL40800	CEBL40800A

S220 鎢鋼球殼型銑刀(240度)- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Semi Sphere Ball Nosed(240°)- 2F

· CEOM2 00000000 A
· CEO2 00000000 A



NEW

R(半徑)	Tolerance(公差)
R	±0.02

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



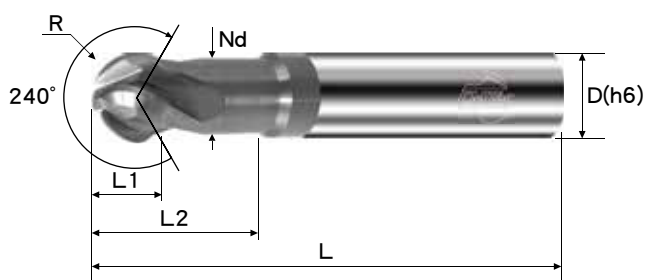
05

半徑 R	刃長 L1	有效長 L2	頸徑 Nd	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.
1.0R	1.50	4	1.73	60	4	2	CEOM20100040	CEOM20100040A
1.5R	2.25	6	2.60	60	4	2	CEOM20150060	CEOM20150060A
2.0R	3.00	8	3.46	60	4	2	CEOM20200080	CEOM20200080A
2.5R	3.75	10	4.33	60	6	2	CEO20250100	CEO20250100A
3.0R	4.50	12	5.20	60	6	2	CEO20300120	CEO20300120A
4.0R	6.00	16	6.93	60	8	2	CEO20400160	CEO20400160A
5.0R	7.50	20	8.66	75	10	2	CEO20500200	CEO20500200A
6.0R	9.00	24	10.39	75	12	2	CEO20600240	CEO20600240A

S220 鎢鋼球殼型銑刀(240度)- 標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Semi Sphere Ball Nosed(240°)- 4F

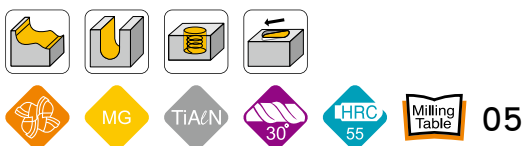
· CEO40000000A



NEW

R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



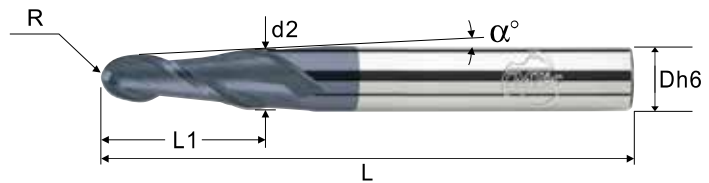
半徑 R	刃長 L1	有效長 L2	頸徑 Nd	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.5R	3.75	10	4.33	60	6	4	CEO40250100	CEO40250100A
3.0R	4.50	12	5.20	60	6	4	CEO40300120	CEO40300120A
4.0R	6.00	16	6.93	60	8	4	CEO40400160	CEO40400160A
5.0R	7.50	20	8.66	75	10	4	CEO40500200	CEO40500200A
6.0R	9.00	24	10.39	75	12	4	CEO40600240	CEO40600240A

S220 Carbide End Mills
S220 鎢鋼銑刀

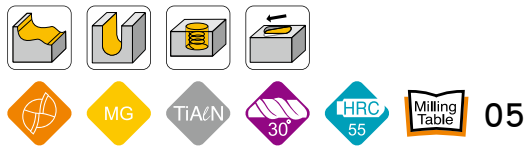
S220 鎢鋼斜度球型銑刀-標準型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Taper Ball Nosed- 2F

· CETB20000000A



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○

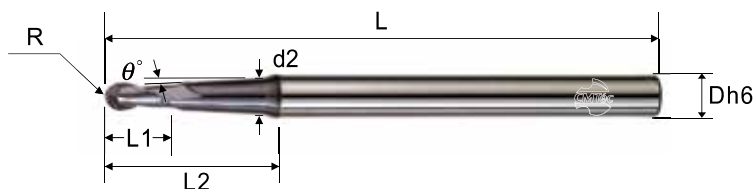


半徑 R	刃斜角 α°	刃長 L1	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	1°	8	2.24	50	4	2	CETB2010010	CETB2010010A
1.0R	3°	8	2.74	50	4	2	CETB2010030	CETB2010030A
1.0R	5°	8	3.23	50	4	2	CETB2010050	CETB2010050A
1.25R	1°	10	2.81	50	4	2	CETB2012510	CETB2012510A
1.25R	3°	10	3.42	50	4	2	CETB2012530	CETB2012530A
1.25R	5°	10	4.04	50	6	2	CETB2012550	CETB2012550A
1.5R	1°	12	3.37	50	4	2	CETB2015010	CETB2015010A
1.5R	3°	12	4.10	50	6	2	CETB2015030	CETB2015030A
1.5R	5°	12	4.85	50	6	2	CETB2015050	CETB2015050A
2.0R	1°	16	4.49	60	6	2	CETB2020010	CETB2020010A
2.0R	3°	16	5.47	60	6	2	CETB2020030	CETB2020030A
2.0R	5°	16	6.46	60	8	2	CETB2020050	CETB2020050A
3.0R	1°	24	6.73	75	8	2	CETB2030010	CETB2030010A
3.0R	3°	24	8.20	75	10	2	CETB2030030	CETB2030030A
3.0R	5°	24	9.67	75	10	2	CETB2030050	CETB2030050A

S220 鎢鋼球型銑刀- 斜頸型- 2刃

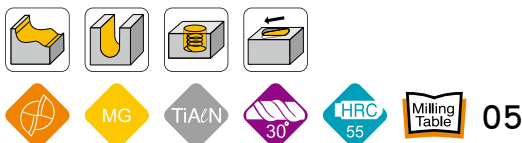
S220 MICRO GRAIN CARBIDE END MILLS- Taper Neck Ball Nosed- 2F

· CENL20000A



R(半徑)	Tolerance(公差)
R	±0.02

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

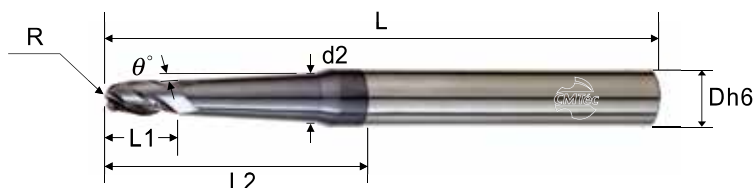


半徑 R	半夾角 θ°	刃長 L1	有效長 L2	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	3°	4	42	5.98	100	8	2	CENL20100	CENL20100A
1.5R	3°	6	47	7.30	100	8	2	CENL20150	CENL20150A
2.0R	3°	8	38	7.14	100	8	2	CENL20200	CENL20200A
2.5R	3°	10	28	6.89	100	8	2	CENL20250	CENL20250A
3.0R	3°	12	38	8.73	100	10	2	CENL20300	CENL20300A
4.0R	3°	16	38	10.31	150	12	2	CENL20400	CENL20400A
5.0R	3°	20	57	13.88	150	16	2	CENL20500	CENL20500A
6.0R	3°	24	38	13.47	150	16	2	CENL20600	CENL20600A

S220 鎢鋼球型銑刀- 斜頸型- 4刃

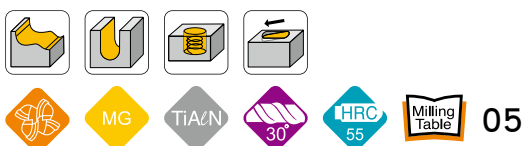
S220 MICRO GRAIN CARBIDE END MILLS- Taper Neck Ball Nosed- 4F

· CENL40000A



R(半徑)	Tolerance(公差)
R	±0.02

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

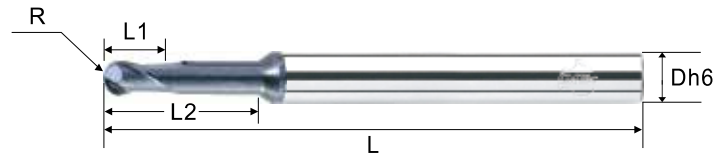


半徑 R	半夾角 θ°	刃長 L1	有效長 L2	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	3°	4	42	5.98	100	8	4	CENL40100	CENL40100A
1.5R	3°	6	47	7.30	100	8	4	CENL40150	CENL40150A
2.0R	3°	8	38	7.14	100	8	4	CENL40200	CENL40200A
2.5R	3°	10	28	6.89	100	8	4	CENL40250	CENL40250A
3.0R	3°	12	38	8.73	100	10	4	CENL40300	CENL40300A
4.0R	3°	16	38	10.31	150	12	4	CENL40400	CENL40400A
5.0R	3°	20	57	13.88	150	16	4	CENL40500	CENL40500A
6.0R	3°	24	38	13.47	150	16	4	CENL40600	CENL40600A

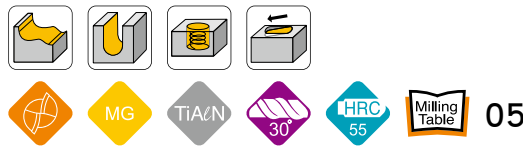
S220 鎢鋼球型銑刀-長頸型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Neck- 2F

· **CEBN20000000A**



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○



半徑 R	刃長 L1	有效長 L2	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.
0.5R	1.5	7.5	50	4	2	CEBN20050075	CEBN20050075A
0.5R	1.5	11.5	50	4	2	CEBN20050115	CEBN20050115A
0.75R	2.5	10.5	50	4	2	CEBN20075105	CEBN20075105A
0.75R	2.5	18.5	50	4	2	CEBN20075185	CEBN20075185A
1.0R	3.0	11.0	50	4	2	CEBN20100110	CEBN20100110A
1.0R	3.0	19.0	50	4	2	CEBN20100190	CEBN20100190A
1.0R	3.0	23.0	60	4	2	CEBN20100230	CEBN20100230A
1.25R	3.5	15.5	50	4	2	CEBN20125155	CEBN20125155A
1.25R	3.5	23.5	60	4	2	CEBN20125235	CEBN20125235A
1.5R	4.5	16.5	60	6	2	CEBN20150165	CEBN20150165A
1.5R	4.5	24.5	75	6	2	CEBN20150245	CEBN20150245A
2.0R	6.0	26.0	75	6	2	CEBN20200260	CEBN20200260A
2.0R	6.0	36.0	75	6	2	CEBN20200360	CEBN20200360A

→ 切削條件表 P.268 Cutting Condition
→ 參考資料 P.243 Technical Data

S220 Carbide End Mills

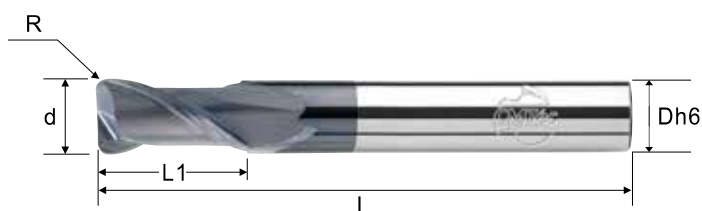
S220 鎢鋼銑刀

S220 鎢鋼圓鼻銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- 2F

· **CECRM2**0000000**A**

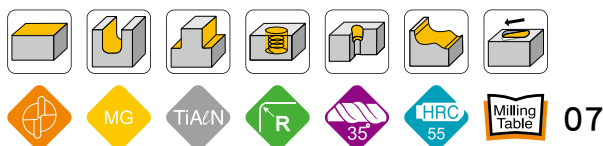
· **CECR2**0000000**A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	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.
1.0	0.2R	2	50	4	2	CECRM2010002	CECRM2010002A
1.0	0.3R	2	50	4	2	CECRM2010003	CECRM2010003A
1.5	0.2R	3	50	4	2	CECRM2015002	CECRM2015002A
1.5	0.3R	3	50	4	2	CECRM2015003	CECRM2015003A
2.0	0.2R	4	50	4	2	CECRM2020002	CECRM2020002A
2.0	0.3R	4	50	4	2	CECRM2020003	CECRM2020003A
2.5	0.2R	5	50	4	2	CECRM2025002	CECRM2025002A
2.5	0.3R	5	50	4	2	CECRM2025003	CECRM2025003A
2.5	0.5R	5	50	4	2	CECRM2025005	CECRM2025005A
3.0	0.3R	6	50	4	2	CECRM2030003	CECRM2030003A
3.0	0.5R	6	50	4	2	CECRM2030005	CECRM2030005A
3.0	1.0R	6	50	4	2	CECRM2030010	CECRM2030010A
4.0	0.3R	8	50	6	2	CECR2040003	CECR2040003A
4.0	0.5R	8	50	6	2	CECR2040005	CECR2040005A
4.0	1.0R	8	50	6	2	CECR2040010	CECR2040010A
5.0	0.5R	10	50	6	2	CECR2050005	CECR2050005A
5.0	1.0R	10	50	6	2	CECR2050010	CECR2050010A
6.0	0.5R	12	50	6	2	CECR2060005	CECR2060005A
6.0	1.0R	12	50	6	2	CECR2060010	CECR2060010A
8.0	0.5R	16	60	8	2	CECR2080005	CECR2080005A
8.0	1.0R	16	60	8	2	CECR2080010	CECR2080010A
8.0	1.5R	16	60	8	2	CECR2080015	CECR2080015A
10.0	0.5R	20	75	10	2	CECR2100005	CECR2100005A
10.0	1.0R	20	75	10	2	CECR2100010	CECR2100010A
10.0	1.5R	20	75	10	2	CECR2100015	CECR2100015A
10.0	2.0R	20	75	10	2	CECR2100020	CECR2100020A
12.0	0.5R	24	75	12	2	CECR2120005	CECR2120005A
12.0	1.0R	24	75	12	2	CECR2120010	CECR2120010A
12.0	1.5R	24	75	12	2	CECR2120015	CECR2120015A
12.0	2.0R	24	75	12	2	CECR2120020	CECR2120020A

→ 切削條件表
Cutting Condition P.269

→ 參考資料
Technical Data P.243

S220 鎢鋼圓鼻銑刀- 小柄/標準型- 4刃

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

· CECRM4 0000000 A

· CECR4 0000000 A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input checked="" type="radio"/>
粗銑 Roughing	<input type="radio"/>

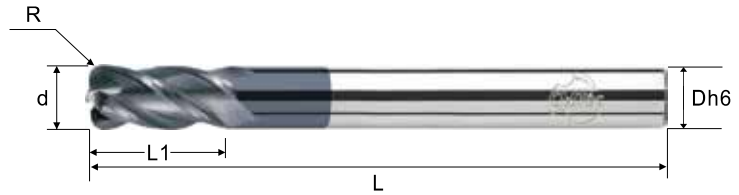


刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0	0.2R	2	50	4	4	CECRM4010002	CECRM4010002A
1.0	0.3R	2	50	4	4	CECRM4010003	CECRM4010003A
1.5	0.2R	3	50	4	4	CECRM4015002	CECRM4015002A
1.5	0.3R	3	50	4	4	CECRM4015003	CECRM4015003A
2.0	0.2R	4	50	4	4	CECRM4020002	CECRM4020002A
2.0	0.3R	4	50	4	4	CECRM4020003	CECRM4020003A
2.5	0.2R	5	50	4	4	CECRM4025002	CECRM4025002A
2.5	0.3R	5	50	4	4	CECRM4025003	CECRM4025003A
2.5	0.5R	5	50	4	4	CECRM4025005	CECRM4025005A
3.0	0.3R	6	50	4	4	CECRM4030003	CECRM4030003A
3.0	0.5R	6	50	4	4	CECRM4030005	CECRM4030005A
3.0	1.0R	6	50	4	4	CECRM4030010	CECRM4030010A
3.0	0.5R	6	50	6	4	CECR4030005	CECR4030005A
3.0	1.0R	6	50	6	4	CECR4030010	CECR4030010A
4.0	0.5R	8	50	6	4	CECR4040005	CECR4040005A
4.0	1.0R	8	50	6	4	CECR4040010	CECR4040010A
5.0	0.5R	10	50	6	4	CECR4050005	CECR4050005A
5.0	1.0R	10	50	6	4	CECR4050010	CECR4050010A
6.0	0.5R	12	50	6	4	CECR4060005	CECR4060005A
6.0	1.0R	12	50	6	4	CECR4060010	CECR4060010A
8.0	0.5R	16	60	8	4	CECR4080005	CECR4080005A
8.0	1.0R	16	60	8	4	CECR4080010	CECR4080010A
8.0	1.5R	16	60	8	4	CECR4080015	CECR4080015A
10.0	0.5R	20	75	10	4	CECR4100005	CECR4100005A
10.0	1.0R	20	75	10	4	CECR4100010	CECR4100010A
10.0	1.5R	20	75	10	4	CECR4100015	CECR4100015A
10.0	2.0R	20	75	10	4	CECR4100020	CECR4100020A
12.0	0.5R	24	75	12	4	CECR4120005	CECR4120005A
12.0	1.0R	24	75	12	4	CECR4120010	CECR4120010A
12.0	1.5R	24	75	12	4	CECR4120015	CECR4120015A
12.0	2.0R	24	75	12	4	CECR4120020	CECR4120020A
12.0	3.0R	24	75	12	4	CECR4120030	CECR4120030A

S220 鎢鋼圓鼻銑刀-長柄型-4刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius & Long Shank- 4F

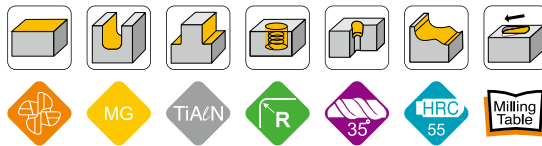
· CECL4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input checked="" type="radio"/>
粗銑 Roughing	<input type="radio"/>

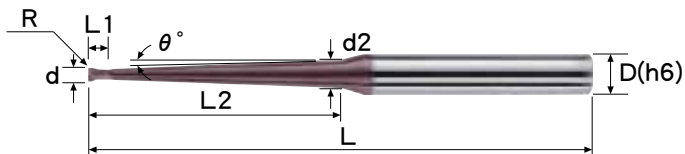


刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	0.5R	6	75	6	4	CECL4030005	CECL4030005A
3.0	1.0R	6	75	6	4	CECL4030010	CECL4030010A
4.0	0.5R	8	75	6	4	CECL4040005	CECL4040005A
4.0	1.0R	8	75	6	4	CECL4040010	CECL4040010A
5.0	0.5R	10	75	6	4	CECL4050005	CECL4050005A
5.0	1.0R	10	75	6	4	CECL4050010	CECL4050010A
6.0	0.5R	12	75	6	4	CECL4060005	CECL4060005A
6.0	1.0R	12	75	6	4	CECL4060010	CECL4060010A
8.0	0.5R	16	100	8	4	CECL4080005	CECL4080005A
8.0	1.0R	16	100	8	4	CECL4080010	CECL4080010A
8.0	1.5R	16	100	8	4	CECL4080015	CECL4080015A
10.0	0.5R	20	100	10	4	CECL4100005	CECL4100005A
10.0	1.0R	20	100	10	4	CECL4100010	CECL4100010A
10.0	1.5R	20	100	10	4	CECL4100015	CECL4100015A
10.0	2.0R	20	100	10	4	CECL4100020	CECL4100020A
12.0	0.5R	24	100	12	4	CECL4120005	CECL4120005A
12.0	1.0R	24	100	12	4	CECL4120010	CECL4120010A
12.0	1.5R	24	100	12	4	CECL4120015	CECL4120015A
12.0	2.0R	24	100	12	4	CECL4120020	CECL4120020A

S220 鎢鋼圓鼻銑刀- 斜頸型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- Taper Neck- 2F

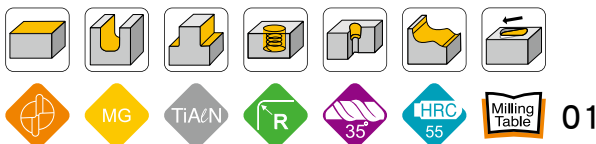
· **CECNL2**000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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

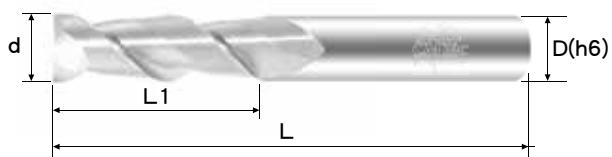


刃徑 d	R角 R	半夾角 θ°	刃長 L1	有效 長 L2	粗端 徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	0.2R	1.5°	3.0	25	3.15	75	6	2	CECNL2020002250	CECNL2020002250A
2.0	0.2R	1.5°	3.0	40	3.91	75	6	2	CECNL2020002400	CECNL2020002400A
2.0	0.5R	1.5°	3.0	25	3.15	75	6	2	CECNL2020005250	CECNL2020005250A
2.0	0.5R	1.5°	3.0	40	3.91	75	6	2	CECNL2020005400	CECNL2020005400A
2.0	0.5R	1.5°	3.0	50	4.46	100	6	2	CECNL2020005500	CECNL2020005500A
2.5	0.2R	1.5°	3.5	25	3.63	75	6	2	CECNL2025002250	CECNL2025002250A
2.5	0.2R	1.5°	3.5	40	4.41	75	6	2	CECNL2025002400	CECNL2025002400A
2.5	0.5R	1.5°	3.5	25	3.63	75	6	2	CECNL2025005250	CECNL2025005250A
2.5	0.5R	1.5°	3.5	40	4.41	75	6	2	CECNL2025005400	CECNL2025005400A
2.5	0.5R	1.5°	3.5	50	5.12	100	6	2	CECNL2025005500	CECNL2025005500A
3.0	0.5R	1.5°	4.5	25	4.07	75	6	2	CECNL2030005250	CECNL2030005250A
3.0	1.0R	1.5°	4.5	25	4.07	75	6	2	CECNL2030010250	CECNL2030010250A
3.0	1.0R	1.5°	4.5	40	4.86	75	6	2	CECNL2030010400	CECNL2030010400A
3.0	1.0R	1.5°	4.5	50	5.38	100	6	2	CECNL2030010500	CECNL2030010500A
4.0	0.5R	1.5°	6.0	25	5.00	100	8	2	CECNL2040005250	CECNL2040005250A
4.0	0.5R	1.5°	6.0	50	6.30	100	8	2	CECNL2040005500	CECNL2040005500A
4.0	1.0R	1.5°	6.0	25	5.00	100	8	2	CECNL2040010250	CECNL2040010250A
4.0	1.0R	1.5°	6.0	50	6.30	100	8	2	CECNL2040010500	CECNL2040010500A
5.0	1.0R	1.5°	7.0	35	6.47	100	10	2	CECNL2050010350	CECNL2050010350A
5.0	1.0R	1.5°	7.0	50	7.25	100	10	2	CECNL2050010500	CECNL2050010500A
6.0	1.0R	1.5°	8.0	35	7.41	100	10	2	CECNL2060010350	CECNL2060010350A
6.0	1.0R	1.5°	8.0	50	8.20	100	10	2	CECNL2060010500	CECNL2060010500A

S220 鎢鋼鋁用平銑刀- 高導微柄/小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix For Aluminum- 2F

- **CEXS2**⁰⁰⁰⁰
- **CEXM2**⁰⁰⁰⁰
- **CEX2**⁰⁰⁰⁰



d(刃徑)	Tolerance(公差)
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	○

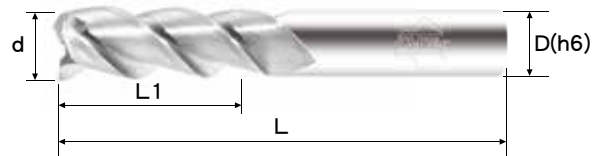


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
1.0	3.0	50	3	2	CEXS20100
1.5	4.5	50	3	2	CEXS20150
2.0	6.0	50	3	2	CEXS20200
3.0	9.0	50	3	2	CEXS20300
1.0	3.0	50	4	2	CEXM20100
1.5	4.5	50	4	2	CEXM20150
2.0	6.0	50	4	2	CEXM20200
3.0	9.0	50	6	2	CEX20300
4.0	12.0	50	6	2	CEX20400
5.0	15.0	50	6	2	CEX20500
6.0	18.0	50	6	2	CEX20600
8.0	20.0	60	8	2	CEX20800
10.0	30.0	75	10	2	CEX21000
12.0	30.0	75	12	2	CEX21200
16.0	40.0	100	16	2	CEX21600
20.0	45.0	100	20	2	CEX22000

S220 鎢鋼鋁用平銑刀- 高導微柄/小柄/標準型- 3刃

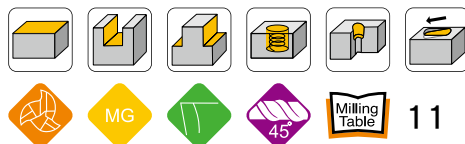
S220 MICRO GRAIN CARBIDE END MILLS- High Helix For Aluminum- 3F

- **CEXS3**0000
- **CEXM3**0000
- **CEX3**0000



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
3.0	9.0	50	3	3	CEXS30300
1.0	3.0	50	4	3	CEXM30100
1.5	4.5	50	4	3	CEXM30150
2.0	6.0	50	4	3	CEXM30200
3.0	9.0	50	4	3	CEXM30300
4.0	12.0	50	4	3	CEXM30400
1.0	3.0	50	6	3	CEX30100
1.5	4.5	50	6	3	CEX30150
2.0	6.0	50	6	3	CEX30200
3.0	9.0	50	6	3	CEX30300
4.0	12.0	50	6	3	CEX30400
5.0	15.0	50	6	3	CEX30500
6.0	18.0	50	6	3	CEX30600
8.0	20.0	60	8	3	CEX30800
10.0	30.0	75	10	3	CEX31000
12.0	30.0	75	12	3	CEX31200
16.0	40.0	100	16	3	CEX31600
20.0	45.0	100	20	3	CEX32000

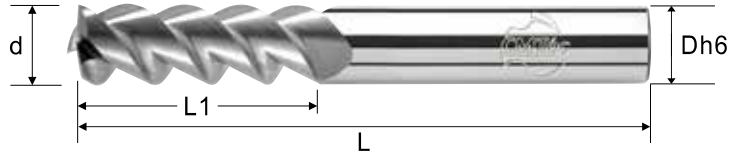
→ 切削條件表 P.271
Cutting Condition P.271

→ 參考資料 P.243
Technical Data P.243

S220 鎢鋼鋁用平銑刀- 特高導標準型- 3刃

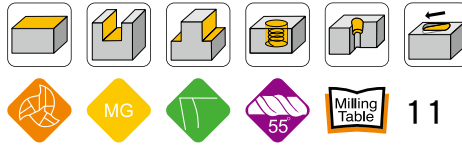
S220 MICRO GRAIN CARBIDE END MILLS- Extra High Helix For Aluminum- 3F

· **CEXX30000**



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	—



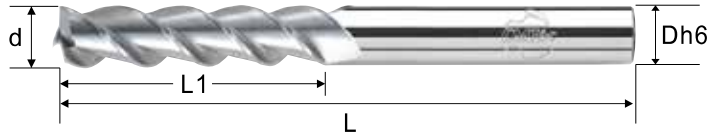
11

刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	9	50	6	3	CEXX30300
4.0	12	50	6	3	CEXX30400
5.0	15	50	6	3	CEXX30500
6.0	18	60	6	3	CEXX30600
8.0	20	60	8	3	CEXX30800
10.0	30	75	10	3	CEXX31000
12.0	30	75	12	3	CEXX31200
16.0	40	100	16	3	CEXX31600
20.0	45	100	20	3	CEXX32000

S220 鎢鋼鋁用平銑刀-高導長刃型-3刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Long Flute For Aluminum- 3F

· CEXF30000



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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

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刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	15	60	6	3	CEXF30300
4.0	20	60	6	3	CEXF30400
5.0	25	60	6	3	CEXF30500
6.0	30	75	6	3	CEXF30600
8.0	45	100	8	3	CEXF30800
10.0	55	100	10	3	CEXF31000
12.0	55	100	12	3	CEXF31200
14.0	75	150	14	3	CEXF31400
16.0	75	150	16	3	CEXF31600
18.0	90	150	18	3	CEXF31800
20.0	90	150	20	3	CEXF32000

S220 鎢鋼鋁用平銑刀- 強力型- 3刃

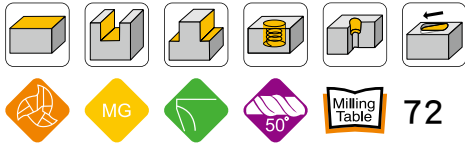
MICRO GRAIN CARBIDE END MILLS- Square Type- Power Cutting- Aluminum- 3F

· **CEXSH30000**



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
2.0	6	50	6	3	CEXSH30200
3.0	9	50	6	3	CEXSH30300
4.0	12	50	6	3	CEXSH30400
5.0	15	50	6	3	CEXSH30500
6.0	18	50	6	3	CEXSH30600
8.0	24	60	8	3	CEXSH30800
10.0	30	75	10	3	CEXSH31000
12.0	35	75	12	3	CEXSH31200
16.0	40	100	16	3	CEXSH31600

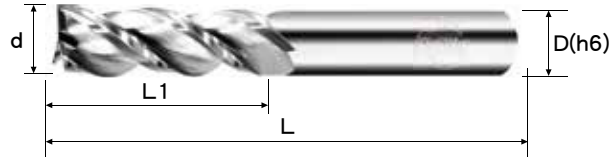
→ 切削條件表 P.302
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼鋁用平銑刀- 高效型- 3刃

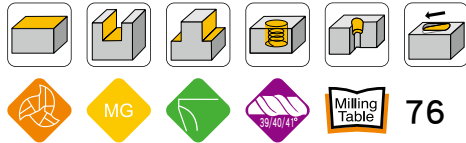
S220 MICRO GRAIN CARBIDE END MILLS- High Performance For Aluminum- 3F

· CEXV30000



d(刃徑)	Tolerance(公差)
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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刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	9	50	6	3	CEXV30300
4.0	12	50	6	3	CEXV30400
5.0	15	50	6	3	CEXV30500
6.0	18	50	6	3	CEXV30600
8.0	24	60	8	3	CEXV30800
10.0	30	75	10	3	CEXV31000
12.0	35	75	12	3	CEXV31200
16.0	40	100	16	3	CEXV31600

切削條件表 P.305 / 參考資料 P.243

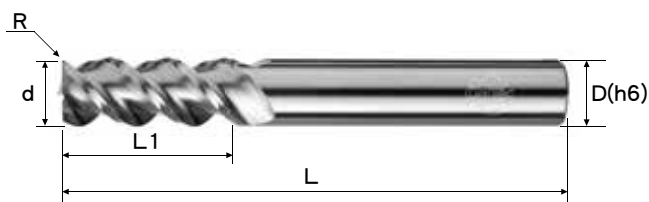
S220 Carbide End Mills / S220 鎢鋼銑刀

S220 鎢鋼鋁用圓鼻銑刀- 強力型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- Square Type- Power Cutting-Aluminum- 3F

· **CEXCRSHM3**000000

· **CEXCRSH3**000000



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
2.0	0.2R	6	50	4	3	CEXCRSHM3020002
2.0	0.3R	6	50	4	3	CEXCRSHM3020003
3.0	0.5R	9	50	4	3	CEXCRSHM3030005
3.0	1.0R	9	50	4	3	CEXCRSHM3030010
4.0	0.5R	12	50	4	3	CEXCRSHM3040005
4.0	1.0R	12	50	4	3	CEXCRSHM3040010
2.0	0.2R	6	50	6	3	CEXCRSH3020002
2.0	0.3R	6	50	6	3	CEXCRSH3020003
3.0	0.5R	9	50	6	3	CEXCRSH3030005
3.0	1.0R	9	50	6	3	CEXCRSH3030010
4.0	0.5R	12	50	6	3	CEXCRSH3040005
4.0	1.0R	12	50	6	3	CEXCRSH3040010
5.0	0.5R	15	50	6	3	CEXCRSH3050005
5.0	1.0R	15	50	6	3	CEXCRSH3050010
6.0	0.5R	18	50	6	3	CEXCRSH3060005
6.0	1.0R	18	50	6	3	CEXCRSH3060010
8.0	0.5R	24	60	8	3	CEXCRSH3080005
8.0	1.0R	24	60	8	3	CEXCRSH3080010
10.0	0.5R	30	75	10	3	CEXCRSH3100005
10.0	1.0R	30	75	10	3	CEXCRSH3100010
10.0	1.5R	30	75	10	3	CEXCRSH3100015
10.0	2.0R	30	75	10	3	CEXCRSH3100020
12.0	0.5R	35	75	12	3	CEXCRSH3120005
12.0	1.0R	35	75	12	3	CEXCRSH3120010
12.0	1.5R	35	75	12	3	CEXCRSH3120015
12.0	2.0R	35	75	12	3	CEXCRSH3120020
12.0	3.0R	35	75	12	3	CEXCRSH3120030
16.0	0.5R	40	100	16	3	CEXCRSH3160005
16.0	1.0R	40	100	16	3	CEXCRSH3160010
16.0	1.5R	40	100	16	3	CEXCRSH3160015
16.0	2.0R	40	100	16	3	CEXCRSH3160020
16.0	3.0R	40	100	16	3	CEXCRSH3160030
20.0	0.5R	45	100	20	3	CEXCRSH3200005
20.0	1.0R	45	100	20	3	CEXCRSH3200010
20.0	1.5R	45	100	20	3	CEXCRSH3200015
20.0	2.0R	45	100	20	3	CEXCRSH3200020
20.0	3.0R	45	100	20	3	CEXCRSH3200030

→ 切削條件表 P.302
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼鋁用球型銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed For Aluminum- 2F

· **CEXBM2** 0000

· **CEXB2** 0000



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
1.0R	4	50	4	2	CEXBM20100
2.0R	8	50	4	2	CEXBM20200
2.5R	10	50	6	2	CEXB20250
3.0R	12	50	6	2	CEXB20300
4.0R	16	60	8	2	CEXB20400
5.0R	20	75	10	2	CEXB20500
6.0R	24	75	12	2	CEXB20600
8.0R	32	100	16	2	CEXB20800

S220 鎢鋼鋁用球型銑刀- 長柄型- 2刃

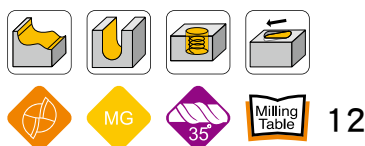
S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank For Aluminum- 2F

· **CEXBL2** 0000



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
1.0R	4	75	6	2	CEXBL20100
2.0R	8	75	6	2	CEXBL20200
2.5R	10	75	6	2	CEXBL20250
3.0R	12	75	6	2	CEXBL20300
4.0R	16	100	8	2	CEXBL20400
5.0R	20	100	10	2	CEXBL20500
6.0R	24	100	12	2	CEXBL20600
8.0R	32	150	16	2	CEXBL20800

→ 切削條件表 Cutting Condition P.271

→ 參考資料 Technical Data P.243

S220 鎢鋼平銑刀- 波浪型- 2/3/4刃

S220 MICRO GRAIN CARBIDE END MILLS- Sinus Edge (Wave) Type- 2/3/4F

· CERS20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	2	CERS20600A
8.0	20	60	8	2	CERS20800A
10.0	25	75	10	2	CERS21000A
12.0	30	75	12	2	CERS21200A

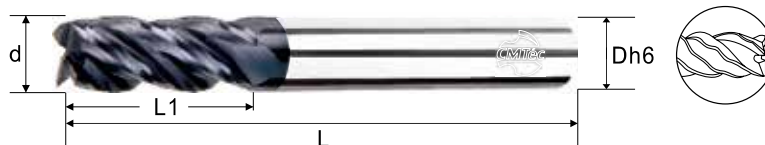
· CERS30000A



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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	3	CERS30600A
8.0	20	60	8	3	CERS30800A
10.0	25	75	10	3	CERS31000A
12.0	30	75	12	3	CERS31200A
16.0	40	100	16	3	CERS31600A
20.0	45	100	20	3	CERS32000A

· CERS40000A



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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	4	CERS40600A
8.0	20	60	8	4	CERS40800A
10.0	25	75	10	4	CERS41000A
12.0	30	75	12	4	CERS41200A
16.0	40	100	16	4	CERS41600A
20.0	45	100	20	4	CERS42000A

→ 切削條件表 P.272 Cutting Condition
→ 參考資料 P.243 Technical Data

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

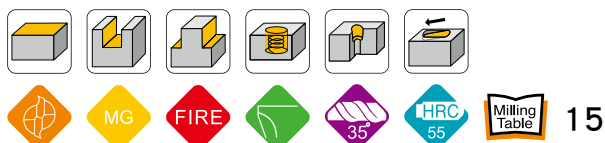
· CESHM20000F

· CESH20000F



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○



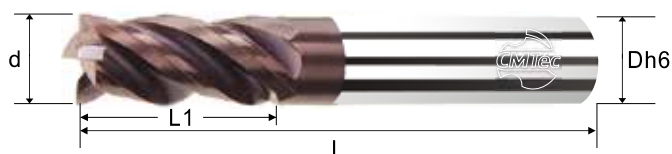
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	5	50	4	2	CESHM20200	CESHM20200F
3.0	8	50	4	2	CESHM20300	CESHM20300F
4.0	10	50	4	2	CESHM20400	CESHM20400F
3.0	8	50	6	2	CESH20300	CESH20300F
4.0	10	50	6	2	CESH20400	CESH20400F
5.0	13	50	6	2	CESH20500	CESH20500F
6.0	15	50	6	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

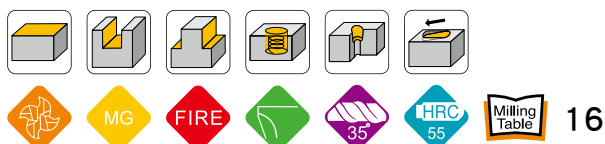
· CESHM40000F

· CESH40000F



d(刃徑)	Tolerance(公差)
$\phi < 3$	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

→ 切削條件表 P.273
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 高導強力小柄/標準型- 2刃

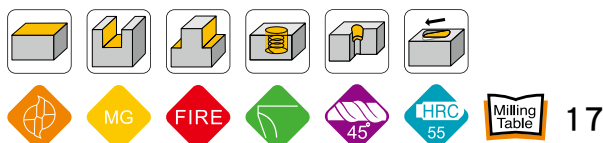
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- Power Cutting- 2F

· CEHSM20000F

· CEHS20000F

d(刃徑)	Tolerance(公差)
$\phi < 3$	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	CEHSM20200	CEHSM20200F
3.0	8	50	4	2	CEHSM20300	CEHSM20300F
4.0	10	50	4	2	CEHSM20400	CEHSM20400F
3.0	8	50	6	2	CEHS20300	CEHS20300F
4.0	10	50	6	2	CEHS20400	CEHS20400F
5.0	13	50	6	2	CEHS20500	CEHS20500F
6.0	15	50	6	2	CEHS20600	CEHS20600F
8.0	20	60	8	2	CEHS20800	CEHS20800F
10.0	25	75	10	2	CEHS21000	CEHS21000F
12.0	30	75	12	2	CEHS21200	CEHS21200F
16.0	35	100	16	2	CEHS21600	CEHS21600F

S220 鎢鋼平銑刀- 高導強力小柄/標準型- 4刃

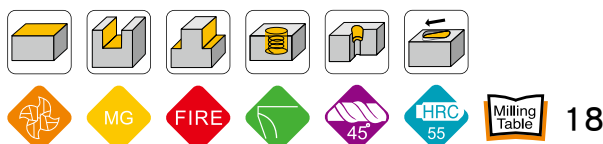
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- Power Cutting- 4F

· CEHSM40000F

· CEHS40000F

d(刃徑)	Tolerance(公差)
$\phi < 3$	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	CEHSM40200	CEHSM40200F
3.0	8	50	4	4	CEHSM40300	CEHSM40300F
4.0	10	50	4	4	CEHSM40400	CEHSM40400F
3.0	8	50	6	4	CEHS40300	CEHS40300F
4.0	10	50	6	4	CEHS40400	CEHS40400F
5.0	13	50	6	4	CEHS40500	CEHS40500F
6.0	15	50	6	4	CEHS40600	CEHS40600F
8.0	20	60	8	4	CEHS40800	CEHS40800F
10.0	25	75	10	4	CEHS41000	CEHS41000F
12.0	30	75	12	4	CEHS41200	CEHS41200F
16.0	35	100	16	4	CEHS41600	CEHS41600F

→ 切削條件表 P.274
Cutting Condition

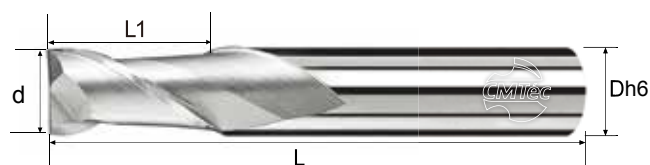
→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用平銑刀- 小柄/標準型- 2刃

S220 CARBIDE END MILLS- Square Type for Copper, Aluminum- 2F

· CЕСSM20000-00A

· CЕСC20000-00A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○

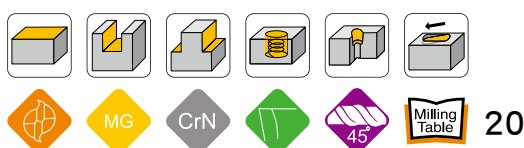


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
0.5	1.0	50	4	2	CЕСSM20050-25	CЕСSM20050-25A
1.0	2.0	50	4	2	CЕСSM20100-25	CЕСSM20100-25A
1.5	3.0	50	4	2	CЕСSM20150-25	CЕСSM20150-25A
2.0	4.0	50	4	2	CЕСSM20200-25	CЕСSM20200-25A
2.5	5.0	50	4	2	CЕСSM20250-25	CЕСSM20250-25A
3.0	6.0	50	6	2	CЕСC20300-25	CЕСC20300-25A
4.0	8.0	50	6	2	CЕСC20400-25	CЕСC20400-25A
5.0	10.0	60	6	2	CЕСC20500-25	CЕСC20500-25A
6.0	12.0	60	6	2	CЕСC20600-25	CЕСC20600-25A
8.0	16.0	60	8	2	CЕСC20800-25	CЕСC20800-25A
10.0	20.0	75	10	2	CЕСC21000-25	CЕСC21000-25A
12.0	24.0	75	12	2	CЕСC21200-25	CЕСC21200-25A

· CЕСSM20000-00A

· CЕСC20000-00A

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.
0.5	1.0	50	4	2	CЕСSM20050-45	CЕСSM20050-45A
1.0	2.0	50	4	2	CЕСSM20100-45	CЕСSM20100-45A
1.5	3.0	50	4	2	CЕСSM20150-45	CЕСSM20150-45A
2.0	4.0	50	4	2	CЕСSM20200-45	CЕСSM20200-45A
2.5	5.0	50	4	2	CЕСSM20250-45	CЕСSM20250-45A
3.0	6.0	50	6	2	CЕСC20300-45	CЕСC20300-45A
4.0	8.0	50	6	2	CЕСC20400-45	CЕСC20400-45A
5.0	10.0	60	6	2	CЕСC20500-45	CЕСC20500-45A
6.0	12.0	60	6	2	CЕСC20600-45	CЕСC20600-45A
8.0	16.0	60	8	2	CЕСC20800-45	CЕСC20800-45A
10.0	20.0	75	10	2	CЕСC21000-45	CЕСC21000-45A
12.0	24.0	75	12	2	CЕСC21200-45	CЕСC21200-45A

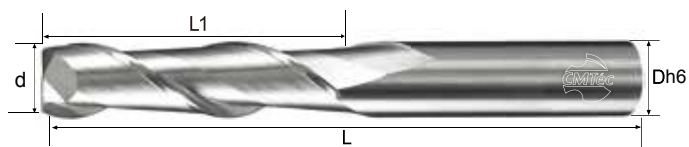
→ 切削條件表 P.275
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用平銑刀-長刃型-2刃

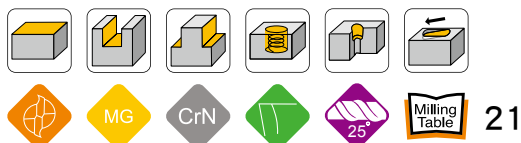
S220 CARBIDE END MILLS- Square & Long Flute for Copper, Aluminum- 2F

· CELFC20000-00A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

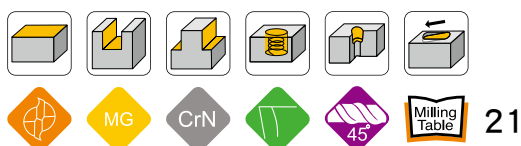
超精銑 Bright Finishing	—
精銑 Finishing	◎
中銑 Semi Finishing	○
粗銑 Roughing	○



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.
3.0	12.0	60	6	2	CELFC20300-25	CELFC20300-25A
4.0	16.0	60	6	2	CELFC20400-25	CELFC20400-25A
5.0	20.0	75	6	2	CELFC20500-25	CELFC20500-25A
6.0	24.0	75	6	2	CELFC20600-25	CELFC20600-25A
8.0	32.0	90	8	2	CELFC20800-25	CELFC20800-25A
10.0	40.0	100	10	2	CELFC21000-25	CELFC21000-25A
12.0	48.0	110	12	2	CELFC21200-25	CELFC21200-25A

· CELFC20000-00A

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.
3.0	12.0	60	6	2	CELFC20300-45	CELFC20300-45A
4.0	16.0	60	6	2	CELFC20400-45	CELFC20400-45A
5.0	20.0	75	6	2	CELFC20500-45	CELFC20500-45A
6.0	24.0	75	6	2	CELFC20600-45	CELFC20600-45A
8.0	32.0	90	8	2	CELFC20800-45	CELFC20800-45A
10.0	40.0	100	10	2	CELFC21000-45	CELFC21000-45A
12.0	48.0	110	12	2	CELFC21200-45	CELFC21200-45A

→ 切削條件表 P.276
Cutting Condition

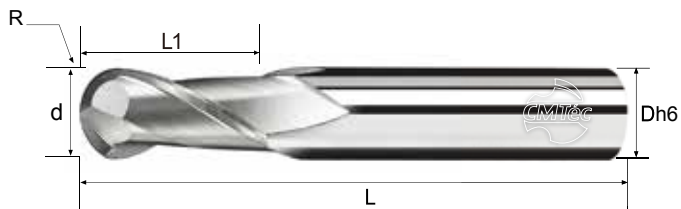
→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用球型銑刀- 小柄/標準型- 2刃

S220 CARBIDE END MILLS- Ball Nosed for Copper, Aluminum- 2F

· **CEBCM20000A**

· **CEBC20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



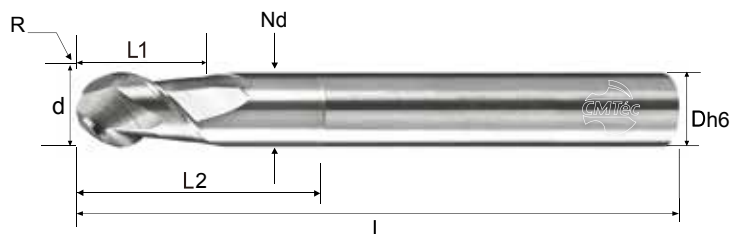
22

半徑 R	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.
0.5R	2.0	50	4	2	CEBCM20050	CEBCM20050A
0.75R	3.0	50	4	2	CEBCM20075	CEBCM20075A
1.0R	4.0	50	6	2	CEBC20100	CEBC20100A
1.25R	5.0	50	6	2	CEBC20125	CEBC20125A
1.5R	6.0	50	6	2	CEBC20150	CEBC20150A
2.0R	8.0	50	6	2	CEBC20200	CEBC20200A
2.5R	10.0	50	6	2	CEBC20250	CEBC20250A
3.0R	12.0	50	6	2	CEBC20300	CEBC20300A
4.0R	16.0	60	8	2	CEBC20400	CEBC20400A
5.0R	20.0	75	10	2	CEBC20500	CEBC20500A
6.0R	24.0	75	12	2	CEBC20600	CEBC20600A

S220 鎢鋼銅鋁用球型銑刀-長頸型-2刃

S220 CARBIDE END MILLS- Long Neck Ball Nosed for Copper, Aluminum- 2F

- **CEBNCM20000 A**
- **CEBNC20000 A**



R(半徑)	Tolerance(公差)
R	±0.02

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

MG
CrN
30°
Milling Table
23

半徑 R	刃長 L1	有效長 L2	頸徑 Nd	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.
0.5R	1.5	4.0	0.95	50	4	2	CEBNCM20050040	CEBNCM20050040A
		6.0					CEBNCM20050060	CEBNCM20050060A
1.0R	3.0	8.0	1.94	50	4	2	CEBNCM20100080	CEBNCM20100080A
		14.0					CEBNCM20100140	CEBNCM20100140A
1.5R	4.5	15.0	2.85	60	6	2	CEBNC20150150	CEBNC20150150A
		25.0					CEBNC20150250	CEBNC20150250A
2.0R	6.0	20.0	3.80	60	6	2	CEBNC20200200	CEBNC20200200A
		30.0		75			CEBNC20200300	CEBNC20200300A
3.0R	9.0	20.0	5.80	60	6	2	CEBNC20300200	CEBNC20300200A
		30.0		90			8	CEBNC20300300
4.0R	12.0	20.0	7.80	75	8	2	CEBNC20400200	CEBNC20400200A
		40.0		100			10	CEBNC20400400
5.0R	15.0	30.0	9.80	90	10	2	CEBNC20500300	CEBNC20500300A
		50.0		120			12	CEBNC20500500
6.0R	18.0	40.0	11.80	110	12	2	CEBNC20600400	CEBNC20600400A
		60.0		130			16	CEBNC20600600

S220 鎢鋼球型銑刀- 石墨專用型- 2刃

S220 CARBIDE END MILLS- Ball Nosed- 2F for Graphite

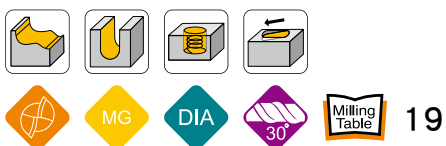
· **CEBGM20000A**

· **CEBG20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
0.5R	2	60	4	2	CEBGM20050A
1.0R	4	60	4	2	CEBGM20100A
1.5R	6	60	4	2	CEBGM20150A
2.0R	8	60	4	2	CEBGM20200A
1.5R	6	60	6	2	CEBG20150A
2.0R	8	60	6	2	CEBG20200A
2.5R	10	60	6	2	CEBG20250A
3.0R	12	60	6	2	CEBG20300A
4.0R	16	60	8	2	CEBG20400A
5.0R	20	75	10	2	CEBG20500A
6.0R	24	75	12	2	CEBG20600A

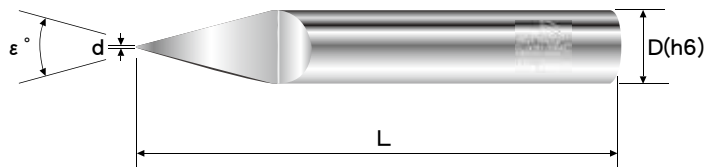
S220 Carbide End Mills S220 鎢鋼銑刀

S220 鎢鋼雕刻刀- 標準型- 1刃

S220 CARBIDE ENGRAVING CUTTERS- Square Type- 1F

· CEUM000000

· CEU000000



適用：鋼料、鋁合金、黃銅、塑膠、木材。
For Steels, Aluminum, Brass, Plastic, Wood.
※ 其他刀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	—



80

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

→ 切削條件表 P.307
Cutting Condition

→ 參考資料 P.243
Technical Data

產品包裝說明 Packaging

S220系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「黃色」為主色。
- 加工工件硬度55度以下(泛用系列)。
- S220's packaging-box-color is "yellow".
- Using it for hardened steel with HRC under 55.



M520系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「藍色」為主色。
- 加工工件硬度60度以下(高硬系列)。
- M520's packaging-box-color is "blue".
- Using it for high hardness milling (under 60HRC).



N620系列產品之包裝說明 (Packaging)

- 包裝盒蓋以「紅色」為主色。
- 加工工件硬度45~65度(高速高硬系列)。
- N620's packaging-box-color is "red".
- Using it for high hardness and high speed milling (45~65HRC).



閱讀須知 INFORMATION

感謝您閱讀本型錄。但在此之前，請注意下面訊息。

Thank you for reading this catalog. Before using it, pay attention to the following :

1. 本型錄絕大部份採用公制系統。
 2. 本型錄所列皆為標準規格產品，關於特殊規格，非標準產品，請洽詢本公司。
 3. 內容如有變更，恕不另行通知。
 4. 內容若有錯誤、遺漏，敬請不吝指正，謝謝!
 5. 關於「捨棄式銼刀系列」型錄，請參考另一本。
1. Most of the contents of this catalogue are based on "metric system".
 2. The catalogue is mainly composed of our standard cutting tools products. For special specification or size, contact us, please.
 3. The content is subject to change without prior notice.
 4. If there is any error or miss in the catalogue, please contact us. We'll make it better next time. Thank you.
 5. Please refer to the other, "INDEXABLE MILLING TOOLS" catalogue.

S220系列刀具特色 Features

- 1.用於底硬度材質加工(HRC55以下)。
- 2.採用新鍍膜和超微粒等級原料。
- 1.It is suitable for low hardness materials (under 55HRC).
- 2.We use new coating technology & micro grain carbide material.

M520系列刀具特色 Features

- 1.用於高硬度材質加工(HRC60以下)。
- 2.採用新鍍膜和極細超微粒等級原料。
- 3.更高的耐磨性。
- 1.It specializes in milling the material with HRC under 60.
- 2.We use new coating technology & ultra micro grain carbide material.
- 3.It provides higher wear resistance.

N620系列刀具特色 Features

- 1.用於高硬度材質加工(HRC45~65)。
- 2.採用新鍍膜和奈米等級原料。
- 3.採短刃設計，適合高速。乾式切削可行。
- 4.採刀尖圓角設計，可以減少崩刃。
- 5.更高的耐磨性。
- 1.It for hard materials milling (45~65HRC).
- 2.We use new coating technology & nano micro grain carbide sintered rods.
- 3.Due to "short flute" design, is suitable for high speed milling & air blow possible.
- 4.It could reduce possibility of chipping because of cutting edge with corner radius.
- 5.It provides higher wear resistance.

廠內設備(台南總廠) They are only one part of our facilities.



S220

鎢鋼立銑刀 (泛用系列)

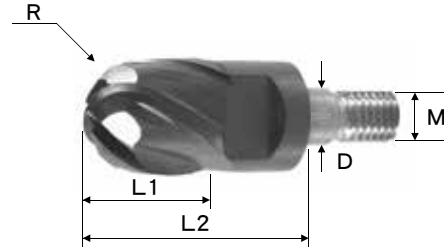
Micro Grain Carbide End Mills
(General Series)



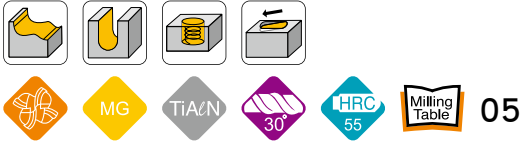
鎖牙式- S220 鎢鋼球型銑刀頭- 標準型- 4刃

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

· **CHB40000A**



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	○
精銑 Finishing	◎
中銑 Semi Finishing	○
粗銑 Roughing	—



半徑 R	刃長 L1	全長 L	螺紋M Thread	D	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	19.8	M5×0.8	5.5	4	TC07	CHB40500	CHB40500A
6.0R	12	24.5	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	36.5	M10×1.5	10.5	4	TC15	CHB41000	CHB41000A
12.5R	25	43.0	M12×1.75	12.5	4	TC19	CHB41250	CHB41250A

▶ 鎢鋼抗震刀桿
Carbide Anti-Vibration Holder / P.44,45

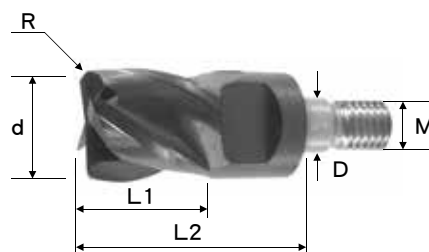
→ 切削條件表
Cutting Condition P.268

→ 參考資料
Technical Data P.243

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- Square Type- 4F

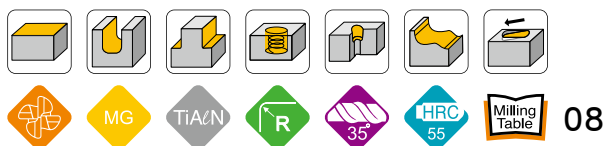
· **CHCR4** 000000 **A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input checked="" type="radio"/>
粗銑 Roughing	<input type="radio"/>



刃徑 d	R角 R	刃長 L1	全長 L	螺紋M Thread	D	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	19.8	M5×0.8	5.5	4	TC07	CHCR4100005	CHCR4100005A
10.0	1.0R	10	19.8	M5×0.8	5.5	4	TC07	CHCR4100010	CHCR4100010A
10.0	2.0R	10	19.8	M5×0.8	5.5	4	TC07	CHCR4100020	CHCR4100020A
12.0	1.0R	12	24.5	M6×1.0	6.5	4	TC08	CHCR4120010	CHCR4120010A
12.0	2.0R	12	24.5	M6×1.0	6.5	4	TC08	CHCR4120020	CHCR4120020A
12.0	3.0R	12	24.5	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	36.5	M10×1.5	10.5	4	TC15	CHCR4200020	CHCR4200020A
20.0	3.0R	20	36.5	M10×1.5	10.5	4	TC15	CHCR4200030	CHCR4200030A
20.0	4.0R	20	36.5	M10×1.5	10.5	4	TC15	CHCR4200040	CHCR4200040A

▶ 鎢鋼抗震刀桿
Carbide Anti-Vibration Holder / P.44,45

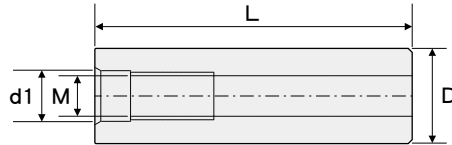
→ 切削條件表 P.269
Cutting Condition

→ 參考資料 P.243
Technical Data

鎢鋼抗震刀桿

CARBIDE ANTI-VIBRATION HOLDER

· LCL000-000L



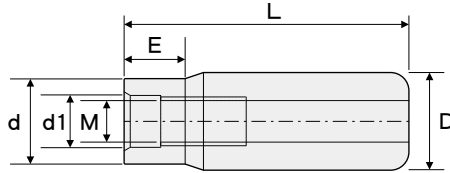
MG

M	D	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



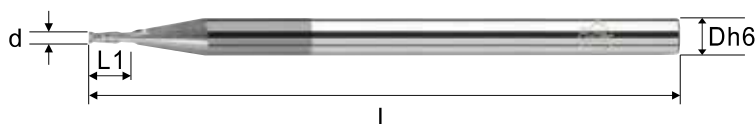
M	d	d1	E	L	D	訂購編號 Order No.
M6 × 1.0	11.7	6.5	30	75	12	LCN011-075L-030E
M6 × 1.0	11.7	6.5	40	100	12	LCN011-100L-040E
M6 × 1.0	11.7	6.5	50	150	12	LCN011-150L-050E
M8 × 1.25	15.7	8.5	40	100	16	LCN015-100L-040E
M8 × 1.25	15.7	8.5	50	150	16	LCN015-150L-050E
M10 × 1.5	19.5	10.5	40	100	20	LCN019-100L-040E
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

S220 鎢鋼平銑刀- 微柄/小柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Micro Diameter

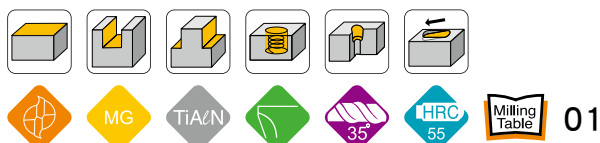
· CESS20000A

· CESM20000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.02

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.
0.2	0.4	50	3	2	CESS20020	CESS20020A
0.25	0.5	50	3	2	CESS20025	CESS20025A
0.3	0.6	50	3	2	CESS20030	CESS20030A
0.35	0.7	50	3	2	CESS20035	CESS20035A
0.4	0.8	50	3	2	CESS20040	CESS20040A
0.5	1.0	50	3	2	CESS20050	CESS20050A
0.6	1.5	50	3	2	CESS20060	CESS20060A
0.7	2.0	50	3	2	CESS20070	CESS20070A
0.8	2.0	50	3	2	CESS20080	CESS20080A
0.9	2.0	50	3	2	CESS20090	CESS20090A
1.0	3.0	50	3	2	CESS20100	CESS20100A
1.5	4.0	50	3	2	CESS20150	CESS20150A
2.0	5.0	50	3	2	CESS20200	CESS20200A
2.5	6.0	50	3	2	CESS20250	CESS20250A
3.0	8.0	50	3	2	CESS20300	CESS20300A
0.2	0.4	50	4	2	CESM20020	CESM20020A
0.25	0.5	50	4	2	CESM20025	CESM20025A
0.3	0.6	50	4	2	CESM20030	CESM20030A
0.35	0.7	50	4	2	CESM20035	CESM20035A
0.4	0.8	50	4	2	CESM20040	CESM20040A
0.5	1.0	50	4	2	CESM20050	CESM20050A
0.6	1.5	50	4	2	CESM20060	CESM20060A
0.7	2.0	50	4	2	CESM20070	CESM20070A
0.8	2.0	50	4	2	CESM20080	CESM20080A
0.9	2.0	50	4	2	CESM20090	CESM20090A
1.0	3.0	50	4	2	CESM20100	CESM20100A
1.5	4.0	50	4	2	CESM20150	CESM20150A
2.0	5.0	50	4	2	CESM20200	CESM20200A
2.5	6.0	50	4	2	CESM20250	CESM20250A
3.0	8.0	50	4	2	CESM20300	CESM20300A
3.5	9.0	50	4	2	CESM20350	CESM20350A
4.0	10.0	50	4	2	CESM20400	CESM20400A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀-標準型-2刃

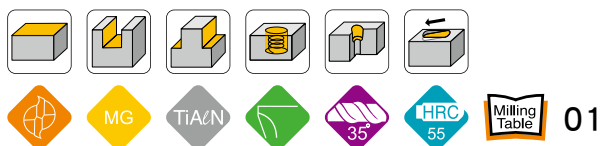
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F

· CES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
1.0	3	50	6	2	CES20100	CES20100A
1.5	4	50	6	2	CES20150	CES20150A
2.0	5	50	6	2	CES20200	CES20200A
2.5	6	50	6	2	CES20250	CES20250A
3.0	8	50	6	2	CES20300	CES20300A
3.5	9	50	6	2	CES20350	CES20350A
4.0	10	50	6	2	CES20400	CES20400A
4.5	11	50	6	2	CES20450	CES20450A
5.0	13	50	6	2	CES20500	CES20500A
5.5	14	50	6	2	CES20550	CES20550A
6.0	15	50	6	2	CES20600	CES20600A
6.5	16	60	8	2	CES20650	CES20650A
7.0	18	60	8	2	CES20700	CES20700A
7.5	18	60	8	2	CES20750	CES20750A
8.0	20	60	8	2	CES20800	CES20800A
8.5	20	75	10	2	CES20850	CES20850A
9.0	22	75	10	2	CES20900	CES20900A
9.5	22	75	10	2	CES20950	CES20950A
10.0	25	75	10	2	CES21000	CES21000A
10.0	30	75	10	2	CES21000300C	CES21000300CA
10.5	25	75	12	2	CES21050	CES21050A
11.0	25	75	12	2	CES21100	CES21100A
11.5	25	75	12	2	CES21150	CES21150A
12.0	30	75	12	2	CES21200	CES21200A
12.0	36	75	12	2	CES21200360C	CES21200360CA
13.0	30	75	14	2	CES2130014	CES2130014A
14.0	30	75	14	2	CES2140014	CES2140014A
15.0	35	100	16	2	CES21500	CES21500A
16.0	35	100	16	2	CES21600	CES21600A
16.0	45	100	16	2	CES21600450C	CES21600450CA
18.0	40	100	18	2	CES2180018	CES2180018A
18.0	40	100	20	2	CES21800	CES21800A
20.0	45	100	20	2	CES22000	CES22000A
25.0	45	100	25	2	CES22500	CES22500A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

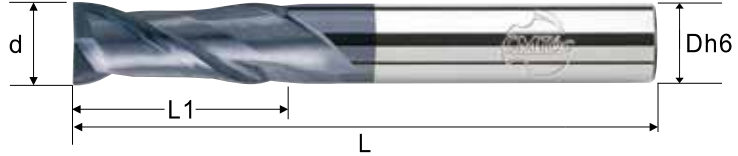
→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 小柄點數型- 2刃

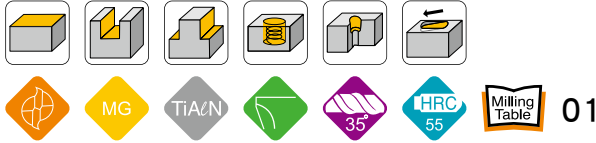
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· CESM20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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.
1.1	3	50	4	2	CESM20110	CESM20110A
1.2	3	50	4	2	CESM20120	CESM20120A
1.3	3	50	4	2	CESM20130	CESM20130A
1.4	3	50	4	2	CESM20140	CESM20140A
1.6	4	50	4	2	CESM20160	CESM20160A
1.7	4	50	4	2	CESM20170	CESM20170A
1.8	4	50	4	2	CESM20180	CESM20180A
1.9	4	50	4	2	CESM20190	CESM20190A
2.1	5	50	4	2	CESM20210	CESM20210A
2.2	5	50	4	2	CESM20220	CESM20220A
2.3	5	50	4	2	CESM20230	CESM20230A
2.4	5	50	4	2	CESM20240	CESM20240A
2.6	6	50	4	2	CESM20260	CESM20260A
2.7	6	50	4	2	CESM20270	CESM20270A
2.8	6	50	4	2	CESM20280	CESM20280A
2.9	6	50	4	2	CESM20290	CESM20290A
3.1	8	50	4	2	CESM20310	CESM20310A
3.2	8	50	4	2	CESM20320	CESM20320A
3.3	8	50	4	2	CESM20330	CESM20330A
3.4	8	50	4	2	CESM20340	CESM20340A
3.6	9	50	4	2	CESM20360	CESM20360A
3.7	9	50	4	2	CESM20370	CESM20370A
3.8	9	50	4	2	CESM20380	CESM20380A
3.9	9	50	4	2	CESM20390	CESM20390A

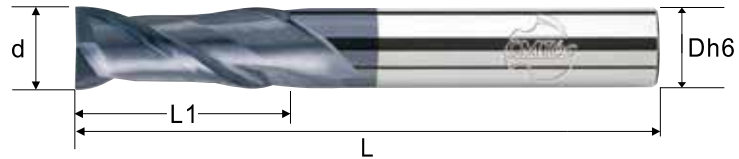
※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265 Cutting Condition
→ 參考資料 P.243 Technical Data

S220 鎢鋼平銑刀- 點數型- 2刃

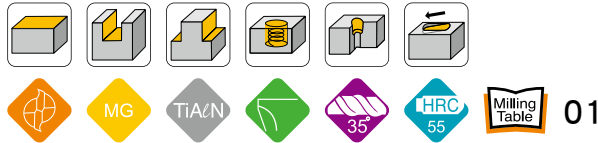
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· **CES20000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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.
1.1	3	50	6	2	CES20110	CES20110A
1.2	3	50	6	2	CES20120	CES20120A
1.3	3	50	6	2	CES20130	CES20130A
1.4	3	50	6	2	CES20140	CES20140A
1.6	4	50	6	2	CES20160	CES20160A
1.7	4	50	6	2	CES20170	CES20170A
1.8	4	50	6	2	CES20180	CES20180A
1.9	4	50	6	2	CES20190	CES20190A
2.1	5	50	6	2	CES20210	CES20210A
2.2	5	50	6	2	CES20220	CES20220A
2.3	5	50	6	2	CES20230	CES20230A
2.4	5	50	6	2	CES20240	CES20240A
2.6	6	50	6	2	CES20260	CES20260A
2.7	6	50	6	2	CES20270	CES20270A
2.8	6	50	6	2	CES20280	CES20280A
2.9	6	50	6	2	CES20290	CES20290A
3.1	8	50	6	2	CES20310	CES20310A
3.2	8	50	6	2	CES20320	CES20320A
3.3	8	50	6	2	CES20330	CES20330A
3.4	8	50	6	2	CES20340	CES20340A
3.6	9	50	6	2	CES20360	CES20360A
3.7	9	50	6	2	CES20370	CES20370A
3.8	9	50	6	2	CES20380	CES20380A
3.9	9	50	6	2	CES20390	CES20390A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition P.265

→ 參考資料 P.243
Technical Data P.243

S220 鎢鋼平銑刀- 點數型- 2刃

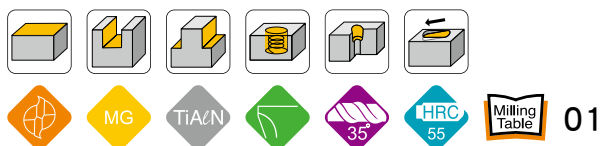
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· CES20000 A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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.
4.1	10	50	6	2	CES20410	CES20410A
4.2	10	50	6	2	CES20420	CES20420A
4.3	10	50	6	2	CES20430	CES20430A
4.4	11	50	6	2	CES20440	CES20440A
4.6	11	50	6	2	CES20460	CES20460A
4.7	11	50	6	2	CES20470	CES20470A
4.8	11	50	6	2	CES20480	CES20480A
4.9	11	50	6	2	CES20490	CES20490A
5.1	13	50	6	2	CES20510	CES20510A
5.2	13	50	6	2	CES20520	CES20520A
5.3	13	50	6	2	CES20530	CES20530A
5.4	13	50	6	2	CES20540	CES20540A
5.6	14	50	6	2	CES20560	CES20560A
5.7	14	50	6	2	CES20570	CES20570A
5.8	14	50	6	2	CES20580	CES20580A
5.9	14	50	6	2	CES20590	CES20590A
6.1	15	60	8	2	CES20610	CES20610A
6.2	15	60	8	2	CES20620	CES20620A
6.3	15	60	8	2	CES20630	CES20630A
6.4	15	60	8	2	CES20640	CES20640A
6.6	16	60	8	2	CES20660	CES20660A
6.7	16	60	8	2	CES20670	CES20670A
6.8	16	60	8	2	CES20680	CES20680A
6.9	16	60	8	2	CES20690	CES20690A
7.1	18	60	8	2	CES20710	CES20710A
7.2	18	60	8	2	CES20720	CES20720A
7.3	18	60	8	2	CES20730	CES20730A
7.4	18	60	8	2	CES20740	CES20740A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 點數型- 2刃

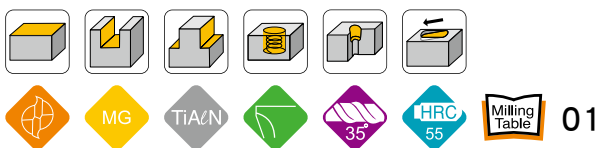
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F- Decimal Diameter

· CES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.03

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

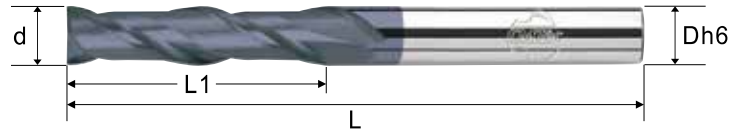


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
7.6	18	60	8	2	CES20760	CES20760A
7.7	18	60	8	2	CES20770	CES20770A
7.8	18	60	8	2	CES20780	CES20780A
7.9	18	60	8	2	CES20790	CES20790A
8.1	20	75	10	2	CES20810	CES20810A
8.2	20	75	10	2	CES20820	CES20820A
8.3	20	75	10	2	CES20830	CES20830A
8.4	20	75	10	2	CES20840	CES20840A
8.6	20	75	10	2	CES20860	CES20860A
8.7	20	75	10	2	CES20870	CES20870A
8.8	20	75	10	2	CES20880	CES20880A
8.9	20	75	10	2	CES20890	CES20890A
9.1	22	75	10	2	CES20910	CES20910A
9.2	22	75	10	2	CES20920	CES20920A
9.3	22	75	10	2	CES20930	CES20930A
9.4	22	75	10	2	CES20940	CES20940A
9.6	22	75	10	2	CES20960	CES20960A
9.7	22	75	10	2	CES20970	CES20970A
9.8	22	75	10	2	CES20980	CES20980A
9.9	22	75	10	2	CES20990	CES20990A
10.1	25	75	12	2	CES21010	CES21010A
10.2	25	75	12	2	CES21020	CES21020A
10.3	25	75	12	2	CES21030	CES21030A
10.4	25	75	12	2	CES21040	CES21040A
10.6	25	75	12	2	CES21060	CES21060A
10.7	25	75	12	2	CES21070	CES21070A
10.8	25	75	12	2	CES21080	CES21080A
10.9	25	75	12	2	CES21090	CES21090A

S220 鎢鋼平銑刀-長刃小柄(標準)/特長刃型-2刃

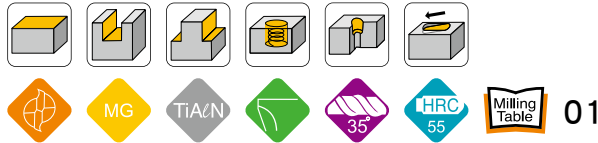
S220 MICRO GRAIN CARBIDE END MILLS- Square Type & (Extra) Long Flute- 2F

- **CELFM20000A**
- **CELF20000A**
- **CEFF20000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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	10	50	4	2	CELFM20200	CELFM20200A
3.0	15	60	4	2	CELFM20300	CELFM20300A
4.0	20	60	4	2	CELFM20400	CELFM20400A
3.0	15	60	6	2	CELF20300	CELF20300A
4.0	20	60	6	2	CELF20400	CELF20400A
5.0	25	75	6	2	CELF20500	CELF20500A
6.0	30	75	6	2	CELF20600	CELF20600A
8.0	35	100	8	2	CELF20800	CELF20800A
10.0	45	100	10	2	CELF21000	CELF21000A
12.0	45	100	12	2	CELF21200	CELF21200A
14.0	70	150	14	2	CELF2140014	CELF2140014A
14.0	70	150	16	2	CELF21400	CELF21400A
16.0	70	150	16	2	CELF21600	CELF21600A
18.0	75	150	20	2	CELF21800	CELF21800A
20.0	75	150	20	2	CELF22000	CELF22000A
25.0	75	150	25	2	CELF22500	CELF22500A
10.0	55	100	10	2	CEFF21000	CEFF21000A
12.0	55	100	12	2	CEFF21200	CEFF21200A
16.0	80	150	16	2	CEFF21600	CEFF21600A
20.0	90	150	20	2	CEFF22000	CEFF22000A

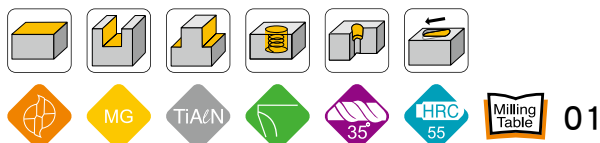
S220 鎢鋼平銑刀-長柄型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Long Shank- 2F

· CELS20000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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.
3.0	8	75	6	2	CELS20300	CELS20300A
4.0	10	75	6	2	CELS20400	CELS20400A
5.0	13	75	6	2	CELS20500	CELS20500A
6.0	15	75	6	2	CELS20600	CELS20600A
8.0	20	100	8	2	CELS20800	CELS20800A
10.0	25	100	10	2	CELS21000	CELS21000A
12.0	30	100	12	2	CELS21200	CELS21200A

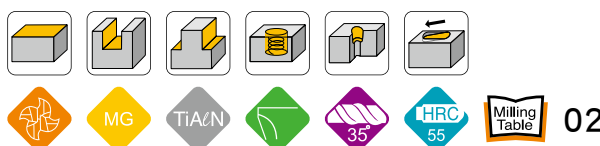
S220 鎢鋼平銑刀-長柄型-4刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- Long Shank- 4F

· CELS40000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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.
3.0	8	75	6	4	CELS40300	CELS40300A
4.0	10	75	6	4	CELS40400	CELS40400A
5.0	13	75	6	4	CELS40500	CELS40500A
6.0	15	75	6	4	CELS40600	CELS40600A
8.0	20	100	8	4	CELS40800	CELS40800A
10.0	25	100	10	4	CELS41000	CELS41000A
12.0	30	100	12	4	CELS41200	CELS41200A
16.0	40	150	16	4	CELS41600	CELS41600A
20.0	40	150	20	4	CELS42000	CELS42000A

→ 切削條件表
Cutting Condition P.265

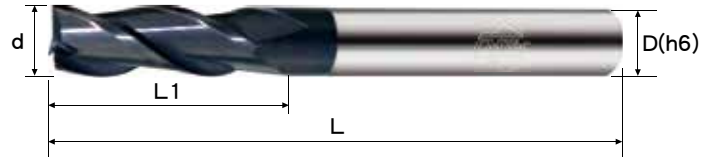
→ 參考資料
Technical Data P.243

S220 鎢鋼平銑刀- 小柄型/標準型- 3刃

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

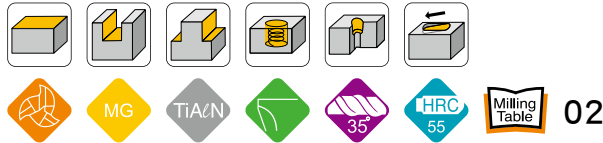
· CESM30000A

· CES30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	3	CESM30200	CESM30200A
2.5	6	50	4	3	CESM30250	CESM30250A
3.0	8	50	4	3	CESM30300	CESM30300A
3.5	9	50	4	3	CESM30350	CESM30350A
4.0	10	50	4	3	CESM30400	CESM30400A
2.0	5	50	6	3	CES30200	CES30200A
2.5	6	50	6	3	CES30250	CES30250A
3.0	8	50	6	3	CES30300	CES30300A
3.5	9	50	6	3	CES30350	CES30350A
4.0	10	50	6	3	CES30400	CES30400A
4.5	11	50	6	3	CES30450	CES30450A
5.0	13	50	6	3	CES30500	CES30500A
5.5	14	50	6	3	CES30550	CES30550A
6.0	15	50	6	3	CES30600	CES30600A
6.5	16	60	8	3	CES30650	CES30650A
7.0	18	60	8	3	CES30700	CES30700A
7.5	18	60	8	3	CES30750	CES30750A
8.0	20	60	8	3	CES30800	CES30800A
8.5	20	75	10	3	CES30850	CES30850A
9.0	22	75	10	3	CES30900	CES30900A
9.5	22	75	10	3	CES30950	CES30950A
10.0	25	75	10	3	CES31000	CES31000A
10.5	25	75	12	3	CES31050	CES31050A
11.0	25	75	12	3	CES31100	CES31100A
11.5	25	75	12	3	CES31150	CES31150A
12.0	30	75	12	3	CES31200	CES31200A
13.0	30	75	14	3	CES3130014	CES3130014A
14.0	30	75	14	3	CES3140014	CES3140014A
15.0	35	100	16	3	CES31500	CES31500A
16.0	35	100	16	3	CES31600	CES31600A



※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.265
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀-微柄/小柄型-4刃

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

- **CESS40000A**
- **CESM40000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>



02

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.
1.0	3	50	3	4	CESS40100	CESS40100A
1.5	4	50	3	4	CESS40150	CESS40150A
2.0	5	50	3	4	CESS40200	CESS40200A
2.5	6	50	3	4	CESS40250	CESS40250A
3.0	8	50	3	4	CESS40300	CESS40300A
1.0	3	50	4	4	CESM40100	CESM40100A
1.5	4	50	4	4	CESM40150	CESM40150A
2.0	5	50	4	4	CESM40200	CESM40200A
2.5	6	50	4	4	CESM40250	CESM40250A
3.0	8	50	4	4	CESM40300	CESM40300A
3.5	9	50	4	4	CESM40350	CESM40350A
4.0	10	50	4	4	CESM40400	CESM40400A

※0.2以上採平面型式。
 From 0.2 and larger have flatland type.
 ※尖角型式依需求生產。
 Sharp corner type is on request.

→ 切削條件表 P.265 → 參考資料 P.243
 Cutting Condition Technical Data

S220 鎢鋼平銑刀-標準型-4刃

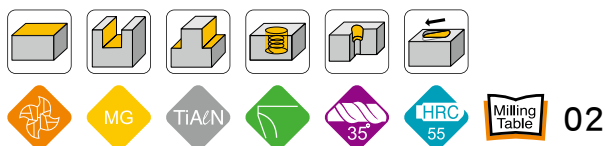
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 4F

· **CES40000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
3.0	8	50	6	4	CES40300	CES40300A
3.5	9	50	6	4	CES40350	CES40350A
4.0	10	50	6	4	CES40400	CES40400A
4.5	11	50	6	4	CES40450	CES40450A
5.0	13	50	6	4	CES40500	CES40500A
5.5	14	50	6	4	CES40550	CES40550A
6.0	15	50	6	4	CES40600	CES40600A
6.5	16	60	8	4	CES40650	CES40650A
7.0	18	60	8	4	CES40700	CES40700A
7.5	18	60	8	4	CES40750	CES40750A
8.0	20	60	8	4	CES40800	CES40800A
8.5	20	75	10	4	CES40850	CES40850A
9.0	22	75	10	4	CES40900	CES40900A
9.5	22	75	10	4	CES40950	CES40950A
10.0	25	75	10	4	CES41000	CES41000A
10.0	30	75	10	4	CES41000300C	CES41000300CA
10.5	25	75	12	4	CES41050	CES41050A
11.0	25	75	12	4	CES41100	CES41100A
11.5	25	75	12	4	CES41150	CES41150A
12.0	30	75	12	4	CES41200	CES41200A
12.0	36	75	12	4	CES41200360C	CES41200360CA
13.0	30	75	14	4	CES4130014	CES4130014A
14.0	30	75	14	4	CES4140014	CES4140014A
15.0	35	100	16	4	CES41500	CES41500A
16.0	35	100	16	4	CES41600	CES41600A
16.0	45	100	16	4	CES41600450C	CES41600450CA
18.0	40	100	18	4	CES4180018	CES4180018A
18.0	40	100	20	4	CES41800	CES41800A
20.0	45	100	20	4	CES42000	CES42000A
25.0	45	100	25	4	CES42500	CES42500A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

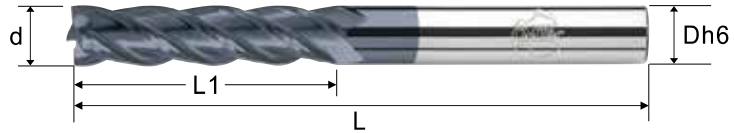
→ 切削條件表 P.265
Cutting Condition P.265

→ 參考資料 P.243
Technical Data P.243

S220 鎢鋼平銑刀- 長刃小柄(標準)/特長刃型- 4刃

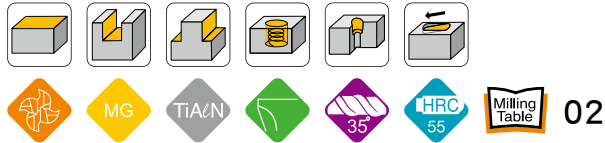
S220 MICRO GRAIN CARBIDE END MILLS- Square Type & (Extra) Long Flute- 4F

- CELFM40000A
- CELF40000A
- CEFF40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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



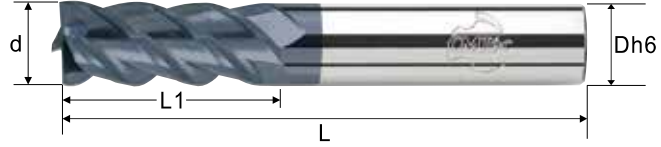
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0	5	50	4	4	CELFM40100	CELFM40100A
2.0	10	50	4	4	CELFM40200	CELFM40200A
3.0	15	60	4	4	CELFM40300	CELFM40300A
4.0	20	60	4	4	CELFM40400	CELFM40400A
3.0	15	60	6	4	CELF40300	CELF40300A
4.0	20	60	6	4	CELF40400	CELF40400A
5.0	25	75	6	4	CELF40500	CELF40500A
6.0	30	75	6	4	CELF40600	CELF40600A
8.0	35	100	8	4	CELF40800	CELF40800A
10.0	45	100	10	4	CELF41000	CELF41000A
12.0	45	100	12	4	CELF41200	CELF41200A
14.0	70	150	14	4	CELF4140014	CELF4140014A
14.0	70	150	16	4	CELF41400	CELF41400A
16.0	70	150	16	4	CELF41600	CELF41600A
18.0	75	150	20	4	CELF41800	CELF41800A
20.0	75	150	20	4	CELF42000	CELF42000A
25.0	75	150	25	4	CELF42500	CELF42500A
10.0	55	100	10	4	CEFF41000	CEFF41000A
12.0	55	100	12	4	CEFF41200	CEFF41200A
16.0	80	150	16	4	CEFF41600	CEFF41600A
20.0	90	150	20	4	CEFF42000	CEFF42000A

S220 鎢鋼平銑刀- 高導小柄/高導標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- 4F

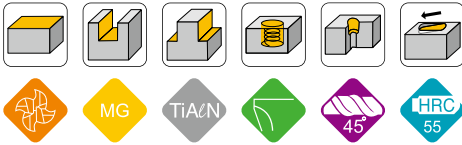
· CEHM40000A

· CEH40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



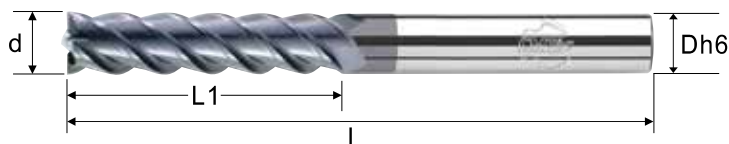
02

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.
1.0	3	50	4	4	CEHM40100	CEHM40100A
2.0	5	50	4	4	CEHM40200	CEHM40200A
1.0	3	50	6	4	CEH40100	CEH40100A
2.0	5	50	6	4	CEH40200	CEH40200A
3.0	8	50	6	4	CEH40300	CEH40300A
4.0	10	50	6	4	CEH40400	CEH40400A
5.0	13	50	6	4	CEH40500	CEH40500A
6.0	15	50	6	4	CEH40600	CEH40600A
8.0	20	60	8	4	CEH40800	CEH40800A
10.0	25	75	10	4	CEH41000	CEH41000A
12.0	30	75	12	4	CEH41200	CEH41200A
16.0	35	100	16	4	CEH41600	CEH41600A
20.0	40	100	20	4	CEH42000	CEH42000A

S220 鎢鋼平銑刀- 高導長刃型- 4刃

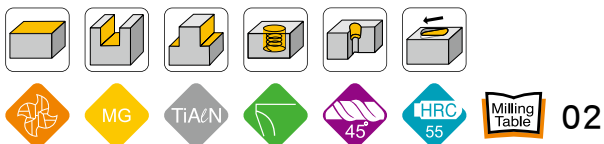
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix & Long Flute- 4F

· CEHF40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input checked="" type="radio"/>
粗銑 Roughing	<input type="radio"/>



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.
3.0	15	60	6	4	CEHF40300	CEHF40300A
4.0	20	60	6	4	CEHF40400	CEHF40400A
5.0	25	75	6	4	CEHF40500	CEHF40500A
6.0	30	75	6	4	CEHF40600	CEHF40600A
8.0	45	100	8	4	CEHF40800	CEHF40800A
10.0	55	100	10	4	CEHF41000	CEHF41000A
12.0	55	100	12	4	CEHF41200	CEHF41200A
14.0	75	150	14	4	CEHF41400	CEHF41400A
16.0	75	150	16	4	CEHF41600	CEHF41600A
18.0	90	150	18	4	CEHF41800	CEHF41800A
20.0	90	150	20	4	CEHF42000	CEHF42000A

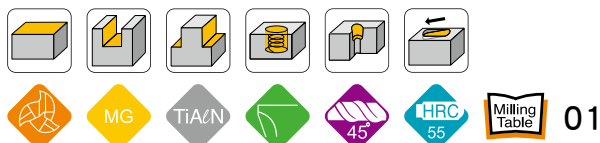
S220 鎢鋼平銑刀- 高導粗精型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Semi- Finishing- 3F

· CER30000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
6.0	15	50	6	3	CER30600	CER30600A
8.0	20	60	8	3	CER30800	CER30800A
10.0	25	75	10	3	CER31000	CER31000A
12.0	30	75	12	3	CER31200	CER31200A
16.0	40	100	16	3	CER31600	CER31600A
20.0	45	100	20	3	CER32000	CER32000A

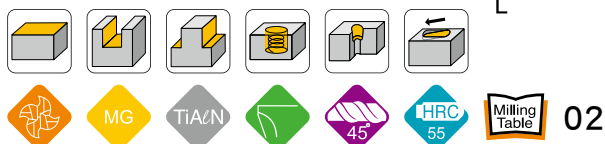
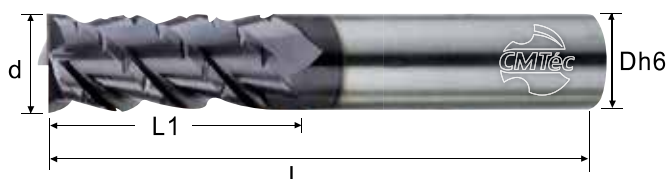
S220 鎢鋼平銑刀- 高導粗精型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Semi- Finishing- 4F

· CER40000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
6.0	15	50	6	4	CER40600	CER40600A
8.0	20	60	8	4	CER40800	CER40800A
10.0	25	75	10	4	CER41000	CER41000A
12.0	30	75	12	4	CER41200	CER41200A
16.0	40	100	16	4	CER41600	CER41600A
20.0	45	100	20	4	CER42000	CER42000A

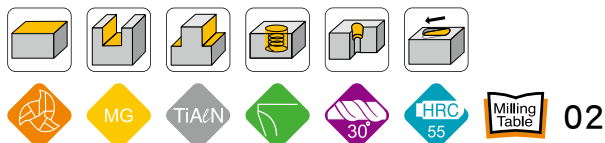
S220 鎢鋼粗銑平銑刀- 標準型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- Roughing- 3F

· CERR30000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05
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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	3	CERR30600A
8.0	20	60	8	3	CERR30800A
10.0	25	75	10	3	CERR31000A
12.0	30	75	12	3	CERR31200A
16.0	40	100	16	3	CERR31600A
20.0	45	100	20	3	CERR32000A

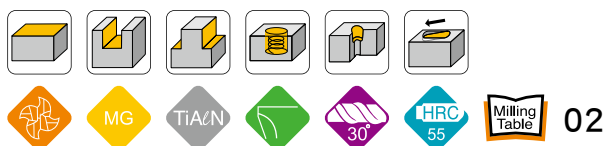
S220 鎢鋼粗銑平銑刀- 標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Roughing- 4F

· CERR40000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05
超精銑 Bright Finishing	—
精銑 Finishing	—
中銑 Semi Finishing	○
粗銑 Roughing	◎

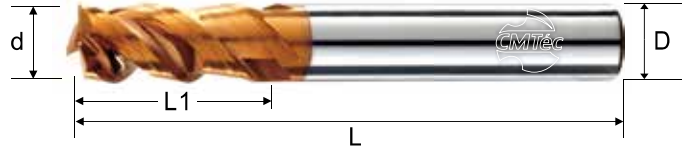


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	4	CERR40600A
8.0	20	60	8	4	CERR40800A
10.0	25	75	10	4	CERR41000A
12.0	30	75	12	4	CERR41200A
16.0	40	100	16	4	CERR41600A
20.0	45	100	20	4	CERR42000A

S220 鎢鋼平銑刀- 不等分割雙心徑型- 3刃

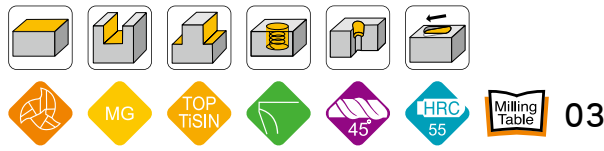
MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- 3F

· CEP30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

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



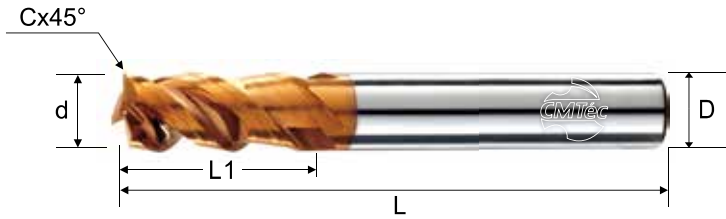
03

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	6	3	CEP30200	CEP30200A
3.0	7	50	6	3	CEP30300	CEP30300A
4.0	10	50	6	3	CEP30400	CEP30400A
5.0	12	50	6	3	CEP30500	CEP30500A
6.0	14	50	6	3	CEP30600	CEP30600A
8.0	18	60	8	3	CEP30800	CEP30800A
9.0	22	75	10	3	CEP30900	CEP30900A
10.0	22	75	10	3	CEP31000	CEP31000A
12.0	26	75	12	3	CEP31200	CEP31200A
14.0	30	75	14	3	CEP31400	CEP31400A
16.0	34	100	16	3	CEP31600	CEP31600A
20.0	42	100	20	3	CEP32000	CEP32000A

S220 鎢鋼平銑刀- 不等分割雙心徑倒角型- 3刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Chamfering- 3F

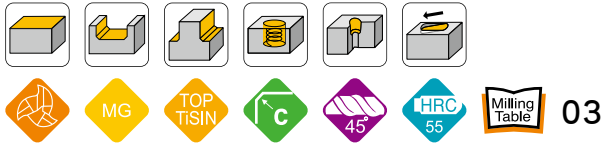
· CEP30000-C0000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

C角	Tolerance(公差)
C	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



刃徑 d	倒C角 C	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	0.03	5	50	6	3	CEP30200-C0003	CEP30200-C0003A
3.0	0.04	7	50	6	3	CEP30300-C0004	CEP30300-C0004A
4.0	0.05	10	50	6	3	CEP30400-C0005	CEP30400-C0005A
4.5	0.05	12	50	6	3	CEP30450-C0005	CEP30450-C0005A
5.0	0.06	12	50	6	3	CEP30500-C0006	CEP30500-C0006A
5.5	0.06	14	50	6	3	CEP30550-C0006	CEP30550-C0006A
6.0	0.08	14	50	6	3	CEP30600-C0008	CEP30600-C0008A
7.5	0.10	18	60	8	3	CEP30750-C0010	CEP30750-C0010A
8.0	0.10	18	60	8	3	CEP30800-C0010	CEP30800-C0010A
10.0	0.13	22	75	10	3	CEP31000-C0013	CEP31000-C0013A
11.5	0.15	26	75	12	3	CEP31150-C0015	CEP31150-C0015A
12.0	0.15	26	75	12	3	CEP31200-C0015	CEP31200-C0015A
14.0	0.18	30	75	14	3	CEP31400-C0018	CEP31400-C0018A
16.0	0.20	34	100	16	3	CEP31600-C0020	CEP31600-C0020A
20.0	0.25	42	100	20	3	CEP32000-C0025	CEP32000-C0025A

S220 鎢鋼平銑刀- 不等分割雙心徑圓角型- 3刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Corner Radius- 3F

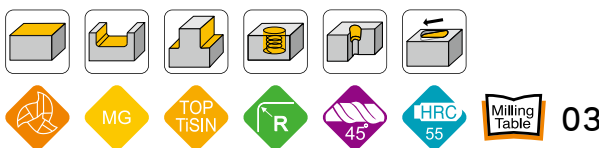
· **CEP3** 0000 -R 0000 **A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

R角	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



刃徑 d	R角 R	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.
3.0	0.15R	7	50	6	3	CEP30300-R0015	CEP30300-R0015A
4.0	0.2R	10	50	6	3	CEP30400-R0020	CEP30400-R0020A
5.0	0.2R	12	50	6	3	CEP30500-R0020	CEP30500-R0020A
6.0	0.2R	14	50	6	3	CEP30600-R0020	CEP30600-R0020A
8.0	0.5R	18	60	8	3	CEP30800-R0050	CEP30800-R0050A
10.0	0.5R	22	75	10	3	CEP31000-R0050	CEP31000-R0050A
12.0	0.5R	26	75	12	3	CEP31200-R0050	CEP31200-R0050A
16.0	0.5R	34	100	16	3	CEP31600-R0050	CEP31600-R0050A
20.0	0.5R	42	100	20	3	CEP32000-R0050	CEP32000-R0050A

S220 Carbide End Mills S220鎢鋼銑刀

S220 鎢鋼平銑刀- 不等分割雙心徑型- 4刃

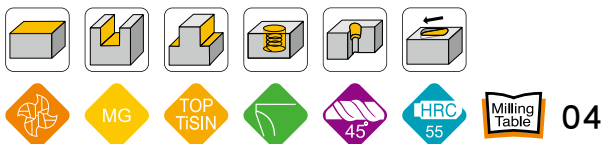
MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- 4F

· CEP40000A



d(刃徑)	Tolerance(公差)
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	○



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.
3.0	7	50	6	4	CEP40300	CEP40300A
4.0	10	50	6	4	CEP40400	CEP40400A
5.0	12	50	6	4	CEP40500	CEP40500A
6.0	14	50	6	4	CEP40600	CEP40600A
8.0	18	60	8	4	CEP40800	CEP40800A
10.0	22	75	10	4	CEP41000	CEP41000A
12.0	26	75	12	4	CEP41200	CEP41200A
16.0	34	100	16	4	CEP41600	CEP41600A
20.0	42	100	20	4	CEP42000	CEP42000A

S220 鎢鋼平銑刀- 不等分割雙心徑倒角型- 4刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Chamfering- 4F

· CEP40000-C0000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

C角	Tolerance(公差)
C	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

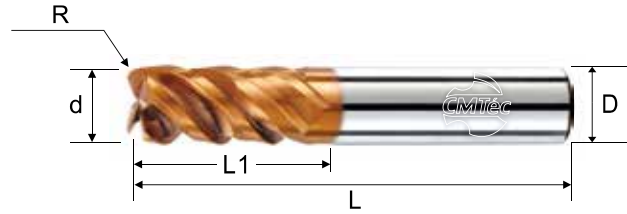


刃徑 d	倒C角 C	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	0.04	7	50	6	4	CEP40300-C0004	CEP40300-C0004A
4.0	0.05	10	50	6	4	CEP40400-C0005	CEP40400-C0005A
5.0	0.06	12	50	6	4	CEP40500-C0006	CEP40500-C0006A
6.0	0.08	14	50	6	4	CEP40600-C0008	CEP40600-C0008A
8.0	0.10	18	60	8	4	CEP40800-C0010	CEP40800-C0010A
10.0	0.13	22	75	10	4	CEP41000-C0013	CEP41000-C0013A
12.0	0.15	26	75	12	4	CEP41200-C0015	CEP41200-C0015A
16.0	0.20	34	100	16	4	CEP41600-C0020	CEP41600-C0020A
20.0	0.25	42	100	20	4	CEP42000-C0025	CEP42000-C0025A
25.0	0.30	52	125	25	4	CEP42500-C0030	CEP42500-C0030A

S220 鎢鋼平銑刀- 不等分割雙心徑圓角型- 4刃

MICRO GRAIN CARBIDE END MILLS- Square Type- Unequal Flute Spacing Angle- Duo Core Dia- Corner Radius- 4F

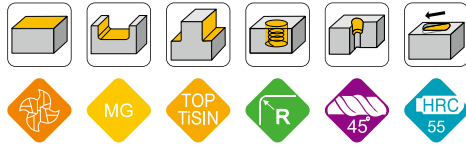
· **CEP40000-R0000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

R角	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

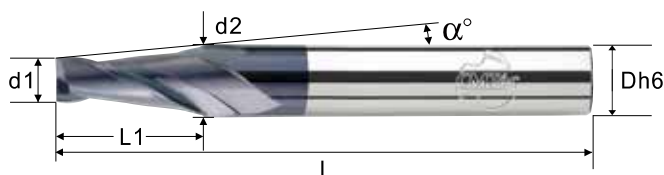


刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
6.0	0.2R	14	50	6	4	CEP40600-R0020	CEP40600-R0020A
8.0	0.5R	18	60	8	4	CEP40800-R0050	CEP40800-R0050A
10.0	0.5R	22	75	10	4	CEP41000-R0050	CEP41000-R0050A
12.0	0.5R	26	75	12	4	CEP41200-R0050	CEP41200-R0050A
16.0	0.5R	34	100	16	4	CEP41600-R0050	CEP41600-R0050A
20.0	0.5R	42	100	20	4	CEP42000-R0050	CEP42000-R0050A
25.0	0.5R	52	125	25	4	CEP42500-R0050	CEP42500-R0050A

S220 鎢鋼斜度銑刀- 標準型- 2刃

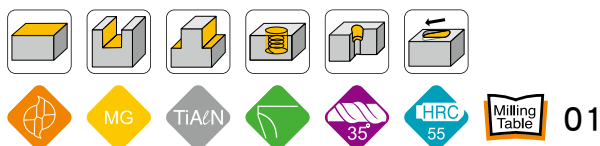
S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

· CETF20000000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05

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



先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	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.
1.0	0.5°	4	1.07	50	4	2	CETF2010005	CETF2010005A
1.0	1°	4	1.14	50	4	2	CETF2010010	CETF2010010A
1.0	1.5°	4	1.21	50	4	2	CETF2010015	CETF2010015A
1.0	2°	4	1.28	50	4	2	CETF2010020	CETF2010020A
1.0	2.5°	4	1.35	50	4	2	CETF2010025	CETF2010025A
1.0	3°	4	1.42	50	4	2	CETF2010030	CETF2010030A
1.0	5°	4	1.70	50	4	2	CETF2010050	CETF2010050A
1.0	7°	4	1.98	50	4	2	CETF2010070	CETF2010070A
1.0	10°	4	2.41	50	4	2	CETF20100100	CETF20100100A
1.0	15°	4	3.14	50	4	2	CETF20100150	CETF20100150A
1.5	0.5°	5	1.59	50	4	2	CETF2015005	CETF2015005A
1.5	1°	5	1.68	50	4	2	CETF2015010	CETF2015010A
1.5	1.5°	5	1.76	50	4	2	CETF2015015	CETF2015015A
1.5	2°	5	1.85	50	4	2	CETF2015020	CETF2015020A
1.5	2.5°	5	1.93	50	4	2	CETF2015025	CETF2015025A
1.5	3°	5	2.02	50	4	2	CETF2015030	CETF2015030A
1.5	5°	5	2.37	50	4	2	CETF2015050	CETF2015050A
2.0	0.5°	6	2.10	50	4	2	CETF2020005	CETF2020005A
2.0	1°	6	2.21	50	4	2	CETF2020010	CETF2020010A
2.0	1.5°	6	2.31	50	4	2	CETF2020015	CETF2020015A
2.0	2°	6	2.41	50	4	2	CETF2020020	CETF2020020A
2.0	2.5°	6	2.52	50	4	2	CETF2020025	CETF2020025A
2.0	3°	6	2.62	50	4	2	CETF2020030	CETF2020030A
2.0	5°	6	3.05	50	4	2	CETF2020050	CETF2020050A
2.0	7°	6	3.47	50	4	2	CETF2020070	CETF2020070A
2.0	10°	6	4.11	50	6	2	CETF20200100	CETF20200100A
2.0	15°	6	5.22	50	6	2	CETF20200150	CETF20200150A
2.5	0.5°	8	2.64	50	4	2	CETF2025005	CETF2025005A
2.5	1°	8	2.78	50	4	2	CETF2025010	CETF2025010A
2.5	1.5°	8	2.91	50	4	2	CETF2025015	CETF2025015A
2.5	2°	8	3.05	50	4	2	CETF2025020	CETF2025020A
2.5	2.5°	8	3.20	50	4	2	CETF2025025	CETF2025025A
2.5	3°	8	3.33	50	4	2	CETF2025030	CETF2025030A
2.5	5°	8	3.90	50	4	2	CETF2025050	CETF2025050A

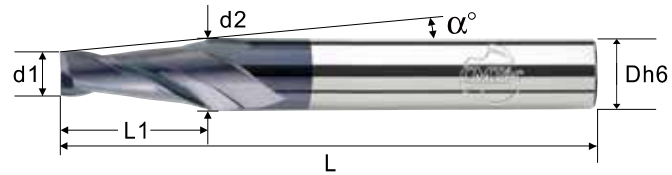
→ 切削條件表
Cutting Condition P.265

→ 參考資料
Technical Data P.243

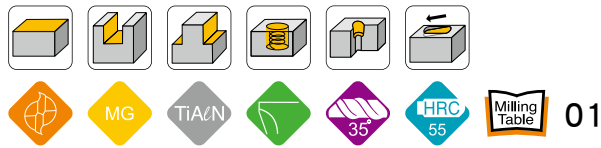
S220 鎢鋼斜度銑刀-標準型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

· CETF20000000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.05
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○

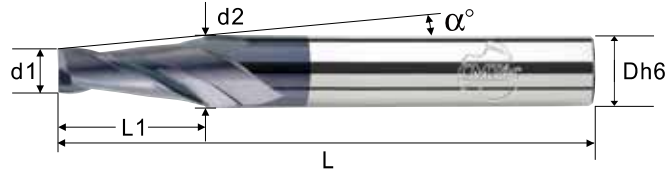


先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	0.5°	10	3.17	50	6	2	CETF2030005	CETF2030005A
3.0	1°	10	3.35	50	6	2	CETF2030010	CETF2030010A
3.0	1.5°	10	3.52	50	6	2	CETF2030015	CETF2030015A
3.0	2°	10	3.69	50	6	2	CETF2030020	CETF2030020A
3.0	2.5°	10	3.87	50	6	2	CETF2030025	CETF2030025A
3.0	3°	10	4.05	50	6	2	CETF2030030	CETF2030030A
3.0	5°	10	4.75	50	6	2	CETF2030050	CETF2030050A
3.0	7°	12	6.00	50	6	2	CETF2030070	CETF2030070A
3.0	10°	12	7.22	60	8	2	CETF20300100	CETF20300100A
3.0	15°	12	9.40	75	10	2	CETF20300150	CETF20300150A
4.0	0.5°	15	4.26	50	6	2	CETF2040005	CETF2040005A
4.0	1°	15	4.52	50	6	2	CETF2040010	CETF2040010A
4.0	1.5°	15	4.79	50	6	2	CETF2040015	CETF2040015A
4.0	2°	15	5.04	50	6	2	CETF2040020	CETF2040020A
4.0	2.5°	15	5.31	50	6	2	CETF2040025	CETF2040025A
4.0	3°	15	5.57	50	6	2	CETF2040030	CETF2040030A
4.0	5°	15	6.62	60	8	2	CETF2040050	CETF2040050A
4.0	7°	16	8.00	60	8	2	CETF2040070	CETF2040070A
4.0	10°	17	10.00	75	10	2	CETF20400100	CETF20400100A
4.0	15°	14.9	12.00	75	12	2	CETF20400150	CETF20400150A
5.0	0.5°	20	5.34	60	6	2	CETF2050005	CETF2050005A
5.0	1°	20	5.70	60	6	2	CETF2050010	CETF2050010A
5.0	1.5°	19.6	6.00	60	6	2	CETF2050015	CETF2050015A
5.0	2°	20	6.39	60	8	2	CETF2050020	CETF2050020A
5.0	2.5°	20	6.74	60	8	2	CETF2050025	CETF2050025A
5.0	3°	20	7.10	60	8	2	CETF2050030	CETF2050030A
5.0	5°	20	8.50	75	10	2	CETF2050050	CETF2050050A
5.0	7°	20	10.00	75	10	2	CETF2050070	CETF2050070A
5.0	10°	20	12.00	75	12	2	CETF20500100	CETF20500100A

S220 鎢鋼斜度銑刀-標準型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Taper- 2F

CETF20000000A



d(刃徑)	Tolerance(公差)
Φ	0 ~ -0.05

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

先端徑 d1	刃斜角 α°	刃長 L1	粗端徑 d2	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.
6.0	0.5°	20	6.35	60	8	2	CETF2060005	CETF2060005A
6.0	1°	20	6.70	60	8	2	CETF2060010	CETF2060010A
6.0	1.5°	20	7.05	60	8	2	CETF2060015	CETF2060015A
6.0	2°	20	7.40	60	8	2	CETF2060020	CETF2060020A
6.0	2.5°	20	7.75	60	8	2	CETF2060025	CETF2060025A
6.0	3°	20	8.10	75	10	2	CETF2060030	CETF2060030A
6.0	5°	20	9.50	75	10	2	CETF2060050	CETF2060050A
6.0	7°	24	12.00	75	12	2	CETF2060070	CETF2060070A
6.0	10°	22	14.00	75	14	2	CETF20600100	CETF20600100A
8.0	0.5°	25	8.44	75	10	2	CETF2080005	CETF2080005A
8.0	1°	25	8.87	75	10	2	CETF2080010	CETF2080010A
8.0	1.5°	25	9.31	75	10	2	CETF2080015	CETF2080015A
8.0	2°	25	9.75	75	10	2	CETF2080020	CETF2080020A
8.0	3°	25	10.62	75	12	2	CETF2080030	CETF2080030A
8.0	5°	25	12.37	75	14	2	CETF2080050	CETF2080050A
8.0	7°	32	16.00	100	16	2	CETF2080070	CETF2080070A
8.0	10°	28	18.00	100	18	2	CETF20800100	CETF20800100A
10.0	0.5°	35	10.61	75	12	2	CETF2100005	CETF2100005A
10.0	1°	35	11.22	75	12	2	CETF2100010	CETF2100010A
10.0	1.5°	35	11.83	75	12	2	CETF2100015	CETF2100015A
10.0	2°	35	12.44	75	14	2	CETF2100020	CETF2100020A
10.0	3°	35	13.67	75	14	2	CETF2100030	CETF2100030A
10.0	5°	34.2	16.00	100	16	2	CETF2100050	CETF2100050A

S220 Carbide End Mills S220 鎢鋼銑刀

S220 鎢鋼平銑刀-長頸型-2刃

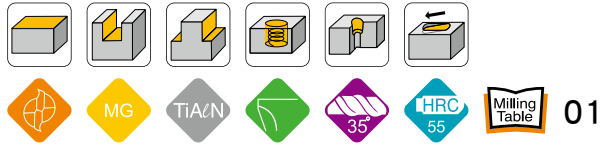
S220 MICRO GRAIN CARBIDE END MILLS- Square Type & Long Neck- 2F

· CEN20000000A



d(刃徑)	Tolerance(公差)
Φ	0 ~ -0.02

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



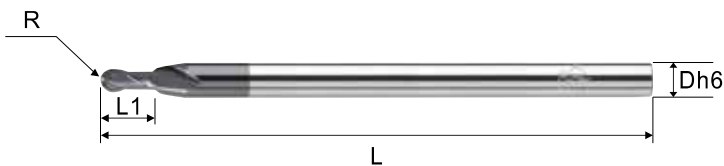
刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0	1.5	7.5	50	4	2	CEN20100075	CEN20100075A
1.0	1.5	11.5	50	4	2	CEN20100115	CEN20100115A
1.2	2.0	8.0	50	4	2	CEN20120080	CEN20120080A
1.2	2.0	12.0	50	4	2	CEN20120120	CEN20120120A
1.5	2.5	10.5	50	4	2	CEN20150105	CEN20150105A
1.5	2.5	18.5	50	4	2	CEN20150185	CEN20150185A
1.8	3.0	11.0	50	4	2	CEN20180110	CEN20180110A
1.8	3.0	19.0	50	4	2	CEN20180190	CEN20180190A
2.0	3.0	11.0	50	4	2	CEN20200110	CEN20200110A
2.0	3.0	19.0	50	4	2	CEN20200190	CEN20200190A
2.0	3.0	23.0	60	4	2	CEN20200230	CEN20200230A
2.5	3.5	15.5	50	4	2	CEN20250155	CEN20250155A
2.5	3.5	23.5	60	4	2	CEN20250235	CEN20250235A
3.0	4.5	16.5	60	6	2	CEN20300165	CEN20300165A
3.0	4.5	24.5	75	6	2	CEN20300245	CEN20300245A
4.0	6.0	26.0	75	6	2	CEN20400260	CEN20400260A
4.0	6.0	36.0	75	6	2	CEN20400360	CEN20400360A

S220 Carbide End Mills S220 鎢鋼銑刀

S220 鎢鋼球型銑刀- 微柄/小柄型- 2刃

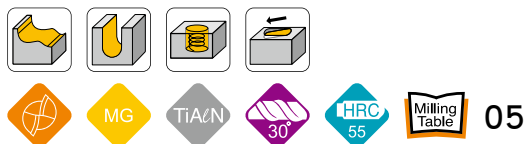
S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 2F- Micro Diameter

- CEBS20000A
- CEBM20000A



R(半徑)	Tolerance(公差)
R	±0.02

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



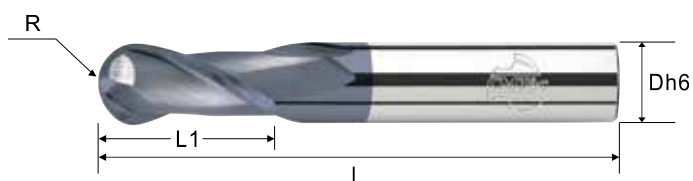
半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
0.1R	0.4	50	3	2	CEBS20010	CEBS20010A
0.15R	0.6	50	3	2	CEBS20015	CEBS20015A
0.2R	0.8	50	3	2	CEBS20020	CEBS20020A
0.25R	1.0	50	3	2	CEBS20025	CEBS20025A
0.3R	1.2	50	3	2	CEBS20030	CEBS20030A
0.35R	1.4	50	3	2	CEBS20035	CEBS20035A
0.4R	1.6	50	3	2	CEBS20040	CEBS20040A
0.45R	1.8	50	3	2	CEBS20045	CEBS20045A
0.5R	2.0	50	3	2	CEBS20050	CEBS20050A
0.6R	2.4	50	3	2	CEBS20060	CEBS20060A
0.7R	2.8	50	3	2	CEBS20070	CEBS20070A
0.75R	3.0	50	3	2	CEBS20075	CEBS20075A
0.8R	3.2	50	3	2	CEBS20080	CEBS20080A
0.9R	3.6	50	3	2	CEBS20090	CEBS20090A
1.0R	4.0	50	3	2	CEBS20100	CEBS20100A
1.5R	6.0	50	3	2	CEBS20150	CEBS20150A
0.1R	0.4	50	4	2	CEBM20010	CEBM20010A
0.15R	0.6	50	4	2	CEBM20015	CEBM20015A
0.2R	0.8	50	4	2	CEBM20020	CEBM20020A
0.25R	1.0	50	4	2	CEBM20025	CEBM20025A
0.3R	1.2	50	4	2	CEBM20030	CEBM20030A
0.35R	1.4	50	4	2	CEBM20035	CEBM20035A
0.4R	1.6	50	4	2	CEBM20040	CEBM20040A
0.45R	1.8	50	4	2	CEBM20045	CEBM20045A

S220 鎢鋼球型銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 2F

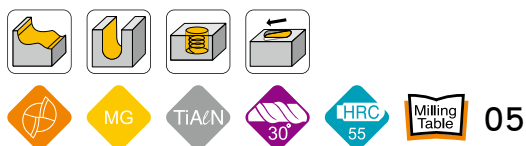
· **CEBM20000A**

· **CEB20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	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.
0.5R	2.0	50	4	2	CEBM20050	CEBM20050A
0.6R	2.4	50	4	2	CEBM20060	CEBM20060A
0.7R	2.8	50	4	2	CEBM20070	CEBM20070A
0.75R	3.0	50	4	2	CEBM20075	CEBM20075A
1.0R	4.0	50	4	2	CEBM20100	CEBM20100A
1.25R	5.0	50	4	2	CEBM20125	CEBM20125A
1.5R	6.0	50	4	2	CEBM20150	CEBM20150A
1.75R	7.0	50	4	2	CEBM20175	CEBM20175A
2.0R	8.0	50	4	2	CEBM20200	CEBM20200A
1.0R	4	50	6	2	CEB20100	CEB20100A
1.25R	5	50	6	2	CEB20125	CEB20125A
1.5R	6	50	6	2	CEB20150	CEB20150A
2.0R	8	50	6	2	CEB20200	CEB20200A
2.5R	10	50	6	2	CEB20250	CEB20250A
3.0R	12	50	6	2	CEB20300	CEB20300A
3.5R	14	60	8	2	CEB20350	CEB20350A
4.0R	16	60	8	2	CEB20400	CEB20400A
5.0R	20	75	10	2	CEB20500	CEB20500A
6.0R	24	75	12	2	CEB20600	CEB20600A
8.0R	32	100	16	2	CEB20800	CEB20800A
10.0R	40	100	20	2	CEB21000	CEB21000A

S220 鎢鋼球型銑刀- 小長柄/長柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank- 2F

- **CEBML20000A**
- **CEBL20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



05

半徑 R	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.
0.5R	2	75	4	2	CEBML20050	CEBML20050A
0.75R	3	75	4	2	CEBML20075	CEBML20075A
1.0R	4	75	4	2	CEBML20100	CEBML20100A
1.25R	5	75	4	2	CEBML20125	CEBML20125A
1.5R	6	75	4	2	CEBML20150	CEBML20150A
1.75R	7	75	4	2	CEBML20175	CEBML20175A
2.0R	8	75	4	2	CEBML20200	CEBML20200A
1.0R	4	75	6	2	CEBL20100	CEBL20100A
1.5R	6	75	6	2	CEBL20150	CEBL20150A
2.0R	8	75	6	2	CEBL20200	CEBL20200A
2.5R	10	75	6	2	CEBL20250	CEBL20250A
3.0R	12	75	6	2	CEBL20300	CEBL20300A
4.0R	16	100	8	2	CEBL20400	CEBL20400A
5.0R	20	100	10	2	CEBL20500	CEBL20500A
6.0R	24	100	12	2	CEBL20600	CEBL20600A
8.0R	32	150	16	2	CEBL20800	CEBL20800A
10.0R	40	150	20	2	CEBL21000	CEBL21000A

S220 鎢鋼球型銑刀- 小特長柄/特長柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Extra Long Shank- 2F

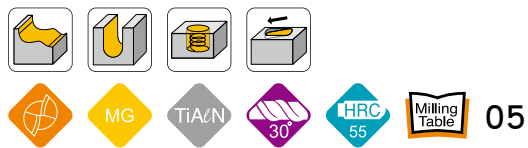
· CEBMLL200000 A

· CEBLL200000 A



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	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.
1.0R	4	100	4	2	CEBMLL20100	CEBMLL20100A
1.5R	6	100	4	2	CEBMLL20150	CEBMLL20150A
2.0R	8	100	4	2	CEBMLL20200	CEBMLL20200A
1.0R	4	100	6	2	CEBLL20100	CEBLL20100A
1.5R	6	100	6	2	CEBLL20150	CEBLL20150A
2.0R	8	100	6	2	CEBLL20200	CEBLL20200A
2.5R	10	100	6	2	CEBLL20250	CEBLL20250A
3.0R	12	100	6	2	CEBLL20300	CEBLL20300A
4.0R	16	150	8	2	CEBLL20400	CEBLL20400A
5.0R	20	150	10	2	CEBLL20500	CEBLL20500A
6.0R	24	150	12	2	CEBLL20600	CEBLL20600A
8.0R	32	200	16	2	CEBLL20800	CEBLL20800A
10.0R	40	200	20	2	CEBLL21000	CEBLL21000A

→ 切削條件表 Cutting Condition P.268 → 參考資料 Technical Data P.243

S220 Carbide End Mills
S220 鎢鋼銑刀

S220 鎢鋼球型銑刀-標準型-3刃

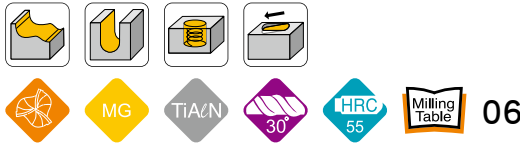
S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed- 3F

· **CEB30000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	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.
1.0R	4	50	6	3	CEB30100	CEB30100A
1.5R	6	50	6	3	CEB30150	CEB30150A
2.0R	8	50	6	3	CEB30200	CEB30200A
2.5R	10	50	6	3	CEB30250	CEB30250A
3.0R	12	50	6	3	CEB30300	CEB30300A
3.5R	14	60	8	3	CEB30350	CEB30350A
4.0R	16	60	8	3	CEB30400	CEB30400A
5.0R	20	75	10	3	CEB30500	CEB30500A
6.0R	24	75	12	3	CEB30600	CEB30600A
8.0R	32	100	16	3	CEB30800	CEB30800A
10.0R	40	100	20	3	CEB31000	CEB31000A

S220 Carbide End Mills S220 鎢鋼銑刀

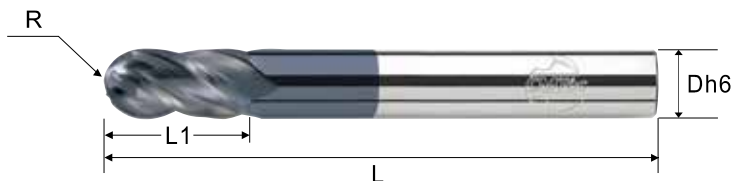
→ 切削條件表 Cutting Condition P.268 → 參考資料 Technical Data P.243

S220 鎢鋼球型銑刀- 小長柄/長柄型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank- 4F

· CEBML40000A

· CEBL40000A



R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



05

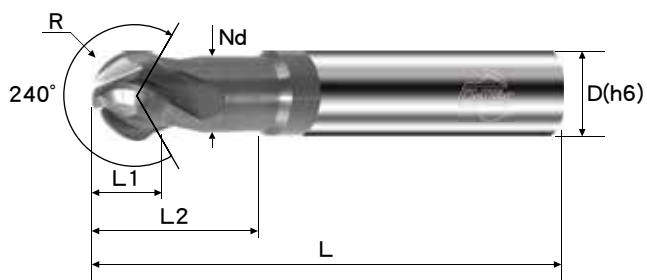
半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	4	75	4	4	CEBML40100	CEBML40100A
1.25R	5	75	4	4	CEBML40125	CEBML40125A
1.5R	6	75	4	4	CEBML40150	CEBML40150A
1.75R	7	75	4	4	CEBML40175	CEBML40175A
2.0R	8	75	4	4	CEBML40200	CEBML40200A
3.0R	12	75	6	4	CEBL40300	CEBL40300A
4.0R	16	100	8	4	CEBL40400	CEBL40400A
5.0R	20	100	10	4	CEBL40500	CEBL40500A
6.0R	24	100	12	4	CEBL40600	CEBL40600A
8.0R	32	150	16	4	CEBL40800	CEBL40800A

→ 切削條件表 Cutting Condition [P.268](#) → 參考資料 Technical Data [P.243](#)

S220 鎢鋼球殼型銑刀(240度)- 標準型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Semi Sphere Ball Nosed(240°)- 4F

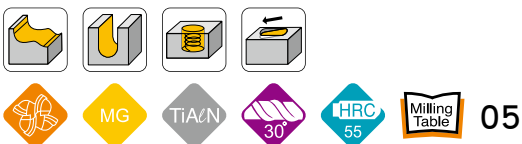
· CEO40000000A



NEW

R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

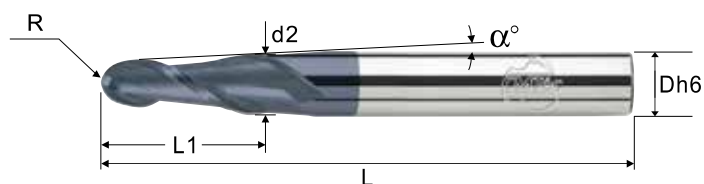


半徑 R	刃長 L1	有效長 L2	頸徑 Nd	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.5R	3.75	10	4.33	60	6	4	CEO40250100	CEO40250100A
3.0R	4.50	12	5.20	60	6	4	CEO40300120	CEO40300120A
4.0R	6.00	16	6.93	60	8	4	CEO40400160	CEO40400160A
5.0R	7.50	20	8.66	75	10	4	CEO40500200	CEO40500200A
6.0R	9.00	24	10.39	75	12	4	CEO40600240	CEO40600240A

S220 鎢鋼斜度球型銑刀-標準型-2刃

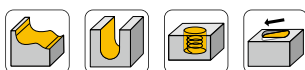
S220 MICRO GRAIN CARBIDE END MILLS- Taper Ball Nosed- 2F

· CETB2000000A



R(半徑)	Tolerance(公差)
R	±0.02

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

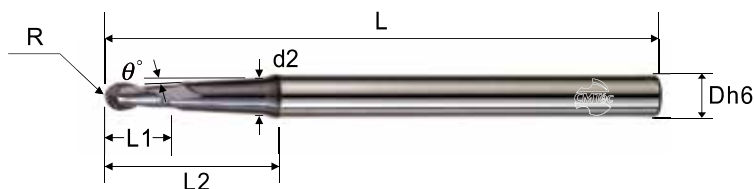


半徑 R	刃斜角 α°	刃長 L1	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	1°	8	2.24	50	4	2	CETB2010010	CETB2010010A
1.0R	3°	8	2.74	50	4	2	CETB2010030	CETB2010030A
1.0R	5°	8	3.23	50	4	2	CETB2010050	CETB2010050A
1.25R	1°	10	2.81	50	4	2	CETB2012510	CETB2012510A
1.25R	3°	10	3.42	50	4	2	CETB2012530	CETB2012530A
1.25R	5°	10	4.04	50	6	2	CETB2012550	CETB2012550A
1.5R	1°	12	3.37	50	4	2	CETB2015010	CETB2015010A
1.5R	3°	12	4.10	50	6	2	CETB2015030	CETB2015030A
1.5R	5°	12	4.85	50	6	2	CETB2015050	CETB2015050A
2.0R	1°	16	4.49	60	6	2	CETB2020010	CETB2020010A
2.0R	3°	16	5.47	60	6	2	CETB2020030	CETB2020030A
2.0R	5°	16	6.46	60	8	2	CETB2020050	CETB2020050A
3.0R	1°	24	6.73	75	8	2	CETB2030010	CETB2030010A
3.0R	3°	24	8.20	75	10	2	CETB2030030	CETB2030030A
3.0R	5°	24	9.67	75	10	2	CETB2030050	CETB2030050A

S220 鎢鋼球型銑刀- 斜頸型- 2刃

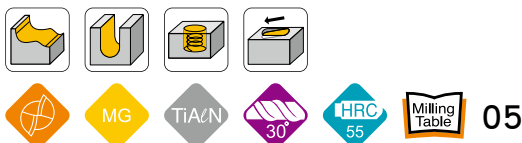
S220 MICRO GRAIN CARBIDE END MILLS- Taper Neck Ball Nosed- 2F

· CENL20000A



R(半徑)	Tolerance(公差)
R	±0.02

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

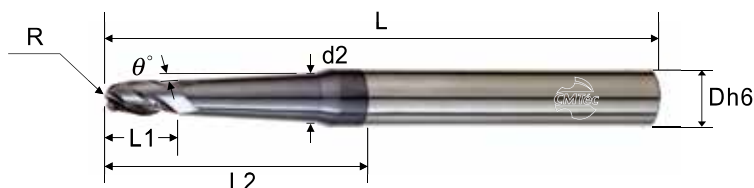


半徑 R	半夾角 θ°	刃長 L1	有效長 L2	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	3°	4	42	5.98	100	8	2	CENL20100	CENL20100A
1.5R	3°	6	47	7.30	100	8	2	CENL20150	CENL20150A
2.0R	3°	8	38	7.14	100	8	2	CENL20200	CENL20200A
2.5R	3°	10	28	6.89	100	8	2	CENL20250	CENL20250A
3.0R	3°	12	38	8.73	100	10	2	CENL20300	CENL20300A
4.0R	3°	16	38	10.31	150	12	2	CENL20400	CENL20400A
5.0R	3°	20	57	13.88	150	16	2	CENL20500	CENL20500A
6.0R	3°	24	38	13.47	150	16	2	CENL20600	CENL20600A

S220 鎢鋼球型銑刀- 斜頸型- 4刃

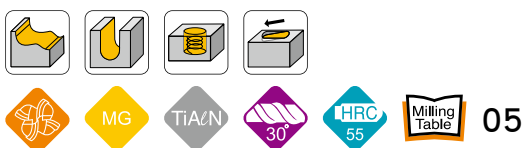
S220 MICRO GRAIN CARBIDE END MILLS- Taper Neck Ball Nosed- 4F

· CENL40000A



R(半徑)	Tolerance(公差)
R	±0.02

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

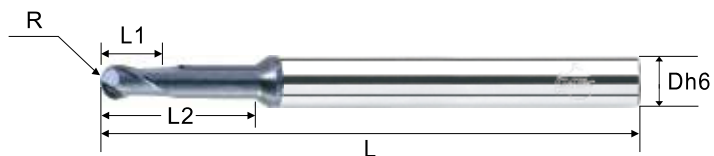


半徑 R	半夾角 θ°	刃長 L1	有效長 L2	粗端徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0R	3°	4	42	5.98	100	8	4	CENL40100	CENL40100A
1.5R	3°	6	47	7.30	100	8	4	CENL40150	CENL40150A
2.0R	3°	8	38	7.14	100	8	4	CENL40200	CENL40200A
2.5R	3°	10	28	6.89	100	8	4	CENL40250	CENL40250A
3.0R	3°	12	38	8.73	100	10	4	CENL40300	CENL40300A
4.0R	3°	16	38	10.31	150	12	4	CENL40400	CENL40400A
5.0R	3°	20	57	13.88	150	16	4	CENL40500	CENL40500A
6.0R	3°	24	38	13.47	150	16	4	CENL40600	CENL40600A

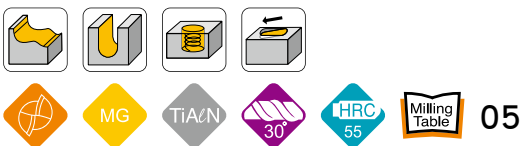
S220 鎢鋼球型銑刀-長頸型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Neck- 2F

· CEBN20000000A



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing —	
精銑 Finishing ○	
中銑 Semi Finishing ◎	
粗銑 Roughing ○	



半徑 R	刃長 L1	有效長 L2	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.
0.5R	1.5	7.5	50	4	2	CEBN20050075	CEBN20050075A
0.5R	1.5	11.5	50	4	2	CEBN20050115	CEBN20050115A
0.75R	2.5	10.5	50	4	2	CEBN20075105	CEBN20075105A
0.75R	2.5	18.5	50	4	2	CEBN20075185	CEBN20075185A
1.0R	3.0	11.0	50	4	2	CEBN20100110	CEBN20100110A
1.0R	3.0	19.0	50	4	2	CEBN20100190	CEBN20100190A
1.0R	3.0	23.0	60	4	2	CEBN20100230	CEBN20100230A
1.25R	3.5	15.5	50	4	2	CEBN20125155	CEBN20125155A
1.25R	3.5	23.5	60	4	2	CEBN20125235	CEBN20125235A
1.5R	4.5	16.5	60	6	2	CEBN20150165	CEBN20150165A
1.5R	4.5	24.5	75	6	2	CEBN20150245	CEBN20150245A
2.0R	6.0	26.0	75	6	2	CEBN20200260	CEBN20200260A
2.0R	6.0	36.0	75	6	2	CEBN20200360	CEBN20200360A

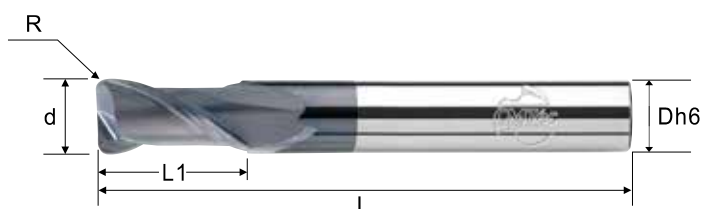
→ 切削條件表 Cutting Condition P.268 → 參考資料 Technical Data P.243

S220 鎢鋼圓鼻銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- 2F

· **CECRM2** 0000000 **A**

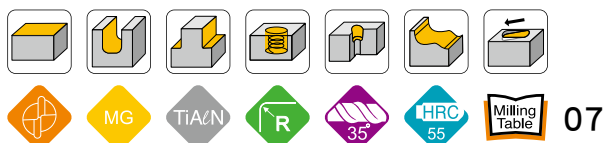
· **CECR2** 0000000 **A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	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.
1.0	0.2R	2	50	4	2	CECRM2010002	CECRM2010002A
1.0	0.3R	2	50	4	2	CECRM2010003	CECRM2010003A
1.5	0.2R	3	50	4	2	CECRM2015002	CECRM2015002A
1.5	0.3R	3	50	4	2	CECRM2015003	CECRM2015003A
2.0	0.2R	4	50	4	2	CECRM2020002	CECRM2020002A
2.0	0.3R	4	50	4	2	CECRM2020003	CECRM2020003A
2.5	0.2R	5	50	4	2	CECRM2025002	CECRM2025002A
2.5	0.3R	5	50	4	2	CECRM2025003	CECRM2025003A
2.5	0.5R	5	50	4	2	CECRM2025005	CECRM2025005A
3.0	0.3R	6	50	4	2	CECRM2030003	CECRM2030003A
3.0	0.5R	6	50	4	2	CECRM2030005	CECRM2030005A
3.0	1.0R	6	50	4	2	CECRM2030010	CECRM2030010A
4.0	0.3R	8	50	6	2	CECR2040003	CECR2040003A
4.0	0.5R	8	50	6	2	CECR2040005	CECR2040005A
4.0	1.0R	8	50	6	2	CECR2040010	CECR2040010A
5.0	0.5R	10	50	6	2	CECR2050005	CECR2050005A
5.0	1.0R	10	50	6	2	CECR2050010	CECR2050010A
6.0	0.5R	12	50	6	2	CECR2060005	CECR2060005A
6.0	1.0R	12	50	6	2	CECR2060010	CECR2060010A
8.0	0.5R	16	60	8	2	CECR2080005	CECR2080005A
8.0	1.0R	16	60	8	2	CECR2080010	CECR2080010A
8.0	1.5R	16	60	8	2	CECR2080015	CECR2080015A
10.0	0.5R	20	75	10	2	CECR2100005	CECR2100005A
10.0	1.0R	20	75	10	2	CECR2100010	CECR2100010A
10.0	1.5R	20	75	10	2	CECR2100015	CECR2100015A
10.0	2.0R	20	75	10	2	CECR2100020	CECR2100020A
12.0	0.5R	24	75	12	2	CECR2120005	CECR2120005A
12.0	1.0R	24	75	12	2	CECR2120010	CECR2120010A
12.0	1.5R	24	75	12	2	CECR2120015	CECR2120015A
12.0	2.0R	24	75	12	2	CECR2120020	CECR2120020A

→ 切削條件表
Cutting Condition P.269

→ 參考資料
Technical Data P.243

S220 鎢鋼圓鼻銑刀- 小柄/標準型- 4刃

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

· CECRM4 0000000 A

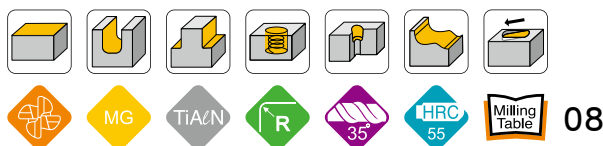
· CECR4 0000000 A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input checked="" type="radio"/>
粗銑 Roughing	<input type="radio"/>

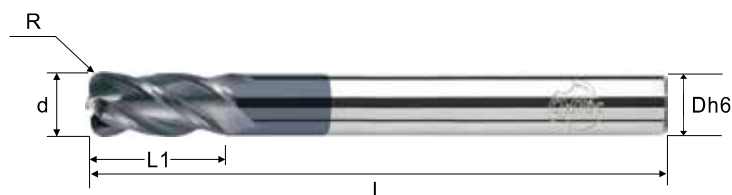


刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
1.0	0.2R	2	50	4	4	CECRM4010002	CECRM4010002A
1.0	0.3R	2	50	4	4	CECRM4010003	CECRM4010003A
1.5	0.2R	3	50	4	4	CECRM4015002	CECRM4015002A
1.5	0.3R	3	50	4	4	CECRM4015003	CECRM4015003A
2.0	0.2R	4	50	4	4	CECRM4020002	CECRM4020002A
2.0	0.3R	4	50	4	4	CECRM4020003	CECRM4020003A
2.5	0.2R	5	50	4	4	CECRM4025002	CECRM4025002A
2.5	0.3R	5	50	4	4	CECRM4025003	CECRM4025003A
2.5	0.5R	5	50	4	4	CECRM4025005	CECRM4025005A
3.0	0.3R	6	50	4	4	CECRM4030003	CECRM4030003A
3.0	0.5R	6	50	4	4	CECRM4030005	CECRM4030005A
3.0	1.0R	6	50	4	4	CECRM4030010	CECRM4030010A
3.0	0.5R	6	50	6	4	CECR4030005	CECR4030005A
3.0	1.0R	6	50	6	4	CECR4030010	CECR4030010A
4.0	0.5R	8	50	6	4	CECR4040005	CECR4040005A
4.0	1.0R	8	50	6	4	CECR4040010	CECR4040010A
5.0	0.5R	10	50	6	4	CECR4050005	CECR4050005A
5.0	1.0R	10	50	6	4	CECR4050010	CECR4050010A
6.0	0.5R	12	50	6	4	CECR4060005	CECR4060005A
6.0	1.0R	12	50	6	4	CECR4060010	CECR4060010A
8.0	0.5R	16	60	8	4	CECR4080005	CECR4080005A
8.0	1.0R	16	60	8	4	CECR4080010	CECR4080010A
8.0	1.5R	16	60	8	4	CECR4080015	CECR4080015A
10.0	0.5R	20	75	10	4	CECR4100005	CECR4100005A
10.0	1.0R	20	75	10	4	CECR4100010	CECR4100010A
10.0	1.5R	20	75	10	4	CECR4100015	CECR4100015A
10.0	2.0R	20	75	10	4	CECR4100020	CECR4100020A
12.0	0.5R	24	75	12	4	CECR4120005	CECR4120005A
12.0	1.0R	24	75	12	4	CECR4120010	CECR4120010A
12.0	1.5R	24	75	12	4	CECR4120015	CECR4120015A
12.0	2.0R	24	75	12	4	CECR4120020	CECR4120020A
12.0	3.0R	24	75	12	4	CECR4120030	CECR4120030A

S220 鎢鋼圓鼻銑刀- 長柄型- 4刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius & Long Shank- 4F

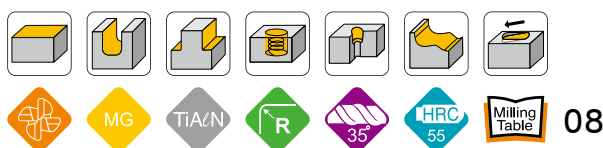
· CECL4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	±0.02

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



刃徑 d	R角 R	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.
3.0	0.5R	6	75	6	4	CECL4030005	CECL4030005A
3.0	1.0R	6	75	6	4	CECL4030010	CECL4030010A
4.0	0.5R	8	75	6	4	CECL4040005	CECL4040005A
4.0	1.0R	8	75	6	4	CECL4040010	CECL4040010A
5.0	0.5R	10	75	6	4	CECL4050005	CECL4050005A
5.0	1.0R	10	75	6	4	CECL4050010	CECL4050010A
6.0	0.5R	12	75	6	4	CECL4060005	CECL4060005A
6.0	1.0R	12	75	6	4	CECL4060010	CECL4060010A
8.0	0.5R	16	100	8	4	CECL4080005	CECL4080005A
8.0	1.0R	16	100	8	4	CECL4080010	CECL4080010A
8.0	1.5R	16	100	8	4	CECL4080015	CECL4080015A
10.0	0.5R	20	100	10	4	CECL4100005	CECL4100005A
10.0	1.0R	20	100	10	4	CECL4100010	CECL4100010A
10.0	1.5R	20	100	10	4	CECL4100015	CECL4100015A
10.0	2.0R	20	100	10	4	CECL4100020	CECL4100020A
12.0	0.5R	24	100	12	4	CECL4120005	CECL4120005A
12.0	1.0R	24	100	12	4	CECL4120010	CECL4120010A
12.0	1.5R	24	100	12	4	CECL4120015	CECL4120015A
12.0	2.0R	24	100	12	4	CECL4120020	CECL4120020A

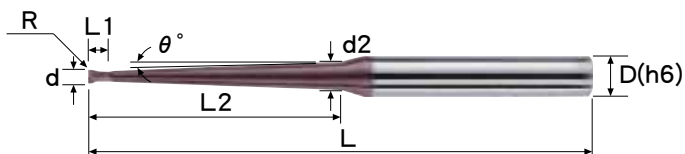
→ 切削條件表 Cutting Condition P.269

→ 參考資料 Technical Data P.243

S220 鎢鋼圓鼻銑刀-斜頸型-2刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- Taper Neck- 2F

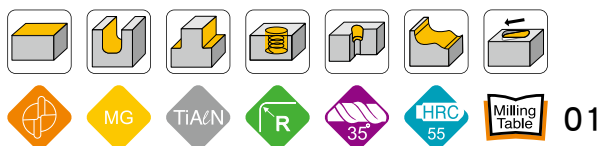
· CECNL2000000000A



d(刃徑)	Tolerance(公差)
φ < 3	0 ~ -0.02
3 ≤ φ ≤ 10	-0.01 ~ -0.03
10 < φ	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	±0.02

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

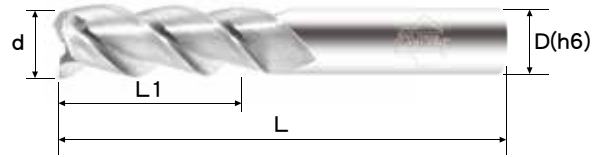


刃徑 d	R角 R	半夾 角 θ°	刃長 L1	有效 長 L2	粗端 徑 d2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	0.2R	1.5°	3.0	25	3.15	75	6	2	CECNL2020002250	CECNL2020002250A
2.0	0.2R	1.5°	3.0	40	3.91	75	6	2	CECNL2020002400	CECNL2020002400A
2.0	0.5R	1.5°	3.0	25	3.15	75	6	2	CECNL2020005250	CECNL2020005250A
2.0	0.5R	1.5°	3.0	40	3.91	75	6	2	CECNL2020005400	CECNL2020005400A
2.0	0.5R	1.5°	3.0	50	4.46	100	6	2	CECNL2020005500	CECNL2020005500A
2.5	0.2R	1.5°	3.5	25	3.63	75	6	2	CECNL2025002250	CECNL2025002250A
2.5	0.2R	1.5°	3.5	40	4.41	75	6	2	CECNL2025002400	CECNL2025002400A
2.5	0.5R	1.5°	3.5	25	3.63	75	6	2	CECNL2025005250	CECNL2025005250A
2.5	0.5R	1.5°	3.5	40	4.41	75	6	2	CECNL2025005400	CECNL2025005400A
2.5	0.5R	1.5°	3.5	50	5.12	100	6	2	CECNL2025005500	CECNL2025005500A
3.0	0.5R	1.5°	4.5	25	4.07	75	6	2	CECNL2030005250	CECNL2030005250A
3.0	1.0R	1.5°	4.5	25	4.07	75	6	2	CECNL2030010250	CECNL2030010250A
3.0	1.0R	1.5°	4.5	40	4.86	75	6	2	CECNL2030010400	CECNL2030010400A
3.0	1.0R	1.5°	4.5	50	5.38	100	6	2	CECNL2030010500	CECNL2030010500A
4.0	0.5R	1.5°	6.0	25	5.00	100	8	2	CECNL2040005250	CECNL2040005250A
4.0	0.5R	1.5°	6.0	50	6.30	100	8	2	CECNL2040005500	CECNL2040005500A
4.0	1.0R	1.5°	6.0	25	5.00	100	8	2	CECNL2040010250	CECNL2040010250A
4.0	1.0R	1.5°	6.0	50	6.30	100	8	2	CECNL2040010500	CECNL2040010500A
5.0	1.0R	1.5°	7.0	35	6.47	100	10	2	CECNL2050010350	CECNL2050010350A
5.0	1.0R	1.5°	7.0	50	7.25	100	10	2	CECNL2050010500	CECNL2050010500A
6.0	1.0R	1.5°	8.0	35	7.41	100	10	2	CECNL2060010350	CECNL2060010350A
6.0	1.0R	1.5°	8.0	50	8.20	100	10	2	CECNL2060010500	CECNL2060010500A

S220 鎢鋼鋁用平銑刀- 高導微柄/小柄/標準型- 3刃

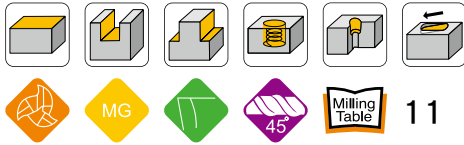
S220 MICRO GRAIN CARBIDE END MILLS- High Helix For Aluminum- 3F

- CEXS30000
- CEXM30000
- CEX30000



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	—

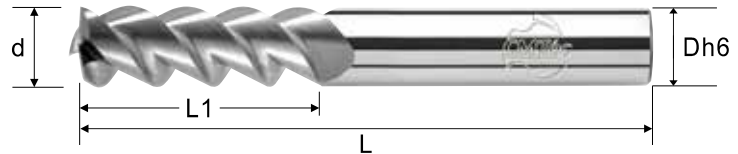


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	9.0	50	3	3	CEXS30300
1.0	3.0	50	4	3	CEXM30100
1.5	4.5	50	4	3	CEXM30150
2.0	6.0	50	4	3	CEXM30200
3.0	9.0	50	4	3	CEXM30300
4.0	12.0	50	4	3	CEXM30400
1.0	3.0	50	6	3	CEX30100
1.5	4.5	50	6	3	CEX30150
2.0	6.0	50	6	3	CEX30200
3.0	9.0	50	6	3	CEX30300
4.0	12.0	50	6	3	CEX30400
5.0	15.0	50	6	3	CEX30500
6.0	18.0	50	6	3	CEX30600
8.0	20.0	60	8	3	CEX30800
10.0	30.0	75	10	3	CEX31000
12.0	30.0	75	12	3	CEX31200
16.0	40.0	100	16	3	CEX31600
20.0	45.0	100	20	3	CEX32000

S220 鎢鋼鋁用平銑刀- 特高導標準型- 3刃

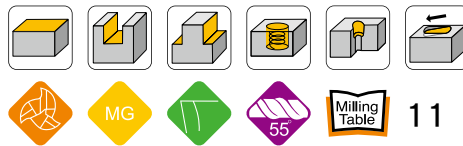
S220 MICRO GRAIN CARBIDE END MILLS- Extra High Helix For Aluminum- 3F

· CEXX30000



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	—

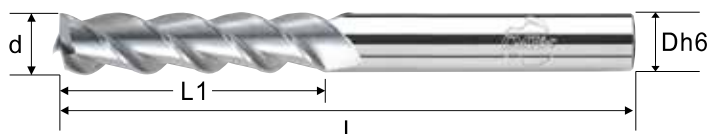


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	9	50	6	3	CEXX30300
4.0	12	50	6	3	CEXX30400
5.0	15	50	6	3	CEXX30500
6.0	18	60	6	3	CEXX30600
8.0	20	60	8	3	CEXX30800
10.0	30	75	10	3	CEXX31000
12.0	30	75	12	3	CEXX31200
16.0	40	100	16	3	CEXX31600
20.0	45	100	20	3	CEXX32000

S220 鎢鋼鋁用平銑刀- 高導長刃型- 3刃

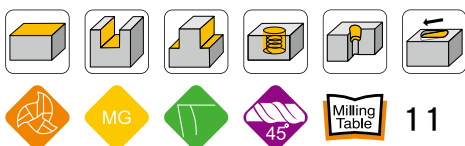
S220 MICRO GRAIN CARBIDE END MILLS- High Helix- Long Flute For Aluminum- 3F

· **CEXF30000**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

超精銑 Bright Finishing	
精銑 Finishing	
中銑 Semi Finishing	
粗銑 Roughing	



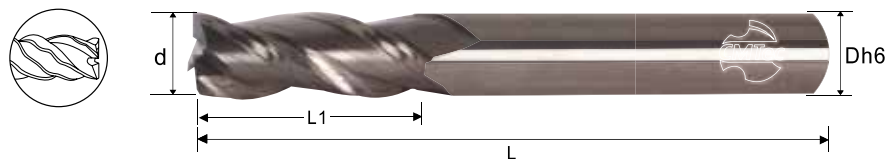
11

刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	15	60	6	3	CEXF30300
4.0	20	60	6	3	CEXF30400
5.0	25	60	6	3	CEXF30500
6.0	30	75	6	3	CEXF30600
8.0	45	100	8	3	CEXF30800
10.0	55	100	10	3	CEXF31000
12.0	55	100	12	3	CEXF31200
14.0	75	150	14	3	CEXF31400
16.0	75	150	16	3	CEXF31600
18.0	90	150	18	3	CEXF31800
20.0	90	150	20	3	CEXF32000

S220 鎢鋼鋁用平銑刀- 波浪型- 3刃

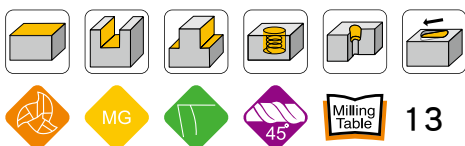
S220 MICRO GRAIN CARBIDE END MILLS- Sinus Edge(Wave) Type For Aluminum- 3F

· **CEXRS30000**



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	⊙



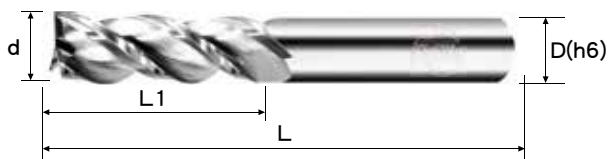
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
6.0	15	50	6	3	CEXRS30600
8.0	20	60	8	3	CEXRS30800
10.0	25	75	10	3	CEXRS31000
12.0	30	75	12	3	CEXRS31200
16.0	40	100	16	3	CEXRS31600
20.0	45	100	20	3	CEXRS32000

→ 切削條件表 P.272 → 參考資料 P.243
 Cutting Condition Technical Data

S220 鎢鋼鋁用平銑刀- 高效型- 3刃

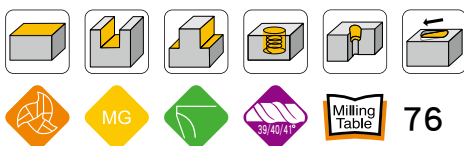
S220 MICRO GRAIN CARBIDE END MILLS- High Performance For Aluminum- 3F

· CEXV30000



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	◎



Milling Table 76

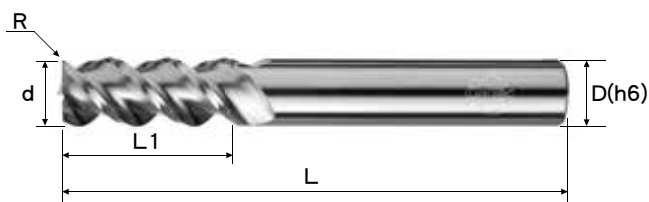
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	9	50	6	3	CEXV30300
4.0	12	50	6	3	CEXV30400
5.0	15	50	6	3	CEXV30500
6.0	18	50	6	3	CEXV30600
8.0	24	60	8	3	CEXV30800
10.0	30	75	10	3	CEXV31000
12.0	35	75	12	3	CEXV31200
16.0	40	100	16	3	CEXV31600

S220 鎢鋼鋁用圓鼻銑刀- 強力型- 3刃

S220 MICRO GRAIN CARBIDE END MILLS- Corner Radius- Square Type- Power Cutting-Aluminum- 3F

· **CEXCRSHM3**000000

· **CEXCRSH3**000000



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
2.0	0.2R	6	50	4	3	CEXCRSHM3020002
2.0	0.3R	6	50	4	3	CEXCRSHM3020003
3.0	0.5R	9	50	4	3	CEXCRSHM3030005
3.0	1.0R	9	50	4	3	CEXCRSHM3030010
4.0	0.5R	12	50	4	3	CEXCRSHM3040005
4.0	1.0R	12	50	4	3	CEXCRSHM3040010
2.0	0.2R	6	50	6	3	CEXCRSH3020002
2.0	0.3R	6	50	6	3	CEXCRSH3020003
3.0	0.5R	9	50	6	3	CEXCRSH3030005
3.0	1.0R	9	50	6	3	CEXCRSH3030010
4.0	0.5R	12	50	6	3	CEXCRSH3040005
4.0	1.0R	12	50	6	3	CEXCRSH3040010
5.0	0.5R	15	50	6	3	CEXCRSH3050005
5.0	1.0R	15	50	6	3	CEXCRSH3050010
6.0	0.5R	18	50	6	3	CEXCRSH3060005
6.0	1.0R	18	50	6	3	CEXCRSH3060010
8.0	0.5R	24	60	8	3	CEXCRSH3080005
8.0	1.0R	24	60	8	3	CEXCRSH3080010
10.0	0.5R	30	75	10	3	CEXCRSH3100005
10.0	1.0R	30	75	10	3	CEXCRSH3100010
10.0	1.5R	30	75	10	3	CEXCRSH3100015
10.0	2.0R	30	75	10	3	CEXCRSH3100020
12.0	0.5R	35	75	12	3	CEXCRSH3120005
12.0	1.0R	35	75	12	3	CEXCRSH3120010
12.0	1.5R	35	75	12	3	CEXCRSH3120015
12.0	2.0R	35	75	12	3	CEXCRSH3120020
12.0	3.0R	35	75	12	3	CEXCRSH3120030
16.0	0.5R	40	100	16	3	CEXCRSH3160005
16.0	1.0R	40	100	16	3	CEXCRSH3160010
16.0	1.5R	40	100	16	3	CEXCRSH3160015
16.0	2.0R	40	100	16	3	CEXCRSH3160020
16.0	3.0R	40	100	16	3	CEXCRSH3160030
20.0	0.5R	45	100	20	3	CEXCRSH3200005
20.0	1.0R	45	100	20	3	CEXCRSH3200010
20.0	1.5R	45	100	20	3	CEXCRSH3200015
20.0	2.0R	45	100	20	3	CEXCRSH3200020
20.0	3.0R	45	100	20	3	CEXCRSH3200030

→ 切削條件表 P.302
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼鋁用球型銑刀- 小柄/標準型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed For Aluminum- 2F

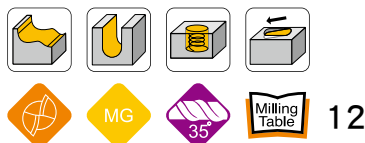
· CEXBM20000

· CEXB20000



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
1.0R	4	50	4	2	CEXBM20100
2.0R	8	50	4	2	CEXBM20200
2.5R	10	50	6	2	CEXB20250
3.0R	12	50	6	2	CEXB20300
4.0R	16	60	8	2	CEXB20400
5.0R	20	75	10	2	CEXB20500
6.0R	24	75	12	2	CEXB20600
8.0R	32	100	16	2	CEXB20800

S220 鎢鋼鋁用球型銑刀- 長柄型- 2刃

S220 MICRO GRAIN CARBIDE END MILLS- Ball Nosed & Long Shank For Aluminum- 2F

· CEXBL20000



R(半徑)	Tolerance(公差)
R	±0.02

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



半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
1.0R	4	75	6	2	CEXBL20100
2.0R	8	75	6	2	CEXBL20200
2.5R	10	75	6	2	CEXBL20250
3.0R	12	75	6	2	CEXBL20300
4.0R	16	100	8	2	CEXBL20400
5.0R	20	100	10	2	CEXBL20500
6.0R	24	100	12	2	CEXBL20600
8.0R	32	150	16	2	CEXBL20800

→ 切削條件表 P.271
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 波浪型- 2/3/4刃

S220 MICRO GRAIN CARBIDE END MILLS- Sinus Edge (Wave) Type- 2/3/4F

· CERS20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	2	CERS20600A
8.0	20	60	8	2	CERS20800A
10.0	25	75	10	2	CERS21000A
12.0	30	75	12	2	CERS21200A

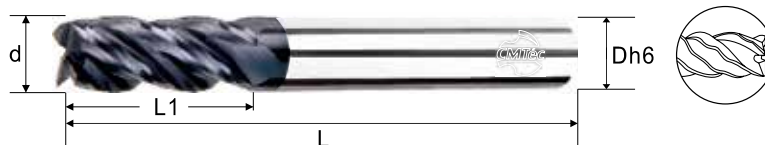
· CERS30000A



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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	3	CERS30600A
8.0	20	60	8	3	CERS30800A
10.0	25	75	10	3	CERS31000A
12.0	30	75	12	3	CERS31200A
16.0	40	100	16	3	CERS31600A
20.0	45	100	20	3	CERS32000A

· CERS40000A



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	鍍膜訂購編號 Coated Order No.
6.0	15	50	6	4	CERS40600A
8.0	20	60	8	4	CERS40800A
10.0	25	75	10	4	CERS41000A
12.0	30	75	12	4	CERS41200A
16.0	40	100	16	4	CERS41600A
20.0	45	100	20	4	CERS42000A

→ 切削條件表 P.272 Cutting Condition
→ 參考資料 P.243 Technical Data

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

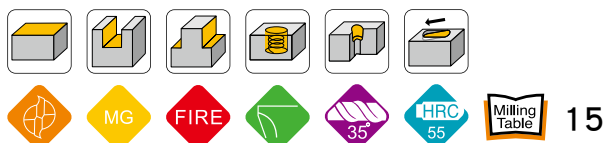
· CESHM20000F

· CESH20000F



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○



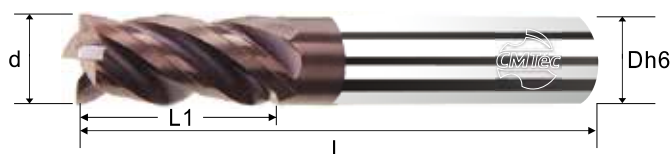
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	5	50	4	2	CESHM20200	CESHM20200F
3.0	8	50	4	2	CESHM20300	CESHM20300F
4.0	10	50	4	2	CESHM20400	CESHM20400F
3.0	8	50	6	2	CESH20300	CESH20300F
4.0	10	50	6	2	CESH20400	CESH20400F
5.0	13	50	6	2	CESH20500	CESH20500F
6.0	15	50	6	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

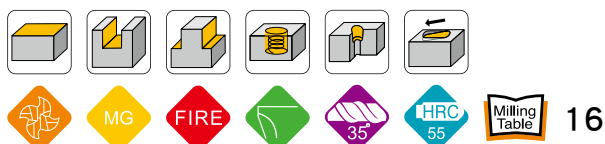
· CESHM40000F

· CESH40000F



d(刃徑)	Tolerance(公差)
$\phi < 3$	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

→ 切削條件表 P.273
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼平銑刀- 高導強力小柄/標準型- 2刃

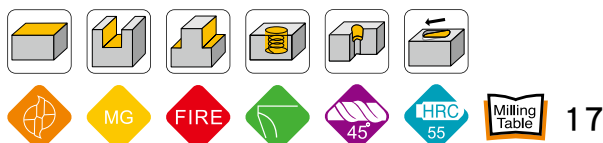
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- Power Cutting- 2F

· CEHSM20000F

· CEHS20000F

d(刃徑)	Tolerance(公差)
$\phi < 3$	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	CEHSM20200	CEHSM20200F
3.0	8	50	4	2	CEHSM20300	CEHSM20300F
4.0	10	50	4	2	CEHSM20400	CEHSM20400F
3.0	8	50	6	2	CEHS20300	CEHS20300F
4.0	10	50	6	2	CEHS20400	CEHS20400F
5.0	13	50	6	2	CEHS20500	CEHS20500F
6.0	15	50	6	2	CEHS20600	CEHS20600F
8.0	20	60	8	2	CEHS20800	CEHS20800F
10.0	25	75	10	2	CEHS21000	CEHS21000F
12.0	30	75	12	2	CEHS21200	CEHS21200F
16.0	35	100	16	2	CEHS21600	CEHS21600F

S220 鎢鋼平銑刀- 高導強力小柄/標準型- 4刃

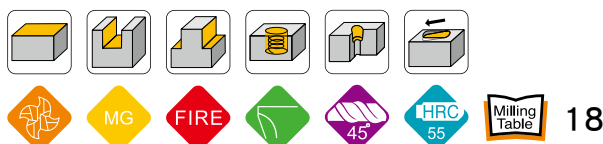
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- High Helix- Power Cutting- 4F

· CEHSM40000F

· CEHS40000F

d(刃徑)	Tolerance(公差)
$\phi < 3$	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	CEHSM40200	CEHSM40200F
3.0	8	50	4	4	CEHSM40300	CEHSM40300F
4.0	10	50	4	4	CEHSM40400	CEHSM40400F
3.0	8	50	6	4	CEHS40300	CEHS40300F
4.0	10	50	6	4	CEHS40400	CEHS40400F
5.0	13	50	6	4	CEHS40500	CEHS40500F
6.0	15	50	6	4	CEHS40600	CEHS40600F
8.0	20	60	8	4	CEHS40800	CEHS40800F
10.0	25	75	10	4	CEHS41000	CEHS41000F
12.0	30	75	12	4	CEHS41200	CEHS41200F
16.0	35	100	16	4	CEHS41600	CEHS41600F

→ 切削條件表 P.274
Cutting Condition

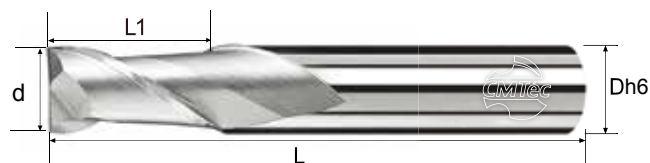
→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用平銑刀- 小柄/標準型- 2刃

S220 CARBIDE END MILLS- Square Type for Copper, Aluminum- 2F

· CЕСSM20000-00A

· CЕСC20000-00A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
0.5	1.0	50	4	2	CЕСSM20050-25	CЕСSM20050-25A
1.0	2.0	50	4	2	CЕСSM20100-25	CЕСSM20100-25A
1.5	3.0	50	4	2	CЕСSM20150-25	CЕСSM20150-25A
2.0	4.0	50	4	2	CЕСSM20200-25	CЕСSM20200-25A
2.5	5.0	50	4	2	CЕСSM20250-25	CЕСSM20250-25A
3.0	6.0	50	6	2	CЕСC20300-25	CЕСC20300-25A
4.0	8.0	50	6	2	CЕСC20400-25	CЕСC20400-25A
5.0	10.0	60	6	2	CЕСC20500-25	CЕСC20500-25A
6.0	12.0	60	6	2	CЕСC20600-25	CЕСC20600-25A
8.0	16.0	60	8	2	CЕСC20800-25	CЕСC20800-25A
10.0	20.0	75	10	2	CЕСC21000-25	CЕСC21000-25A
12.0	24.0	75	12	2	CЕСC21200-25	CЕСC21200-25A

· CЕСSM20000-00A

· CЕСC20000-00A

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.
0.5	1.0	50	4	2	CЕСSM20050-45	CЕСSM20050-45A
1.0	2.0	50	4	2	CЕСSM20100-45	CЕСSM20100-45A
1.5	3.0	50	4	2	CЕСSM20150-45	CЕСSM20150-45A
2.0	4.0	50	4	2	CЕСSM20200-45	CЕСSM20200-45A
2.5	5.0	50	4	2	CЕСSM20250-45	CЕСSM20250-45A
3.0	6.0	50	6	2	CЕСC20300-45	CЕСC20300-45A
4.0	8.0	50	6	2	CЕСC20400-45	CЕСC20400-45A
5.0	10.0	60	6	2	CЕСC20500-45	CЕСC20500-45A
6.0	12.0	60	6	2	CЕСC20600-45	CЕСC20600-45A
8.0	16.0	60	8	2	CЕСC20800-45	CЕСC20800-45A
10.0	20.0	75	10	2	CЕСC21000-45	CЕСC21000-45A
12.0	24.0	75	12	2	CЕСC21200-45	CЕСC21200-45A

→ 切削條件表 P.275
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用平銑刀-長刃型-2刃

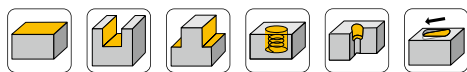
S220 CARBIDE END MILLS- Square & Long Flute for Copper, Aluminum- 2F

· CELFC20000-00A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

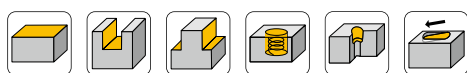
超精銑 Bright Finishing	—
精銑 Finishing	◎
中銑 Semi Finishing	○
粗銑 Roughing	○



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.
3.0	12.0	60	6	2	CELFC20300-25	CELFC20300-25A
4.0	16.0	60	6	2	CELFC20400-25	CELFC20400-25A
5.0	20.0	75	6	2	CELFC20500-25	CELFC20500-25A
6.0	24.0	75	6	2	CELFC20600-25	CELFC20600-25A
8.0	32.0	90	8	2	CELFC20800-25	CELFC20800-25A
10.0	40.0	100	10	2	CELFC21000-25	CELFC21000-25A
12.0	48.0	110	12	2	CELFC21200-25	CELFC21200-25A

· CELFC20000-00A

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.
3.0	12.0	60	6	2	CELFC20300-45	CELFC20300-45A
4.0	16.0	60	6	2	CELFC20400-45	CELFC20400-45A
5.0	20.0	75	6	2	CELFC20500-45	CELFC20500-45A
6.0	24.0	75	6	2	CELFC20600-45	CELFC20600-45A
8.0	32.0	90	8	2	CELFC20800-45	CELFC20800-45A
10.0	40.0	100	10	2	CELFC21000-45	CELFC21000-45A
12.0	48.0	110	12	2	CELFC21200-45	CELFC21200-45A

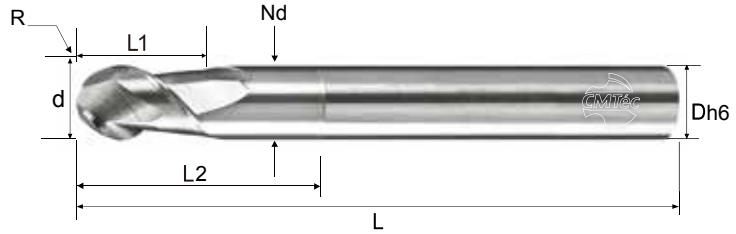
→ 切削條件表 P.276
Cutting Condition

→ 參考資料 P.243
Technical Data

S220 鎢鋼銅鋁用球型銑刀-長頸型-2刃

S220 CARBIDE END MILLS- Long Neck Ball Nosed for Copper, Aluminum- 2F

- CEBNCM200000A
- CEBNC200000A



R(半徑)	Tolerance(公差)
R	±0.02

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

Milling Table 23

半徑 R	刃長 L1	有效長 L2	頸徑 Nd	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.
0.5R	1.5	4.0	0.95	50	4	2	CEBNCM20050040	CEBNCM20050040A
		6.0					CEBNCM20050060	CEBNCM20050060A
1.0R	3.0	8.0	1.94	50	4	2	CEBNCM20100080	CEBNCM20100080A
		14.0					CEBNCM20100140	CEBNCM20100140A
1.5R	4.5	15.0	2.85	60	6	2	CEBNC20150150	CEBNC20150150A
		25.0					CEBNC20150250	CEBNC20150250A
2.0R	6.0	20.0	3.80	60	6	2	CEBNC20200200	CEBNC20200200A
		30.0		75			CEBNC20200300	CEBNC20200300A
3.0R	9.0	20.0	5.80	60	6	2	CEBNC20300200	CEBNC20300200A
		30.0		90			8	CEBNC20300300
4.0R	12.0	20.0	7.80	75	8	2	CEBNC20400200	CEBNC20400200A
		40.0		100			10	CEBNC20400400
5.0R	15.0	30.0	9.80	90	10	2	CEBNC20500300	CEBNC20500300A
		50.0		120			12	CEBNC20500500
6.0R	18.0	40.0	11.80	110	12	2	CEBNC20600400	CEBNC20600400A
		60.0		130			16	CEBNC20600600

S220 Carbide End Mills
S220鎢鋼銑刀

S220 鎢鋼平銑刀- 石墨專用型- 2刃

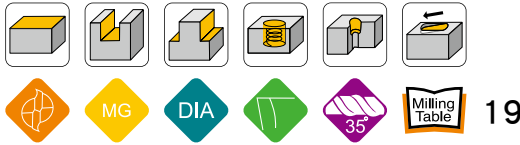
S220 CARBIDE END MILLS- Square Type- 2F for Graphite

- CESGM20000A
- CESG20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
1.0	3	50	4	2	CESGM20100A
2.0	6	50	4	2	CESGM20200A
3.0	8	50	4	2	CESGM20300A
4.0	10	50	4	2	CESGM20400A
3.0	8	50	6	2	CESG20300A
4.0	10	50	6	2	CESG20400A
5.0	13	50	6	2	CESG20500A
6.0	15	50	6	2	CESG20600A
8.0	20	60	8	2	CESG20800A
10.0	25	75	10	2	CESG21000A
12.0	30	75	12	2	CESG21200A

S220 鎢鋼球型銑刀- 石墨專用型- 2刃

S220 CARBIDE END MILLS- Ball Nosed- 2F for Graphite

- CEBGM20000A
- CEBG20000A



R(半徑)	Tolerance(公差)
R	±0.02
超精銑 Bright Finishing	—
精銑 Finishing	◎
中銑 Semi Finishing	◎
粗銑 Roughing	○

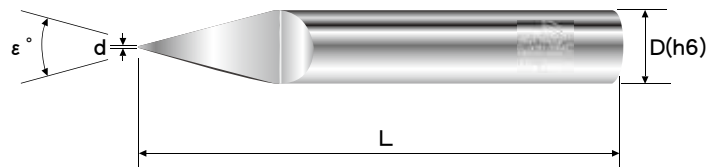
半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
0.5R	2	60	4	2	CEBGM20050A
1.0R	4	60	4	2	CEBGM20100A
1.5R	6	60	4	2	CEBGM20150A
2.0R	8	60	4	2	CEBGM20200A
1.5R	6	60	6	2	CEBG20150A
2.0R	8	60	6	2	CEBG20200A
2.5R	10	60	6	2	CEBG20250A
3.0R	12	60	6	2	CEBG20300A
4.0R	16	60	8	2	CEBG20400A
5.0R	20	75	10	2	CEBG20500A
6.0R	24	75	12	2	CEBG20600A

S220 鎢鋼雕刻刀- 標準型- 1刃

S220 CARBIDE ENGRAVING CUTTERS- Square Type- 1F

· CEUM000000

· CEU000000



適用：鋼料、鋁合金、黃銅、塑膠、木材。
For Steels, Aluminum, Brass, Plastic, Wood.
※ 其他刀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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NEW

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

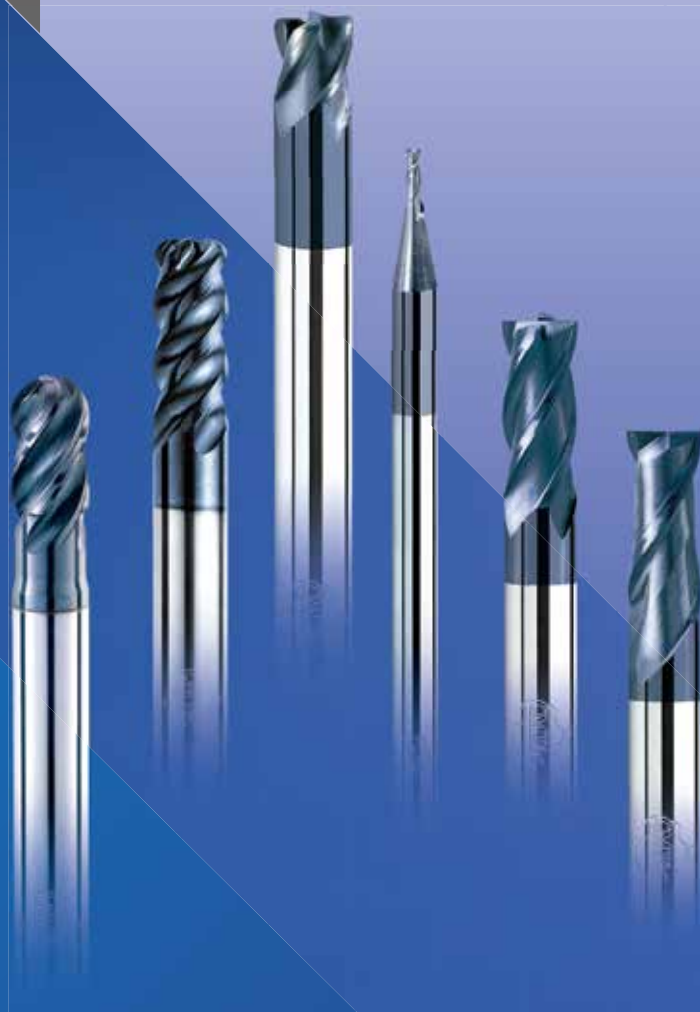
→ 切削條件表 P.307
Cutting Condition

→ 參考資料 P.243
Technical Data

M520

極細鎢鋼銑刀(高硬系列)

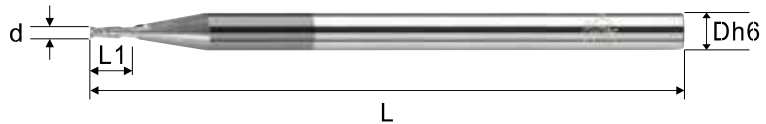
Ultra Carbide End Mills
(Super Hard Series)



M520 極細鎢鋼平銑刀- 微柄/小柄型- 2刃

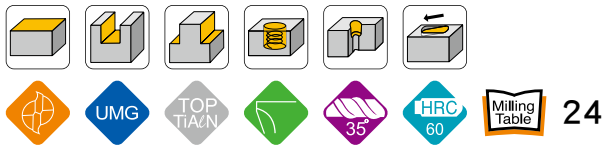
M520 ULTRA CARBIDE END MILLS- Square Type- 2F- Micro Diameter

- MESS20000A
- MESM20000A



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.02

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.
0.2	0.4	50	3	2	MESS20020	MESS20020A
0.25	0.5	50	3	2	MESS20025	MESS20025A
0.3	0.6	50	3	2	MESS20030	MESS20030A
0.35	0.7	50	3	2	MESS20035	MESS20035A
0.4	0.8	50	3	2	MESS20040	MESS20040A
0.5	1.0	50	3	2	MESS20050	MESS20050A
0.6	1.5	50	3	2	MESS20060	MESS20060A
0.7	2.0	50	3	2	MESS20070	MESS20070A
0.8	2.0	50	3	2	MESS20080	MESS20080A
0.9	2.0	50	3	2	MESS20090	MESS20090A
1.0	3.0	50	3	2	MESS20100	MESS20100A
1.5	4.0	50	3	2	MESS20150	MESS20150A
2.0	5.0	50	3	2	MESS20200	MESS20200A
2.5	6.0	50	3	2	MESS20250	MESS20250A
3.0	8.0	50	3	2	MESS20300	MESS20300A
0.2	0.4	50	4	2	MESM20020	MESM20020A
0.25	0.5	50	4	2	MESM20025	MESM20025A
0.3	0.6	50	4	2	MESM20030	MESM20030A
0.35	0.7	50	4	2	MESM20035	MESM20035A
0.4	0.8	50	4	2	MESM20040	MESM20040A
0.5	1.0	50	4	2	MESM20050	MESM20050A
0.6	1.5	50	4	2	MESM20060	MESM20060A
0.7	2.0	50	4	2	MESM20070	MESM20070A
0.8	2.0	50	4	2	MESM20080	MESM20080A
0.9	2.0	50	4	2	MESM20090	MESM20090A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.277
Cutting Condition P.277

→ 參考資料 P.243
Technical Data P.243

M520 極細鎢鋼平銑刀- 小柄/標準型- 2刃

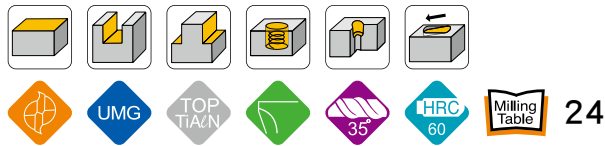
M520 ULTRA CARBIDE END MILLS- Square Type- 2F

· MESM20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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.
1.0	3	50	4	2	MESM20100	MESM20100A
1.5	4	50	4	2	MESM20150	MESM20150A
2.0	5	50	4	2	MESM20200	MESM20200A
2.5	6	50	4	2	MESM20250	MESM20250A
3.0	8	50	4	2	MESM20300	MESM20300A
3.5	9	50	4	2	MESM20350	MESM20350A
4.0	10	50	4	2	MESM20400	MESM20400A

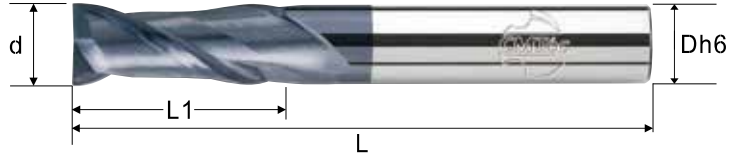
※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

[→ 切削條件表 P.277](#)
Cutting Condition P.277 [→ 參考資料 P.243](#)
Technical Data P.243

M520 極細鎢鋼平銑刀-標準型-2刃

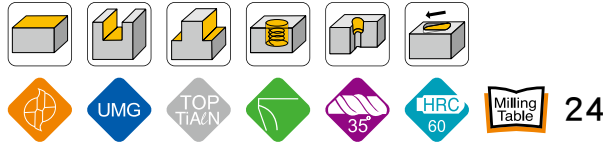
M520 ULTRA CARBIDE END MILLS- Square Type- 2F

· MES20000A




d(刃徑)	Tolerance(公差)
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	○



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.
3.0	8	50	6	2	MES20300	MES20300A
3.5	9	50	6	2	MES20350	MES20350A
4.0	10	50	6	2	MES20400	MES20400A
4.5	11	50	6	2	MES20450	MES20450A
5.0	13	50	6	2	MES20500	MES20500A
5.5	14	50	6	2	MES20550	MES20550A
6.0	15	50	6	2	MES20600	MES20600A
6.5	16	60	8	2	MES20650	MES20650A
7.0	18	60	8	2	MES20700	MES20700A
7.5	18	60	8	2	MES20750	MES20750A
8.0	20	60	8	2	MES20800	MES20800A
8.5	20	75	10	2	MES20850	MES20850A
9.0	22	75	10	2	MES20900	MES20900A
9.5	22	75	10	2	MES20950	MES20950A
10.0	25	75	10	2	MES21000	MES21000A
10.5	25	75	12	2	MES21050	MES21050A
11.0	25	75	12	2	MES21100	MES21100A
12.0	30	75	12	2	MES21200	MES21200A
13.0	30	75	14	2	MES2130014	MES2130014A
14.0	30	75	14	2	MES2140014	MES2140014A
15.0	35	100	16	2	MES21500	MES21500A
16.0	35	100	16	2	MES21600	MES21600A
18.0	40	100	20	2	MES21800	MES21800A
20.0	45	100	20	2	MES22000	MES22000A
25.0	45	100	25	2	MES22500	MES22500A

 ※0.2以上採平面型式。
 From 0.2 and larger have flatland type.
 ※尖角型式依需求生產。
 Sharp corner type is on request.

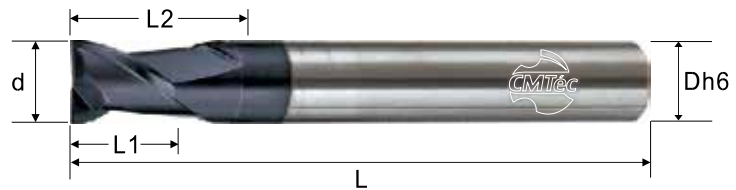
 切削條件表
 Cutting Condition P.277

 參考資料
 Technical Data P.243

M520 極細鎢鋼平銑刀- 短刃型- 2刃

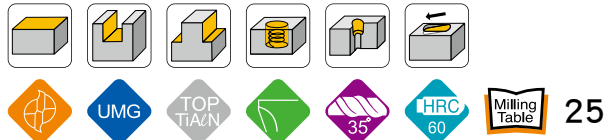
M520 ULTRA CARBIDE END MILLS- Short Flute- Square Type- 2F

· MESD20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
1.0	1	2	50	6	2	MESD20100A
2.0	2	4	50	6	2	MESD20200A
3.0	3	6	50	6	2	MESD20300A
4.0	4	8	50	6	2	MESD20400A
6.0	6	12	50	6	2	MESD20600A
8.0	8	16	60	8	2	MESD20800A
10.0	10	20	75	10	2	MESD21000A
12.0	12	24	75	12	2	MESD21200A

M520 極細鎢鋼平銑刀- 短刃長柄型- 2刃

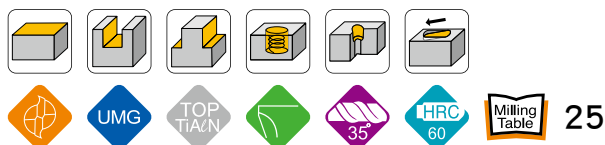
M520 ULTRA CARBIDE END MILLS- Short Flute- Square Type- Long Shank- 2F

· MESDL20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
1.0	1	2	75	6	2	MESDL20100A
2.0	2	4	75	6	2	MESDL20200A
3.0	3	6	75	6	2	MESDL20300A
4.0	4	8	75	6	2	MESDL20400A
6.0	6	12	75	6	2	MESDL20600A
8.0	8	16	100	8	2	MESDL20800A
10.0	10	20	100	10	2	MESDL21000A
12.0	12	24	100	12	2	MESDL21200A

→ 切削條件表
Cutting Condition P.278

→ 參考資料
Technical Data P.243

M520 極細鎢鋼平銑刀- 微柄/小柄型- 4刃

M520 ULTRA CARBIDE END MILLS- Square Type- 4F

· MESS40000 A
· MESM40000 A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>



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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.
1.0	3	50	3	4	MESS40100	MESS40100A
1.5	4	50	3	4	MESS40150	MESS40150A
2.0	5	50	3	4	MESS40200	MESS40200A
2.5	6	50	3	4	MESS40250	MESS40250A
3.0	8	50	3	4	MESS40300	MESS40300A
1.0	3	50	4	4	MESM40100	MESM40100A
1.5	4	50	4	4	MESM40150	MESM40150A
2.0	5	50	4	4	MESM40200	MESM40200A
2.5	6	50	4	4	MESM40250	MESM40250A
3.0	8	50	4	4	MESM40300	MESM40300A
3.5	9	50	4	4	MESM40350	MESM40350A
4.0	10	50	4	4	MESM40400	MESM40400A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

➔ 切削條件表
Cutting Condition P.278

➔ 參考資料
Technical Data P.243

M520 極細鎢鋼平銑刀- 標準型- 4刃

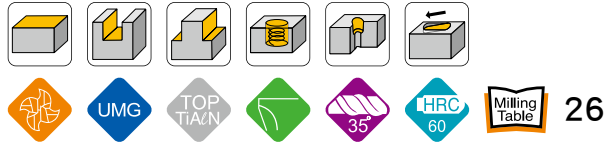
M520 ULTRA CARBIDE END MILLS- Square Type- 4F

· **MES40000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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.
3.0	8	50	6	4	MES40300	MES40300A
3.5	9	50	6	4	MES40350	MES40350A
4.0	10	50	6	4	MES40400	MES40400A
4.5	11	50	6	4	MES40450	MES40450A
5.0	13	50	6	4	MES40500	MES40500A
5.5	14	50	6	4	MES40550	MES40550A
6.0	15	50	6	4	MES40600	MES40600A
6.5	16	60	8	4	MES40650	MES40650A
7.0	18	60	8	4	MES40700	MES40700A
7.5	18	60	8	4	MES40750	MES40750A
8.0	20	60	8	4	MES40800	MES40800A
8.5	20	75	10	4	MES40850	MES40850A
9.0	22	75	10	4	MES40900	MES40900A
9.5	22	75	10	4	MES40950	MES40950A
10.0	25	75	10	4	MES41000	MES41000A
10.5	25	75	12	4	MES41050	MES41050A
11.0	25	75	12	4	MES41100	MES41100A
11.5	25	75	12	4	MES41150	MES41150A
12.0	30	75	12	4	MES41200	MES41200A
13.0	30	75	14	4	MES4130014	MES4130014A
14.0	30	75	14	4	MES4140014	MES4140014A
15.0	35	100	16	4	MES41500	MES41500A
16.0	35	100	16	4	MES41600	MES41600A
18.0	40	100	20	4	MES41800	MES41800A
20.0	45	100	20	4	MES42000	MES42000A
25.0	45	100	25	4	MES42500	MES42500A

※0.2以上採平面型式。
From 0.2 and larger have flatland type.
※尖角型式依需求生產。
Sharp corner type is on request.

→ 切削條件表 P.278 Cutting Condition
→ 參考資料 P.243 Technical Data

M520 極細鎢鋼平銑刀- 短刃型- 4刃

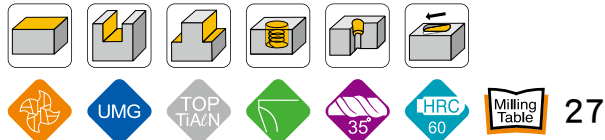
M520 ULTRA CARBIDE END MILLS- Short Flute- Square Type- 4F

· MESD40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
3.0	3	6	50	6	4	MESD40300A
4.0	4	8	50	6	4	MESD40400A
5.0	5	10	50	6	4	MESD40500A
6.0	6	12	50	6	4	MESD40600A
8.0	8	16	60	8	4	MESD40800A
10.0	10	20	75	10	4	MESD41000A
12.0	12	24	75	12	4	MESD41200A

M520 極細鎢鋼平銑刀- 短刃長柄型- 4刃

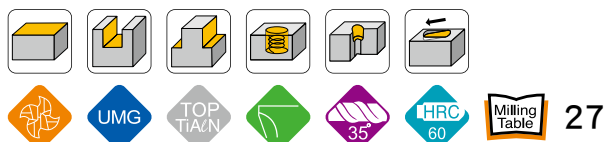
M520 ULTRA CARBIDE END MILLS- Short Flute- Square Type- Long Shank- 4F

· MESDL40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>

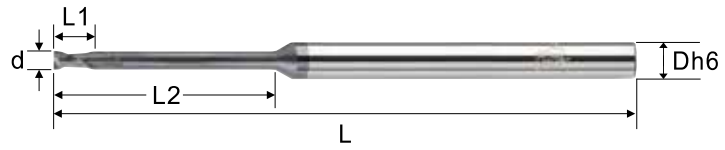


刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
3.0	3	6	75	6	4	MESDL40300A
4.0	4	8	75	6	4	MESDL40400A
5.0	5	10	75	6	4	MESDL40500A
6.0	6	12	75	6	4	MESDL40600A
8.0	8	16	100	8	4	MESDL40800A
10.0	10	20	100	10	4	MESDL41000A
12.0	12	24	100	12	4	MESDL41200A

M520 極細鎢鋼平銑刀-長頸型-2刃

M520 ULTRA CARBIDE END MILLS- Square Type- Long Neck- 2F

· **MEN20000000A**



d(刃徑)	Tolerance(公差)
φ	0 ~ -0.02

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

刃徑 d	刃長 L1	有效長 L2	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.
1.0	1.5	4.0	38	4	2	MEN20100040	MEN20100040A
1.0	1.5	8.0	38	4	2	MEN20100080	MEN20100080A
1.2	1.8	6.0	38	4	2	MEN20120060	MEN20120060A
1.2	1.8	10.0	38	4	2	MEN20120100	MEN20120100A
1.5	2.3	8.0	38	4	2	MEN20150080	MEN20150080A
1.5	2.3	12.0	38	4	2	MEN20150120	MEN20150120A
1.8	2.7	10.0	38	4	2	MEN20180100	MEN20180100A
1.8	2.7	16.0	38	4	2	MEN20180160	MEN20180160A
2.0	3.0	10.0	38	4	2	MEN20200100	MEN20200100A
2.0	3.0	16.0	38	4	2	MEN20200160	MEN20200160A
2.0	3.0	20.0	50	4	2	MEN20200200	MEN20200200A
2.5	3.5	12.0	38	4	2	MEN20250120	MEN20250120A
2.5	3.5	20.0	50	4	2	MEN20250200	MEN20250200A
3.0	4.5	12.0	38	6	2	MEN20300120	MEN20300120A
3.0	4.5	20.0	50	6	2	MEN20300200	MEN20300200A
4.0	6.0	20.0	50	6	2	MEN20400200	MEN20400200A
4.0	6.0	30.0	50	6	2	MEN20400300	MEN20400300A

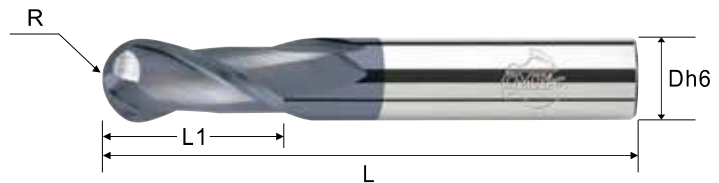
→ 切削條件表
Cutting Condition P.303
→ 參考資料
Technical Data P.243

M520 Ultra Carbide End Mills M520 極細鎢鋼銑刀

M520 極細鎢鋼球型銑刀- 小柄/標準型- 2刃

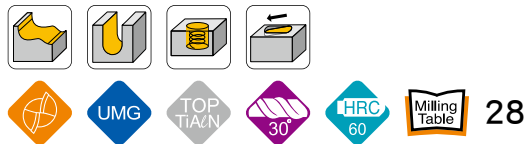
M520 ULTRA CARBIDE END MILLS- Ball Nosed- 2F

- **MEBM20000A**
- **MEB20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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

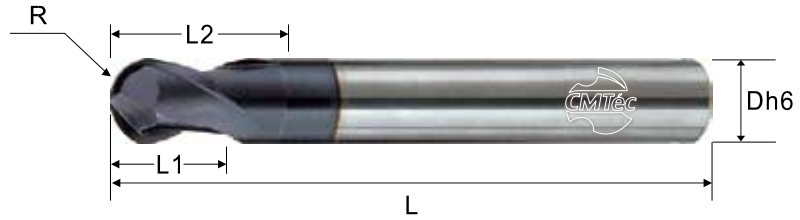


半徑 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
0.5R	2.0	50	4	2	MEBM20050	MEBM20050A
0.6R	2.4	50	4	2	MEBM20060	MEBM20060A
0.7R	2.8	50	4	2	MEBM20070	MEBM20070A
0.75R	3.0	50	4	2	MEBM20075	MEBM20075A
1.0R	4.0	50	4	2	MEBM20100	MEBM20100A
1.25R	5.0	50	4	2	MEBM20125	MEBM20125A
1.5R	6.0	50	4	2	MEBM20150	MEBM20150A
1.75R	7.0	50	4	2	MEBM20175	MEBM20175A
2.0R	8.0	50	4	2	MEBM20200	MEBM20200A
<hr/>						
1.0R	4.0	50	6	2	MEB20100	MEB20100A
1.25R	5.0	50	6	2	MEB20125	MEB20125A
1.5R	6.0	50	6	2	MEB20150	MEB20150A
2.0R	8.0	50	6	2	MEB20200	MEB20200A
2.5R	10.0	50	6	2	MEB20250	MEB20250A
3.0R	12.0	50	6	2	MEB20300	MEB20300A
3.5R	14.0	60	8	2	MEB20350	MEB20350A
4.0R	16.0	60	8	2	MEB20400	MEB20400A
5.0R	20.0	75	10	2	MEB20500	MEB20500A
6.0R	24.0	75	12	2	MEB20600	MEB20600A
8.0R	32.0	100	16	2	MEB20800	MEB20800A
10.0R	40.0	100	20	2	MEB21000	MEB21000A

M520 極細鎢鋼球型銑刀- 短刃型- 2刃

M520 ULTRA CARBIDE END MILLS- Short Flute- Ball Nosed- 2F

· **MEBDM200000A**
· **MEBD200000A**



R(半徑)	Tolerance(公差)
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	刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
0.15R	0.3	0.3	0.6	50	4	2	MEBDM20015A
0.2R	0.4	0.4	0.8	50	4	2	MEBDM20020A
0.25R	0.5	0.5	1.0	50	4	2	MEBDM20025A
0.3R	0.6	0.6	1.2	50	4	2	MEBDM20030A
0.4R	0.8	0.8	1.6	50	4	2	MEBDM20040A
0.5R	1.0	1.0	2.0	50	4	2	MEBDM20050A
1.0R	2.0	2.0	4.0	50	4	2	MEBDM20100A
1.5R	3.0	3.0	6.0	50	4	2	MEBDM20150A
1.0R	2.0	2.0	4.0	50	6	2	MEBD20100A
1.5R	3.0	3.0	6.0	50	6	2	MEBD20150A
2.0R	4.0	4.0	8.0	50	6	2	MEBD20200A
2.5R	5.0	5.0	10.0	50	6	2	MEBD20250A
3.0R	6.0	6.0	12.0	50	6	2	MEBD20300A
4.0R	8.0	8.0	16.0	60	8	2	MEBD20400A
5.0R	10.0	10.0	20.0	75	10	2	MEBD20500A
6.0R	12.0	12.0	24.0	75	12	2	MEBD20600A

M520 極細鎢鋼球型銑刀- 短刃(小)長柄型- 2刃

M520 ULTRA CARBIDE END MILLS- Short Flute- Ball Nosed- Long Shank- 2F

- **MEBDML20000A**
- **MEBDL20000A**



R(半徑)	Tolerance(公差)
R	±0.02

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



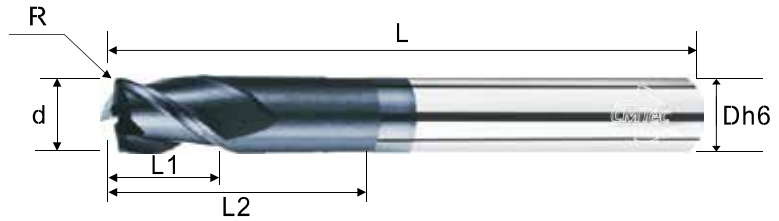
29

半徑 R	刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
0.5R	1.0	1.0	2.0	75	4	2	MEBDML20050A
1.0R	2.0	2.0	4.0	75	4	2	MEBDML20100A
1.5R	3.0	3.0	6.0	75	4	2	MEBDML20150A
1.0R	2.0	2.0	4.0	75	6	2	MEBDL20100A
1.5R	3.0	3.0	6.0	75	6	2	MEBDL20150A
2.0R	4.0	4.0	8.0	75	6	2	MEBDL20200A
2.5R	5.0	5.0	10.0	75	6	2	MEBDL20250A
3.0R	6.0	6.0	12.0	75	6	2	MEBDL20300A
4.0R	8.0	8.0	16.0	100	8	2	MEBDL20400A
5.0R	10.0	10.0	20.0	100	10	2	MEBDL20500A
6.0R	12.0	12.0	24.0	100	12	2	MEBDL20600A

M520 極細鎢鋼圓鼻銑刀- 短刃長柄型- 3刃

M520 ULTRA CARBIDE END MILLS- Short Flute- Corner Radius & Long Shank- 3F

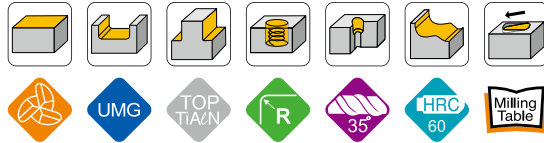
· **MECDL3000000A**



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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刃徑 d	R角 R	刃長 L1	有效長 L2	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.
3.0	0.3R	3.0	7.5	75	6	3	MECDL3030003	MECDL3030003A
3.0	0.5R	3.0	7.5	75	6	3	MECDL3030005	MECDL3030005A
3.0	1.0R	3.0	7.5	75	6	3	MECDL3030010	MECDL3030010A
4.0	0.3R	4.0	10.0	75	6	3	MECDL3040003	MECDL3040003A
4.0	0.5R	4.0	10.0	75	6	3	MECDL3040005	MECDL3040005A
4.0	1.0R	4.0	10.0	75	6	3	MECDL3040010	MECDL3040010A
5.0	0.3R	5.0	12.5	75	6	3	MECDL3050003	MECDL3050003A
5.0	0.5R	5.0	12.5	75	6	3	MECDL3050005	MECDL3050005A
5.0	1.0R	5.0	12.5	75	6	3	MECDL3050010	MECDL3050010A
6.0	0.5R	6.0	15.0	75	6	3	MECDL3060005	MECDL3060005A
6.0	1.0R	6.0	15.0	75	6	3	MECDL3060010	MECDL3060010A
8.0	0.5R	8.0	20.0	100	8	3	MECDL3080005	MECDL3080005A
8.0	1.0R	8.0	20.0	100	8	3	MECDL3080010	MECDL3080010A
8.0	1.5R	8.0	20.0	100	8	3	MECDL3080015	MECDL3080015A
10.0	0.5R	10.0	25.0	100	10	3	MECDL3100005	MECDL3100005A
10.0	1.0R	10.0	25.0	100	10	3	MECDL3100010	MECDL3100010A
10.0	1.5R	10.0	25.0	100	10	3	MECDL3100015	MECDL3100015A
10.0	2.0R	10.0	30.0	100	10	3	MECDL3100020	MECDL3100020A
12.0	0.5R	12.0	30.0	100	12	3	MECDL3120005	MECDL3120005A
12.0	1.0R	12.0	30.0	100	12	3	MECDL3120010	MECDL3120010A
12.0	1.5R	12.0	30.0	100	12	3	MECDL3120015	MECDL3120015A
12.0	2.0R	12.0	30.0	100	12	3	MECDL3120020	MECDL3120020A

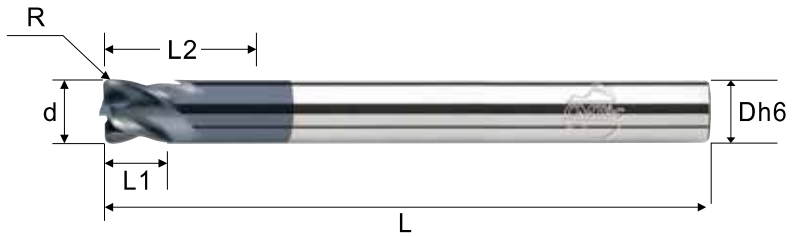
→ 切削條件表 P.278
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀- 短刃長柄型- 4刃

M520 ULTRA CARBIDE END MILLS- Short Flute- Corner Radius & Long Shank- 4F

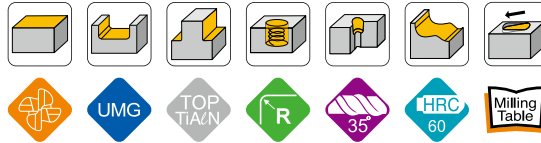
MECDL40000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



30

刃徑 d	R角 R	刃長 L1	有效長 L2	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.
3.0	0.3R	3.0	7.5	75	6	4	MECDL4030003	MECDL4030003A
3.0	0.5R	3.0	7.5	75	6	4	MECDL4030005	MECDL4030005A
3.0	1.0R	3.0	7.5	75	6	4	MECDL4030010	MECDL4030010A
4.0	0.3R	4.0	10.0	75	6	4	MECDL4040003	MECDL4040003A
4.0	0.5R	4.0	10.0	75	6	4	MECDL4040005	MECDL4040005A
4.0	1.0R	4.0	10.0	75	6	4	MECDL4040010	MECDL4040010A
5.0	0.3R	5.0	12.5	75	6	4	MECDL4050003	MECDL4050003A
5.0	0.5R	5.0	12.5	75	6	4	MECDL4050005	MECDL4050005A
5.0	1.0R	5.0	12.5	75	6	4	MECDL4050010	MECDL4050010A
6.0	0.5R	6.0	15.0	75	6	4	MECDL4060005	MECDL4060005A
6.0	1.0R	6.0	15.0	75	6	4	MECDL4060010	MECDL4060010A
8.0	0.5R	8.0	20.0	100	8	4	MECDL4080005	MECDL4080005A
8.0	1.0R	8.0	20.0	100	8	4	MECDL4080010	MECDL4080010A
8.0	1.5R	8.0	20.0	100	8	4	MECDL4080015	MECDL4080015A
10.0	0.5R	10.0	25.0	100	10	4	MECDL4100005	MECDL4100005A
10.0	1.0R	10.0	25.0	100	10	4	MECDL4100010	MECDL4100010A
10.0	1.5R	10.0	25.0	100	10	4	MECDL4100015	MECDL4100015A
10.0	2.0R	10.0	30.0	100	10	4	MECDL4100020	MECDL4100020A
12.0	0.5R	12.0	30.0	100	12	4	MECDL4120005	MECDL4120005A
12.0	1.0R	12.0	30.0	100	12	4	MECDL4120010	MECDL4120010A
12.0	1.5R	12.0	30.0	100	12	4	MECDL4120015	MECDL4120015A
12.0	2.0R	12.0	30.0	100	12	4	MECDL4120020	MECDL4120020A

→ 切削條件表 P.280
Cutting Condition

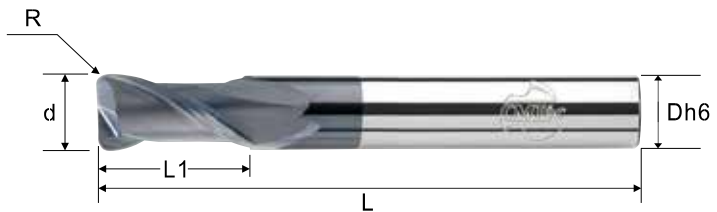
→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀- 小柄/標準型- 2刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- 2F

· **MECRM2**000000A

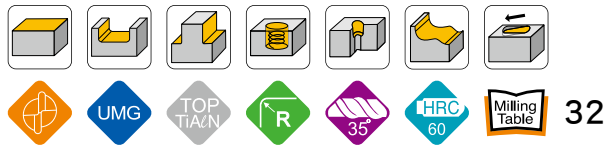
· **MECR2**000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	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.
1.0	0.2R	2.0	50	4	2	MECRM2010002	MECRM2010002A
1.5	0.2R	3.0	50	4	2	MECRM2015002	MECRM2015002A
2.0	0.2R	4.0	50	4	2	MECRM2020002	MECRM2020002A
2.5	0.2R	5.0	50	4	2	MECRM2025002	MECRM2025002A
2.5	0.5R	5.0	50	4	2	MECRM2025005	MECRM2025005A
3.0	0.5R	6.0	50	4	2	MECRM2030005	MECRM2030005A
3.0	1.0R	6.0	50	4	2	MECRM2030010	MECRM2030010A
4.0	0.5R	8.0	50	6	2	MECR2040005	MECR2040005A
4.0	1.0R	8.0	50	6	2	MECR2040010	MECR2040010A
5.0	0.5R	10.0	50	6	2	MECR2050005	MECR2050005A
5.0	1.0R	10.0	50	6	2	MECR2050010	MECR2050010A
6.0	0.5R	12.0	50	6	2	MECR2060005	MECR2060005A
6.0	1.0R	12.0	50	6	2	MECR2060010	MECR2060010A
8.0	0.5R	16.0	60	8	2	MECR2080005	MECR2080005A
8.0	1.0R	16.0	60	8	2	MECR2080010	MECR2080010A
8.0	1.5R	16.0	60	8	2	MECR2080015	MECR2080015A
10.0	0.5R	20.0	75	10	2	MECR2100005	MECR2100005A
10.0	1.0R	20.0	75	10	2	MECR2100010	MECR2100010A
10.0	1.5R	20.0	75	10	2	MECR2100015	MECR2100015A
10.0	2.0R	20.0	75	10	2	MECR2100020	MECR2100020A
12.0	0.5R	24.0	75	12	2	MECR2120005	MECR2120005A
12.0	1.0R	24.0	75	12	2	MECR2120010	MECR2120010A
12.0	1.5R	24.0	75	12	2	MECR2120015	MECR2120015A
12.0	2.0R	24.0	75	12	2	MECR2120020	MECR2120020A

M520 極細鎢鋼圓鼻銑刀- 標準型- 4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- 4F

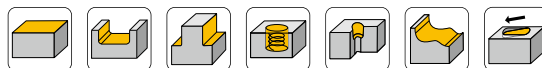
MECR4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



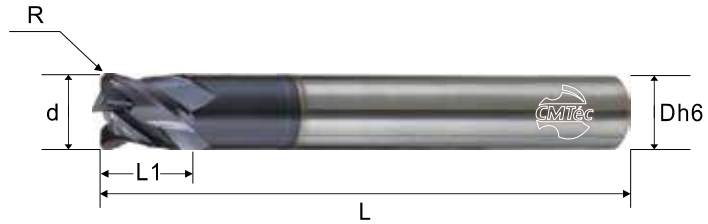
刃徑 d	R角 R	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
3.0	0.5R	6.0	50	6	4	MECR4030005	MECR4030005A
3.0	1.0R	6.0	50	6	4	MECR4030010	MECR4030010A
4.0	0.5R	8.0	50	6	4	MECR4040005	MECR4040005A
4.0	1.0R	8.0	50	6	4	MECR4040010	MECR4040010A
5.0	0.5R	10.0	50	6	4	MECR4050005	MECR4050005A
5.0	1.0R	10.0	50	6	4	MECR4050010	MECR4050010A
6.0	0.5R	12.0	50	6	4	MECR4060005	MECR4060005A
6.0	1.0R	12.0	50	6	4	MECR4060010	MECR4060010A
8.0	0.5R	16.0	60	8	4	MECR4080005	MECR4080005A
8.0	1.0R	16.0	60	8	4	MECR4080010	MECR4080010A
8.0	1.5R	16.0	60	8	4	MECR4080015	MECR4080015A
10.0	0.5R	20.0	75	10	4	MECR4100005	MECR4100005A
10.0	1.0R	20.0	75	10	4	MECR4100010	MECR4100010A
10.0	1.5R	20.0	75	10	4	MECR4100015	MECR4100015A
10.0	2.0R	20.0	75	10	4	MECR4100020	MECR4100020A
12.0	0.5R	24.0	75	12	4	MECR4120005	MECR4120005A
12.0	1.0R	24.0	75	12	4	MECR4120010	MECR4120010A
12.0	1.5R	24.0	75	12	4	MECR4120015	MECR4120015A
12.0	2.0R	24.0	75	12	4	MECR4120020	MECR4120020A
12.0	3.0R	24.0	75	12	4	MECR4120030	MECR4120030A

M520 極細鎢鋼圓鼻銑刀- 短刃型- 4刃

M520 ULTRA CARBIDE END MILLS- Short Flute- Corner Radius- 4F

· MECDM4000000A

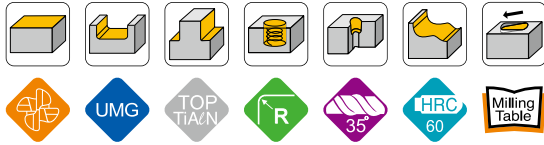
· MECD4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	R角 R	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
1.0	0.2R	1.0	2.5	50	4	4	MECDM4010002A
1.5	0.15R	1.5	3.5	50	4	4	MECDM40150015A
1.5	0.3R	1.5	3.5	50	4	4	MECDM4015003A
2.0	0.3R	2.0	6.5	50	4	4	MECDM4020003A
2.5	0.3R	2.5	7.5	50	4	4	MECDM4025003A
2.5	0.5R	2.5	7.5	50	4	4	MECDM4025005A
3.0	0.3R	3.0	7.5	50	6	4	MECD4030003A
3.0	0.5R	3.0	7.5	50	6	4	MECD4030005A
4.0	0.3R	4.0	10.0	50	6	4	MECD4040003A
4.0	0.5R	4.0	10.0	50	6	4	MECD4040005A
5.0	0.3R	5.0	12.5	50	6	4	MECD4050003A
5.0	0.5R	5.0	12.5	50	6	4	MECD4050005A
6.0	0.5R	6.0	15.0	50	6	4	MECD4060005A
6.0	1.0R	6.0	15.0	50	6	4	MECD4060010A
8.0	0.5R	8.0	20.0	60	8	4	MECD4080005A
8.0	1.0R	8.0	20.0	60	8	4	MECD4080010A
8.0	1.5R	8.0	20.0	60	8	4	MECD4080015A
10.0	0.5R	10.0	25.0	75	10	4	MECD4100005A
10.0	1.0R	10.0	25.0	75	10	4	MECD4100010A
10.0	1.5R	10.0	25.0	75	10	4	MECD4100015A
10.0	2.0R	10.0	25.0	75	10	4	MECD4100020A
12.0	0.5R	12.0	30.0	75	12	4	MECD4120005A
12.0	1.0R	12.0	30.0	75	12	4	MECD4120010A
12.0	1.5R	12.0	30.0	75	12	4	MECD4120015A
12.0	2.0R	12.0	30.0	75	12	4	MECD4120020A

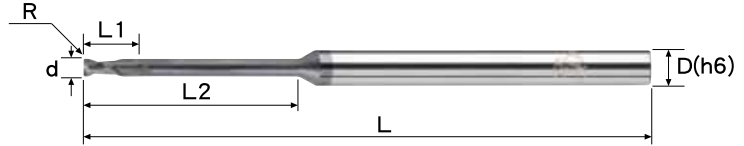
→ 切削條件表 P.280
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀-長頸型-2刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 2F

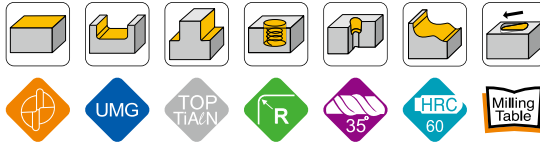
· MECRN2000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
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	有效長 L2	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.
1.0	0.2	1.5	4	50	4	2	MECRN2010002040	MECRN2010002040A
1.0	0.2	1.5	6	50	4	2	MECRN2010002060	MECRN2010002060A
1.0	0.2	1.5	8	50	4	2	MECRN2010002080	MECRN2010002080A
1.0	0.2	1.5	10	50	4	2	MECRN2010002100	MECRN2010002100A
1.0	0.2	1.5	12	50	4	2	MECRN2010002120	MECRN2010002120A
1.5	0.2	2.3	6	50	4	2	MECRN2015002060	MECRN2015002060A
1.5	0.2	2.3	8	50	4	2	MECRN2015002080	MECRN2015002080A
1.5	0.2	2.3	10	50	4	2	MECRN2015002100	MECRN2015002100A
1.5	0.2	2.3	12	50	4	2	MECRN2015002120	MECRN2015002120A
1.5	0.2	2.3	16	50	4	2	MECRN2015002160	MECRN2015002160A
2.0	0.2	3.0	6	50	4	2	MECRN2020002060	MECRN2020002060A
2.0	0.2	3.0	8	50	4	2	MECRN2020002080	MECRN2020002080A
2.0	0.2	3.0	10	50	4	2	MECRN2020002100	MECRN2020002100A
2.0	0.2	3.0	12	50	4	2	MECRN2020002120	MECRN2020002120A
2.0	0.2	3.0	16	50	4	2	MECRN2020002160	MECRN2020002160A
2.0	0.2	3.0	20	60	4	2	MECRN2020002200	MECRN2020002200A
2.0	0.3	3.0	6	50	4	2	MECRN2020003060	MECRN2020003060A
2.0	0.3	3.0	8	50	4	2	MECRN2020003080	MECRN2020003080A
2.0	0.3	3.0	10	50	4	2	MECRN2020003100	MECRN2020003100A
2.0	0.3	3.0	12	50	4	2	MECRN2020003120	MECRN2020003120A
2.0	0.3	3.0	16	50	4	2	MECRN2020003160	MECRN2020003160A
2.0	0.3	3.0	20	60	4	2	MECRN2020003200	MECRN2020003200A
2.0	0.5	3.0	6	50	4	2	MECRN2020005060	MECRN2020005060A
2.0	0.5	3.0	8	50	4	2	MECRN2020005080	MECRN2020005080A
2.0	0.5	3.0	10	50	4	2	MECRN2020005100	MECRN2020005100A
2.0	0.5	3.0	12	50	4	2	MECRN2020005120	MECRN2020005120A
2.0	0.5	3.0	16	50	4	2	MECRN2020005160	MECRN2020005160A
2.0	0.5	3.0	20	60	4	2	MECRN2020005200	MECRN2020005200A
2.5	0.2	3.5	10	50	4	2	MECRN2025002100	MECRN2025002100A
2.5	0.2	3.5	16	50	4	2	MECRN2025002160	MECRN2025002160A
2.5	0.2	3.5	20	60	4	2	MECRN2025002200	MECRN2025002200A
2.5	0.3	3.5	10	50	4	2	MECRN2025003100	MECRN2025003100A
2.5	0.3	3.5	16	50	4	2	MECRN2025003160	MECRN2025003160A
2.5	0.3	3.5	20	60	4	2	MECRN2025003200	MECRN2025003200A
2.5	0.5	3.5	10	50	4	2	MECRN2025005100	MECRN2025005100A
2.5	0.5	3.5	16	50	4	2	MECRN2025005160	MECRN2025005160A
2.5	0.5	3.5	20	60	4	2	MECRN2025005200	MECRN2025005200A

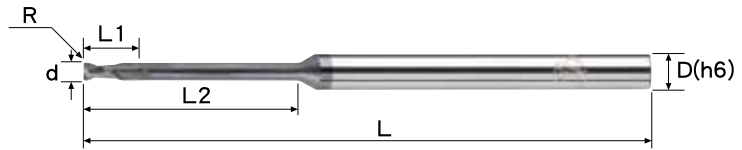
→ 切削條件表 P.281
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀-長頸型-2刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 2F

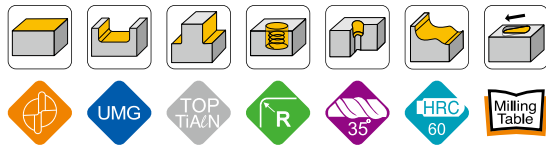
· MECRN2000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
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	有效長 L2	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.
3.0	0.2	4.5	10	50	6	2	MECRN2030002100	MECRN2030002100A
3.0	0.2	4.5	16	50	6	2	MECRN2030002160	MECRN2030002160A
3.0	0.2	4.5	20	60	6	2	MECRN2030002200	MECRN2030002200A
3.0	0.3	4.5	10	50	6	2	MECRN2030003100	MECRN2030003100A
3.0	0.3	4.5	16	50	6	2	MECRN2030003160	MECRN2030003160A
3.0	0.3	4.5	20	60	6	2	MECRN2030003200	MECRN2030003200A
3.0	0.5	4.5	10	50	6	2	MECRN2030005100	MECRN2030005100A
3.0	0.5	4.5	16	50	6	2	MECRN2030005160	MECRN2030005160A
3.0	0.5	4.5	20	60	6	2	MECRN2030005200	MECRN2030005200A
3.0	1.0	4.5	10	50	6	2	MECRN2030010100	MECRN2030010100A
3.0	1.0	4.5	16	50	6	2	MECRN2030010160	MECRN2030010160A
3.0	1.0	4.5	20	60	6	2	MECRN2030010200	MECRN2030010200A
4.0	0.2	6.0	12	50	6	2	MECRN2040002120	MECRN2040002120A
4.0	0.2	6.0	16	50	6	2	MECRN2040002160	MECRN2040002160A
4.0	0.2	6.0	20	60	6	2	MECRN2040002200	MECRN2040002200A
4.0	0.2	6.0	25	60	6	2	MECRN2040002250	MECRN2040002250A
4.0	0.3	6.0	12	50	6	2	MECRN2040003120	MECRN2040003120A
4.0	0.3	6.0	16	50	6	2	MECRN2040003160	MECRN2040003160A
4.0	0.3	6.0	20	60	6	2	MECRN2040003200	MECRN2040003200A
4.0	0.3	6.0	25	60	6	2	MECRN2040003250	MECRN2040003250A
4.0	0.5	6.0	12	50	6	2	MECRN2040005120	MECRN2040005120A
4.0	0.5	6.0	16	50	6	2	MECRN2040005160	MECRN2040005160A
4.0	0.5	6.0	20	60	6	2	MECRN2040005200	MECRN2040005200A
4.0	0.5	6.0	25	60	6	2	MECRN2040005250	MECRN2040005250A
4.0	1.0	6.0	12	50	6	2	MECRN2040010120	MECRN2040010120A
4.0	1.0	6.0	16	50	6	2	MECRN2040010160	MECRN2040010160A
4.0	1.0	6.0	20	60	6	2	MECRN2040010200	MECRN2040010200A
4.0	1.0	6.0	25	60	6	2	MECRN2040010250	MECRN2040010250A
5.0	0.2	7.0	16	60	6	2	MECRN2050002160	MECRN2050002160A
5.0	0.2	7.0	20	60	6	2	MECRN2050002200	MECRN2050002200A
5.0	0.2	7.0	25	60	6	2	MECRN2050002250	MECRN2050002250A
5.0	0.2	7.0	30	60	6	2	MECRN2050002300	MECRN2050002300A
5.0	0.3	7.0	16	60	6	2	MECRN2050003160	MECRN2050003160A
5.0	0.3	7.0	20	60	6	2	MECRN2050003200	MECRN2050003200A
5.0	0.3	7.0	25	60	6	2	MECRN2050003250	MECRN2050003250A
5.0	0.3	7.0	30	60	6	2	MECRN2050003300	MECRN2050003300A

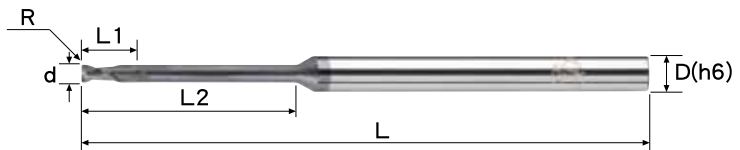
→ 切削條件表 P.281
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀-長頸型-2刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 2F

MECRN2000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

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

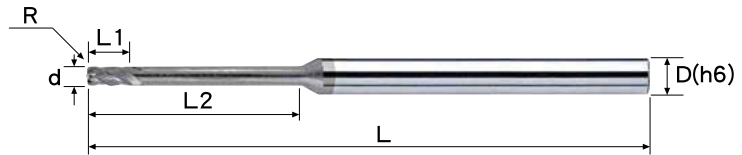


刃徑 d	R角 R	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
5.0	0.5	7.0	16	60	6	2	MECRN2050005160	MECRN2050005160A
5.0	0.5	7.0	20	60	6	2	MECRN2050005200	MECRN2050005200A
5.0	0.5	7.0	25	60	6	2	MECRN2050005250	MECRN2050005250A
5.0	0.5	7.0	30	60	6	2	MECRN2050005300	MECRN2050005300A
5.0	1.0	7.0	16	60	6	2	MECRN2050010160	MECRN2050010160A
5.0	1.0	7.0	20	60	6	2	MECRN2050010200	MECRN2050010200A
5.0	1.0	7.0	25	60	6	2	MECRN2050010250	MECRN2050010250A
5.0	1.0	7.0	30	60	6	2	MECRN2050010300	MECRN2050010300A
6.0	0.2	8.0	20	60	6	2	MECRN2060002200	MECRN2060002200A
6.0	0.2	8.0	25	60	6	2	MECRN2060002250	MECRN2060002250A
6.0	0.2	8.0	30	60	6	2	MECRN2060002300	MECRN2060002300A
6.0	0.3	8.0	20	60	6	2	MECRN2060003200	MECRN2060003200A
6.0	0.3	8.0	25	60	6	2	MECRN2060003250	MECRN2060003250A
6.0	0.3	8.0	30	60	6	2	MECRN2060003300	MECRN2060003300A
6.0	0.5	8.0	20	60	6	2	MECRN2060005200	MECRN2060005200A
6.0	0.5	8.0	25	60	6	2	MECRN2060005250	MECRN2060005250A
6.0	0.5	8.0	30	60	6	2	MECRN2060005300	MECRN2060005300A
6.0	1.0	8.0	20	60	6	2	MECRN2060010200	MECRN2060010200A
6.0	1.0	8.0	25	60	6	2	MECRN2060010250	MECRN2060010250A
6.0	1.0	8.0	30	60	6	2	MECRN2060010300	MECRN2060010300A
6.0	1.5	8.0	20	60	6	2	MECRN2060015200	MECRN2060015200A
6.0	1.5	8.0	25	60	6	2	MECRN2060015250	MECRN2060015250A
6.0	1.5	8.0	30	60	6	2	MECRN2060015300	MECRN2060015300A

M520 極細鎢鋼圓鼻銑刀-長頸型-4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 4F

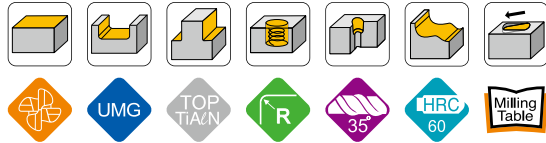
· MECRN4000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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刃徑 d	R角 R	刃長 L1	有效長 L2	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.
1.0	0.2	1.5	4	50	4	4	MECRN4010002040	MECRN4010002040A
1.0	0.2	1.5	6	50	4	4	MECRN4010002060	MECRN4010002060A
1.0	0.2	1.5	8	50	4	4	MECRN4010002080	MECRN4010002080A
1.0	0.2	1.5	10	50	4	4	MECRN4010002100	MECRN4010002100A
1.0	0.2	1.5	12	50	4	4	MECRN4010002120	MECRN4010002120A
1.5	0.2	2.3	6	50	4	4	MECRN4015002060	MECRN4015002060A
1.5	0.2	2.3	8	50	4	4	MECRN4015002080	MECRN4015002080A
1.5	0.2	2.3	10	50	4	4	MECRN4015002100	MECRN4015002100A
1.5	0.2	2.3	12	50	4	4	MECRN4015002120	MECRN4015002120A
1.5	0.2	2.3	16	50	4	4	MECRN4015002160	MECRN4015002160A
2.0	0.2	3.0	6	50	4	4	MECRN4020002060	MECRN4020002060A
2.0	0.2	3.0	8	50	4	4	MECRN4020002080	MECRN4020002080A
2.0	0.2	3.0	10	50	4	4	MECRN4020002100	MECRN4020002100A
2.0	0.2	3.0	12	50	4	4	MECRN4020002120	MECRN4020002120A
2.0	0.2	3.0	16	50	4	4	MECRN4020002160	MECRN4020002160A
2.0	0.2	3.0	20	60	4	4	MECRN4020002200	MECRN4020002200A
2.0	0.3	3.0	6	50	4	4	MECRN4020003060	MECRN4020003060A
2.0	0.3	3.0	8	50	4	4	MECRN4020003080	MECRN4020003080A
2.0	0.3	3.0	10	50	4	4	MECRN4020003100	MECRN4020003100A
2.0	0.3	3.0	12	50	4	4	MECRN4020003120	MECRN4020003120A
2.0	0.3	3.0	16	50	4	4	MECRN4020003160	MECRN4020003160A
2.0	0.3	3.0	20	60	4	4	MECRN4020003200	MECRN4020003200A
2.0	0.5	3.0	6	50	4	4	MECRN4020005060	MECRN4020005060A
2.0	0.5	3.0	8	50	4	4	MECRN4020005080	MECRN4020005080A
2.0	0.5	3.0	10	50	4	4	MECRN4020005100	MECRN4020005100A
2.0	0.5	3.0	12	50	4	4	MECRN4020005120	MECRN4020005120A
2.0	0.5	3.0	16	50	4	4	MECRN4020005160	MECRN4020005160A
2.0	0.5	3.0	20	60	4	4	MECRN4020005200	MECRN2020005200A
2.5	0.2	3.5	10	50	4	4	MECRN4025002100	MECRN2025002100A
2.5	0.2	3.5	16	50	4	4	MECRN4025002160	MECRN4025002160A
2.5	0.2	3.5	20	60	4	4	MECRN4025002200	MECRN4025002200A
2.5	0.3	3.5	10	50	4	4	MECRN4025003100	MECRN4025003100A
2.5	0.3	3.5	16	50	4	4	MECRN4025003160	MECRN4025003160A
2.5	0.3	3.5	20	60	4	4	MECRN4025003200	MECRN4025003200A
2.5	0.5	3.5	10	50	4	4	MECRN4025005100	MECRN4025005100A
2.5	0.5	3.5	16	50	4	4	MECRN4025005160	MECRN4025005160A
2.5	0.5	3.5	20	60	4	4	MECRN4025005200	MECRN4025005200A

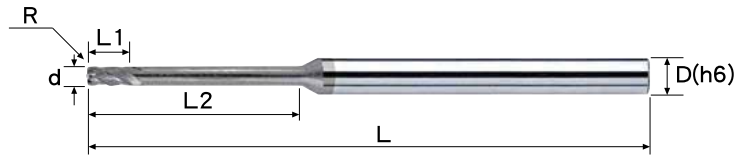
→ 切削條件表
Cutting Condition P.282

→ 參考資料
Technical Data P.243

M520 極細鎢鋼圓鼻銑刀-長頸型-4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 4F

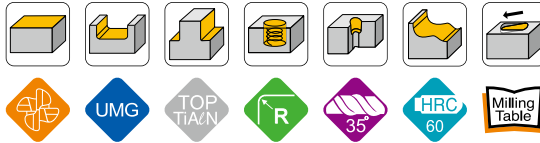
· MECRN4000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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刃徑 d	R角 R	刃長 L1	有效長 L2	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.
3.0	0.2	4.5	10	50	6	4	MECRN4030002100	MECRN4030002100A
3.0	0.2	4.5	16	50	6	4	MECRN4030002160	MECRN4030002160A
3.0	0.2	4.5	20	60	6	4	MECRN4030002200	MECRN4030002200A
3.0	0.3	4.5	10	50	6	4	MECRN4030003100	MECRN4030003100A
3.0	0.3	4.5	16	50	6	4	MECRN4030003160	MECRN4030003160A
3.0	0.3	4.5	20	60	6	4	MECRN4030003200	MECRN4030003200A
3.0	0.5	4.5	10	50	6	4	MECRN4030005100	MECRN4030005100A
3.0	0.5	4.5	16	50	6	4	MECRN4030005160	MECRN4030005160A
3.0	0.5	4.5	20	60	6	4	MECRN4030005200	MECRN4030005200A
3.0	1.0	4.5	10	50	6	4	MECRN4030010100	MECRN4030010100A
3.0	1.0	4.5	16	50	6	4	MECRN4030010160	MECRN4030010160A
3.0	1.0	4.5	20	60	6	4	MECRN4030010200	MECRN4030010200A
4.0	0.2	6.0	12	50	6	4	MECRN4040002120	MECRN4040002120A
4.0	0.2	6.0	16	50	6	4	MECRN4040002160	MECRN4040002160A
4.0	0.2	6.0	20	60	6	4	MECRN4040002200	MECRN4040002200A
4.0	0.2	6.0	25	60	6	4	MECRN4040002250	MECRN4040002250A
4.0	0.3	6.0	12	50	6	4	MECRN4040003120	MECRN4040003120A
4.0	0.3	6.0	16	50	6	4	MECRN4040003160	MECRN4040003160A
4.0	0.3	6.0	20	60	6	4	MECRN4040003200	MECRN4040003200A
4.0	0.3	6.0	25	60	6	4	MECRN4040003250	MECRN4040003250A
4.0	0.5	6.0	12	50	6	4	MECRN4040005120	MECRN4040005120A
4.0	0.5	6.0	16	50	6	4	MECRN4040005160	MECRN4040005160A
4.0	0.5	6.0	20	60	6	4	MECRN4040005200	MECRN4040005200A
4.0	0.5	6.0	25	60	6	4	MECRN4040005250	MECRN4040005250A
4.0	1.0	6.0	12	50	6	4	MECRN4040010120	MECRN4040010120A
4.0	1.0	6.0	16	50	6	4	MECRN4040010160	MECRN4040010160A
4.0	1.0	6.0	20	60	6	4	MECRN4040010200	MECRN4040010200A
4.0	1.0	6.0	25	60	6	4	MECRN4040010250	MECRN4040010250A
5.0	0.2	7.0	16	60	6	4	MECRN4050002160	MECRN4050002160A
5.0	0.2	7.0	20	60	6	4	MECRN4050002200	MECRN4050002200A
5.0	0.2	7.0	25	60	6	4	MECRN4050002250	MECRN4050002250A
5.0	0.2	7.0	30	60	6	4	MECRN4050002300	MECRN4050002300A
5.0	0.3	7.0	16	60	6	4	MECRN4050003160	MECRN4050003160A
5.0	0.3	7.0	20	60	6	4	MECRN4050003200	MECRN4050003200A
5.0	0.3	7.0	25	60	6	4	MECRN4050003250	MECRN4050003250A
5.0	0.3	7.0	30	60	6	4	MECRN4050003300	MECRN4050003300A

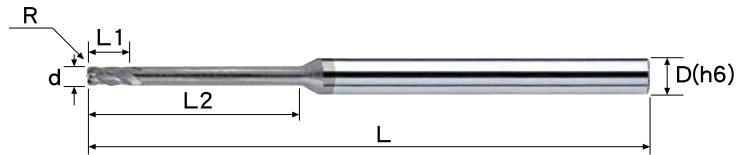
→ 切削條件表 P.282
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀-長頸型-4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- Square Type- Long Neck- 4F

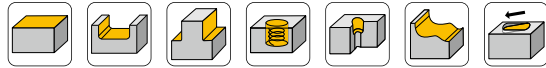
MECRN4000000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
R	± 0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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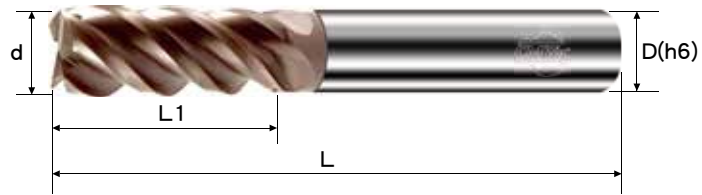
刃徑 d	R角 R	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
5.0	0.5	7.0	16	60	6	4	MECRN4050005160	MECRN4050005160A
5.0	0.5	7.0	20	60	6	4	MECRN4050005200	MECRN4050005200A
5.0	0.5	7.0	25	60	6	4	MECRN4050005250	MECRN4050005250A
5.0	0.5	7.0	30	60	6	4	MECRN4050005300	MECRN4050005300A
5.0	1.0	7.0	16	60	6	4	MECRN4050010160	MECRN4050010160A
5.0	1.0	7.0	20	60	6	4	MECRN4050010200	MECRN4050010200A
5.0	1.0	7.0	25	60	6	4	MECRN4050010250	MECRN4050010250A
5.0	1.0	7.0	30	60	6	4	MECRN4050010300	MECRN4050010300A
6.0	0.2	8.0	20	60	6	4	MECRN4060002200	MECRN4060002200A
6.0	0.2	8.0	25	60	6	4	MECRN4060002250	MECRN4060002250A
6.0	0.2	8.0	30	60	6	4	MECRN4060002300	MECRN4060002300A
6.0	0.3	8.0	20	60	6	4	MECRN4060003200	MECRN4060003200A
6.0	0.3	8.0	25	60	6	4	MECRN4060003250	MECRN4060003250A
6.0	0.3	8.0	30	60	6	4	MECRN4060003300	MECRN4060003300A
6.0	0.5	8.0	20	60	6	4	MECRN4060005200	MECRN4060005200A
6.0	0.5	8.0	25	60	6	4	MECRN4060005250	MECRN4060005250A
6.0	0.5	8.0	30	60	6	4	MECRN4060005300	MECRN4060005300A
6.0	1.0	8.0	20	60	6	4	MECRN4060010200	MECRN4060010200A
6.0	1.0	8.0	25	60	6	4	MECRN4060010250	MECRN4060010250A
6.0	1.0	8.0	30	60	6	4	MECRN4060010300	MECRN4060010300A
6.0	1.5	8.0	20	60	6	4	MECRN4060015200	MECRN4060015200A
6.0	1.5	8.0	25	60	6	4	MECRN4060015250	MECRN4060015250A
6.0	1.5	8.0	30	60	6	4	MECRN4060015300	MECRN4060015300A

M520 Ultra Carbide End Mills
M520 極細鎢鋼銑刀

極細鎢鋼不銹鋼用平銑刀- 高導小柄/標準型- 4刃

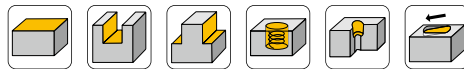
ULTRA CARBIDE END MILLS FOR STAINLESS- High Helix- Square Type- 4F

- MEMHM40000A
- MEMH40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
1.0	3	50	4	4	MEMHM40100F
2.0	5	50	4	4	MEMHM40200F
3.0	8	50	4	4	MEMHM40300F
4.0	10	50	4	4	MEMHM40400F
2.0	5	50	6	4	MEMH40200F
3.0	8	50	6	4	MEMH40300F
4.0	10	50	6	4	MEMH40400F
5.0	13	50	6	4	MEMH40500F
6.0	15	50	6	4	MEMH40600F
7.0	18	60	8	4	MEMH40700F
8.0	20	60	8	4	MEMH40800F
10.0	25	75	10	4	MEMH41000F
12.0	30	75	12	4	MEMH41200F
14.0	30	75	14	4	MEMH4140014F
15.0	35	100	16	4	MEMH41500F
16.0	35	100	16	4	MEMH41600F
18.0	40	100	20	4	MEMH41800F
20.0	45	100	20	4	MEMH42000F
25.0	45	100	25	4	MEMH42500F

M520 極細鎢鋼平銑刀- 短刃強重型- 3刃

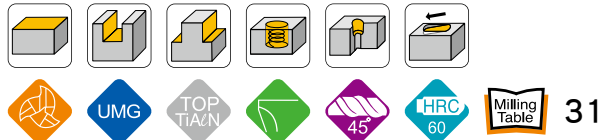
M520 ULTRA CARBIDE END MILLS- Square Type- Short Flute for Heavy- Duty Cutting- 3F

MEHHD30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
3.0	4.5	50	6	3	MEHHD30300A
4.0	6.0	50	6	3	MEHHD30400A
5.0	7.5	50	6	3	MEHHD30500A
6.0	9.0	50	6	3	MEHHD30600A
8.0	12.0	60	8	3	MEHHD30800A
10.0	15.0	75	10	3	MEHHD31000A
12.0	18.0	75	12	3	MEHHD31200A

M520 極細鎢鋼平銑刀- 短刃強重型- 4刃

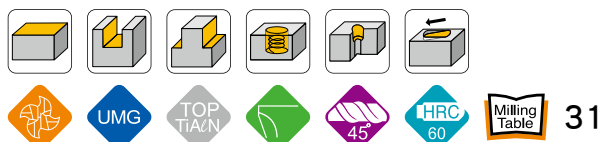
M520 ULTRA CARBIDE END MILLS- Square Type- Short Flute for Heavy- Duty Cutting- 4F

MEHHD40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
3.0	4.5	50	6	4	MEHHD40300A
4.0	6.0	50	6	4	MEHHD40400A
5.0	7.5	50	6	4	MEHHD40500A
6.0	9.0	50	6	4	MEHHD40600A
8.0	12.0	60	8	4	MEHHD40800A
10.0	15.0	75	10	4	MEHHD41000A
12.0	18.0	75	12	4	MEHHD41200A

→ 切削條件表
Cutting Condition P.281

→ 參考資料
Technical Data P.243

M520 極細鎢鋼平銑刀- 強重型- 4刃

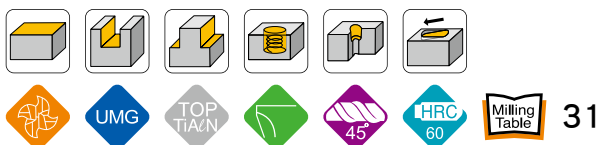
M520 ULTRA CARBIDE END MILLS- for Heavy- Duty Cutting- 4F

· MEHH40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	鍍膜訂購編號 Coated Order No.
3.0	8.0	50	6	4	MEHH40300A
4.0	11.0	50	6	4	MEHH40400A
5.0	13.0	50	6	4	MEHH40500A
6.0	13.0	50	6	4	MEHH40600A
8.0	19.0	60	8	4	MEHH40800A
10.0	22.0	75	10	4	MEHH41000A
12.0	26.0	75	12	4	MEHH41200A
16.0	32.0	100	16	4	MEHH41600A
20.0	38.0	100	20	4	MEHH42000A

→ 切削條件表 P.281
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀- 強重型- 4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius for Heavy- Duty Cutting- 4F

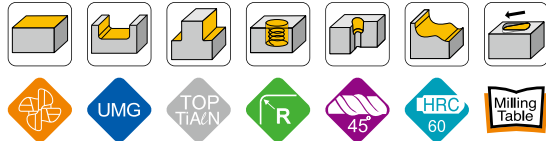
· MEHHCR4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
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	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
3.0	0.2R	8.0	50	6	4	MEHHCR4030002A
3.0	0.5R	8.0	50	6	4	MEHHCR4030005A
4.0	0.2R	11.0	50	6	4	MEHHCR4040002A
4.0	0.5R	11.0	50	6	4	MEHHCR4040005A
4.0	1.0R	11.0	50	6	4	MEHHCR4040010A
5.0	0.2R	13.0	50	6	4	MEHHCR4050002A
5.0	0.5R	13.0	50	6	4	MEHHCR4050005A
5.0	1.0R	13.0	50	6	4	MEHHCR4050010A
6.0	0.3R	13.0	50	6	4	MEHHCR4060003A
6.0	0.5R	13.0	50	6	4	MEHHCR4060005A
6.0	1.0R	13.0	50	6	4	MEHHCR4060010A
8.0	0.3R	19.0	60	8	4	MEHHCR4080003A
8.0	0.5R	19.0	60	8	4	MEHHCR4080005A
8.0	1.0R	19.0	60	8	4	MEHHCR4080010A
8.0	1.5R	19.0	60	8	4	MEHHCR4080015A
8.0	2.0R	19.0	60	8	4	MEHHCR4080020A
10.0	0.3R	22.0	75	10	4	MEHHCR4100003A
10.0	0.5R	22.0	75	10	4	MEHHCR4100005A
10.0	1.0R	22.0	75	10	4	MEHHCR4100010A
10.0	1.5R	22.0	75	10	4	MEHHCR4100015A
10.0	2.0R	22.0	75	10	4	MEHHCR4100020A
10.0	3.0R	22.0	75	10	4	MEHHCR4100030A
12.0	0.5R	26.0	75	12	4	MEHHCR4120005A
12.0	1.0R	26.0	75	12	4	MEHHCR4120010A
12.0	1.5R	26.0	75	12	4	MEHHCR4120015A
12.0	2.0R	26.0	75	12	4	MEHHCR4120020A
12.0	3.0R	26.0	75	12	4	MEHHCR4120030A
16.0	1.0R	35.0	100	16	4	MEHHCR4160010A
16.0	1.5R	35.0	100	16	4	MEHHCR4160015A
16.0	2.0R	35.0	100	16	4	MEHHCR4160020A
16.0	3.0R	35.0	100	16	4	MEHHCR4160030A
20.0	1.0R	40.0	100	20	4	MEHHCR4200010A
20.0	1.5R	40.0	100	20	4	MEHHCR4200015A
20.0	2.0R	40.0	100	20	4	MEHHCR4200020A
20.0	3.0R	40.0	100	20	4	MEHHCR4200030A

→ 切削條件表 P.281
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼圓鼻銑刀- 高效型- 4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- High Performance- 4F

· MEVC4000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

R(半徑)	Tolerance(公差)
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	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
3.0	0.2R	8	50	6	4	MEVC4030002A
3.0	0.5R	8	50	6	4	MEVC4030005A
4.0	0.2R	11	50	6	4	MEVC4040002A
4.0	0.5R	11	50	6	4	MEVC4040005A
4.0	1.0R	11	50	6	4	MEVC4040010A
5.0	0.2R	13	50	6	4	MEVC4050002A
5.0	0.5R	13	50	6	4	MEVC4050005A
5.0	1.0R	13	50	6	4	MEVC4050010A
6.0	0.3R	13	50	6	4	MEVC4060003A
6.0	0.5R	13	50	6	4	MEVC4060005A
6.0	1.0R	13	50	6	4	MEVC4060010A
8.0	0.3R	19	60	8	4	MEVC4080003A
8.0	0.5R	19	60	8	4	MEVC4080005A
8.0	1.0R	19	60	8	4	MEVC4080010A
8.0	1.5R	19	60	8	4	MEVC4080015A
8.0	2.0R	19	60	8	4	MEVC4080020A
10.0	0.3R	22	75	10	4	MEVC4100003A
10.0	0.5R	22	75	10	4	MEVC4100005A
10.0	1.0R	22	75	10	4	MEVC4100010A
10.0	1.5R	22	75	10	4	MEVC4100015A
10.0	2.0R	22	75	10	4	MEVC4100020A
10.0	3.0R	22	75	10	4	MEVC4100030A
12.0	0.5R	26	75	12	4	MEVC4120005A
12.0	1.0R	26	75	12	4	MEVC4120010A
12.0	1.5R	26	75	12	4	MEVC4120015A
12.0	2.0R	26	75	12	4	MEVC4120020A
12.0	3.0R	26	75	12	4	MEVC4120030A
16.0	1.0R	35	100	16	4	MEVC4160010A
16.0	1.5R	35	100	16	4	MEVC4160015A
16.0	2.0R	35	100	16	4	MEVC4160020A
16.0	3.0R	35	100	16	4	MEVC4160030A
20.0	1.0R	40	100	20	4	MEVC4200010A
20.0	1.5R	40	100	20	4	MEVC4200015A
20.0	2.0R	40	100	20	4	MEVC4200020A
20.0	3.0R	40	100	20	4	MEVC4200030A

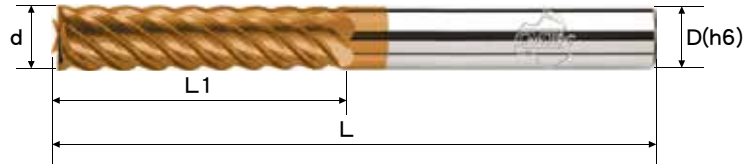
→ 切削條件表 P.300,301
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼平銑刀- 高硬長刃型- 6刃

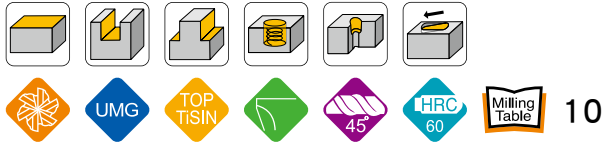
M520 ULTRA MICRO GRAIN CARBIDE END MILLS- High Hardness & Long Flute- 6F

· MEDF60000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>

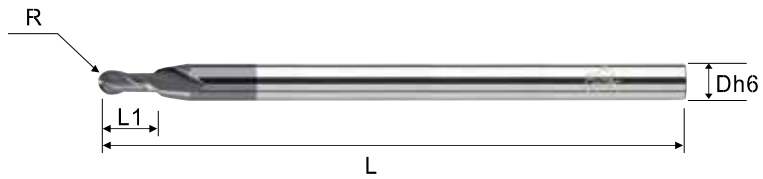


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
6.0	35	75	6	6	MEDF60600A
8.0	45	100	8	6	MEDF60800A
10.0	55	100	10	6	MEDF61000A
12.0	55	100	12	6	MEDF61200A
14.0	75	150	14	6	MEDF61400A
16.0	75	150	16	6	MEDF61600A
18.0	90	150	18	6	MEDF61800A
20.0	90	150	20	6	MEDF62000A
25.0	90	150	25	6	MEDF62500A

M520 極細鎢鋼球型銑刀- 微/小柄- 高精度型- 2刃

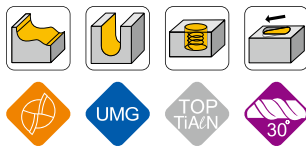
M520 ULTRA CARBIDE END MILLS- Ball Nose- High R Tolerance Type- 2F- Micro Diameter

- MEBYS20000A
- MEBYM20000A



半徑 R	公差 Tolerance	刃徑 d	公差 Tolerance
0.1R	±0.005	0.2	-0.01 ~ -0.02
0.15R	±0.005	0.3	-0.01 ~ -0.02
0.2R	±0.005	0.4	-0.01 ~ -0.02
0.25R	±0.005	0.5	-0.01 ~ -0.02
0.3R	±0.005	0.6	-0.01 ~ -0.02
0.35R	±0.005	0.7	-0.01 ~ -0.02
0.4R	±0.005	0.8	-0.01 ~ -0.02
0.45R	±0.005	0.9	-0.01 ~ -0.02
0.5R	±0.005	1.0	-0.01 ~ -0.02
0.75R	±0.005	1.5	-0.01 ~ -0.02
1.0R	±0.005	2.0	-0.01 ~ -0.02
1.25R	±0.005	2.5	-0.01 ~ -0.02
1.5R	±0.005	3.0	-0.01 ~ -0.02
2.0R	±0.005	4.0	-0.01 ~ -0.02

Milling Table 64



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

半徑 R	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.
0.1R	0.2	0.4	50	3	2	MEBYS20010	MEBYS20010A
0.15R	0.3	0.6	50	3	2	MEBYS20015	MEBYS20015A
0.2R	0.4	0.8	50	3	2	MEBYS20020	MEBYS20020A
0.25R	0.5	1.0	50	3	2	MEBYS20025	MEBYS20025A
0.3R	0.6	1.2	50	3	2	MEBYS20030	MEBYS20030A
0.35R	0.7	1.4	50	3	2	MEBYS20035	MEBYS20035A
0.4R	0.8	1.6	50	3	2	MEBYS20040	MEBYS20040A
0.45R	0.9	1.8	50	3	2	MEBYS20045	MEBYS20045A
0.5R	1.0	2.0	50	3	2	MEBYS20050	MEBYS20050A
0.6R	1.2	2.4	50	3	2	MEBYS20060	MEBYS20060A
0.7R	1.4	2.8	50	3	2	MEBYS20070	MEBYS20070A
0.75R	1.5	3.0	50	3	2	MEBYS20075	MEBYS20075A
0.8R	1.6	3.2	50	3	2	MEBYS20080	MEBYS20080A
0.9R	1.8	3.6	50	3	2	MEBYS20090	MEBYS20090A
1.0R	2.0	4.0	50	3	2	MEBYS20100	MEBYS20100A
1.5R	3.0	6.0	50	3	2	MEBYS20150	MEBYS20150A
0.1R	0.2	0.4	50	4	2	MEBYM20010	MEBYM20010A
0.15R	0.3	0.6	50	4	2	MEBYM20015	MEBYM20015A
0.2R	0.4	0.8	50	4	2	MEBYM20020	MEBYM20020A
0.25R	0.5	1.0	50	4	2	MEBYM20025	MEBYM20025A
0.3R	0.6	1.2	50	4	2	MEBYM20030	MEBYM20030A
0.35R	0.7	1.4	50	4	2	MEBYM20035	MEBYM20035A
0.4R	0.8	1.6	50	4	2	MEBYM20040	MEBYM20040A
0.45R	0.9	1.8	50	4	2	MEBYM20045	MEBYM20045A
0.5R	1.0	2.0	50	4	2	MEBYM20050	MEBYM20050A
0.75R	1.5	3.0	50	4	2	MEBYM20075	MEBYM20075A
1.0R	2.0	4.0	50	4	2	MEBYM20100	MEBYM20100A
1.25R	2.5	5.0	50	4	2	MEBYM20125	MEBYM20125A
1.5R	3.0	6.0	50	4	2	MEBYM20150	MEBYM20150A
2.0R	4.0	8.0	50	4	2	MEBYM20200	MEBYM20200A

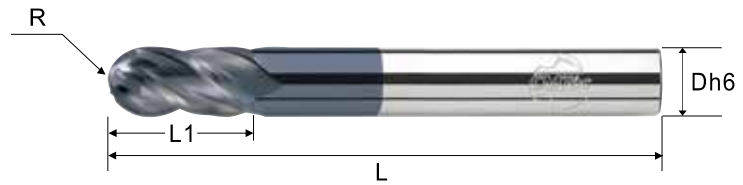
→ 切削條件表 P.298
Cutting Condition

→ 參考資料 P.243
Technical Data

M520 極細鎢鋼球型銑刀- 小柄/標準- 高精度型- 4刃

M520 ULTRA CARBIDE END MILLS- Ball Nose- High R Tolerance Type- 4F

- MEBYM40000A
- MEBY40000A



半徑 R	公差 Tolerance	刃徑 d	公差 Tolerance
1.0R	±0.005	2.0	-0.01 ~ -0.02
1.25R	±0.005	2.5	-0.01 ~ -0.02
1.5R	±0.005	3.0	-0.01 ~ -0.02
1.75R	±0.005	3.5	-0.01 ~ -0.02
2.0R	±0.005	4.0	-0.01 ~ -0.02
3.0R	±0.005	6.0	-0.01 ~ -0.02

Milling Table 64

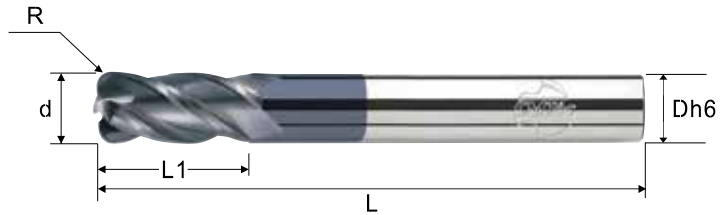
超精銑 Bright Finishing	◎
精銑 Finishing	◎
中銑 Semi Finishing	-
粗銑 Roughing	-

半徑 R	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.
1.0R	2.0	4	50	4	4	MEBYM40100	MEBYM40100A
1.25R	2.5	5	50	4	4	MEBYM40125	MEBYM40125A
1.5R	3.0	6	50	4	4	MEBYM40150	MEBYM40150A
1.75R	3.5	7	50	4	4	MEBYM40175	MEBYM40175A
2.0R	4.0	8	50	4	4	MEBYM40200	MEBYM40200A
3.0R	6.0	12	50	6	4	MEBY40300	MEBY40300A

M520 極細鎢鋼圓鼻銑刀- 標準- 高精度型- 4刃

M520 ULTRA CARBIDE END MILLS- Corner Radius- High R Tolerance Type- 4F

MECY4000000A



半徑 R	公差 Tolerance	刃徑 d	公差 Tolerance
0.5R	+0.01 ~ 0	3.0	-0.01 ~ -0.02
1.0R	+0.01 ~ 0	3.0	-0.01 ~ -0.02
0.5R	+0.01 ~ 0	4.0	-0.01 ~ -0.02
1.0R	+0.01 ~ 0	4.0	-0.01 ~ -0.02
0.5R	+0.01 ~ 0	5.0	-0.01 ~ -0.02
1.0R	+0.01 ~ 0	5.0	-0.01 ~ -0.02
0.5R	+0.01 ~ 0	6.0	-0.01 ~ -0.02
1.0R	+0.01 ~ 0	6.0	-0.01 ~ -0.02



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

刃徑 d	R角 R	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.
3.0	0.5R	6	50	6	4	MECY4030005	MECY4030005A
3.0	1.0R	6	50	6	4	MECY4030010	MECY4030010A
4.0	0.5R	8	50	6	4	MECY4040005	MECY4040005A
4.0	1.0R	8	50	6	4	MECY4040010	MECY4040010A
5.0	0.5R	10	50	6	4	MECY4050005	MECY4050005A
5.0	1.0R	10	50	6	4	MECY4050010	MECY4050010A
6.0	0.5R	12	50	6	4	MECY4060005	MECY4060005A
6.0	1.0R	12	50	6	4	MECY4060010	MECY4060010A

→ 切削條件表 P.299 Cutting Condition → 參考資料 P.243 Technical Data

N620

奈米鎢鋼銑刀 (高速高硬系列)

Nano Carbide End Mills
(Ultra Hard Series)



N620 奈米鎢鋼平銑刀- 短刃型- 2刃

N620 NANO CARBIDE END MILLS- Square Type- Short Flute- 2F with corner radii

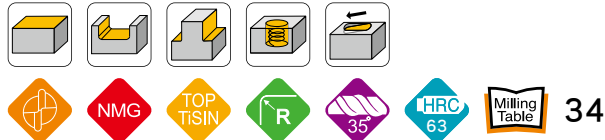
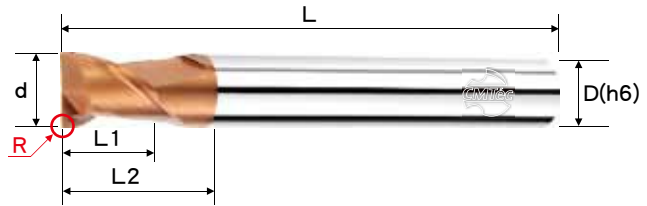
· NESDM20000A

· NESD20000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	刃長 L1	有效長 L2	R角 R	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
1.0	1.0	2.0	0.1R	50	4	2	NESDM20100A
2.0	2.0	4.0	0.1R	50	4	2	NESDM20200A
3.0	3.0	6.0	0.1R	50	4	2	NESDM20300A
4.0	4.0	8.0	0.2R	50	4	2	NESDM20400A
6.0	6.0	12.0	0.2R	50	6	2	NESD20600A
8.0	8.0	16.0	0.3R	60	8	2	NESD20800A
10.0	10.0	20.0	0.3R	75	10	2	NESD21000A
12.0	12.0	24.0	0.3R	75	12	2	NESD21200A

N620 奈米鎢鋼平銑刀- 短刃型- 3刃

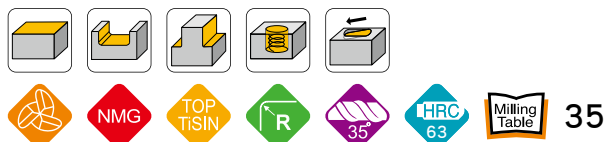
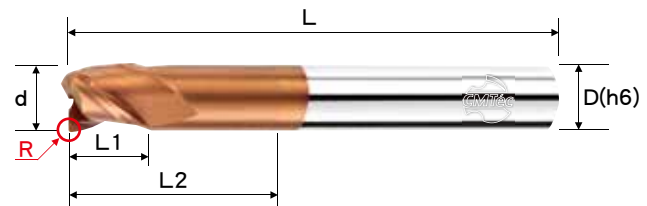
N620 NANO CARBIDE END MILLS- Square Type- Short Flute- 3F with corner radii

· NESD30000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	刃長 L1	有效長 L2	R角 R	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
3.0	3.0	9.0	0.1R	50	6	3	NESD30300A
4.0	4.0	12.0	0.2R	50	6	3	NESD30400A
6.0	6.0	18.0	0.2R	50	6	3	NESD30600A
8.0	8.0	24.0	0.3R	60	8	3	NESD30800A
10.0	10.0	30.0	0.3R	75	10	3	NESD31000A
12.0	12.0	36.0	0.3R	75	12	3	NESD31200A

→ 切削條件表
Cutting Condition P.282,283

→ 參考資料
Technical Data P.243

N620 奈米鎢鋼平銑刀- 短刃型- 4刃

N620 NANO CARBIDE END MILLS- Square Type- Short Flute- 4F with corner radii

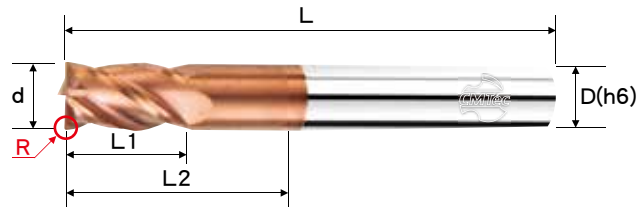
· NESDM40000A

· NESD40000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	刃長 L1	有效長 L2	R角 R	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
1.0	1.0	2.0	0.1R	50	4	4	NESDM40100A
1.5	1.5	3.0	0.1R	50	4	4	NESDM40150A
2.0	2.0	4.0	0.1R	50	4	4	NESDM40200A
2.5	2.5	5.0	0.1R	50	4	4	NESDM40250A
3.0	4.0	8.0	0.1R	50	6	4	NESD40300A
4.0	5.0	10.0	0.2R	50	6	4	NESD40400A
5.0	7.0	14.0	0.2R	50	6	4	NESD40500A
6.0	8.0	16.0	0.2R	50	6	4	NESD40600A
8.0	12.0	24.0	0.3R	60	8	4	NESD40800A
10.0	16.0	32.0	0.3R	75	10	4	NESD41000A
12.0	18.0	36.0	0.3R	75	12	4	NESD41200A

N620 奈米鎢鋼平銑刀- 高導短刃型- 6刃

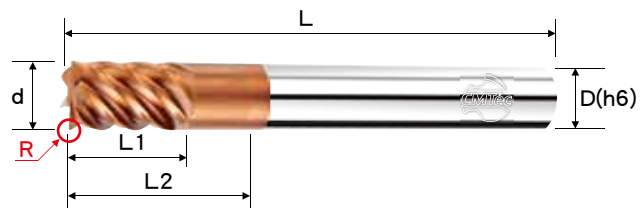
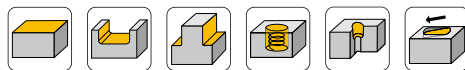
N620 NANO CARBIDE END MILLS- Square Type- High Helix- Short Flute- 6F with corner radii

· NEHD60000A

d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
R	± 0.02

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



刃徑 d	刃長 L1	有效長 L2	R角 R	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
6.0	9.0	15.0	0.2R	50	6	6	NEHD60600A
8.0	12.0	20.0	0.3R	60	8	6	NEHD60800A
10.0	15.0	25.0	0.3R	75	10	6	NEHD61000A
12.0	18.0	30.0	0.3R	75	12	6	NEHD61200A
16.0	24.0	40.0	0.5R	100	16	6	NEHD61600A
20.0	30.0	50.0	0.5R	100	20	6	NEHD62000A

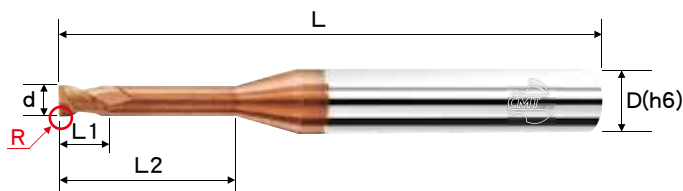
→ 切削條件表
Cutting Condition P.283,284

→ 參考資料
Technical Data P.243

N620 奈米鎢鋼平銑刀- 短刃長頸型- 2刃

N620 NANO CARBIDE END MILLS-
Square Type- Short Flute- Long Neck- 2F with Corner Radii

· NESND20000000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
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	刃長 L1	有效長 L2	R角 R	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
0.5	1.0	2.0	0.1R	50	4	2	NESND20050020A
0.5	1.0	4.0	0.1R	50	4	2	NESND20050040A
1.0	1.5	4.0	0.1R	50	6	2	NESND20100040A
1.0	1.5	6.0	0.1R	50	6	2	NESND20100060A
1.0	1.5	8.0	0.1R	50	6	2	NESND20100080A
1.5	1.5	4.0	0.1R	50	6	2	NESND20150040A
1.5	1.5	8.0	0.1R	50	6	2	NESND20150080A
2.0	2.0	8.0	0.2R	50	6	2	NESND20200080A
2.0	2.0	10.0	0.2R	50	6	2	NESND20200100A
2.0	2.0	12.0	0.2R	50	6	2	NESND20200120A
3.0	3.0	8.0	0.2R	50	6	2	NESND20300080A
3.0	3.0	12.0	0.2R	50	6	2	NESND20300120A
3.0	3.0	16.0	0.2R	50	6	2	NESND20300160A
3.0	3.0	20.0	0.2R	50	6	2	NESND20300200A
4.0	4.0	16.0	0.3R	60	6	2	NESND20400160A
4.0	4.0	20.0	0.3R	60	6	2	NESND20400200A
4.0	4.0	26.0	0.3R	75	6	2	NESND20400260A
5.0	5.0	20.0	0.3R	75	6	2	NESND20500200A
5.0	5.0	30.0	0.3R	75	6	2	NESND20500300A
5.0	5.0	40.0	0.3R	75	6	2	NESND20500400A

→ 切削條件表 P.285
Cutting Condition

→ 參考資料 P.243
Technical Data

N620 奈米鎢鋼圓鼻銑刀- 短刃型- 4刃

N620 NANO CARBIDE END MILLS- Corner Radius- Short Flute- 4F

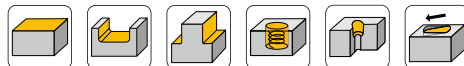
・NECDM4000000A

・NECD4000000A

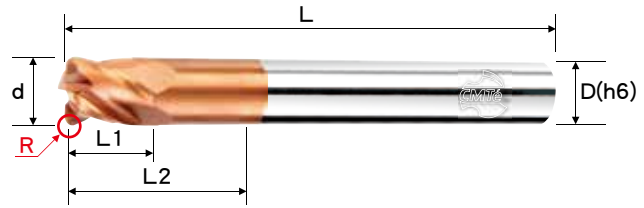
d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.015
$3 \leq \phi \leq 10$	0 ~ -0.03
$10 < \phi$	0 ~ -0.03

R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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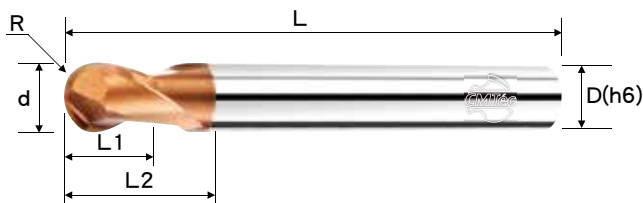


刃徑 d	R角 R	有效長 L2	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
1.0	0.2R	2.5	1.0	50	4	4	NECDM4010002A
1.5	0.15R	3.5	1.5	50	4	4	NECDM40150015A
1.5	0.3R	3.5	1.5	50	4	4	NECDM4015003A
2.0	0.25R	6.5	2.0	50	4	4	NECDM40200025A
2.5	0.25R	7.5	2.5	50	4	4	NECDM40250025A
2.5	0.5R	7.5	2.5	50	4	4	NECDM4025005A
3.0	0.25R	7.5	3.0	50	6	4	NECD40300025A
3.0	0.5R	7.5	3.0	50	6	4	NECD4030005A
4.0	0.25R	10.0	4.0	50	6	4	NECD40400025A
4.0	0.5R	10.0	4.0	50	6	4	NECD4040005A
5.0	0.25R	12.5	5.0	50	6	4	NECD40500025A
5.0	0.5R	12.5	5.0	50	6	4	NECD4050005A
6.0	0.5R	15.0	6.0	50	6	4	NECD4060005A
6.0	1.0R	15.0	6.0	50	6	4	NECD4060010A
8.0	0.5R	20.0	8.0	60	8	4	NECD4080005A
8.0	1.0R	20.0	8.0	60	8	4	NECD4080010A
8.0	1.5R	20.0	8.0	60	8	4	NECD4080015A
10.0	0.5R	25.0	10.0	75	10	4	NECD4100005A
10.0	1.0R	25.0	10.0	75	10	4	NECD4100010A
10.0	1.5R	25.0	10.0	75	10	4	NECD4100015A
10.0	2.0R	25.0	10.0	75	10	4	NECD4100020A
12.0	0.5R	30.0	12.0	75	12	4	NECD4120005A
12.0	1.0R	30.0	12.0	75	12	4	NECD4120010A
12.0	1.5R	30.0	12.0	75	12	4	NECD4120015A
12.0	2.0R	30.0	12.0	75	12	4	NECD4120020A

N620 奈米鎢鋼球型銑刀-短刃型-2刃

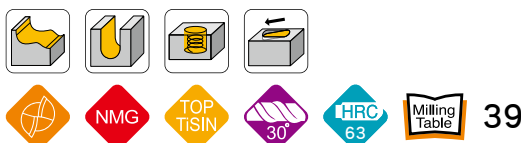
N620 NANO CARBIDE END MILLS- Ball Nosed- Short Flute- 2F

- NEBDM20000A
- NEBD20000A



R(半徑)	Tolerance(公差)
R	±0.02

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

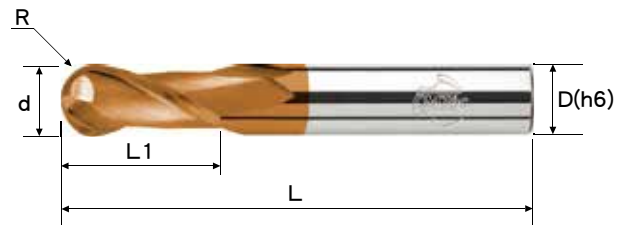


半徑 R	刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
0.15R	0.3	0.3	0.6	50	4	2	NEBDM20015A
0.2R	0.4	0.4	0.8	50	4	2	NEBDM20020A
0.25R	0.5	0.5	1.0	50	4	2	NEBDM20025A
0.3R	0.6	0.6	1.2	50	4	2	NEBDM20030A
0.4R	0.8	0.8	1.6	50	4	2	NEBDM20040A
0.5R	1.0	1.0	2.0	50	4	2	NEBDM20050A
1.0R	2.0	2.0	4.0	50	4	2	NEBDM20100A
1.5R	3.0	3.0	6.0	50	4	2	NEBDM20150A
1.0R	2.0	2.0	4.0	50	6	2	NEBD20100A
1.5R	3.0	3.0	6.0	50	6	2	NEBD20150A
2.0R	4.0	4.0	8.0	50	6	2	NEBD20200A
2.5R	5.0	5.0	10.0	50	6	2	NEBD20250A
3.0R	6.0	6.0	12.0	50	6	2	NEBD20300A
4.0R	8.0	8.0	16.0	60	8	2	NEBD20400A
5.0R	10.0	10.0	20.0	75	10	2	NEBD20500A
6.0R	12.0	12.0	24.0	75	12	2	NEBD20600A

N620 奈米鎢鋼球型銑刀-標準型-2刃

N620 NANO CARBIDE END MILLS- Ball Nosed- Square Type- 2F

· NEB20000A



R(半徑)	Tolerance(公差)
R	±0.01
超精銑 Bright Finishing	—
精銑 Finishing	○
中銑 Semi Finishing	◎
粗銑 Roughing	○

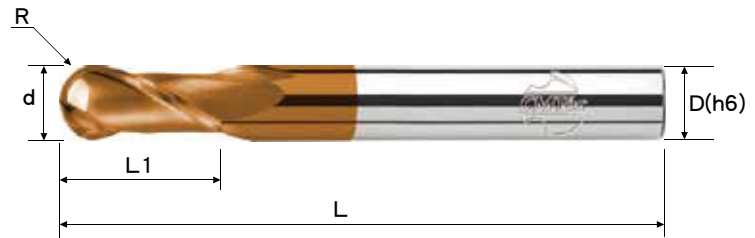


半徑 R	刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
1.0R	2.0	4.0	50	6	2	NEB20100A
1.5R	3.0	6.0	50	6	2	NEB20150A
2.0R	4.0	8.0	50	6	2	NEB20200A
3.0R	6.0	12.0	50	6	2	NEB20300A
4.0R	8.0	16.0	60	8	2	NEB20400A
5.0R	10.0	20.0	75	10	2	NEB20500A
6.0R	12.0	24.0	75	12	2	NEB20600A

N620 奈米鎢鋼球型銑刀- 標準/長柄型- 2刃

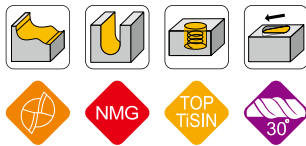
N620 NANO CARBIDE END MILLS- Ball Nosed- Square Type & Long Shank- 2F

· **NEBL20000A**



R(半徑)	Tolerance(公差)
R	±0.01

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



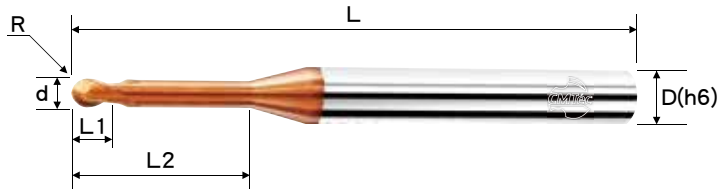
半徑 R	刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
1.0R	2.0	4.0	75	6	2	NEBL20100A
1.5R	3.0	6.0	75	6	2	NEBL20150A
2.0R	4.0	8.0	75	6	2	NEBL20200A
3.0R	6.0	12.0	75	6	2	NEBL20300A
4.0R	8.0	16.0	100	8	2	NEBL20400A
5.0R	10.0	20.0	100	10	2	NEBL20500A
6.0R	12.0	24.0	100	12	2	NEBL20600A

N620 Nano Carbide End Mills

N620 奈米鎢鋼球型銑刀- 短刃長頸型- 2刃

N620 NANO CARBIDE END MILLS- Ball Nosed- Short Flute- Long Neck- 2F

NEBND20000000A



R(半徑)	Tolerance(公差)
R	±0.02

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="radio"/>



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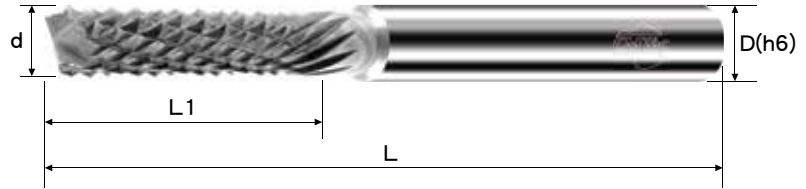
半徑 R	刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	鍍膜訂單編號 Coated Order No.
0.3R	0.6	0.6	3.0	50	4	2	NEBND20030030A
0.3R	0.6	0.6	4.0	50	4	2	NEBND20030040A
0.4R	0.8	0.8	4.0	50	4	2	NEBND20040040A
0.4R	0.8	0.8	6.0	50	4	2	NEBND20040060A
0.5R	1.0	1.0	4.0	50	4	2	NEBND20050040A
0.5R	1.0	1.0	6.0	50	4	2	NEBND20050060A
0.5R	1.0	1.0	8.0	50	4	2	NEBND20050080A
0.75R	1.5	1.5	6.0	50	4	2	NEBND20075060A
0.75R	1.5	1.5	9.0	50	4	2	NEBND20075090A
0.75R	1.5	1.5	12.0	50	4	2	NEBND20075120A
1.0R	2.0	2.0	8.0	50	4	2	NEBND20100080A
1.0R	2.0	2.0	12.0	50	4	2	NEBND20100120A
1.0R	2.0	2.0	16.0	50	4	2	NEBND20100160A
1.5R	3.0	3.0	12.0	60	6	2	NEBND20150120A
1.5R	3.0	3.0	18.0	60	6	2	NEBND20150180A
1.5R	3.0	3.0	25.0	75	6	2	NEBND20150250A
2.0R	4.0	4.0	16.0	75	6	2	NEBND20200160A
2.0R	4.0	4.0	25.0	75	6	2	NEBND20200250A
2.0R	4.0	4.0	30.0	75	6	2	NEBND20200300A
2.5R	5.0	5.0	20.0	75	6	2	NEBND20250200A
2.5R	5.0	5.0	30.0	75	6	2	NEBND20250300A
2.5R	5.0	5.0	40.0	75	6	2	NEBND20250400A
3.0R	6.0	6.0	30.0	75	6	2	NEBND20300300A
3.0R	6.0	6.0	45.0	100	6	2	NEBND20300450A

鎢鋼複合材料專用銑刀- 小柄/標準型

CARBIDE END MILLS FOR COMPOSITES- Square Type

· CEFM00000D

· CEF00000D



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	◎



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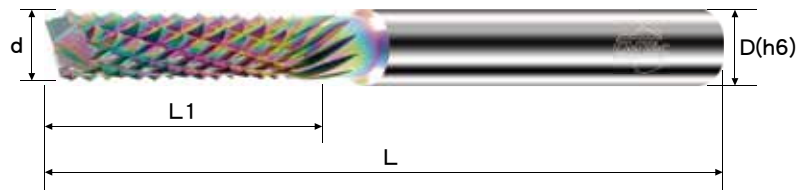
刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	DIA 鍍膜訂購編號 DIA Coated Order No.
4.0	20	60	4	8	CEFM80400D
6.0	25	60	6	11	CEF110600D
8.0	25	60	8	14	CEF140800D
10.0	30	75	10	16	CEF161000D
12.0	32	100	12	17	CEF171200D

鎢鋼複合材料專用銑刀- 小柄/標準型

CARBIDE END MILLS FOR COMPOSITES- Square Type

· CEFM00000A

· CEF00000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	◎



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刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	RD 鍍膜訂購編號 RD Coated Order No.
4.0	20	60	4	8	CEFM80400A
6.0	25	60	6	11	CEF110600A
8.0	25	60	8	14	CEF140800A
10.0	30	75	10	16	CEF161000A
12.0	32	100	12	17	CEF171200A

銑牙刀系列

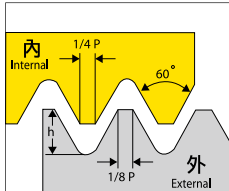
Thread Mills



鎢鋼多功能螺旋鑽銑牙刀(鑽-螺紋-倒角)- 內螺紋用(ISO規格)

MICRO GRAIN CARBIDE DRILL- THREAD- CHAMFER- HELIX FLUTE- INTERNAL(ISO Metric)

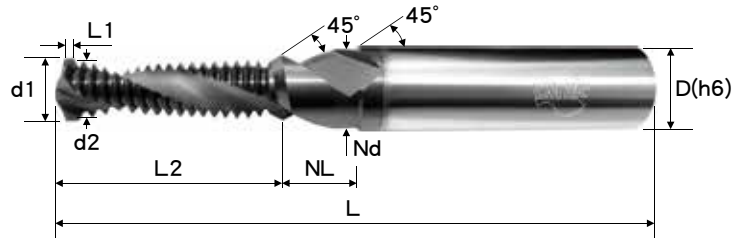
· CSHI200000-000A



Tolerance class(公差)
6g / 6H



60

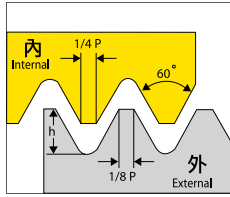
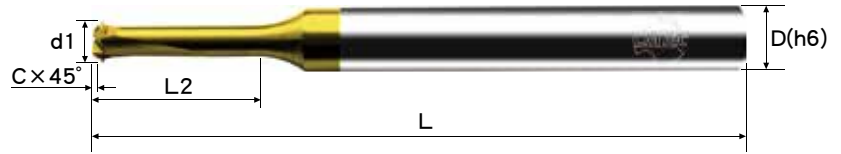


d1	d2	L1	L2	Nd	NL	L	D	h (mm)	螺距 Pitch	螺紋 Thread 粗牙M	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
5.0	4.85	1.0	13.7	6.6	9.5	60	8	0.58	1.00	M6	11	2	CSHI205008-100A
6.8	6.45	1.3	17.1	9.0	16.8	75	10	0.72	1.25	M8	11	2	CSHI206810-125A
8.5	8.08	1.5	22.1	11.0	11.6	80	12	0.87	1.50	M10	12	2	CSHI208512-150A
10.3	9.74	1.5	25.5	13.5	17.9	90	14	1.01	1.75	M12	12	2	CSHI210314-175A

極細鎢鋼多功能單 / 雙牙螺旋鑽銑牙刀(鑽-倒角-螺紋)-硬材質用- 內螺紋用(ISO規格)

ULTRA CARBIDE MULTIPURPOSE THREAD MILLS- 1 / 2 / 3TEETH- HELIX FLUTE (DRILL-CHAMFER-THREAD)- HARD MATERIALS CUTTING- INTERNAL(ISO Metric)

- MSHIDA100000-000 A
- MSHIDA200000-000 A
- MSHIDA300000-000 A



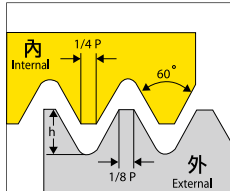
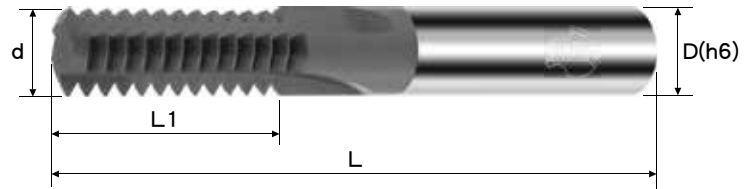
Tolerance class(公差)
6g / 6H

螺紋 Thread	螺距 Pitch	d1	L2	L	D	倒角 Chamfer	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
M0.8	0.20	0.60	2.4	50	4	0.10	1	1	MSHIDA100604-020A
M0.9	0.225	0.66	2.7	50	4	0.12	1	1	MSHIDA100604-022A
M1.0	0.25	0.73	3.0	50	4	0.15	1	1	MSHIDA100704-025A
M1.2	0.25	0.92	3.6	50	4	0.15	1	1	MSHIDA100904-025A
M1.4	0.30	1.05	4.2	50	4	0.19	1	1	MSHIDA101004-030A
M1.6	0.35	1.21	4.8	50	4	0.22	1	1	MSHIDA101204-035A
M2.0	0.40	1.55	6.0	50	4	0.25	1	2	MSHIDA201504-040A
M2.5	0.45	2.00	7.5	50	4	0.29	1	2	MSHIDA202004-045A
M3.0	0.50	2.44	9.0	60	6	0.33	1	2	MSHIDA202406-050A
M4.0	0.70	3.20	12.0	60	6	0.45	1	2	MSHIDA203206-070A
M5.0	0.80	4.00	15.0	60	6	0.53	1	2	MSHIDA204006-080A
M6.0	1.00	4.85	18.0	75	6	0.65	2	3	MSHIDA304806-100A
M8.0	1.25	6.50	24.0	75	8	0.80	2	3	MSHIDA306508-125A
M10.0	1.50	7.90	30.0	75	8	1.00	2	3	MSHIDA307908-150A

鎢鋼直刃銑牙刀- 外螺紋用(ISO規格)

MICRO GRAIN CARBIDE THREAD- STRAIGHT FLUTE- EXTERNAL(ISO Metric)

· CTSE000000-000A



Tolerance class(公差)
6g / 6H

61

d	L1	L	D	h(mm)	螺距 Pitch	螺紋 Thread	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
5.9	15.0	60	6.0	0.31	0.50	M3	30	3	CTSE305906-050A
7.9	19.5	60	8.0	0.46	0.75	M4.5	26	3	CTSE307908-075A
9.9	24.0	75	10.0	0.61	1.00	M6	24	5	CTSE509910-100A
11.9	30.0	100	12.0	0.92	1.50	M10	20	5	CTSE511912-150A
11.9	30.0	100	12.0	1.23	2.00	M14	15	5	CTSE511912-200A
15.9	36.0	100	16.0	1.84	3.00	M24	12	5	CTSE515916-300A
15.9	40.0	100	16.0	2.45	4.00	M36	10	5	CTSE515916-400A
19.9	36.0	100	20.0	3.68	6.00	M64	6	5	CTSE519920-600A

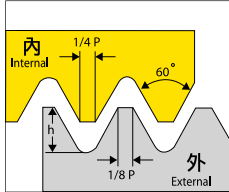
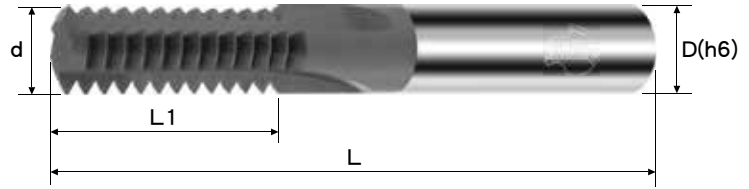
→ 切削條件表 P.296
Cutting Condition

→ 參考資料 P.243
Technical Data

鎢鋼直刃銑牙刀- 內螺紋用(ISO規格)

MICRO GRAIN CARBIDE THREAD- STRAIGHT FLUTE- INTERNAL (ISO Metric)

· **CTSI000000-000A**



Tolerance class(公差)
6g / 6H



61

d	L1	L	D	h(mm)	螺距 Pitch	螺紋 Thread	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
3.0	6.7	50	4.0	0.43	0.75	M4.5	9	3	CTSI303004-075A
5.9	15.0	60	6.0	0.43	0.75	M8	20	3	CTSI305906-075A
3.6	8.0	50	4.0	0.46	0.80	M5	10	3	CTSI303604-080A
4.0	9.0	60	6.0	0.58	1.00	M6	9	3	CTSI304006-100A
7.9	20.0	60	8.0	0.58	1.00	M12	20	3	CTSI307908-100A
5.0	12.5	60	6.0	0.72	1.25	M8	10	3	CTSI305006-125A
5.9	15.0	60	6.0	0.87	1.50	M10	10	3	CTSI305906-150A
9.9	24.0	75	10.0	0.87	1.50	M14	16	5	CTSI509910-150A
11.9	30.0	100	12.0	0.87	1.50	M18	20	5	CTSI511912-150A
7.9	19.2	60	8.0	1.01	1.75	M12	11	3	CTSI307908-175A
9.9	24.0	75	10.0	1.15	2.00	M16	12	5	CTSI509910-200A
11.9	30.0	100	12.0	1.15	2.00	M18	15	5	CTSI511912-200A
11.9	30.0	100	12.0	1.44	2.50	M20	12	5	CTSI511912-250A
15.9	36.0	100	16.0	1.73	3.00	M24	12	5	CTSI515916-300A
15.9	38.5	100	16.0	2.02	3.50	M30	11	5	CTSI515916-350A
15.9	40.0	100	16.0	2.31	4.00	M36	10	5	CTSI515916-400A
19.9	40.0	100	20.0	2.89	5.00	M48	8	5	CTSI519920-500A
19.9	36.0	100	20.0	3.46	6.00	M64	6	5	CTSI519920-600A

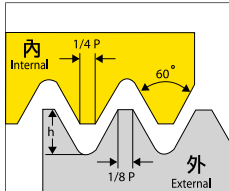
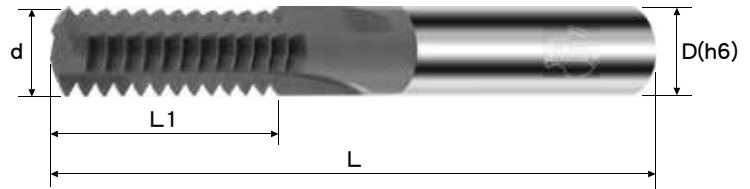
Thread Mills

 銑牙刀系列

鎢鋼直刃銑牙刀- 外螺紋用(UN美製規格)

MICRO GRAIN CARBIDE THREAD- STRAIGHT FLUTE- EXTERNAL(American UN)

· CTSEU000000-000A



Tolerance class(公差)
2A / 2B



d	L1	L	D	h(mm)	牙/吋 Tpi	螺紋 Thread	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
5.9	14.3	60	6.0	0.49	32	No.6	18	3	CTSEU305906-320A
7.9	19.9	60	8.0	0.56	28	No.12	22	3	CTSEU307908-280A
9.9	22.9	75	10.0	0.78	20	1/4"	18	5	CTSEU509910-200A
9.9	24.0	75	10.0	0.87	18	5/16"	17	5	CTSEU509910-180A
11.9	28.6	100	12.0	0.97	16	3/8"	18	5	CTSEU511912-160A
11.9	29.6	100	12.0	1.30	12	9/16"	14	5	CTSEU511912-120A
15.9	38.1	100	16.0	1.95	8	1"	12	5	CTSEU515916-080A
19.9	38.1	100	20.0	2.60	6	1 3/8"	9	5	CTSEU519920-060A

※ 25.4 ÷ Tpi = Pitch

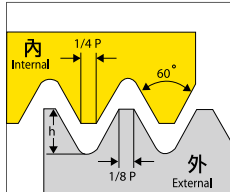
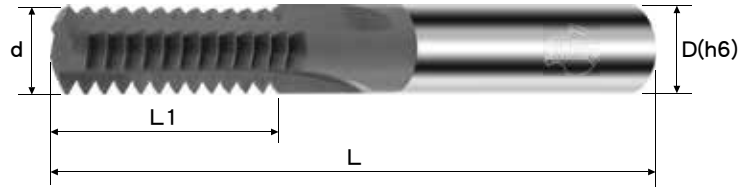
→ 切削條件表 Cutting Condition P.296

→ 參考資料 Technical Data P.243

鎢鋼直刃銑牙刀- 內螺紋用(UN美製規格)

MICRO GRAIN CARBIDE THREAD- STRAIGHT FLUTE- INTERNAL(American UN)

· **CTSIU000000-000A**



Tolerance class(公差)
2A / 2B



61

d	L1	L	D	h(mm)	牙/吋 Tpi	螺紋 Thread	牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
3.0	6.3	50	4.0	0.41	36	No.8	9	3	CTSIU303004-360A
3.0	6.3	50	4.0	0.46	32	No.8	8	3	CTSIU303004-320A
5.9	14.3	60	6.0	0.46	32	5/16"	18	3	CTSIU305906-320A
3.6	8.2	50	4.0	0.52	28	No.12	9	3	CTSIU303604-280A
7.9	19.9	60	8.0	0.52	28	7/16"	22	3	CTSIU307908-280A
4.0	8.5	60	6.0	0.61	24	No.12	8	3	CTSIU304006-240A
4.0	10.2	60	6.0	0.73	20	1/4"	8	3	CTSIU304006-200A
9.9	22.9	75	10.0	0.73	20	9/16"	18	5	CTSIU509910-200A
5.0	12.7	60	6.0	0.81	18	5/16"	9	3	CTSIU305006-180A
9.9	24.0	75	10.0	0.81	18	9/16"	17	5	CTSIU509910-180A
5.9	14.3	60	6.0	0.92	16	3/8"	9	3	CTSIU305906-160A
11.9	28.6	100	12.0	0.92	16	3/4"	18	5	CTSIU511912-160A
7.9	18.1	60	8.0	1.05	14	7/16"	10	3	CTSIU307908-140A
7.9	19.5	60	8.0	1.13	13	1/2"	10	3	CTSIU307908-130A
9.9	23.3	75	10.0	1.22	12	9/16"	11	5	CTSIU509910-120A
11.9	29.6	100	12.0	1.22	12	1"	14	5	CTSIU511912-120A
9.9	23.1	75	10.0	1.33	11	5/8"	10	5	CTSIU509910-110A
11.9	27.9	100	12.0	1.47	10	3/4"	11	5	CTSIU511912-100A
15.9	33.3	100	16.0	1.63	9	7/8"	12	5	CTSIU515916-090A
15.9	38.1	100	16.0	1.83	8	1"	12	5	CTSIU515916-080A
15.9	36.3	100	16.0	2.09	7	1 1/8"	10	5	CTSIU515916-070A
19.9	38.1	100	20.0	2.44	6	1 3/8"	9	5	CTSIU519920-060A
19.9	40.6	100	20.0	2.93	5	1 3/4"	8	5	CTSIU519920-050A
19.9	39.5	100	20.0	3.26	4.5	2"	7	5	CTSIU519920-045A

※ 25.4 ÷ Tpi = Pitch

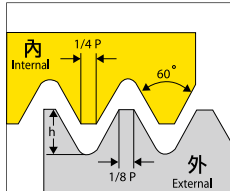
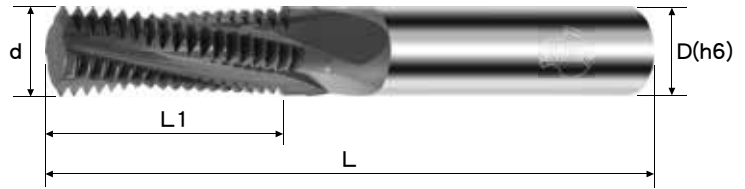
→ 切削條件表
Cutting Condition P.296

→ 參考資料
Technical Data P.243

鎢鋼螺旋銑牙刀- 內螺紋用(ISO規格)

MICRO GRAIN CARBIDE THREAD- HELIX FLUTE- INTERNAL(ISO Metric)

· CTHI 000000 - 000 A



Tolerance class(公差)
6g / 6H



61

d	L1	L	D	h (mm)	螺距 Pitch	螺紋 Thread		牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
						M粗牙	Mx1細牙			
2.2	6.00	50	4	0.29	0.50	M3	M3.5~M16	12	3	CTHI302204-050A
3.0	8.00	50	4	0.29	0.50		M4	16	3	CTHI303004-050A
3.9	10.00	50	4	0.29	0.50		M5	20	3	CTHI303904-050A
2.8	8.40	50	4	0.40	0.70	M4		12	3	CTHI302804-070A
3.9	12.00	50	4	0.43	0.75		M6	16	3	CTHI303904-075A
3.5	10.40	50	4	0.46	0.80	M5		13	3	CTHI303504-080A
3.9	12.00	50	4	0.58	1.00	M6	M8~M40	12	3	CTHI303904-100A
5.9	16.00	60	6	0.58	1.00		M8	16	3	CTHI305906-100A
7.9	20.00	60	8	0.58	1.00		M10	20	3	CTHI307908-100A
9.9	24.00	75	10	0.58	1.00		M12	24	4	CTHI409910-100A
5.8	16.25	60	6	0.72	1.25	M8		13	3	CTHI305806-125A
7.7	20.00	60	8	0.72	1.25		M10	16	3	CTHI307708-125A
7.7	21.00	60	8	0.87	1.50	M10	M12~M48	14	3	CTHI307708-150A
9.4	24.00	75	10	0.87	1.50		M12	16	4	CTHI409410-150A
11.2	28.50	100	12	0.87	1.50		M14	19	4	CTHI411212-150A
11.9	33.00	100	12	0.87	1.50		M16	22	4	CTHI411912-150A
8.7	24.50	75	10	1.01	1.75	M12		14	4	CTHI408710-175A
9.9	28.00	75	10	1.15	2.00	M14	M17~M80	14	4	CTHI409910-200A
11.9	32.00	100	12	1.15	2.00	M16	M17~M80	16	4	CTHI411912-200A
13.9	40.00	100	16	1.44	2.50	M18~M22		16	5	CTHI513916-250A
15.9	42.00	100	16	1.73	3.00	M24		14	4	CTHI415916-300A

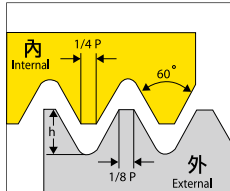
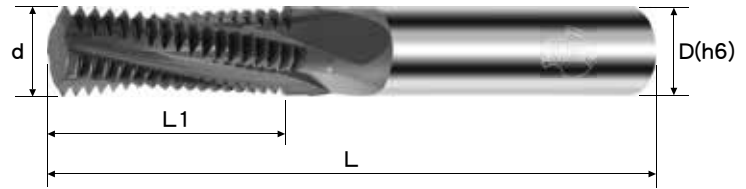
→ 切削條件表
Cutting Condition P.296

→ 參考資料
Technical Data P.243

鎢鋼螺旋銑牙刀-內螺紋用(UN美製規格)

MICRO GRAIN CARBIDE THREAD- HELIX FLUTE- INTERNAL(UN Metric)

· CTHIU000000 - 000A



Tolerance class(公差)
2A / 2B



d	L1	L	D	h (mm)	牙/吋 Tpi	螺紋 Thread			牙數 Teeth	刃數 Flute	鍍膜訂購編號 Coated Order No.
						UNC 粗牙	UNF 細牙	UNEF 超細牙			
3.0	8.5	50	4	0.41	36		No.8		12	3	CTHIU303004-360A
3.3	11.1	50	4	0.46	32		No.10	No.12-3/8"	14	3	CTHIU303304-320A
3.8	11.8	50	4	0.52	28		No.12, 1/4"	7/16", 1/2"	13	3	CTHIU303804-280A
4.6	12.7	60	6	0.52	28		1/4"	7/16", 1/2"	14	3	CTHIU304606-280A
9.2	22.7	75	10	0.52	28			7/16", 1/2"	25	4	CTHIU409210-280A
2.9	10.6	50	4	0.61	24	No.10	5/16", 3/8"	9/16"-11/16"	10	3	CTHIU302904-240A
3.5	11.6	50	4	0.61	24	No.12	5/16", 3/8"	9/16"-11/16"	11	3	CTHIU303504-240A
5.7	15.9	60	6	0.61	24		5/16", 3/8"	9/16"-11/16"	15	3	CTHIU305706-240A
7.4	19.1	60	8	0.61	24		3/8"	9/16"-11/16"	18	3	CTHIU307408-240A
11.9	28.6	100	12	0.61	24			9/16"-11/16"	27	4	CTHIU411912-240A
3.9	12.7	50	4	0.73	20	1/4"	7/16", 1/2"	3/4"-1"	10	3	CTHIU303904-200A
8.5	22.9	75	10	0.73	20		7/16", 1/2"	3/4"-1"	18	4	CTHIU408510-200A
9.9	25.4	75	10	0.73	20		1/2"	3/4"-1"	20	4	CTHIU409910-200A
15.9	38.1	100	16	0.73	20			3/4"-1"	30	5	CTHIU515916-200A
5.2	16.9	60	6	0.81	18	5/16"	9/16", 5/8"	11/16"-1 11/16"	12	3	CTHIU305206-180A
11.3	29.6	100	12	0.81	18		9/16", 5/8"	11/16"-1 11/16"	21	4	CTHIU411312-180A
11.9	32.5	100	12	0.81	18		5/8"	11/16"-1 11/16"	23	4	CTHIU411912-180A
6.7	19.1	60	8	0.92	16	3/8"	3/4"		12	3	CTHIU306708-160A
15.9	38.1	100	16	0.92	16		3/4"		24	4	CTHIU415916-160A
7.6	23.6	60	8	1.05	14	7/16"	7/8"		13	4	CTHIU407608-140A
18.7	44.4	100	20	1.05	14		7/8"		24	4	CTHIU418720-140A
8.9	25.4	75	10	1.13	13	1/2"			13	4	CTHIU408910-130A
10.3	29.6	100	12	1.22	12	9/16"	1"-1 1/2"		14	4	CTHIU410312-120A
19.9	50.8	100	20	1.22	12		1"-1 1/2"		24	5	CTHIU519920-120A
11.0	32.3	100	12	1.33	11	5/8"			14	4	CTHIU411012-110A
13.5	38.1	100	16	1.47	10	3/4"			15	5	CTHIU513516-100A
15.2	45.2	100	16	1.63	9	7/8"			16	4	CTHIU415216-090A
17.0	50.8	100	20	1.83	8	1"			16	4	CTHIU417020-080A

※ 25.4 ÷ Tpi = Pitch

→ 切削條件表 P.296
Cutting Condition

→ 參考資料 P.243
Technical Data

鎢鋼成型銑刀系列

Carbide Special Cutting Tools



鎢鋼T型銑刀- 直刃

MICRO GRAIN CARBIDE SLOT CUTTERS (Key seat)- Flat Flute

· CEK000000000



刃長	Tolerance(公差)
L1	±0.02



42

※ 螺旋刃依需求生產。
Helix Flute is on request.

刃徑 d	刃長 L1	頸徑 Nd	頸長 NL	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
4.0	0.5	2.5	3.5	50	4	4	CEK040005004
4.0	0.6	2.5	3.5	50	4	4	CEK040006004
4.0	0.7	2.5	3.5	50	4	4	CEK040007004
4.0	0.8	2.5	3.5	50	4	4	CEK040008004
4.0	0.9	2.5	3.5	50	4	4	CEK040009004
4.0	1.0	2.5	3.5	50	4	4	CEK040010004
4.0	1.5	2.5	3.5	50	4	4	CEK040015004
4.0	2.0	2.5	3.5	50	4	4	CEK040020004
5.0	0.5	2.5	4.0	50	6	4	CEK050005004
5.0	0.6	2.5	4.0	50	6	4	CEK050006004
5.0	0.7	2.5	4.0	50	6	4	CEK050007004
5.0	0.8	2.5	4.0	50	6	4	CEK050008004
5.0	0.9	2.5	4.0	50	6	4	CEK050009004
5.0	1.0	2.5	4.0	50	6	4	CEK050010004
5.0	1.5	2.5	4.0	50	6	4	CEK050015004
5.0	2.0	2.5	4.0	50	6	4	CEK050020004
6.0	0.5	3.0	4.0	50	6	6	CEK060005006
6.0	0.6	3.0	4.0	50	6	6	CEK060006006
6.0	0.7	3.0	4.0	50	6	6	CEK060007006
6.0	0.8	3.0	4.0	50	6	6	CEK060008006
6.0	0.9	3.0	4.0	50	6	6	CEK060009006
6.0	1.0	3.0	4.0	50	6	6	CEK060010006
6.0	1.5	3.0	4.0	50	6	6	CEK060015006
6.0	2.0	3.0	4.0	50	6	6	CEK060020006
8.0	1.0	4.0	4.0	60	8	6	CEK080010006
8.0	1.5	4.0	4.0	60	8	6	CEK080015006
8.0	2.0	4.0	4.0	60	8	6	CEK080020006
10.0	1.0	5.0	6.0	75	10	6	CEK100010006
10.0	1.5	5.0	6.0	75	10	6	CEK100015006
10.0	2.0	5.0	6.0	75	10	6	CEK100020006
12.0	1.0	6.0	7.0	75	12	6	CEK120010006
12.0	1.5	6.0	7.0	75	12	6	CEK120015006
12.0	2.0	6.0	7.0	75	12	6	CEK120020006

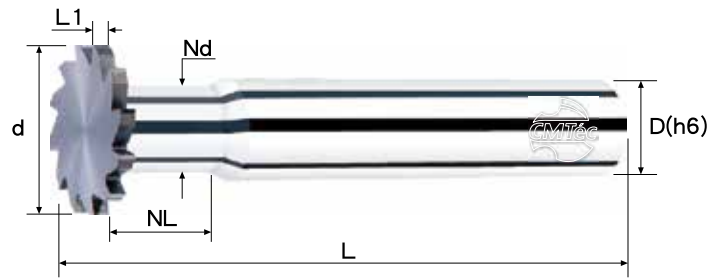
→ 切削條件表 P.286
Cutting Condition

→ 參考資料 P.243
Technical Data

鎢鋼T型銑刀- 直刃

MICRO GRAIN CARBIDE SLOT CUTTERS (Key seat)- Flat Flute

· AEK000000000



刃長	Tolerance(公差)
L1	±0.02



42

※ 螺旋刃依需求生產。

Helix Flute is on request.

※ 刃徑($\geq 16\text{mm}$ ，柄部為焊接設計。

Dia.($\geq 16\text{mm}$ is Brazed Shank.

刃徑 d	刃長 L1	頸徑 Nd	頸長 NL	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
16.0	1.0	8.0	10.0	100	12	10	AEK160010010
16.0	1.5	8.0	10.0	100	12	10	AEK160015010
16.0	2.0	8.0	10.0	100	12	10	AEK160020010
16.0	2.5	8.0	10.0	100	12	10	AEK160025010
16.0	3.0	8.0	10.0	100	12	10	AEK160030010
20.0	0.5	10.0	14.0	100	12	12	AEK200005012
20.0	1.0	10.0	14.0	100	12	12	AEK200010012
20.0	1.5	10.0	14.0	100	12	12	AEK200015012
20.0	2.0	10.0	14.0	100	12	12	AEK200020012
20.0	2.5	10.0	14.0	100	12	12	AEK200025012
20.0	3.0	10.0	14.0	100	12	12	AEK200030012
25.0	1.0	12.0	16.0	100	16	16	AEK250010016
25.0	2.0	12.0	16.0	100	16	16	AEK250020016
25.0	2.5	12.0	16.0	100	16	16	AEK250025016
25.0	3.0	12.0	16.0	100	16	16	AEK250030016
25.0	4.0	12.0	16.0	100	16	16	AEK250040016
25.0	5.0	12.0	16.0	100	16	16	AEK250050016
30.0	1.0	15.0	18.0	100	16	16	AEK300010016
30.0	2.0	15.0	18.0	100	16	16	AEK300020016
30.0	3.0	15.0	18.0	100	16	16	AEK300030016
30.0	4.0	15.0	18.0	100	16	16	AEK300040016
30.0	5.0	15.0	18.0	100	16	16	AEK300050016

鎢鋼外圓槽銑刀

MICRO GRAIN CARBIDE CONVEX CUTTERS

· CEC000000000



43

R角	Tolerance(公差)
R	±0.02

刃徑 d	R角 R	刃長 L1	頸徑 Nd	頸長 NL	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
4.0	0.3R	0.6	2.0	3.5	50	6	4	CEC040006004
4.0	0.5R	1.0	2.0	3.5	50	6	4	CEC040010004
4.0	1.0R	2.0	2.0	3.5	50	6	4	CEC040020004
5.0	0.3R	0.6	2.2	3.5	50	6	4	CEC050006004
5.0	0.5R	1.0	2.2	3.5	50	6	4	CEC050010004
5.0	1.0R	2.0	2.2	3.5	50	6	4	CEC050020004
6.0	0.3R	0.6	2.7	4.0	50	6	4	CEC060006004
6.0	0.5R	1.0	2.7	4.0	50	6	4	CEC060010004
6.0	1.0R	2.0	2.7	4.0	50	6	4	CEC060020004
8.0	0.3R	0.6	3.6	5.0	60	8	6	CEC080006006
8.0	0.5R	1.0	3.6	5.0	60	8	6	CEC080010006
8.0	1.0R	2.0	3.6	5.0	60	8	6	CEC080020006
10.0	0.3R	0.6	4.5	6.0	75	10	6	CEC100006006
10.0	0.5R	1.0	4.5	6.0	75	10	6	CEC100010006
10.0	1.0R	2.0	4.5	6.0	75	10	6	CEC100020006
10.0	1.5R	3.0	4.5	6.0	75	10	6	CEC100030006
10.0	2.0R	4.0	4.5	6.0	75	10	6	CEC100040006
12.0	0.3R	0.6	5.5	6.0	75	12	6	CEC120006006
12.0	0.5R	1.0	5.5	6.0	75	12	6	CEC120010006
12.0	1.0R	2.0	5.5	6.0	75	12	6	CEC120020006
12.0	1.5R	3.0	5.5	6.0	75	12	6	CEC120030006
12.0	2.0R	4.0	5.5	6.0	75	12	6	CEC120040006

➔ 切削條件表
Cutting Condition P.286

➔ 參考資料
Technical Data P.243

鎢鋼外圓槽銑刀

MICRO GRAIN CARBIDE CONVEX CUTTERS

· AEC000000000



43

R角	Tolerance(公差)
R	±0.02

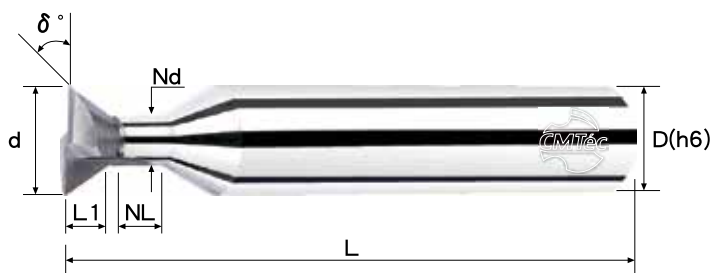
刃徑 d	R角 R	刃長 L1	頸徑 Nd	頸長 NL	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
16.0	0.3R	0.6	8.0	10.0	100	12	10	AEC160006010
16.0	0.5R	1.0	8.0	10.0	100	12	10	AEC160010010
16.0	1.0R	2.0	8.0	10.0	100	12	10	AEC160020010
16.0	1.5R	3.0	8.0	10.0	100	12	10	AEC160030010
16.0	2.0R	4.0	8.0	10.0	100	12	10	AEC160040010
16.0	3.0R	6.0	8.0	10.0	100	12	10	AEC160060010
20.0	0.3R	0.6	10.0	14.0	100	12	12	AEC200006012
20.0	0.5R	1.0	10.0	14.0	100	12	12	AEC200010012
20.0	1.0R	2.0	10.0	14.0	100	12	12	AEC200020012
20.0	1.5R	3.0	10.0	14.0	100	12	12	AEC200030012
20.0	2.0R	4.0	10.0	14.0	100	12	12	AEC200040012
20.0	3.0R	6.0	12.0	14.0	100	12	12	AEC200060012
25.0	0.5R	1.0	12.0	16.0	100	16	16	AEC250010016
25.0	1.0R	2.0	12.0	16.0	100	16	16	AEC250020016
25.0	1.5R	3.0	12.0	16.0	100	16	16	AEC250030016
25.0	2.0R	4.0	12.0	16.0	100	16	16	AEC250040016
25.0	3.0R	6.0	12.0	16.0	100	16	16	AEC250060016
30.0	0.5R	1.0	15.0	18.0	100	16	16	AEC300010016
30.0	1.0R	2.0	15.0	18.0	100	16	16	AEC300020016
30.0	1.5R	3.0	15.0	18.0	100	16	16	AEC300030016
30.0	2.0R	4.0	15.0	18.0	100	16	16	AEC300040016
30.0	3.0R	6.0	15.0	18.0	100	16	16	AEC300060016

→ 切削條件表 P.286 → 參考資料 P.243
Cutting Condition Technical Data

鎢鋼鳩尾槽銑刀-直刃

MICRO GRAIN CARBIDE ANGULAR CUTTERS (Dovetail)- Flat Flute

· CECS00000000000



角度(單邊)	Tolerance(公差)
δ°	$\pm 1^\circ$



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※螺旋刃依需求生產。
Helix Flute is on request.

刃徑 d	角度 δ	刃長 L1	頸徑 Nd	頸長 NL	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	45	0.8	1.4	3.0	60	6	4	CECS03000800445
4.0	45	1.0	2.0	3.5	60	6	4	CECS04001000445
5.0	45	1.2	2.5	4.0	60	6	4	CECS05001200445
6.0	45	1.4	3.0	4.0	60	6	4	CECS06001400445
8.0	45	1.9	4.0	5.0	60	8	6	CECS08001900645
10.0	45	2.4	5.0	6.0	75	10	6	CECS10002400645
12.0	45	2.9	6.0	7.0	75	12	6	CECS12002900645
3.0	60	1.2	1.5	3.0	60	6	4	CECS03001200460
4.0	60	1.6	2.0	3.5	60	6	4	CECS04001600460
5.0	60	2.2	2.3	4.0	60	6	4	CECS05002200460
6.0	60	2.7	2.7	4.0	60	6	4	CECS06002700460
8.0	60	3.7	3.6	5.0	60	8	6	CECS08003700660
10.0	60	4.6	4.5	6.0	75	10	6	CECS10004600660
12.0	60	5.6	5.4	7.0	75	12	6	CECS12005600660

→ 切削條件表
Cutting Condition P.287

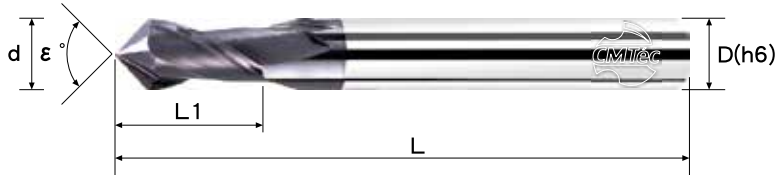
→ 參考資料
Technical Data P.243

Special Carbide End Mills 鎢鋼成型銑刀

鎢鋼倒角兼用銑刀- 2刃

MICRO GRAIN CARBIDE V-pointed END MILLS- 2F

CEC20000000A



角度	Tolerance(公差)
ϵ°	$\pm 1^\circ$

※ 尖點建議輕切削
 ※ Light-cutting will be recommended for point.



代碼	角度
C0	120



46

先端角 ϵ	刃徑 d	刃長 L1	全長 L	柄徑 D	鍍膜訂購編號 Coated Order No.
90	3.0	6.0	50	6	CEC2030090A
90	4.0	8.0	50	6	CEC2040090A
90	5.0	10.0	75	6	CEC2050090A
90	6.0	12.0	75	6	CEC2060090A
90	8.0	16.0	100	8	CEC2080090A
90	10.0	20.0	100	10	CEC2100090A
90	12.0	24.0	100	12	CEC2120090A
90	16.0	32.0	100	16	CEC2160090A
90	20.0	40.0	100	20	CEC2200090A
120	3.0	6.0	50	6	CEC20300C0A
120	4.0	8.0	50	6	CEC20400C0A
120	5.0	10.0	75	6	CEC20500C0A
120	6.0	12.0	75	6	CEC20600C0A
120	8.0	16.0	100	8	CEC20800C0A
120	10.0	20.0	100	10	CEC21000C0A
120	12.0	24.0	100	12	CEC21200C0A
120	16.0	32.0	100	16	CEC21600C0A
120	20.0	40.0	100	20	CEC22000C0A

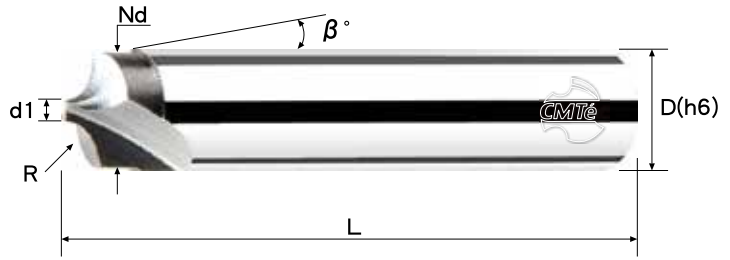
→ 切削條件表 P.287
 Cutting Condition

→ 參考資料 P.243
 Technical Data

鎢鋼內R角銑刀- 2刃

MICRO GRAIN CARBIDE INNER RADIUS CUTTER- 2F

· CEIR2 00000000

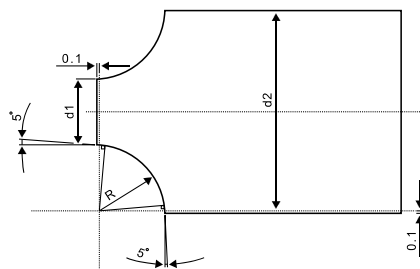


R角	Tolerance(公差)
R<1	±0.02
1≤R<5	±0.03
5≤R	±0.05



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R角 R	柄斜角 β°	先端徑 d1	粗端徑 d2	全長 L	柄徑 D	白刀訂購編號 Uncoated Order No.
0.5R	15°	1.5	2.7	50	4	CEIR20150050
0.75R	15°	1.5	3.2	50	4	CEIR20150075
1.0R	15°	1.5	3.7	50	4	CEIR20150100
1.25R	-	1.5	4.2	50	6	CEIR20150125
1.5R	15°	1.5	4.7	50	6	CEIR20150150
1.75R	15°	1.5	5.2	50	6	CEIR20150175
2.0R	15°	1.5	5.7	50	6	CEIR20150200
2.5R	-	1.5	6.7	50	8	CEIR20150250
3.0R	15°	1.5	7.7	50	8	CEIR20150300
4.0R	15°	2.0	10.2	60	12	CEIR20200400
5.0R	15°	3.0	13.2	75	16	CEIR20300500
6.0R	15°	3.0	15.2	75	16	CEIR20300600

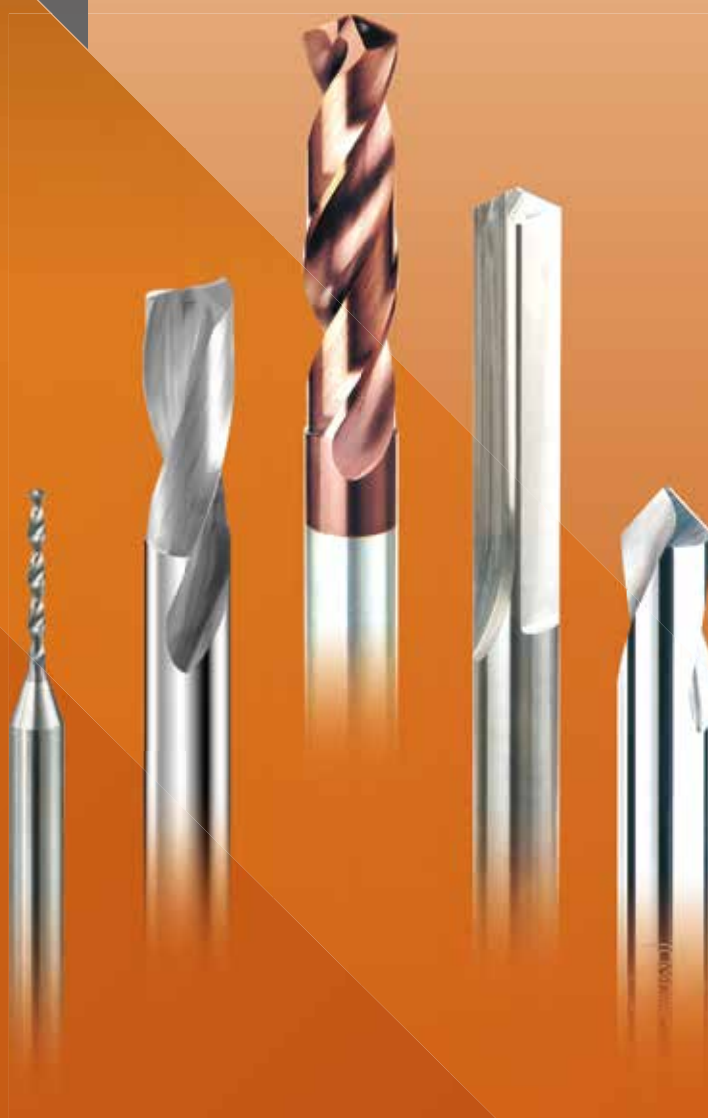


→ 切削條件表 P.288
Cutting Condition

→ 參考資料 P.243
Technical Data

鎢鋼鑽頭 鎢鋼鉸刀

Solid Carbide Drill
Solid Carbide Reamer



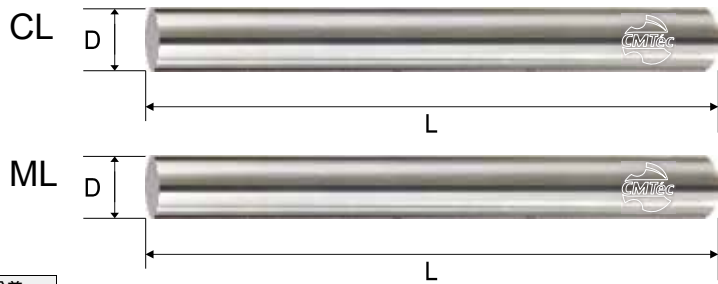
鎢鋼圓棒/極細鎢鋼圓棒(全磨光)

MICRO GRAIN CARBIDE RODS- GROUND/ ULTRA CARBIDE RODS- GROUND

- CL 0000
- ML 0000

※ 非標品，點數型依需求生產！
 ※ Non-Standard Special & Decimal
 Rods are on Request.

編號 Order No.	素材 Material	粒徑 Grain Size	鈷 Co %	公差 Tolerance
CL	鎢鋼 Micro Grain	0.6 μm	10%	h6
ML	極細鎢鋼 Ultra	0.4 μm	12%	h6



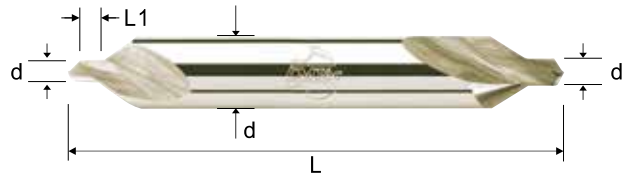
刃徑 D	全長 L	訂購編號 Order No.
0.5	100	CL0050
1.0	100	CL0100
1.5	100	CL0150
2.0	100	CL0200
2.5	100	CL0250
3.0	100	CL0300
3.5	100	CL0350
4.0	100	CL0400
4.5	100	CL0450
5.0	100	CL0500
5.5	100	CL0550
6.0	100	CL0600
6.5	100	CL0650
7.0	100	CL0700
7.5	100	CL0750
8.0	100	CL0800
8.5	100	CL0850
9.0	100	CL0900
9.5	100	CL0950
10.0	100	CL1000
10.5	100	CL1050
11.0	100	CL1100
11.5	100	CL1150
12.0	100	CL1200
13.0	100	CL1300
14.0	100	CL1400
15.0	100	CL1500
16.0	100	CL1600
17.0	100	CL1700
18.0	100	CL1800
19.0	100	CL1900
20.0	100	CL2000
21.0	100	CL2100
22.0	100	CL2200
23.0	100	CL2300
24.0	100	CL2400
25.0	100	CL2500

刃徑 D	全長 L	訂購編號 Order No.
0.5	100	ML0050
1.0	100	ML0100
1.5	100	ML0150
2.0	100	ML0200
2.5	100	ML0250
3.0	100	ML0300
3.5	100	ML0350
4.0	100	ML0400
4.5	100	ML0450
5.0	100	ML0500
5.5	100	ML0550
6.0	100	ML0600
6.5	100	ML0650
7.0	100	ML0700
7.5	100	ML0750
8.0	100	ML0800
8.5	100	ML0850
9.0	100	ML0900
9.5	100	ML0950
10.0	100	ML1000
10.5	100	ML1050
11.0	100	ML1100
11.5	100	ML1150
12.0	100	ML1200
13.0	100	ML1300
14.0	100	ML1400
15.0	100	ML1500
16.0	100	ML1600
17.0	100	ML1700
18.0	100	ML1800
19.0	100	ML1900
20.0	100	ML2000
21.0	100	ML2100
22.0	100	ML2200
23.0	100	ML2300
24.0	100	ML2400
25.0	100	ML2500

鎢鋼中心鑽頭- 2刃

MICRO GRAIN CARBIDE CENTER DRILLS

· CDC0000 60

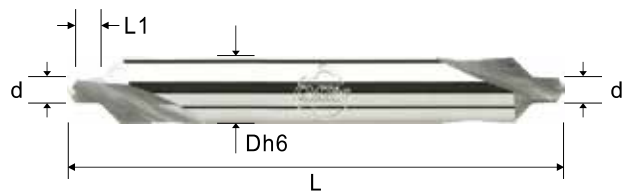


48

d(刃徑)	Tolerance(公差)
φ	+0.02

刃徑 d	刃長 L1	全長 L	柄徑 D	60° 白刀訂購編號 Uncoated Order No.
1.00	1.6	32	3.0	CDC010060
1.25	1.9	32	3.0	CDC012560
1.60	2.4	32	4.0	CDC016060
2.00	2.9	40	5.0	CDC020060
2.50	3.6	45	6.0	CDC025060
3.00	3.9	60	8.0	CDC030060
3.15	3.9	60	8.0	CDC031560
4.00	5.0	75	10.0	CDC040060
5.00	6.3	75	12.0	CDC050060

· CDC0000 90



48

d(刃徑)	Tolerance(公差)
φ	+0.02

刃徑 d	刃長 L1	全長 L	柄徑 D	90° 白刀訂購編號 Uncoated Order No.
1.00	1.6	32	3.0	CDC010090
1.25	1.9	32	3.0	CDC012590
1.60	2.4	32	4.0	CDC016090
2.00	2.9	40	5.0	CDC020090
2.50	3.6	45	6.0	CDC025090
3.00	3.9	60	8.0	CDC030090
3.15	3.9	60	8.0	CDC031590
4.00	5.0	75	10.0	CDC040090
5.00	6.3	75	12.0	CDC050090

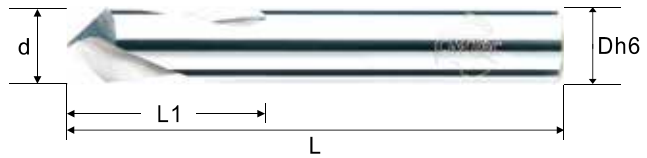
→ 切削條件表 P.288
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼定點鑽- 標準型- 2刃

MICRO GRAIN CARBIDE SPOTTING DRILLS- 2F

- CDP0000 90
- CDP0000 C0



代碼	角度
C0	120



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刃徑 d	溝長 L1	全長 L	柄徑 D	90° 白刀訂購編號 Uncoated Order No.	120° 白刀訂購編號 Uncoated Order No.
3.0	10	40	3	CDP030090	CDP0300C0
4.0	12	50	4	CDP040090	CDP0400C0
5.0	15	50	5	CDP050090	CDP0500C0
6.0	20	50	6	CDP060090	CDP0600C0
8.0	25	60	8	CDP080090	CDP0800C0
10.0	25	75	10	CDP100090	CDP1000C0
12.0	30	75	12	CDP120090	CDP1200C0
16.0	35	100	16	CDP160090	CDP1600C0

鎢鋼定點鑽- 長柄型- 2刃

MICRO GRAIN CARBIDE SPOTTING DRILLS- LONG SHANK- 2F

- CDPL0000 90
- CDPL0000 C0



代碼	角度
C0	120



49

刃徑 d	溝長 L1	全長 L	柄徑 D	90° 白刀訂購編號 Uncoated Order No.	120° 白刀訂購編號 Uncoated Order No.
4.0	15	75	4	CDPL040090	CDPL0400C0
5.0	15	75	5	CDPL050090	CDPL0500C0
6.0	20	100	6	CDPL060090	CDPL0600C0
8.0	25	125	8	CDPL080090	CDPL0800C0
10.0	25	150	10	CDPL100090	CDPL1000C0
12.0	30	150	12	CDPL120090	CDPL1200C0
16.0	35	150	16	CDPL160090	CDPL1600C0

鎢鋼微徑鑽頭- 標準型- 2刃

MICRO GRAIN CARBIDE DRILL- Endmill Shank-Standard- 2F- Micro Diameter

· CDM20000 F



適用：鋁鎂合金、塑膠鋼。

For Magnesium Aluminum Alloys,
Thermoplastics.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance (ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
0.10	1.0	38	3	2	CDM20010	
0.15	1.0	38	3	2	CDM20015	
0.20	1.5	38	3	2	CDM20020	
0.25	2.0	38	3	2	CDM20025	
0.30	2.0	38	3	2	CDM20030	
0.35	2.5	38	3	2	CDM20035	CDM20035F
0.40	3.5	38	3	2	CDM20040	CDM20040F
0.45	3.5	38	3	2	CDM20045	CDM20045F
0.50	3.5	38	3	2	CDM20050	CDM20050F
0.60	4.0	38	3	2	CDM20060	CDM20060F
0.70	5.0	38	3	2	CDM20070	CDM20070F
0.80	6.0	38	3	2	CDM20080	CDM20080F
0.90	6.0	38	3	2	CDM20090	CDM20090F
1.00	7.0	38	3	2	CDM20100	CDM20100F
1.10	8.0	38	3	2	CDM20110	CDM20110F
1.20	8.0	38	3	2	CDM20120	CDM20120F
1.30	9.0	38	3	2	CDM20130	CDM20130F
1.40	10.0	38	3	2	CDM20140	CDM20140F
1.50	10.0	38	3	2	CDM20150	CDM20150F
1.60	10.0	38	3	2	CDM20160	CDM20160F
1.70	10.0	38	3	2	CDM20170	CDM20170F
1.80	10.0	38	3	2	CDM20180	CDM20180F
1.90	10.0	38	3	2	CDM20190	CDM20190F
2.00	10.0	38	3	2	CDM20200	CDM20200F
2.10	10.0	38	3	2	CDM20210	CDM20210F
2.20	10.0	38	3	2	CDM20220	CDM20220F
2.30	10.0	38	3	2	CDM20230	CDM20230F
2.40	10.0	38	3	2	CDM20240	CDM20240F
2.50	10.0	38	3	2	CDM20250	CDM20250F
2.60	10.0	38	3	2	CDM20260	CDM20260F
2.70	10.0	38	3	2	CDM20270	CDM20270F
2.80	10.0	38	3	2	CDM20280	CDM20280F
2.90	10.0	38	3	2	CDM20290	CDM20290F

→ 切削條件表 P.289
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼同柄鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- Straight Shank- Short Flute- 2F(3×d)

· CDS20000F

規格DIN6539

有效加工深度=3倍刃徑

CUTTING EFFECTED LENGTH=3xd

※ 另有118° 泛用型，可供選擇。

※ Drill, Tip Angle =118° is on request.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
3.0	16.0	46	3.0	2	CDS20300	CDS20300F
3.1	16.0	49	3.1	2	CDS20310	CDS20310F
3.2	18.0	49	3.2	2	CDS20320	CDS20320F
3.3	18.0	49	3.3	2	CDS20330	CDS20330F
3.4	20.0	52	3.4	2	CDS20340	CDS20340F
3.5	20.0	52	3.5	2	CDS20350	CDS20350F
3.6	20.0	52	3.6	2	CDS20360	CDS20360F
3.7	20.0	52	3.7	2	CDS20370	CDS20370F
3.8	22.0	55	3.8	2	CDS20380	CDS20380F
3.9	22.0	55	3.9	2	CDS20390	CDS20390F
4.0	22.0	55	4.0	2	CDS20400	CDS20400F
4.1	22.0	55	4.1	2	CDS20410	CDS20410F
4.2	22.0	55	4.2	2	CDS20420	CDS20420F
4.3	24.0	58	4.3	2	CDS20430	CDS20430F
4.4	24.0	58	4.4	2	CDS20440	CDS20440F
4.5	24.0	58	4.5	2	CDS20450	CDS20450F
4.6	24.0	58	4.6	2	CDS20460	CDS20460F
4.7	24.0	58	4.7	2	CDS20470	CDS20470F
4.8	26.0	62	4.8	2	CDS20480	CDS20480F
4.9	26.0	62	4.9	2	CDS20490	CDS20490F
5.0	26.0	62	5.0	2	CDS20500	CDS20500F
5.1	26.0	62	5.1	2	CDS20510	CDS20510F
5.2	26.0	62	5.2	2	CDS20520	CDS20520F
5.3	26.0	62	5.3	2	CDS20530	CDS20530F
5.4	28.0	66	5.4	2	CDS20540	CDS20540F
5.5	28.0	66	5.5	2	CDS20550	CDS20550F
5.6	28.0	66	5.6	2	CDS20560	CDS20560F
5.7	28.0	66	5.7	2	CDS20570	CDS20570F
5.8	28.0	66	5.8	2	CDS20580	CDS20580F
5.9	28.0	66	5.9	2	CDS20590	CDS20590F
6.0	28.0	66	6.0	2	CDS20600	CDS20600F
6.1	31.0	70	6.1	2	CDS20610	CDS20610F
6.2	31.0	70	6.2	2	CDS20620	CDS20620F

→ 切削條件表 P.290
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼同柄鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- Straight Shank- Short Flute- 2F(3xd)

· CDS20000F

規格DIN6539

有效加工深度=3倍刃徑

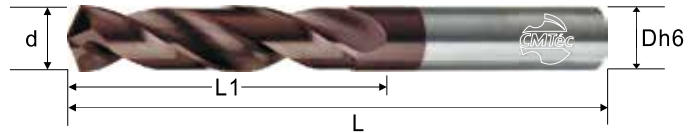
CUTTING EFFECTED LENGTH=3xd

※ 另有118° 泛用型，可供選擇。

※ Drill, Tip Angle =118° is on request.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
6.3	31.0	70	6.3	2	CDS20630	CDS20630F
6.4	31.0	70	6.4	2	CDS20640	CDS20640F
6.5	31.0	70	6.5	2	CDS20650	CDS20650F
6.6	31.0	70	6.6	2	CDS20660	CDS20660F
6.7	31.0	70	6.7	2	CDS20670	CDS20670F
6.8	34.0	74	6.8	2	CDS20680	CDS20680F
6.9	34.0	74	6.9	2	CDS20690	CDS20690F
7.0	34.0	74	7.0	2	CDS20700	CDS20700F
7.1	34.0	74	7.1	2	CDS20710	CDS20710F
7.2	34.0	74	7.2	2	CDS20720	CDS20720F
7.3	34.0	74	7.3	2	CDS20730	CDS20730F
7.4	34.0	74	7.4	2	CDS20740	CDS20740F
7.5	34.0	74	7.5	2	CDS20750	CDS20750F
7.6	37.0	79	7.6	2	CDS20760	CDS20760F
7.7	37.0	79	7.7	2	CDS20770	CDS20770F
7.8	37.0	79	7.8	2	CDS20780	CDS20780F
7.9	37.0	79	7.9	2	CDS20790	CDS20790F
8.0	37.0	79	8.0	2	CDS20800	CDS20800F
8.1	37.0	79	8.1	2	CDS20810	CDS20810F
8.2	37.0	79	8.2	2	CDS20820	CDS20820F
8.3	37.0	79	8.3	2	CDS20830	CDS20830F
8.4	37.0	79	8.4	2	CDS20840	CDS20840F
8.5	37.0	79	8.5	2	CDS20850	CDS20850F
8.6	40.0	84	8.6	2	CDS20860	CDS20860F
8.7	40.0	84	8.7	2	CDS20870	CDS20870F
8.8	40.0	84	8.8	2	CDS20880	CDS20880F
8.9	40.0	84	8.9	2	CDS20890	CDS20890F
9.0	40.0	84	9.0	2	CDS20900	CDS20900F
9.1	40.0	84	9.1	2	CDS20910	CDS20910F
9.2	40.0	84	9.2	2	CDS20920	CDS20920F
9.3	40.0	84	9.3	2	CDS20930	CDS20930F
9.4	40.0	84	9.4	2	CDS20940	CDS20940F
9.5	40.0	84	9.5	2	CDS20950	CDS20950F
9.6	43.0	89	9.6	2	CDS20960	CDS20960F

→ 切削條件表 P.290
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼同柄鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- Straight Shank- Short Flute- 2F(3×d)

· CDS20000F

規格DIN6539

有效加工深度=3倍刃徑

CUTTING EFFECTED LENGTH=3xd

※ 另有118° 泛用型，可供選擇。

※ Drill, Tip Angle =118° is on request.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



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d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
9.7	43.0	89	9.7	2	CDS20970	CDS20970F
9.8	43.0	89	9.8	2	CDS20980	CDS20980F
9.9	43.0	89	9.9	2	CDS20990	CDS20990F
10.0	43.0	89	10.0	2	CDS21000	CDS21000F
10.1	43.0	89	10.1	2	CDS21010	CDS21010F
10.2	43.0	89	10.2	2	CDS21020	CDS21020F
10.3	43.0	89	10.3	2	CDS21030	CDS21030F
10.4	43.0	89	10.4	2	CDS21040	CDS21040F
10.5	43.0	89	10.5	2	CDS21050	CDS21050F
10.6	43.0	89	10.6	2	CDS21060	CDS21060F
10.7	47.0	95	10.7	2	CDS21070	CDS21070F
10.8	47.0	95	10.8	2	CDS21080	CDS21080F
10.9	47.0	95	10.9	2	CDS21090	CDS21090F
11.0	47.0	95	11.0	2	CDS21100	CDS21100F
11.1	47.0	95	11.1	2	CDS21110	CDS21110F
11.2	47.0	95	11.2	2	CDS21120	CDS21120F
11.3	47.0	95	11.3	2	CDS21130	CDS21130F
11.4	47.0	95	11.4	2	CDS21140	CDS21140F
11.5	47.0	95	11.5	2	CDS21150	CDS21150F
11.6	47.0	95	11.6	2	CDS21160	CDS21160F
11.7	47.0	95	11.7	2	CDS21170	CDS21170F
11.8	47.0	95	11.8	2	CDS21180	CDS21180F
11.9	47.0	95	11.9	2	CDS21190	CDS21190F
12.0	51.0	102	12.0	2	CDS21200	CDS21200F
12.1	51.0	102	12.1	2	CDS21210	CDS21210F
12.2	51.0	102	12.2	2	CDS21220	CDS21220F
12.3	51.0	102	12.3	2	CDS21230	CDS21230F
12.4	51.0	102	12.4	2	CDS21240	CDS21240F
12.5	51.0	102	12.5	2	CDS21250	CDS21250F
12.6	51.0	102	12.6	2	CDS21260	CDS21260F
12.7	51.0	102	12.7	2	CDS21270	CDS21270F
12.8	51.0	102	12.8	2	CDS21280	CDS21280F
12.9	51.0	102	12.9	2	CDS21290	CDS21290F
13.0	51.0	102	13.0	2	CDS21300	CDS21300F

→ 切削條件表 P.290
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼同柄鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- Straight Shank- Standard- 2F(5×d)

· CDSF20000F

規格DIN6539

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 另有118° 泛用型，可供選擇。

※ Drill, Tip Angle =118° is on request.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
5.0	34	73	5.0	2	CDSF20500	CDSF20500F
5.1	38	76	5.1	2	CDSF20510	CDSF20510F
5.2	38	76	5.2	2	CDSF20520	CDSF20520F
5.3	38	76	5.3	2	CDSF20530	CDSF20530F
5.4	38	76	5.4	2	CDSF20540	CDSF20540F
5.5	38	76	5.5	2	CDSF20550	CDSF20550F
5.6	41	81	5.6	2	CDSF20560	CDSF20560F
5.7	41	81	5.7	2	CDSF20570	CDSF20570F
5.8	41	81	5.8	2	CDSF20580	CDSF20580F
5.9	41	81	5.9	2	CDSF20590	CDSF20590F
6.0	41	81	6.0	2	CDSF20600	CDSF20600F
6.1	41	81	6.1	2	CDSF20610	CDSF20610F
6.2	41	81	6.2	2	CDSF20620	CDSF20620F
6.3	41	81	6.3	2	CDSF20630	CDSF20630F
6.4	41	81	6.4	2	CDSF20640	CDSF20640F
6.5	41	81	6.5	2	CDSF20650	CDSF20650F
6.6	43	83	6.6	2	CDSF20660	CDSF20660F
6.7	43	83	6.7	2	CDSF20670	CDSF20670F
6.8	43	83	6.8	2	CDSF20680	CDSF20680F
6.9	43	83	6.9	2	CDSF20690	CDSF20690F
7.0	43	83	7.0	2	CDSF20700	CDSF20700F
7.1	45	87	7.1	2	CDSF20710	CDSF20710F
7.2	45	87	7.2	2	CDSF20720	CDSF20720F
7.3	45	87	7.3	2	CDSF20730	CDSF20730F
7.4	45	87	7.4	2	CDSF20740	CDSF20740F
7.5	45	87	7.5	2	CDSF20750	CDSF20750F
7.6	48	90	7.6	2	CDSF20760	CDSF20760F
7.7	48	90	7.7	2	CDSF20770	CDSF20770F
7.8	48	90	7.8	2	CDSF20780	CDSF20780F
7.9	48	90	7.9	2	CDSF20790	CDSF20790F
8.0	48	90	8.0	2	CDSF20800	CDSF20800F
8.1	53	96	8.1	2	CDSF20810	CDSF20810F
8.2	53	96	8.2	2	CDSF20820	CDSF20820F
8.3	53	96	8.3	2	CDSF20830	CDSF20830F
8.4	53	96	8.4	2	CDSF20840	CDSF20840F
8.5	53	96	8.5	2	CDSF20850	CDSF20850F
8.6	55	98	8.6	2	CDSF20860	CDSF20860F

→ 切削條件表 P.306
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼同柄鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- Straight Shank- Standard- 2F(5×d)

· CDSF20000 F

規格DIN6539

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 另有118° 泛用型，可供選擇。

※ Drill, Tip Angle =118° is on request.

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



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d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
8.7	55	98	8.7	2	CDSF20870	CDSF20870F
8.8	55	98	8.8	2	CDSF20880	CDSF20880F
8.9	55	98	8.9	2	CDSF20890	CDSF20890F
9.0	55	98	9.0	2	CDSF20900	CDSF20900F
9.1	58	102	9.1	2	CDSF20910	CDSF20910F
9.2	58	102	9.2	2	CDSF20920	CDSF20920F
9.3	58	102	9.3	2	CDSF20930	CDSF20930F
9.4	58	102	9.4	2	CDSF20940	CDSF20940F
9.5	58	102	9.5	2	CDSF20950	CDSF20950F
9.6	60	105	9.6	2	CDSF20960	CDSF20960F
9.7	60	105	9.7	2	CDSF20970	CDSF20970F
9.8	60	105	9.8	2	CDSF20980	CDSF20980F
9.9	60	105	9.9	2	CDSF20990	CDSF20990F
10.0	60	105	10.0	2	CDSF21000	CDSF21000F
10.1	66	112	10.1	2	CDSF21010	CDSF21010F
10.2	66	112	10.2	2	CDSF21020	CDSF21020F
10.3	66	112	10.3	2	CDSF21030	CDSF21030F
10.4	66	112	10.4	2	CDSF21040	CDSF21040F
10.5	66	112	10.5	2	CDSF21050	CDSF21050F
10.6	68	114	10.6	2	CDSF21060	CDSF21060F
10.7	68	114	10.7	2	CDSF21070	CDSF21070F
10.8	68	114	10.8	2	CDSF21080	CDSF21080F
10.9	68	114	10.9	2	CDSF21090	CDSF21090F
11.0	68	114	11.0	2	CDSF21100	CDSF21100F
11.1	71	118	11.1	2	CDSF21110	CDSF21110F
11.2	71	118	11.2	2	CDSF21120	CDSF21120F
11.3	71	118	11.3	2	CDSF21130	CDSF21130F
11.4	71	118	11.4	2	CDSF21140	CDSF21140F
11.5	71	118	11.5	2	CDSF21150	CDSF21150F
11.6	73	121	11.6	2	CDSF21160	CDSF21160F
11.7	73	121	11.7	2	CDSF21170	CDSF21170F
11.8	73	121	11.8	2	CDSF21180	CDSF21180F
11.9	73	121	11.9	2	CDSF21190	CDSF21190F
12.0	73	121	12.0	2	CDSF21200	CDSF21200F
12.5	76	135	12.5	2	CDSF21250	CDSF21250F
12.7	78	137	12.7	2	CDSF21270	CDSF21270F
13.0	78	137	13.0	2	CDSF21300	CDSF21300F

→ 切削條件表 P.306
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Short Flute- 2F(3xd)

· CDH20000F



有效加工深度=3倍刃徑
CUTTING EFFECTED LENGTH=3xd

※ 其他刃徑公差規格依需求生產。
※ Special Tolerance(ϕ) is on request.



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d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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	13.0	50	3	2	CDH20200	CDH20200F
2.1	13.0	50	3	2	CDH20210	CDH20210F
2.2	15.0	50	3	2	CDH20220	CDH20220F
2.3	15.0	50	3	2	CDH20230	CDH20230F
2.4	15.0	50	3	2	CDH20240	CDH20240F
2.5	16.0	50	3	2	CDH20250	CDH20250F
2.6	16.0	50	3	2	CDH20260	CDH20260F
2.7	16.0	50	3	2	CDH20270	CDH20270F
2.8	18.0	50	3	2	CDH20280	CDH20280F
2.9	18.0	50	3	2	CDH20290	CDH20290F
3.0	20.0	62	3	2	CDH20300	CDH20300F
3.1	20.0	62	4	2	CDH20310	CDH20310F
3.2	20.0	62	4	2	CDH20320	CDH20320F
3.3	20.0	62	4	2	CDH20330	CDH20330F
3.4	20.0	62	4	2	CDH20340	CDH20340F
3.5	20.0	62	4	2	CDH20350	CDH20350F
3.6	20.0	62	4	2	CDH20360	CDH20360F
3.7	20.0	62	4	2	CDH20370	CDH20370F
3.8	20.0	62	4	2	CDH20380	CDH20380F
3.9	20.0	62	4	2	CDH20390	CDH20390F
4.0	24.0	66	4	2	CDH20400	CDH20400F
4.1	24.0	66	5	2	CDH20410	CDH20410F
4.2	24.0	66	5	2	CDH20420	CDH20420F
4.3	24.0	66	5	2	CDH20430	CDH20430F
4.4	24.0	66	5	2	CDH20440	CDH20440F
4.5	24.0	66	5	2	CDH20450	CDH20450F
4.6	24.0	66	5	2	CDH20460	CDH20460F
4.7	24.0	66	5	2	CDH20470	CDH20470F
4.8	28.0	66	5	2	CDH20480	CDH20480F
4.9	28.0	66	5	2	CDH20490	CDH20490F
5.0	28.0	66	5	2	CDH20500	CDH20500F
5.1	28.0	66	6	2	CDH20510	CDH20510F
5.2	28.0	66	6	2	CDH20520	CDH20520F
5.3	28.0	66	6	2	CDH20530	CDH20530F
5.4	28.0	66	6	2	CDH20540	CDH20540F
5.5	28.0	66	6	2	CDH20550	CDH20550F
5.6	28.0	66	6	2	CDH20560	CDH20560F

→ 切削條件表 P.291
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Short Flute- 2F(3×d)

· CDH20000F



有效加工深度=3倍刃徑
CUTTING EFFECTED LENGTH=3xd

※ 其他刃徑公差規格依需求生產。
※ Special Tolerance(φ) is on request.



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d(刃徑)	Tolerance(公差)
φ	h7

刃徑 d	溝長 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.
5.7	28.0	66	6	2	CDH20570	CDH20570F
5.8	28.0	66	6	2	CDH20580	CDH20580F
5.9	28.0	66	6	2	CDH20590	CDH20590F
6.0	28.0	66	6	2	CDH20600	CDH20600F
6.1	34.0	79	7	2	CDH20610	CDH20610F
6.2	34.0	79	7	2	CDH20620	CDH20620F
6.3	34.0	79	7	2	CDH20630	CDH20630F
6.4	34.0	79	7	2	CDH20640	CDH20640F
6.5	34.0	79	7	2	CDH20650	CDH20650F
6.6	34.0	79	7	2	CDH20660	CDH20660F
6.7	34.0	79	7	2	CDH20670	CDH20670F
6.8	34.0	79	7	2	CDH20680	CDH20680F
6.9	34.0	79	7	2	CDH20690	CDH20690F
7.0	34.0	79	7	2	CDH20700	CDH20700F
7.1	41.0	79	8	2	CDH20710	CDH20710F
7.2	41.0	79	8	2	CDH20720	CDH20720F
7.3	41.0	79	8	2	CDH20730	CDH20730F
7.4	41.0	79	8	2	CDH20740	CDH20740F
7.5	41.0	79	8	2	CDH20750	CDH20750F
7.6	41.0	79	8	2	CDH20760	CDH20760F
7.7	41.0	79	8	2	CDH20770	CDH20770F
7.8	41.0	79	8	2	CDH20780	CDH20780F
7.9	41.0	79	8	2	CDH20790	CDH20790F
8.0	41.0	79	8	2	CDH20800	CDH20800F
8.1	47.0	89	9	2	CDH20810	CDH20810F
8.2	47.0	89	9	2	CDH20820	CDH20820F
8.3	47.0	89	9	2	CDH20830	CDH20830F
8.4	47.0	89	9	2	CDH20840	CDH20840F
8.5	47.0	89	9	2	CDH20850	CDH20850F
8.6	47.0	89	9	2	CDH20860	CDH20860F
8.7	47.0	89	9	2	CDH20870	CDH20870F
8.8	47.0	89	9	2	CDH20880	CDH20880F
8.9	47.0	89	9	2	CDH20890	CDH20890F

→ 切削條件表 P.291
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Short Flute- 2F(3xd)

· CDH20000F



有效加工深度=3倍刃徑
CUTTING EFFECTED LENGTH=3xd

※ 其他刃徑公差規格依需求生產。
※ Special Tolerance (ϕ) is on request.



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d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 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.
9.0	47.0	89	9	2	CDH20900	CDH20900F
9.1	47.0	89	10	2	CDH20910	CDH20910F
9.2	47.0	89	10	2	CDH20920	CDH20920F
9.3	47.0	89	10	2	CDH20930	CDH20930F
9.4	47.0	89	10	2	CDH20940	CDH20940F
9.5	47.0	89	10	2	CDH20950	CDH20950F
9.6	47.0	89	10	2	CDH20960	CDH20960F
9.7	47.0	89	10	2	CDH20970	CDH20970F
9.8	47.0	89	10	2	CDH20980	CDH20980F
9.9	47.0	89	10	2	CDH20990	CDH20990F
10.0	47.0	89	10	2	CDH21000	CDH21000F
10.2	55.0	102	11	2	CDH21020	CDH21020F
10.5	55.0	102	11	2	CDH21050	CDH21050F
10.8	55.0	102	11	2	CDH21080	CDH21080F
11.0	55.0	102	11	2	CDH21100	CDH21100F
11.2	55.0	102	12	2	CDH21120	CDH21120F
11.5	55.0	102	12	2	CDH21150	CDH21150F
11.8	55.0	102	12	2	CDH21180	CDH21180F
12.0	55.0	102	12	2	CDH21200	CDH21200F
12.2	55.0	102	13	2	CDH21220	CDH21220F
12.5	60.0	107	13	2	CDH21250	CDH21250F
12.8	60.0	107	13	2	CDH21280	CDH21280F
13.0	60.0	107	13	2	CDH21300	CDH21300F
14.0	60.0	107	14	2	CDH21400	CDH21400F
15.0	65.0	115	16	2	CDH21500	CDH21500F
16.0	65.0	115	16	2	CDH21600	CDH21600F
17.0	73.0	123	18	2	CDH21700	CDH21700F
18.0	73.0	123	18	2	CDH21800	CDH21800F
19.0	79.0	131	20	2	CDH21900	CDH21900F
20.0	79.0	131	20	2	CDH22000	CDH22000F

→ 切削條件表 P.291
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Standard- 2F(5×d)

· CDHF20000 F



規格DIN6537

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 coated Order No.
3.0	28.0	66	6	2	CDHF20300F
3.1	28.0	66	6	2	CDHF20310F
3.2	28.0	66	6	2	CDHF20320F
3.3	28.0	66	6	2	CDHF20330F
3.4	28.0	66	6	2	CDHF20340F
3.5	28.0	66	6	2	CDHF20350F
3.6	28.0	66	6	2	CDHF20360F
3.7	28.0	66	6	2	CDHF20370F
3.8	36.0	74	6	2	CDHF20380F
3.9	36.0	74	6	2	CDHF20390F
4.0	36.0	74	6	2	CDHF20400F
4.1	36.0	74	6	2	CDHF20410F
4.2	36.0	74	6	2	CDHF20420F
4.3	36.0	74	6	2	CDHF20430F
4.4	36.0	74	6	2	CDHF20440F
4.5	36.0	74	6	2	CDHF20450F
4.6	36.0	74	6	2	CDHF20460F
4.7	36.0	74	6	2	CDHF20470F
4.8	44.0	82	6	2	CDHF20480F
4.9	44.0	82	6	2	CDHF20490F
5.0	44.0	82	6	2	CDHF20500F
5.1	44.0	82	6	2	CDHF20510F
5.2	44.0	82	6	2	CDHF20520F
5.3	44.0	82	6	2	CDHF20530F
5.4	44.0	82	6	2	CDHF20540F
5.5	44.0	82	6	2	CDHF20550F
5.6	44.0	82	6	2	CDHF20560F
5.7	44.0	82	6	2	CDHF20570F
5.8	44.0	82	6	2	CDHF20580F
5.9	44.0	82	6	2	CDHF20590F
6.0	44.0	82	6	2	CDHF20600F
6.1	53.0	91	8	2	CDHF20610F
6.2	53.0	91	8	2	CDHF20620F
6.3	53.0	91	8	2	CDHF20630F

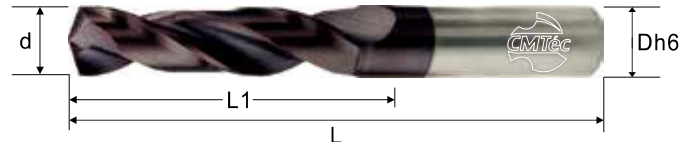
→ 切削條件表 P.291
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Standard- 2F(5×d)

· CDHF20000 F



規格DIN6537

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance (ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
6.4	53.0	91	8	2	CDHF20640F
6.5	53.0	91	8	2	CDHF20650F
6.6	53.0	91	8	2	CDHF20660F
6.7	53.0	91	8	2	CDHF20670F
6.8	53.0	91	8	2	CDHF20680F
6.9	53.0	91	8	2	CDHF20690F
7.0	53.0	91	8	2	CDHF20700F
7.1	53.0	91	8	2	CDHF20710F
7.2	53.0	91	8	2	CDHF20720F
7.3	53.0	91	8	2	CDHF20730F
7.4	53.0	91	8	2	CDHF20740F
7.5	53.0	91	8	2	CDHF20750F
7.6	53.0	91	8	2	CDHF20760F
7.7	53.0	91	8	2	CDHF20770F
7.8	53.0	91	8	2	CDHF20780F
7.9	53.0	91	8	2	CDHF20790F
8.0	53.0	91	8	2	CDHF20800F
8.1	61.0	103	10	2	CDHF20810F
8.2	61.0	103	10	2	CDHF20820F
8.3	61.0	103	10	2	CDHF20830F
8.4	61.0	103	10	2	CDHF20840F
8.5	61.0	103	10	2	CDHF20850F
8.6	61.0	103	10	2	CDHF20860F
8.7	61.0	103	10	2	CDHF20870F
8.8	61.0	103	10	2	CDHF20880F
8.9	61.0	103	10	2	CDHF20890F
9.0	61.0	103	10	2	CDHF20900F
9.1	61.0	103	10	2	CDHF20910F
9.2	61.0	103	10	2	CDHF20920F
9.3	61.0	103	10	2	CDHF20930F
9.4	61.0	103	10	2	CDHF20940F
9.5	61.0	103	10	2	CDHF20950F
9.6	61.0	103	10	2	CDHF20960F
9.7	61.0	103	10	2	CDHF20970F
9.8	61.0	103	10	2	CDHF20980F
9.9	61.0	103	10	2	CDHF20990F
10.0	61.0	103	10	2	CDHF21000F

→ 切削條件表 P.291
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Standard- 2F(5×d)

· **CDHF20000 F**



規格DIN6537

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 其他刃徑公差規格依需求生產。
 ※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
10.1	71.0	118	12	2	CDHF21010F
10.2	71.0	118	12	2	CDHF21020F
10.3	71.0	118	12	2	CDHF21030F
10.4	71.0	118	12	2	CDHF21040F
10.5	71.0	118	12	2	CDHF21050F
10.6	71.0	118	12	2	CDHF21060F
10.7	71.0	118	12	2	CDHF21070F
10.8	71.0	118	12	2	CDHF21080F
10.9	71.0	118	12	2	CDHF21090F
11.0	71.0	118	12	2	CDHF21100F
11.1	71.0	118	12	2	CDHF21110F
11.2	71.0	118	12	2	CDHF21120F
11.3	71.0	118	12	2	CDHF21130F
11.4	71.0	118	12	2	CDHF21140F
11.5	71.0	118	12	2	CDHF21150F
11.6	71.0	118	12	2	CDHF21160F
11.7	71.0	118	12	2	CDHF21170F
11.8	71.0	118	12	2	CDHF21180F
11.9	71.0	118	12	2	CDHF21190F
12.0	71.0	118	12	2	CDHF21200F
12.5	77.0	124	14	2	CDHF21250F
13.0	77.0	124	14	2	CDHF21300F
13.5	77.0	124	14	2	CDHF21350F
14.0	77.0	124	14	2	CDHF21400F
14.5	83.0	133	16	2	CDHF21450F
15.0	83.0	133	16	2	CDHF21500F
15.5	83.0	133	16	2	CDHF21550F
16.0	83.0	133	16	2	CDHF21600F

→ 切削條件表 Cutting Condition P.291

→ 參考資料 Technical Data P.252

鎢鋼高速鑽頭- 長刃型- 2刃(7倍長)

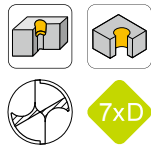
MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank- Long Flute- 2F(7×d)

· CDHS20000 F



有效加工深度=7倍刃徑
CUTTING EFFECTED LENGTH=7xd
有效加工深度(10、12、15)倍長
依需求生產。

Cutting Effected Length(10 x d,
12 x d, 15 x d) are on request.
※ 其他刃徑公差規格依需求生產。
※ Special Tolerance(φ) is on request.



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d(刃徑)	Tolerance(公差)
φ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
5.0	50.0	90	6	2	CDHS20500F
5.1	50.0	90	6	2	CDHS20510F
5.3	50.0	90	6	2	CDHS20530F
5.5	57.0	97	6	2	CDHS20550F
6.0	57.0	97	6	2	CDHS20600F
6.5	66.0	106	8	2	CDHS20650F
6.8	66.0	106	8	2	CDHS20680F
6.9	66.0	106	8	2	CDHS20690F
7.0	76.0	116	8	2	CDHS20700F
7.5	76.0	116	8	2	CDHS20750F
7.6	76.0	116	8	2	CDHS20760F
7.7	76.0	116	8	2	CDHS20770F
7.8	76.0	116	8	2	CDHS20780F
8.0	76.0	116	8	2	CDHS20800F
8.2	87.0	131	10	2	CDHS20820F
8.5	87.0	131	10	2	CDHS20850F
8.6	87.0	131	10	2	CDHS20860F
9.0	87.0	131	10	2	CDHS20900F
9.2	87.0	131	10	2	CDHS20920F
9.5	95.0	139	10	2	CDHS20950F
9.8	95.0	139	10	2	CDHS20980F
10.0	95.0	139	10	2	CDHS21000F
10.2	106.0	155	12	2	CDHS21020F
10.3	106.0	155	12	2	CDHS21030F
10.5	106.0	155	12	2	CDHS21050F
10.7	106.0	155	12	2	CDHS21070F
11.0	106.0	155	12	2	CDHS21100F
11.5	114.0	163	12	2	CDHS21150F
12.0	114.0	163	12	2	CDHS21200F
12.1	133.0	182	14	2	CDHS21210F
12.3	133.0	182	14	2	CDHS21230F
12.5	133.0	182	14	2	CDHS21250F
13.0	133.0	182	14	2	CDHS21300F
13.5	133.0	182	14	2	CDHS21350F
14.0	133.0	182	14	2	CDHS21400F
14.1	152.0	204	16	2	CDHS21410F
14.5	152.0	204	16	2	CDHS21450F
15.0	152.0	204	16	2	CDHS21500F
15.5	152.0	204	16	2	CDHS21550F
15.7	152.0	204	16	2	CDHS21570F
16.0	152.0	204	16	2	CDHS21600F

鎢鋼高速內冷鑽頭- 短刃型- 2刃(3倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End Mill Shank with Coolant Hole- Short Flute- 2F(3×d)

· **CDHC20000F**



規格DIN6537

有效加工深度=3倍刃徑

CUTTING EFFECTED LENGTH=3xd

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



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d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
4.0	24.0	66	6	2	CDHC20400F
4.5	24.0	66	6	2	CDHC20450F
5.0	28.0	66	6	2	CDHC20500F
5.5	28.0	66	6	2	CDHC20550F
6.0	28.0	66	6	2	CDHC20600F
6.5	34.0	79	8	2	CDHC20650F
7.0	34.0	79	8	2	CDHC20700F
7.5	41.0	79	8	2	CDHC20750F
8.0	41.0	79	8	2	CDHC20800F
8.5	47.0	89	10	2	CDHC20850F
9.0	47.0	89	10	2	CDHC20900F
9.5	47.0	89	10	2	CDHC20950F
10.0	47.0	89	10	2	CDHC21000F
10.5	55.0	102	12	2	CDHC21050F
11.0	55.0	102	12	2	CDHC21100F
11.5	55.0	102	12	2	CDHC21150F
12.0	55.0	102	12	2	CDHC21200F
12.5	60.0	107	14	2	CDHC21250F
13.0	60.0	107	14	2	CDHC21300F
13.5	60.0	107	14	2	CDHC21350F
14.0	60.0	107	14	2	CDHC21400F
14.5	65.0	115	16	2	CDHC21450F
15.0	65.0	115	16	2	CDHC21500F
15.5	65.0	115	16	2	CDHC21550F
16.0	65.0	115	16	2	CDHC21600F
16.5	73.0	123	18	2	CDHC21650F
17.0	73.0	123	18	2	CDHC21700F
17.5	73.0	123	18	2	CDHC21750F
18.0	73.0	123	18	2	CDHC21800F
18.5	79.0	131	20	2	CDHC21850F
19.0	79.0	131	20	2	CDHC21900F
19.5	79.0	131	20	2	CDHC21950F
20.0	79.0	131	20	2	CDHC22000F

→ 切削條件表 P.292
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速內冷鑽頭- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank with Coolant Hole- Standard- 2F(5×D)

· CDHCF20000F



規格DIN6537

有效加工深度=5倍刃徑

CUTTING EFFECTED LENGTH=5xd

※ 其他刃徑公差規格依需求生產。

※ Special Tolerance(ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
4.0	36.0	74	6	2	CDHCF20400F
4.5	36.0	74	6	2	CDHCF20450F
5.0	44.0	82	6	2	CDHCF20500F
5.5	44.0	82	6	2	CDHCF20550F
6.0	44.0	82	6	2	CDHCF20600F
6.5	53.0	91	8	2	CDHCF20650F
7.0	53.0	91	8	2	CDHCF20700F
7.5	53.0	91	8	2	CDHCF20750F
8.0	53.0	91	8	2	CDHCF20800F
8.5	61.0	103	10	2	CDHCF20850F
9.0	61.0	103	10	2	CDHCF20900F
9.5	61.0	103	10	2	CDHCF20950F
10.0	61.0	103	10	2	CDHCF21000F
10.5	71.0	118	12	2	CDHCF21050F
11.0	71.0	118	12	2	CDHCF21100F
11.5	71.0	118	12	2	CDHCF21150F
12.0	71.0	118	12	2	CDHCF21200F
12.5	77.0	127	14	2	CDHCF21250F
13.0	77.0	127	14	2	CDHCF21300F
13.5	77.0	127	14	2	CDHCF21350F
14.0	77.0	127	14	2	CDHCF21400F
14.5	83.0	133	16	2	CDHCF21450F
15.0	83.0	133	16	2	CDHCF21500F
15.5	83.0	133	16	2	CDHCF21550F
16.0	83.0	133	16	2	CDHCF21600F
16.5	93.0	143	18	2	CDHCF21650F
17.0	93.0	143	18	2	CDHCF21700F
17.5	93.0	143	18	2	CDHCF21750F
18.0	93.0	143	18	2	CDHCF21800F
18.5	101.0	153	20	2	CDHCF21850F
19.0	101.0	153	20	2	CDHCF21900F
19.5	101.0	153	20	2	CDHCF21950F
20.0	101.0	153	20	2	CDHCF22000F

→ 切削條件表 P.292
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼高速內冷鑽頭- 長刃型- 2刃(7倍長)

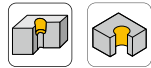
MICRO GRAIN CARBIDE HIGH SPEED DRILL- End mill Shank with Coolant Hole- Long Flute- 2F(7xd)

CDHCS20000F



有效加工深度=7倍刃徑
CUTTING EFFECTED LENGTH=7xd
有效加工深度(10、12、15)倍長
依需求生產。

Cutting Effected Length(10 x d,
12 x d, 15 x d) are on request.
※ 其他刃徑公差規格依需求生產。
※ Special Tolerance(ϕ) is on request.



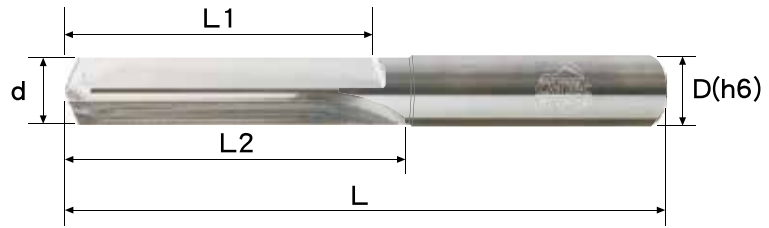
d(刃徑)	Tolerance(公差)
ϕ	h7

刃徑 d	溝長 L1	全長 L	柄徑 D	刃數 F	鍍膜訂購編號 Coated Order No.
5.0	50.0	90	6	2	CDHCS20500F
5.1	50.0	90	6	2	CDHCS20510F
5.3	50.0	90	6	2	CDHCS20530F
5.5	57.0	97	6	2	CDHCS20550F
6.0	57.0	97	6	2	CDHCS20600F
6.5	66.0	106	8	2	CDHCS20650F
6.8	66.0	106	8	2	CDHCS20680F
6.9	66.0	106	8	2	CDHCS20690F
7.0	76.0	116	8	2	CDHCS20700F
7.5	76.0	116	8	2	CDHCS20750F
7.6	76.0	116	8	2	CDHCS20760F
7.7	76.0	116	8	2	CDHCS20770F
7.8	76.0	116	8	2	CDHCS20780F
8.0	76.0	116	8	2	CDHCS20800F
8.2	87.0	131	10	2	CDHCS20820F
8.5	87.0	131	10	2	CDHCS20850F
8.6	87.0	131	10	2	CDHCS20860F
9.0	87.0	131	10	2	CDHCS20900F
9.2	87.0	131	10	2	CDHCS20920F
9.5	95.0	139	10	2	CDHCS20950F
9.8	95.0	139	10	2	CDHCS20980F
10.0	95.0	139	10	2	CDHCS21000F
10.2	106.0	155	12	2	CDHCS21020F
10.3	106.0	155	12	2	CDHCS21030F
10.5	106.0	155	12	2	CDHCS21050F
10.7	106.0	155	12	2	CDHCS21070F
11.0	106.0	155	12	2	CDHCS21100F
11.5	114.0	163	12	2	CDHCS21150F
12.0	114.0	163	12	2	CDHCS21200F
12.1	133.0	182	14	2	CDHCS21210F
12.3	133.0	182	14	2	CDHCS21230F
12.5	133.0	182	14	2	CDHCS21250F
13.0	133.0	182	14	2	CDHCS21300F
13.5	133.0	182	14	2	CDHCS21350F
14.0	133.0	182	14	2	CDHCS21400F
14.1	152.0	204	16	2	CDHCS21410F
14.5	152.0	204	16	2	CDHCS21450F
15.0	152.0	204	16	2	CDHCS21500F
15.5	152.0	204	16	2	CDHCS21550F
15.7	152.0	204	16	2	CDHCS21570F
16.0	152.0	204	16	2	CDHCS21600F

鎢鋼鋁銅用直刃鑽鉸刀- 標準型- 2刃(5倍長)

MICRO GRAIN CARBIDE STRAIGHT FLUTE DRILLS FOR Aluminum & Copper- 2F(5×d)

· **CDR2** 0000



※ 其他刃徑公差規格依需求生產。
※ Special Tolerance (ϕ) is on request.



d(刃徑)	Tolerance(公差)
ϕ	+0.005

Milling Table

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刃徑 d	刃長 L1	溝長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
4.00	29	36	74	6	2	CDR20400
4.20	29	36	74	6	2	CDR20420
5.00	35	44	82	6	2	CDR20500
6.00	35	44	82	6	2	CDR20600
6.75	43	53	91	8	2	CDR20675
7.00	43	53	91	8	2	CDR20700
8.00	43	53	91	8	2	CDR20800
8.50	49	61	103	10	2	CDR20850
9.00	49	61	103	10	2	CDR20900
10.00	49	61	103	10	2	CDR21000
10.25	56	71	118	12	2	CDR21025
11.00	56	71	118	12	2	CDR21100
12.00	56	71	118	12	2	CDR21200
13.00	60	77	124	14	2	CDR21300

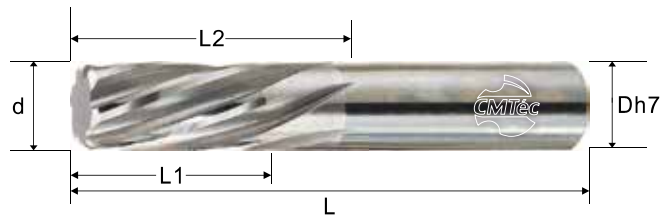
→ 切削條件表 P.293
Cutting Condition

→ 參考資料 P.252
Technical Data









鎢鋼螺旋機械鉋刀- 短刃型- 4/6刃

MICRO GRAIN CARBIDE MACHINE REAMERS- Short Flute- 4/6F

- CRD4⁰⁰⁰⁰
- CRD6⁰⁰⁰⁰



d(刃徑)	Tolerance(公差)
6 ≥ φ	+0.004
6 < φ	+0.005









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刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刃訂購編號 Uncoated Order No.
2.98	15.0	20	50	4.0	4	CRD40298
2.99	15.0	20	50	4.0	4	CRD40299
3.00	15.0	20	50	4.0	4	CRD40300
3.01	15.0	20	50	4.0	4	CRD40301
3.02	15.0	20	50	4.0	4	CRD40302
3.98	15.0	22	50	4.0	6	CRD60398
3.99	15.0	22	50	4.0	6	CRD60399
4.00	15.0	22	50	4.0	6	CRD60400
4.01	15.0	22	50	4.0	6	CRD60401
4.02	15.0	22	50	4.0	6	CRD60402
4.98	20.0	30	60	6.0	6	CRD60498
4.99	20.0	30	60	6.0	6	CRD60499
5.00	20.0	30	60	6.0	6	CRD60500
5.01	20.0	30	60	6.0	6	CRD60501
5.02	20.0	30	60	6.0	6	CRD60502
5.98	20.0	30	60	6.0	6	CRD60598
5.99	20.0	30	60	6.0	6	CRD60599
6.00	20.0	30	60	6.0	6	CRD60600
6.01	20.0	30	60	6.0	6	CRD60601
6.02	20.0	30	60	6.0	6	CRD60602
6.98	20.0	30	60	8.0	6	CRD60698
6.99	20.0	30	60	8.0	6	CRD60699
7.00	20.0	30	60	8.0	6	CRD60700
7.01	20.0	30	60	8.0	6	CRD60701
7.02	20.0	30	60	8.0	6	CRD60702
7.98	20.0	30	60	8.0	6	CRD60798
7.99	20.0	30	60	8.0	6	CRD60799
8.00	20.0	30	60	8.0	6	CRD60800
8.01	20.0	30	60	8.0	6	CRD60801
8.02	20.0	30	60	8.0	6	CRD60802
8.98	20.0	30	60	10.0	6	CRD60898
8.99	20.0	30	60	10.0	6	CRD60899
9.00	20.0	30	60	10.0	6	CRD60900
9.01	20.0	30	60	10.0	6	CRD60901
9.02	20.0	30	60	10.0	6	CRD60902
9.98	20.0	30	60	10.0	6	CRD60998
9.99	20.0	30	60	10.0	6	CRD60999
10.00	20.0	30	60	10.0	6	CRD61000
10.01	20.0	30	60	10.0	6	CRD61001
10.02	20.0	30	60	10.0	6	CRD61002
11.98	20.0	30	60	12.0	6	CRD61198
11.99	20.0	30	60	12.0	6	CRD61199
12.00	20.0	30	60	12.0	6	CRD61200
12.01	20.0	30	60	12.0	6	CRD61201
12.02	20.0	30	60	12.0	6	CRD61202

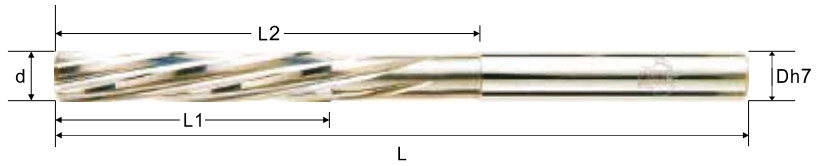
→ 切削條件表 P.294
Cutting Condition

→ 參考資料 P.252
Technical Data

鎢鋼螺旋機械鉸刀- 標準型- 4/6刃

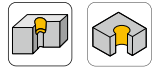
MICRO GRAIN CARBIDE MACHINE REAMERS- 4/6F

- CRS4 0000
- CRS6 0000



※ 其他刃徑公差規格依需求生產。
 ※ Special Tolerance(ϕ) is on request.

d(刃徑)	Tolerance(公差)
$6 \geq \phi$	+0.004
$6 < \phi$	+0.005



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刃徑 d	刃長 L1	有效長 L2	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.
3.0	15.0	20	61	3.0	4	CRS40300
3.5	18.0	20	70	3.5	4	CRS40350
4.0	19.0	30	75	4.0	4	CRS40400
4.5	21.0	30	80	4.5	4	CRS40450
5.0	23.0	30	86	5.0	4	CRS40500
5.5	26.0	30	93	5.5	4	CRS40550
6.0	26.0	40	93	6.0	4	CRS40600
6.5	28.0	40	101	6.5	4	CRS40650
7.0	31.0	40	109	7.0	6	CRS60700
7.5	31.0	40	109	7.5	6	CRS60750
8.0	33.0	50	117	8.0	6	CRS60800
8.5	33.0	50	117	8.5	6	CRS60850
9.0	36.0	50	125	9.0	6	CRS60900
9.5	36.0	50	125	9.5	6	CRS60950
10.0	38.0	50	133	10.0	6	CRS61000
10.5	38.0	50	133	10.5	6	CRS61050
11.0	41.0	60	142	11.0	6	CRS61100
11.5	41.0	60	142	11.5	6	CRS61150
12.0	44.0	60	151	12.0	6	CRS61200
12.7	44.0	60	151	12.7	6	CRS61270
13.0	44.0	60	151	13.0	6	CRS61300

→ 切削條件表 P.294
 Cutting Condition

→ 參考資料 P.252
 Technical Data

車床刀具系列

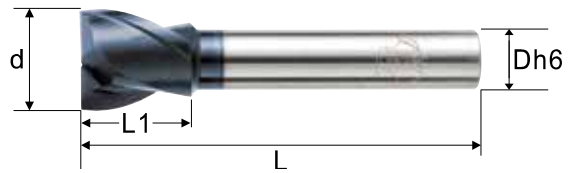
Carbide Tools for Lathe



S220 鎢鋼平銑刀- 小柄短刃型- 2刃

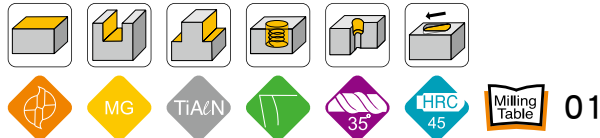
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F with small shank For Lathe

· CLES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	2	40	6	2	CLES20200	CLES20200A
3.0	3	40	6	2	CLES20300	CLES20300A
4.0	4	40	6	2	CLES20400	CLES20400A
5.0	5	40	6	2	CLES20500	CLES20500A
6.0	6	40	6	2	CLES20600	CLES20600A
7.0	7	40	6	2	CLES20700	CLES20700A
8.0	8	40	6	2	CLES20800	CLES20800A
9.0	9	40	6	2	CLES20900	CLES20900A
10.0	10	40	6	2	CLES21000	CLES21000A
12.0	12	40	10	2	CLES21200	CLES21200A

S220 鎢鋼平銑刀- 小柄短刃型- 3刃

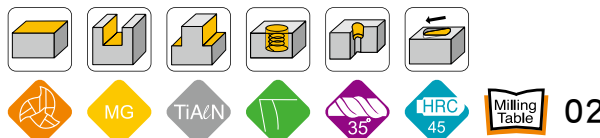
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 3F with small shank For Lathe

· CLES30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○

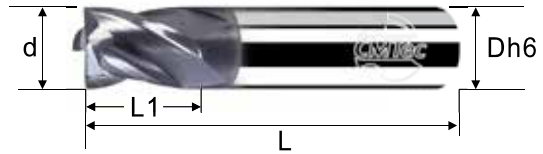


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	2	40	6	3	CLES30200	CLES30200A
3.0	3	40	6	3	CLES30300	CLES30300A
4.0	4	40	6	3	CLES30400	CLES30400A
5.0	5	40	6	3	CLES30500	CLES30500A
6.0	6	40	6	3	CLES30600	CLES30600A
7.0	7	40	6	3	CLES30700	CLES30700A
8.0	8	40	6	3	CLES30800	CLES30800A
9.0	9	40	6	3	CLES30900	CLES30900A
10.0	10	40	6	3	CLES31000	CLES31000A
12.0	12	40	10	3	CLES31200	CLES31200A

S220 鎢鋼平銑刀- 小柄短刃型- 4刃

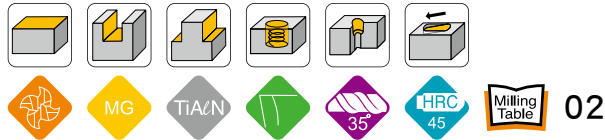
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 4F with small shank For Lathe

· CLES40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>

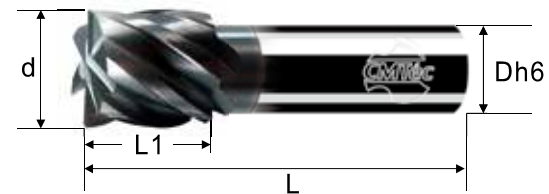


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
4.0	4	40	6	4	CLES40400	CLES40400A
5.0	5	40	6	4	CLES40500	CLES40500A
6.0	6	40	6	4	CLES40600	CLES40600A
7.0	7	40	6	4	CLES40700	CLES40700A
8.0	8	40	6	4	CLES40800	CLES40800A
8.0	8	40	8	4	CLES4080008	CLES4080008A
10.0	10	40	6	4	CLES41000	CLES41000A
10.0	10	40	10	4	CLES4100010	CLES4100010A
12.0	12	40	10	4	CLES41200	CLES41200A
16.0	16	40	10	4	CLES41600	CLES41600A

S220 鎢鋼平銑刀- 小柄短刃型- 6刃

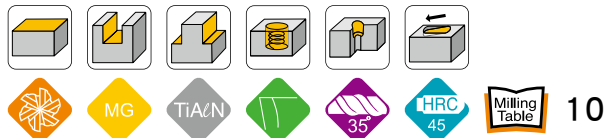
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 6F with small shank For Lathe

· CLES60000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>

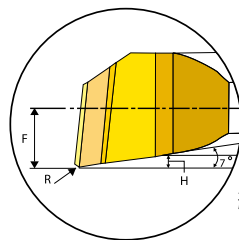
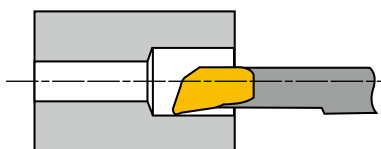
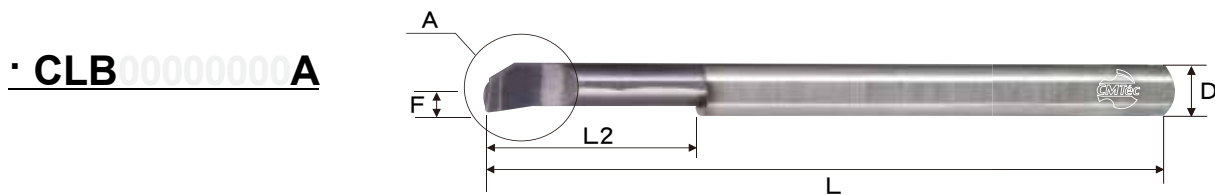


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
6.0	6	40	6	6	CLES60600	CLES60600A
7.0	7	40	6	6	CLES60700	CLES60700A
8.0	8	40	6	6	CLES60800	CLES60800A
9.0	9	40	6	6	CLES60900	CLES60900A
10.0	10	40	6	6	CLES61000	CLES61000A
12.0	12	40	10	6	CLES61200	CLES61200A
16.0	16	40	10	6	CLES61600	CLES61600A

鎢鋼內孔掃刀

CARBIDE INTERNAL COPY-TURNING

· **CLB** 000000000 **A**



細部放大圖 **A**
Detail

NEW

MG

TiAlN

Milling Table

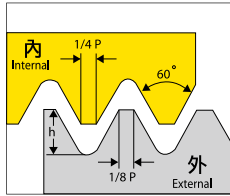
59

F	L2	L	R	D	H	最小車徑 Min. Bore Dia.	鍍膜訂購編號 Coated Order No.
0.8	5	39	0.15	3.0	0.1	2.4	CLB05081507A
0.8	10	39	0.15	3.0	0.1	2.4	CLB10081507A
1.3	10	39	0.05	3.0	0.2	3.1	CLB10130507A
1.3	15	39	0.05	3.0	0.2	3.1	CLB15130507A
1.3	15	39	0.10	3.0	0.2	3.1	CLB15131007A
1.3	10	39	0.20	3.0	0.2	3.1	CLB10132007A
1.3	15	39	0.20	3.0	0.2	3.1	CLB15132007A
1.7	10	50	0.10	4.0	0.2	4.1	CLB10171007A
1.7	15	50	0.10	4.0	0.2	4.1	CLB15171007A
1.7	22	50	0.10	4.0	0.2	4.1	CLB22171007A
1.7	10	50	0.20	4.0	0.2	4.1	CLB10172007A
1.7	15	50	0.20	4.0	0.2	4.1	CLB15172007A
1.7	22	50	0.20	4.0	0.2	4.1	CLB22172007A
2.1	15	50	0.10	5.0	0.3	5.1	CLB15211007A
2.1	22	50	0.10	5.0	0.3	5.1	CLB22211007A
2.1	30	75	0.10	5.0	0.3	5.1	CLB30211007A
2.1	15	50	0.20	5.0	0.3	5.1	CLB15212007A
2.1	22	50	0.20	5.0	0.3	5.1	CLB22212007A
2.1	30	75	0.20	5.0	0.3	5.1	CLB30212007A
2.8	15	50	0.05	6.0	0.3	6.1	CLB15280507A
2.8	15	50	0.10	6.0	0.3	6.1	CLB15281007A
2.8	15	50	0.20	6.0	0.3	6.1	CLB15282007A
2.8	22	50	0.20	6.0	0.3	6.1	CLB22282007A
2.8	30	63	0.20	6.0	0.3	6.1	CLB30282007A
3.8	15	63	0.20	8.0	0.5	8.1	CLB15382007A
3.8	22	63	0.20	8.0	0.5	8.1	CLB22382007A

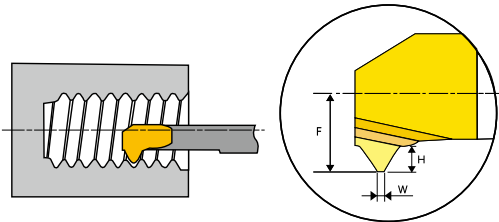
鎢鋼內孔牙刀- 螺距固定型- ISO 60°

CARBIDE INTERNAL THREAD- ISO Metric 60°

· CLT0000000000A



Tolerance class(公差)
6g / 6H



細部放大圖
Detail A



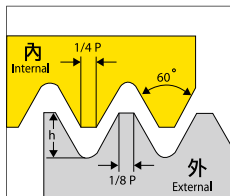
59

F	螺距 Pitch	L2	W	L	D	H	最小車徑 Min. Bore Dia.	鍍膜訂購編號 Coated Order No.
1.4	0.50	10	0.062	39	3	0.33	3.2	CLT1014050A
1.4	0.70	10	0.087	39	3	0.46	3.2	CLT1014070A
1.4	0.75	10	0.093	39	3	0.49	3.2	CLT1014075A
1.8	0.50	10	0.062	50	4	0.33	4.1	CLT1018050A
1.8	0.75	10	0.093	50	4	0.49	4.1	CLT1018075A
1.8	0.80	10	0.100	50	4	0.52	4.1	CLT1018080A
2.2	1.00	10	0.125	50	5	0.65	4.9	CLT1022100A
2.6	0.50	15	0.062	50	6	0.33	5.9	CLT1526050A
2.6	0.75	15	0.093	50	6	0.49	5.9	CLT1526075A
2.6	1.00	15	0.125	50	6	0.65	5.9	CLT1526100A
2.8	1.25	22	0.156	50	6	0.81	6.1	CLT2228125A

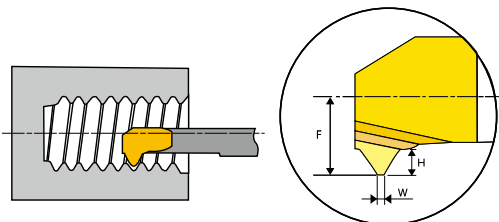
鎢鋼內孔牙刀- 螺距泛用型- ISO 60°

CARBIDE INTERNAL MULTIPURPOS THREAD- ISO Metric 60°

· CLT000000000000A



Tolerance class(公差)
6g / 6H



細部放大圖
Detail A

NEW



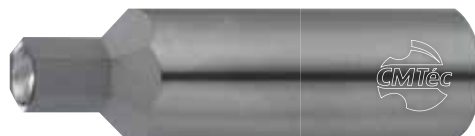
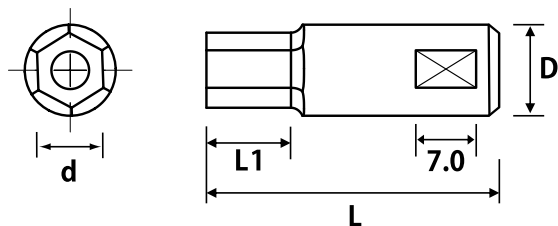
59

F	螺距 Pitch	L2	W	L	D	H	最小車徑 Min. Bore Dia.	鍍膜訂購編號 Coated Order No.
1.0	0.45 ~ 0.70	8	0.056	39	3	0.45	2.6	CLT0810045070A
1.4	0.70 ~ 1.00	15	0.087	39	3	0.65	3.2	CLT1514070100A
1.8	0.80 ~ 1.00	15	0.100	50	4	0.65	4.1	CLT1518080100A
2.3	1.00 ~ 1.25	15	0.125	50	5	0.81	5.1	CLT1523100125A
2.6	1.00 ~ 1.50	15	0.125	50	6	0.97	6.0	CLT1526100150A

鎢鋼沖頭- 六角型

CARBIDE PUNCH- HEXAGON

· CLPH 00000



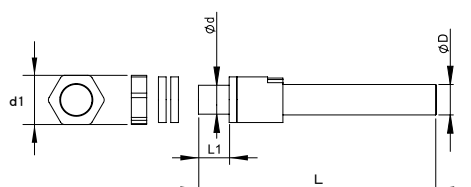
※特殊尺寸依需求生產。
Special Size is on request.

直徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
1.5	2.5	28	8	CLPH01508
2.0	3.0	28	8	CLPH02008
2.5	4.0	28	8	CLPH02508
3.0	4.5	28	8	CLPH03008
4.0	6.0	28	8	CLPH04008
5.0	6.0	28	8	CLPH05008
6.0	6.0	28	8	CLPH06008

前方鎖固式鋸片柄(軸心)- 前置螺帽為右牙

MILLING ARBORS for SLITTING SAWS with front clamping (right hand thread)

· SAFR 00000



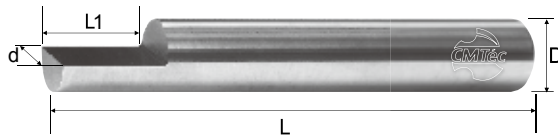
※ 材質是合金鋼
It is made by alloy steels.

軸徑 d	大徑 d1	軸徑長 L1	全長 L	柄徑 D	訂購編號 Order No.
5.0	10	5.2	50	5	SAFR05005
5.0	10	5.2	50	6	SAFR05006
5.0	13	7.5	60	7	SAFR05007
6.0	13	7.5	60	7	SAFR06007
6.0	10	5.2	50	6	SAFR06006
6.0	16	5.2	60	10	SAFR06010
6.0	13	7.5	90	10	SAFR06010090L
8.0	13	7.5	60	10	SAFR08010
12.7	20	14.0	70	10	SAFR12710

鎢鋼雕刻剖半圓棒- 短刃型

CARBIDE ENGRAVING BLANKS PRECISION GROUND- Short Flute

· **CLEBS0000**

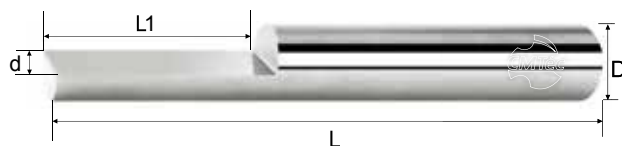


刃徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
2.0	3.0	40	2.0	CLEBS0200
2.5	4.0	40	2.5	CLEBS0250
3.0	5.0	40	3.0	CLEBS0300
3.5	6.0	50	3.5	CLEBS0350
4.0	6.0	50	4.0	CLEBS0400
4.5	8.0	50	4.5	CLEBS0450
5.0	8.0	50	5.0	CLEBS0500
6.0	9.0	50	6.0	CLEBS0600
7.0	10.0	50	7.0	CLEBS0700
8.0	12.0	60	8.0	CLEBS0800
10.0	15.0	75	10.0	CLEBS1000
12.0	18.0	75	12.0	CLEBS1200

鎢鋼雕刻剖半圓棒- 長刃型

CARBIDE ENGRAVING BLANKS PRECISION GROUND- Long Flute

· **CLEBL0000**



刃徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
2.0	6.0	40	2	CLEBL0200
3.0	9.0	40	3	CLEBL0300
4.0	12.0	50	4	CLEBL0400
5.0	15.0	50	5	CLEBL0500
6.0	18.0	50	6	CLEBL0600
7.0	21.0	50	7	CLEBL0700
8.0	24.0	60	8	CLEBL0800
10.0	30.0	75	10	CLEBL1000
12.0	36.0	75	12	CLEBL1200

鎢鋼扁型定位鑽- 右刃- 2刃

CARBIDE FLAT POINT SET- Right Hand Cutting- 2F

· CLPR00000



※加工範圍：軟材質
Application: Soft Material

刃徑 d	尖端夾角 ε°	全長 L	柄徑 D	訂購編號 Order No.
3	60°	50	3	CLPR03060
4	60°	50	4	CLPR04060
5	60°	50	5	CLPR05060
6	60°	50	6	CLPR06060
3	90°	50	3	CLPR03090
4	90°	50	4	CLPR04090
5	90°	50	5	CLPR05090
6	90°	50	6	CLPR06090
3	120°	50	3	CLPR030C0
4	120°	50	4	CLPR040C0
5	120°	50	5	CLPR050C0
6	120°	50	6	CLPR060C0

鎢鋼扁型定位鑽- 左刃- 2刃

CARBIDE FLAT POINT SET- Left Hand Cutting- 2F

· CLPL00000



※加工範圍：軟材質
Application: Soft Material

刃徑 d	尖端夾角 ε°	全長 L	柄徑 D	訂購編號 Order No.
6	60°	25	6	CLPL06060
6	80°	25	6	CLPL06080
6	90°	25	6	CLPL06090
6	100°	25	6	CLPL060A0
6	120°	25	6	CLPL060C0

車床刀具系列

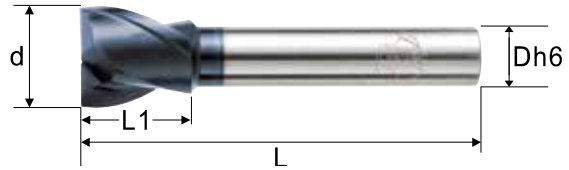
Carbide Tools for Lathe



S220 鎢鋼平銑刀- 小柄短刃型- 2刃

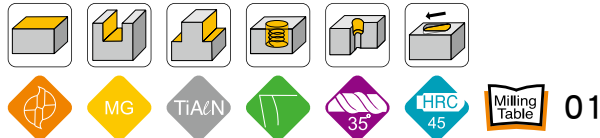
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 2F with small shank For Lathe

· CLES20000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	2	40	6	2	CLES20200	CLES20200A
3.0	3	40	6	2	CLES20300	CLES20300A
4.0	4	40	6	2	CLES20400	CLES20400A
5.0	5	40	6	2	CLES20500	CLES20500A
6.0	6	40	6	2	CLES20600	CLES20600A
7.0	7	40	6	2	CLES20700	CLES20700A
8.0	8	40	6	2	CLES20800	CLES20800A
9.0	9	40	6	2	CLES20900	CLES20900A
10.0	10	40	6	2	CLES21000	CLES21000A
12.0	12	40	10	2	CLES21200	CLES21200A

S220 鎢鋼平銑刀- 小柄短刃型- 3刃

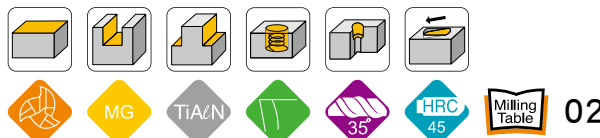
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 3F with small shank For Lathe

· CLES30000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	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	○

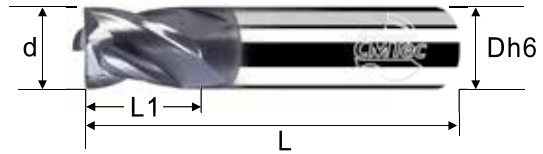


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
2.0	2	40	6	3	CLES30200	CLES30200A
3.0	3	40	6	3	CLES30300	CLES30300A
4.0	4	40	6	3	CLES30400	CLES30400A
5.0	5	40	6	3	CLES30500	CLES30500A
6.0	6	40	6	3	CLES30600	CLES30600A
7.0	7	40	6	3	CLES30700	CLES30700A
8.0	8	40	6	3	CLES30800	CLES30800A
9.0	9	40	6	3	CLES30900	CLES30900A
10.0	10	40	6	3	CLES31000	CLES31000A
12.0	12	40	10	3	CLES31200	CLES31200A

S220 鎢鋼平銑刀- 小柄短刃型- 4刃

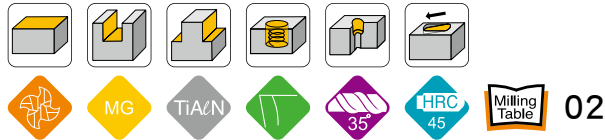
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 4F with small shank For Lathe

· CLES40000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.02
$3 \leq \phi \leq 10$	-0.01 ~ -0.03
$10 < \phi$	-0.01 ~ -0.04

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>

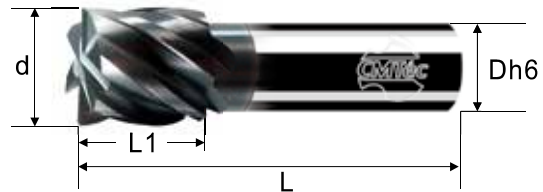


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
4.0	4	40	6	4	CLES40400	CLES40400A
5.0	5	40	6	4	CLES40500	CLES40500A
6.0	6	40	6	4	CLES40600	CLES40600A
7.0	7	40	6	4	CLES40700	CLES40700A
8.0	8	40	6	4	CLES40800	CLES40800A
8.0	8	40	8	4	CLES4080008	CLES4080008A
10.0	10	40	6	4	CLES41000	CLES41000A
10.0	10	40	10	4	CLES4100010	CLES4100010A
12.0	12	40	10	4	CLES41200	CLES41200A
16.0	16	40	10	4	CLES41600	CLES41600A

S220 鎢鋼平銑刀- 小柄短刃型- 6刃

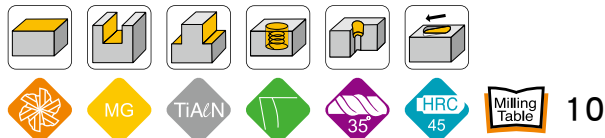
S220 MICRO GRAIN CARBIDE END MILLS- Square Type- 6F with small shank For Lathe

· CLES60000A



d(刃徑)	Tolerance(公差)
$\phi < 3$	0 ~ -0.03
$3 \leq \phi \leq 10$	-0.01 ~ -0.04
$10 < \phi$	-0.01 ~ -0.05

超精銑 Bright Finishing	<input type="radio"/>
精銑 Finishing	<input checked="" type="radio"/>
中銑 Semi Finishing	<input type="radio"/>
粗銑 Roughing	<input type="checkbox"/>

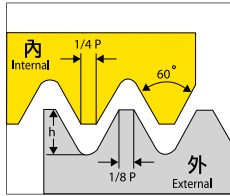


刃徑 d	刃長 L1	全長 L	柄徑 D	刃數 F	白刀訂購編號 Uncoated Order No.	鍍膜訂購編號 Coated Order No.
6.0	6	40	6	6	CLES60600	CLES60600A
7.0	7	40	6	6	CLES60700	CLES60700A
8.0	8	40	6	6	CLES60800	CLES60800A
9.0	9	40	6	6	CLES60900	CLES60900A
10.0	10	40	6	6	CLES61000	CLES61000A
12.0	12	40	10	6	CLES61200	CLES61200A
16.0	16	40	10	6	CLES61600	CLES61600A

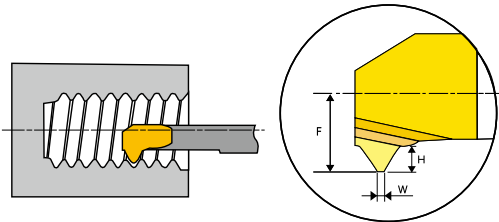
鎢鋼內孔牙刀- 螺距固定型- ISO 60°

CARBIDE INTERNAL THREAD- ISO Metric 60°

· CLT0000000000A



Tolerance class(公差)
6g / 6H



細部放大圖
Detail A



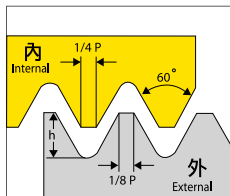
59

F	螺距 Pitch	L2	W	L	D	H	最小車徑 Min. Bore Dia.	鍍膜訂購編號 Coated Order No.
1.4	0.50	10	0.062	39	3	0.33	3.2	CLT1014050A
1.4	0.70	10	0.087	39	3	0.46	3.2	CLT1014070A
1.4	0.75	10	0.093	39	3	0.49	3.2	CLT1014075A
1.8	0.50	10	0.062	50	4	0.33	4.1	CLT1018050A
1.8	0.75	10	0.093	50	4	0.49	4.1	CLT1018075A
1.8	0.80	10	0.100	50	4	0.52	4.1	CLT1018080A
2.2	1.00	10	0.125	50	5	0.65	4.9	CLT1022100A
2.6	0.50	15	0.062	50	6	0.33	5.9	CLT1526050A
2.6	0.75	15	0.093	50	6	0.49	5.9	CLT1526075A
2.6	1.00	15	0.125	50	6	0.65	5.9	CLT1526100A
2.8	1.25	22	0.156	50	6	0.81	6.1	CLT2228125A

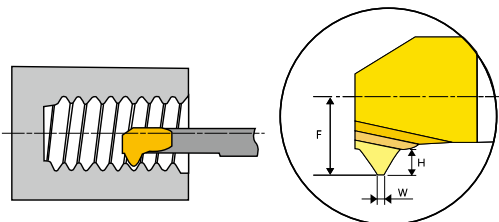
鎢鋼內孔牙刀- 螺距泛用型- ISO 60°

CARBIDE INTERNAL MULTIPURPOS THREAD- ISO Metric 60°

· CLT000000000000A



Tolerance class(公差)
6g / 6H



細部放大圖
Detail A

NEW



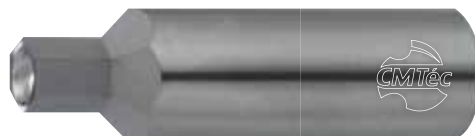
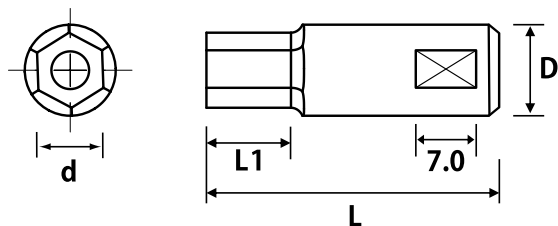
59

F	螺距 Pitch	L2	W	L	D	H	最小車徑 Min. Bore Dia.	鍍膜訂購編號 Coated Order No.
1.0	0.45 ~ 0.70	8	0.056	39	3	0.45	2.6	CLT0810045070A
1.4	0.70 ~ 1.00	15	0.087	39	3	0.65	3.2	CLT1514070100A
1.8	0.80 ~ 1.00	15	0.100	50	4	0.65	4.1	CLT1518080100A
2.3	1.00 ~ 1.25	15	0.125	50	5	0.81	5.1	CLT1523100125A
2.6	1.00 ~ 1.50	15	0.125	50	6	0.97	6.0	CLT1526100150A

鎢鋼沖頭- 六角型

CARBIDE PUNCH- HEXAGON

· CLPH 00000



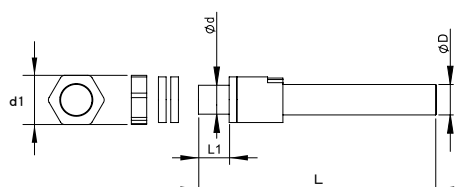
※特殊尺寸依需求生產。
Special Size is on request.

直徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
1.5	2.5	28	8	CLPH01508
2.0	3.0	28	8	CLPH02008
2.5	4.0	28	8	CLPH02508
3.0	4.5	28	8	CLPH03008
4.0	6.0	28	8	CLPH04008
5.0	6.0	28	8	CLPH05008
6.0	6.0	28	8	CLPH06008

前方鎖固式鋸片柄(軸心)- 前置螺帽為右牙

MILLING ARBORS for SLITTING SAWS with front clamping (right hand thread)

· SAFR 00000



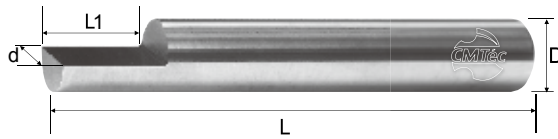
※ 材質是合金鋼
It is made by alloy steels.

軸徑 d	大徑 d1	軸徑長 L1	全長 L	柄徑 D	訂購編號 Order No.
5.0	10	5.2	50	5	SAFR05005
5.0	10	5.2	50	6	SAFR05006
5.0	13	7.5	60	7	SAFR05007
6.0	13	7.5	60	7	SAFR06007
6.0	10	5.2	50	6	SAFR06006
6.0	16	5.2	60	10	SAFR06010
6.0	13	7.5	90	10	SAFR06010090L
8.0	13	7.5	60	10	SAFR08010
12.7	20	14.0	70	10	SAFR12710

鎢鋼雕刻剖半圓棒- 短刃型

CARBIDE ENGRAVING BLANKS PRECISION GROUND- Short Flute

· **CLEBS0000**

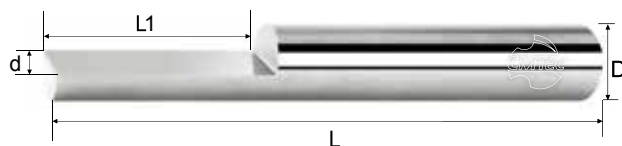


刃徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
2.0	3.0	40	2.0	CLEBS0200
2.5	4.0	40	2.5	CLEBS0250
3.0	5.0	40	3.0	CLEBS0300
3.5	6.0	50	3.5	CLEBS0350
4.0	6.0	50	4.0	CLEBS0400
4.5	8.0	50	4.5	CLEBS0450
5.0	8.0	50	5.0	CLEBS0500
6.0	9.0	50	6.0	CLEBS0600
7.0	10.0	50	7.0	CLEBS0700
8.0	12.0	60	8.0	CLEBS0800
10.0	15.0	75	10.0	CLEBS1000
12.0	18.0	75	12.0	CLEBS1200

鎢鋼雕刻剖半圓棒- 長刃型

CARBIDE ENGRAVING BLANKS PRECISION GROUND- Long Flute

· **CLEBL0000**



刃徑 d	刃長 L1	全長 L	柄徑 D	訂購編號 Order No.
2.0	6.0	40	2	CLEBL0200
3.0	9.0	40	3	CLEBL0300
4.0	12.0	50	4	CLEBL0400
5.0	15.0	50	5	CLEBL0500
6.0	18.0	50	6	CLEBL0600
7.0	21.0	50	7	CLEBL0700
8.0	24.0	60	8	CLEBL0800
10.0	30.0	75	10	CLEBL1000
12.0	36.0	75	12	CLEBL1200

鎢鋼扁型定位鑽- 右刃- 2刃

CARBIDE FLAT POINT SET- Right Hand Cutting- 2F

· CLPR00000



※加工範圍：軟材質
Application: Soft Material

刃徑 d	尖端夾角 ε°	全長 L	柄徑 D	訂購編號 Order No.
3	60°	50	3	CLPR03060
4	60°	50	4	CLPR04060
5	60°	50	5	CLPR05060
6	60°	50	6	CLPR06060
3	90°	50	3	CLPR03090
4	90°	50	4	CLPR04090
5	90°	50	5	CLPR05090
6	90°	50	6	CLPR06090
3	120°	50	3	CLPR030C0
4	120°	50	4	CLPR040C0
5	120°	50	5	CLPR050C0
6	120°	50	6	CLPR060C0

鎢鋼扁型定位鑽- 左刃- 2刃

CARBIDE FLAT POINT SET- Left Hand Cutting- 2F

· CLPL00000



※加工範圍：軟材質
Application: Soft Material

刃徑 d	尖端夾角 ε°	全長 L	柄徑 D	訂購編號 Order No.
6	60°	25	6	CLPL06060
6	80°	25	6	CLPL06080
6	90°	25	6	CLPL06090
6	100°	25	6	CLPL060A0
6	120°	25	6	CLPL060C0

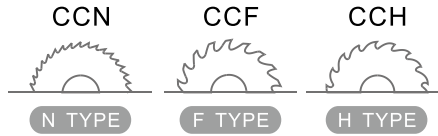
鋸片系列

Slitting Saws Series



鎢鋼小徑鋸片- 粗齒數(36T)/中齒數(56T)

SOLID CARBIDE SLITTING SAWS- Small Diameter- Large Teeth(36T)/Middle Teeth(56T)



※CCH：鉤齒型鋸片→依需求生產
 ※CCH Type is on request.

Milling Table 62

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
20	0.15	5	36	CCN-02000-0015-036-0500	CCF-02000-0015-036-0500
20	0.20	5	36	CCN-02000-0020-036-0500	CCF-02000-0020-036-0500
20	0.25	5	36	CCN-02000-0025-036-0500	CCF-02000-0025-036-0500
20	0.30	5	36	CCN-02000-0030-036-0500	CCF-02000-0030-036-0500
20	0.40	5	36	CCN-02000-0040-036-0500	CCF-02000-0040-036-0500
20	0.50	5	36	CCN-02000-0050-036-0500	CCF-02000-0050-036-0500
20	0.60	5	36	CCN-02000-0060-036-0500	CCF-02000-0060-036-0500
20	0.70	5	36	CCN-02000-0070-036-0500	CCF-02000-0070-036-0500
20	0.80	5	36	CCN-02000-0080-036-0500	CCF-02000-0080-036-0500
20	0.90	5	36	CCN-02000-0090-036-0500	CCF-02000-0090-036-0500
20	1.00	5	36	CCN-02000-0100-036-0500	CCF-02000-0100-036-0500
20	1.20	5	36	CCN-02000-0120-036-0500	CCF-02000-0120-036-0500
20	1.50	5	36	CCN-02000-0150-036-0500	CCF-02000-0150-036-0500

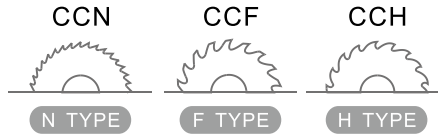
外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
20	0.15	5	56	CCN-02000-0015-056-0500	CCF-02000-0015-056-0500
20	0.20	5	56	CCN-02000-0020-056-0500	CCF-02000-0020-056-0500
20	0.25	5	56	CCN-02000-0025-056-0500	CCF-02000-0025-056-0500
20	0.30	5	56	CCN-02000-0030-056-0500	CCF-02000-0030-056-0500
20	0.40	5	56	CCN-02000-0040-056-0500	CCF-02000-0040-056-0500
20	0.50	5	56	CCN-02000-0050-056-0500	CCF-02000-0050-056-0500
20	0.60	5	56	CCN-02000-0060-056-0500	CCF-02000-0060-056-0500
20	0.70	5	56	CCN-02000-0070-056-0500	CCF-02000-0070-056-0500
20	0.80	5	56	CCN-02000-0080-056-0500	CCF-02000-0080-056-0500
20	0.90	5	56	CCN-02000-0090-056-0500	CCF-02000-0090-056-0500
20	1.00	5	56	CCN-02000-0100-056-0500	CCF-02000-0100-056-0500
20	1.20	5	56	CCN-02000-0120-056-0500	CCF-02000-0120-056-0500
20	1.50	5	56	CCN-02000-0150-056-0500	CCF-02000-0150-056-0500

鎢鋼小徑鋸片- 粗齒數(36T)/中齒數(56T)

SOLID CARBIDE SLITTING SAWS- Small Diameter- Large Teeth(36T)/Middle Teeth(56T)



※CCH：鉤齒型鋸片→依需求生產
 ※CCH Type is on request.



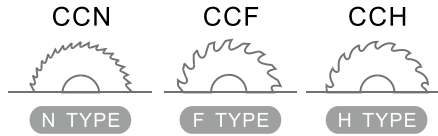
Milling Table 62

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
20	0.15	6	36	CCN-02000-0015-036-0600	CCF-02000-0015-036-0600
20	0.20	6	36	CCN-02000-0020-036-0600	CCF-02000-0020-036-0600
20	0.25	6	36	CCN-02000-0025-036-0600	CCF-02000-0025-036-0600
20	0.30	6	36	CCN-02000-0030-036-0600	CCF-02000-0030-036-0600
20	0.40	6	36	CCN-02000-0040-036-0600	CCF-02000-0040-036-0600
20	0.50	6	36	CCN-02000-0050-036-0600	CCF-02000-0050-036-0600
20	0.60	6	36	CCN-02000-0060-036-0600	CCF-02000-0060-036-0600
20	0.70	6	36	CCN-02000-0070-036-0600	CCF-02000-0070-036-0600
20	0.80	6	36	CCN-02000-0080-036-0600	CCF-02000-0080-036-0600
20	0.90	6	36	CCN-02000-0090-036-0600	CCF-02000-0090-036-0600
20	1.00	6	36	CCN-02000-0100-036-0600	CCF-02000-0100-036-0600
20	1.20	6	36	CCN-02000-0120-036-0600	CCF-02000-0120-036-0600
20	1.50	6	36	CCN-02000-0150-036-0600	CCF-02000-0150-036-0600

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
20	0.15	6	56	CCN-02000-0015-056-0600	CCF-02000-0015-056-0600
20	0.20	6	56	CCN-02000-0020-056-0600	CCF-02000-0020-056-0600
20	0.25	6	56	CCN-02000-0025-056-0600	CCF-02000-0025-056-0600
20	0.30	6	56	CCN-02000-0030-056-0600	CCF-02000-0030-056-0600
20	0.40	6	56	CCN-02000-0040-056-0600	CCF-02000-0040-056-0600
20	0.50	6	56	CCN-02000-0050-056-0600	CCF-02000-0050-056-0600
20	0.60	6	56	CCN-02000-0060-056-0600	CCF-02000-0060-056-0600
20	0.70	6	56	CCN-02000-0070-056-0600	CCF-02000-0070-056-0600
20	0.80	6	56	CCN-02000-0080-056-0600	CCF-02000-0080-056-0600
20	0.90	6	56	CCN-02000-0090-056-0600	CCF-02000-0090-056-0600
20	1.00	6	56	CCN-02000-0100-056-0600	CCF-02000-0100-056-0600
20	1.20	6	56	CCN-02000-0120-056-0600	CCF-02000-0120-056-0600
20	1.50	6	56	CCN-02000-0150-056-0600	CCF-02000-0150-056-0600

鎢鋼小徑鋸片- 中齒數(40/72T)

SOLID CARBIDE SLITTING SAWS- Small Diameter- Middle Teeth(40/72T)



※CCH：鉤齒型鋸片→依需求生產
 ※CCH Type is on request.

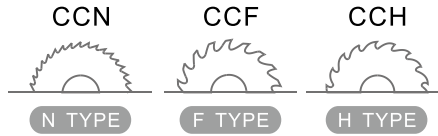
Milling Table 62

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
25	0.15	6	40	CCN-02500-0015-040-0600	CCF-02500-0015-040-0600
25	0.20	6	40	CCN-02500-0020-040-0600	CCF-02500-0020-040-0600
25	0.25	6	40	CCN-02500-0025-040-0600	CCF-02500-0025-040-0600
25	0.30	6	40	CCN-02500-0030-040-0600	CCF-02500-0030-040-0600
25	0.40	6	40	CCN-02500-0040-040-0600	CCF-02500-0040-040-0600
25	0.50	6	40	CCN-02500-0050-040-0600	CCF-02500-0050-040-0600
25	0.60	6	40	CCN-02500-0060-040-0600	CCF-02500-0060-040-0600
25	0.70	6	40	CCN-02500-0070-040-0600	CCF-02500-0070-040-0600
25	0.80	6	40	CCN-02500-0080-040-0600	CCF-02500-0080-040-0600
25	0.90	6	40	CCN-02500-0090-040-0600	CCF-02500-0090-040-0600
25	1.00	6	40	CCN-02500-0100-040-0600	CCF-02500-0100-040-0600
25	1.20	6	40	CCN-02500-0120-040-0600	CCF-02500-0120-040-0600
25	1.50	6	40	CCN-02500-0150-040-0600	CCF-02500-0150-040-0600

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
25	0.15	6	72	CCN-02500-0015-072-0600	CCF-02500-0015-072-0600
25	0.20	6	72	CCN-02500-0020-072-0600	CCF-02500-0020-072-0600
25	0.25	6	72	CCN-02500-0025-072-0600	CCF-02500-0025-072-0600
25	0.30	6	72	CCN-02500-0030-072-0600	CCF-02500-0030-072-0600
25	0.40	6	72	CCN-02500-0040-072-0600	CCF-02500-0040-072-0600
25	0.50	6	72	CCN-02500-0050-072-0600	CCF-02500-0050-072-0600
25	0.60	6	72	CCN-02500-0060-072-0600	CCF-02500-0060-072-0600
25	0.70	6	72	CCN-02500-0070-072-0600	CCF-02500-0070-072-0600
25	0.80	6	72	CCN-02500-0080-072-0600	CCF-02500-0080-072-0600
25	0.90	6	72	CCN-02500-0090-072-0600	CCF-02500-0090-072-0600
25	1.00	6	72	CCN-02500-0100-072-0600	CCF-02500-0100-072-0600
25	1.20	6	72	CCN-02500-0120-072-0600	CCF-02500-0120-072-0600
25	1.50	6	72	CCN-02500-0150-072-0600	CCF-02500-0150-072-0600

鎢鋼鋸片- 中齒數(56/72T)

SOLID CARBIDE SLITTING SAWS- Middle Teeth(56/72T)



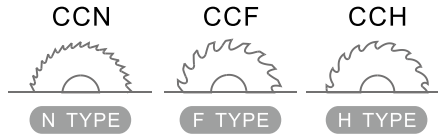
※CCH：鈎齒型鋸片→依需求生產
 ※CCH Type is on request.

Milling Table 62

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
70#28	0.32	25.4	56	CCN-07000-0032-056-2540	CCF-07000-0032-056-2540
70#27	0.36	25.4	56	CCN-07000-0036-056-2540	CCF-07000-0036-056-2540
70#26	0.40	25.4	56	CCN-07000-0040-056-2540	CCF-07000-0040-056-2540
70#25	0.45	25.4	56	CCN-07000-0045-056-2540	CCF-07000-0045-056-2540
70#24	0.51	25.4	56	CCN-07000-0051-056-2540	CCF-07000-0051-056-2540
70#23	0.57	25.4	56	CCN-07000-0057-056-2540	CCF-07000-0057-056-2540
70#22	0.64	25.4	56	CCN-07000-0064-056-2540	CCF-07000-0064-056-2540
70#21	0.72	25.4	56	CCN-07000-0072-056-2540	CCF-07000-0072-056-2540
70#20	0.81	25.4	56	CCN-07000-0081-056-2540	CCF-07000-0081-056-2540
70#19	0.91	25.4	56	CCN-07000-0091-056-2540	CCF-07000-0091-056-2540
70#18	1.02	25.4	56	CCN-07000-0102-056-2540	CCF-07000-0102-056-2540
70#17	1.15	25.4	56	CCN-07000-0115-056-2540	CCF-07000-0115-056-2540
70#16	1.29	25.4	56	CCN-07000-0129-056-2540	CCF-07000-0129-056-2540
70#15	1.45	25.4	56	CCN-07000-0145-056-2540	CCF-07000-0145-056-2540
70#14	1.63	25.4	56	CCN-07000-0163-056-2540	CCF-07000-0163-056-2540
70#13	1.83	25.4	56	CCN-07000-0183-056-2540	CCF-07000-0183-056-2540
70#12	2.05	25.4	56	CCN-07000-0205-056-2540	CCF-07000-0205-056-2540
70#11	2.30	25.4	56	CCN-07000-0230-056-2540	CCF-07000-0230-056-2540
70#10	2.59	25.4	56	CCN-07000-0259-056-2540	CCF-07000-0259-056-2540
70#9	2.91	25.4	56	CCN-07000-0291-056-2540	CCF-07000-0291-056-2540
70#8	3.26	25.4	56	CCN-07000-0326-056-2540	CCF-07000-0326-056-2540
70#7	3.67	25.4	56	CCN-07000-0367-056-2540	CCF-07000-0367-056-2540
70#6	4.12	25.4	56	CCN-07000-0412-056-2540	CCF-07000-0412-056-2540
70#5	4.62	25.4	56	CCN-07000-0462-056-2540	CCF-07000-0462-056-2540
70#4	5.19	25.4	56	CCN-07000-0519-056-2540	CCF-07000-0519-056-2540
70#30	0.25	25.4	72	CCN-07000-0025-072-2540	CCF-07000-0025-072-2540
70#29	0.29	25.4	72	CCN-07000-0029-072-2540	CCF-07000-0029-072-2540
70#28	0.32	25.4	72	CCN-07000-0032-072-2540	CCF-07000-0032-072-2540
70#27	0.36	25.4	72	CCN-07000-0036-072-2540	CCF-07000-0036-072-2540
70#26	0.40	25.4	72	CCN-07000-0040-072-2540	CCF-07000-0040-072-2540
70#25	0.45	25.4	72	CCN-07000-0045-072-2540	CCF-07000-0045-072-2540
70#24	0.51	25.4	72	CCN-07000-0051-072-2540	CCF-07000-0051-072-2540
70#23	0.57	25.4	72	CCN-07000-0057-072-2540	CCF-07000-0057-072-2540
70#22	0.64	25.4	72	CCN-07000-0064-072-2540	CCF-07000-0064-072-2540
70#21	0.72	25.4	72	CCN-07000-0072-072-2540	CCF-07000-0072-072-2540
70#20	0.81	25.4	72	CCN-07000-0081-072-2540	CCF-07000-0081-072-2540
70#19	0.91	25.4	72	CCN-07000-0091-072-2540	CCF-07000-0091-072-2540
70#18	1.02	25.4	72	CCN-07000-0102-072-2540	CCF-07000-0102-072-2540
70#17	1.15	25.4	72	CCN-07000-0115-072-2540	CCF-07000-0115-072-2540
70#16	1.29	25.4	72	CCN-07000-0129-072-2540	CCF-07000-0129-072-2540
70#15	1.45	25.4	72	CCN-07000-0145-072-2540	CCF-07000-0145-072-2540
70#14	1.63	25.4	72	CCN-07000-0163-072-2540	CCF-07000-0163-072-2540
70#13	1.83	25.4	72	CCN-07000-0183-072-2540	CCF-07000-0183-072-2540
70#12	2.05	25.4	72	CCN-07000-0205-072-2540	CCF-07000-0205-072-2540
70#11	2.30	25.4	72	CCN-07000-0230-072-2540	CCF-07000-0230-072-2540
70#10	2.59	25.4	72	CCN-07000-0259-072-2540	CCF-07000-0259-072-2540
70#9	2.91	25.4	72	CCN-07000-0291-072-2540	CCF-07000-0291-072-2540
70#8	3.26	25.4	72	CCN-07000-0326-072-2540	CCF-07000-0326-072-2540

鎢鋼鋸片- 中齒數(56/72T)

SOLID CARBIDE SLITTING SAWS- Middle Teeth(56/72T)



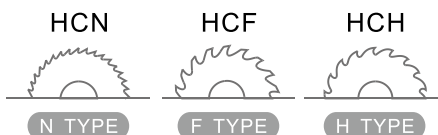
※CCH：鉤齒型鋸片→依需求生產
 ※CCH Type is on request.

Milling Table 62

外徑 D	厚度 H	內徑 d	齒數 T	CCN 訂購編號 CCN Order No.	CCF 訂購編號 CCF Order No.
75	0.3	25.4	72	CCN-07500-0030-072-2540	CCF-07500-0030-072-2540
75	0.4	25.4	72	CCN-07500-0040-072-2540	CCF-07500-0040-072-2540
75	0.5	25.4	72	CCN-07500-0050-072-2540	CCF-07500-0050-072-2540
75	0.6	25.4	72	CCN-07500-0060-072-2540	CCF-07500-0060-072-2540
75	0.7	25.4	72	CCN-07500-0070-072-2540	CCF-07500-0070-072-2540
75	0.8	25.4	72	CCN-07500-0080-072-2540	CCF-07500-0080-072-2540
75	0.9	25.4	72	CCN-07500-0090-072-2540	CCF-07500-0090-072-2540
75	1.0	25.4	72	CCN-07500-0100-072-2540	CCF-07500-0100-072-2540
75	1.1	25.4	56	CCN-07500-0110-056-2540	CCF-07500-0110-056-2540
75	1.2	25.4	56	CCN-07500-0120-056-2540	CCF-07500-0120-056-2540
75	1.3	25.4	56	CCN-07500-0130-056-2540	CCF-07500-0130-056-2540
75	1.4	25.4	56	CCN-07500-0140-056-2540	CCF-07500-0140-056-2540
75	1.5	25.4	56	CCN-07500-0150-056-2540	CCF-07500-0150-056-2540
75	1.6	25.4	56	CCN-07500-0160-056-2540	CCF-07500-0160-056-2540
75	1.7	25.4	56	CCN-07500-0170-056-2540	CCF-07500-0170-056-2540
75	1.8	25.4	56	CCN-07500-0180-056-2540	CCF-07500-0180-056-2540
75	1.9	25.4	56	CCN-07500-0190-056-2540	CCF-07500-0190-056-2540
75	2.0	25.4	56	CCN-07500-0200-056-2540	CCF-07500-0200-056-2540
75	2.5	25.4	56	CCN-07500-0250-056-2540	CCF-07500-0250-056-2540
75	3.0	25.4	56	CCN-07500-0300-056-2540	CCF-07500-0300-056-2540
100	0.5	25.4	72	CCN-10000-0050-072-2540	CCF-10000-0050-072-2540
100	0.6	25.4	72	CCN-10000-0060-072-2540	CCF-10000-0060-072-2540
100	0.7	25.4	72	CCN-10000-0070-072-2540	CCF-10000-0070-072-2540
100	0.8	25.4	72	CCN-10000-0080-072-2540	CCF-10000-0080-072-2540
100	0.9	25.4	72	CCN-10000-0090-072-2540	CCF-10000-0090-072-2540
100	1.0	25.4	72	CCN-10000-0100-072-2540	CCF-10000-0100-072-2540
100	1.1	25.4	56	CCN-10000-0110-056-2540	CCF-10000-0110-056-2540
100	1.2	25.4	56	CCN-10000-0120-056-2540	CCF-10000-0120-056-2540
100	1.3	25.4	56	CCN-10000-0130-056-2540	CCF-10000-0130-056-2540
100	1.4	25.4	56	CCN-10000-0140-056-2540	CCF-10000-0140-056-2540
100	1.5	25.4	56	CCN-10000-0150-056-2540	CCF-10000-0150-056-2540
100	1.6	25.4	56	CCN-10000-0160-056-2540	CCF-10000-0160-056-2540
100	1.7	25.4	56	CCN-10000-0170-056-2540	CCF-10000-0170-056-2540
100	1.8	25.4	56	CCN-10000-0180-056-2540	CCF-10000-0180-056-2540
100	1.9	25.4	56	CCN-10000-0190-056-2540	CCF-10000-0190-056-2540
100	2.0	25.4	56	CCN-10000-0200-056-2540	CCF-10000-0200-056-2540
100	2.5	25.4	56	CCN-10000-0250-056-2540	CCF-10000-0250-056-2540
100	3.0	25.4	56	CCN-10000-0300-056-2540	CCF-10000-0300-056-2540

高速鋼鋸片- 中齒數(56T/72T)

HIGH SPEED STEEL SLITTING SAWS- Middle Teeth(56/72T)



※HCH：鉤齒型鋸片→依需求生產！
 ※HCH Type is dependent on demand.

Milling Table 63

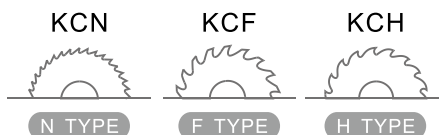
外徑 D	厚度 H	內徑 d	齒數 T	HCN 訂購編號 HCN Order No.	HCF 訂購編號 HCF Order No.
70#28	0.32	25.4	56	HCN-07000-0032-056-2540	HCF-07000-0032-056-2540
70#27	0.36	25.4	56	HCN-07000-0036-056-2540	HCF-07000-0036-056-2540
70#26	0.40	25.4	56	HCN-07000-0040-056-2540	HCF-07000-0040-056-2540
70#25	0.45	25.4	56	HCN-07000-0045-056-2540	HCF-07000-0045-056-2540
70#24	0.51	25.4	56	HCN-07000-0051-056-2540	HCF-07000-0051-056-2540
70#23	0.57	25.4	56	HCN-07000-0057-056-2540	HCF-07000-0057-056-2540
70#22	0.64	25.4	56	HCN-07000-0064-056-2540	HCF-07000-0064-056-2540
70#21	0.72	25.4	56	HCN-07000-0072-056-2540	HCF-07000-0072-056-2540
70#20	0.81	25.4	56	HCN-07000-0081-056-2540	HCF-07000-0081-056-2540
70#19	0.91	25.4	56	HCN-07000-0091-056-2540	HCF-07000-0091-056-2540
70#18	1.02	25.4	56	HCN-07000-0102-056-2540	HCF-07000-0102-056-2540
70#17	1.15	25.4	56	HCN-07000-0115-056-2540	HCF-07000-0115-056-2540
70#16	1.29	25.4	56	HCN-07000-0129-056-2540	HCF-07000-0129-056-2540
70#15	1.45	25.4	56	HCN-07000-0145-056-2540	HCF-07000-0145-056-2540
70#14	1.63	25.4	56	HCN-07000-0163-056-2540	HCF-07000-0163-056-2540
70#13	1.83	25.4	56	HCN-07000-0183-056-2540	HCF-07000-0183-056-2540
70#12	2.05	25.4	56	HCN-07000-0205-056-2540	HCF-07000-0205-056-2540
70#11	2.30	25.4	56	HCN-07000-0230-056-2540	HCF-07000-0230-056-2540
70#10	2.59	25.4	56	HCN-07000-0259-056-2540	HCF-07000-0259-056-2540
70#9	2.91	25.4	56	HCN-07000-0291-056-2540	HCF-07000-0291-056-2540
70#8	3.26	25.4	56	HCN-07000-0326-056-2540	HCF-07000-0326-056-2540
70#7	3.67	25.4	56	HCN-07000-0367-056-2540	HCF-07000-0367-056-2540
70#6	4.12	25.4	56	HCN-07000-0412-056-2540	HCF-07000-0412-056-2540
70#5	4.62	25.4	56	HCN-07000-0462-056-2540	HCF-07000-0462-056-2540
70#4	5.19	25.4	56	HCN-07000-0519-056-2540	HCF-07000-0519-056-2540
外徑 D	厚度 H	內徑 d	齒數 T	HCN 訂購編號 HCN Order No.	HCF 訂購編號 HCF Order No.
70#30	0.25	25.4	72	HCN-07000-0025-072-2540	HCF-07000-0025-072-2540
70#29	0.29	25.4	72	HCN-07000-0029-072-2540	HCF-07000-0029-072-2540
70#28	0.32	25.4	72	HCN-07000-0032-072-2540	HCF-07000-0032-072-2540
70#27	0.36	25.4	72	HCN-07000-0036-072-2540	HCF-07000-0036-072-2540
70#26	0.40	25.4	72	HCN-07000-0040-072-2540	HCF-07000-0040-072-2540
70#25	0.45	25.4	72	HCN-07000-0045-072-2540	HCF-07000-0045-072-2540
70#24	0.51	25.4	72	HCN-07000-0051-072-2540	HCF-07000-0051-072-2540
70#23	0.57	25.4	72	HCN-07000-0057-072-2540	HCF-07000-0057-072-2540
70#22	0.64	25.4	72	HCN-07000-0064-072-2540	HCF-07000-0064-072-2540
70#21	0.72	25.4	72	HCN-07000-0072-072-2540	HCF-07000-0072-072-2540
70#20	0.81	25.4	72	HCN-07000-0081-072-2540	HCF-07000-0081-072-2540
70#19	0.91	25.4	72	HCN-07000-0091-072-2540	HCF-07000-0091-072-2540
70#18	1.02	25.4	72	HCN-07000-0102-072-2540	HCF-07000-0102-072-2540
70#17	1.15	25.4	72	HCN-07000-0115-072-2540	HCF-07000-0115-072-2540
70#16	1.29	25.4	72	HCN-07000-0129-072-2540	HCF-07000-0129-072-2540
70#15	1.45	25.4	72	HCN-07000-0145-072-2540	HCF-07000-0145-072-2540
70#14	1.63	25.4	72	HCN-07000-0163-072-2540	HCF-07000-0163-072-2540
70#13	1.83	25.4	72	HCN-07000-0183-072-2540	HCF-07000-0183-072-2540
70#12	2.05	25.4	72	HCN-07000-0205-072-2540	HCF-07000-0205-072-2540
70#11	2.30	25.4	72	HCN-07000-0230-072-2540	HCF-07000-0230-072-2540
70#10	2.59	25.4	72	HCN-07000-0259-072-2540	HCF-07000-0259-072-2540
70#9	2.91	25.4	72	HCN-07000-0291-072-2540	HCF-07000-0291-072-2540
70#8	3.26	25.4	72	HCN-07000-0326-072-2540	HCF-07000-0326-072-2540

→ 切削條件表 P.297
 Cutting Condition

→ 參考資料 P.261
 Technical Data

高鈷鋼鋸片- 中齒數(56/72T)

HIGH SPEED STEEL WITH COBALT SLITTING SAWS- Middle Teeth(56/72T)



※KCH：鉤齒型鋸片→依需求生產！
 ※KCH Type is dependent on demand.

Milling Table 63

外徑 D	厚度 H	內徑 d	齒數 T	KCN 訂購編號 KCN Order No.	KCF 訂購編號 KCF Order No.
70#28	0.32	25.4	56	KCN-07000-0032-056-2540	KCF-07000-0032-056-2540
70#27	0.36	25.4	56	KCN-07000-0036-056-2540	KCF-07000-0036-056-2540
70#26	0.40	25.4	56	KCN-07000-0040-056-2540	KCF-07000-0040-056-2540
70#25	0.45	25.4	56	KCN-07000-0045-056-2540	KCF-07000-0045-056-2540
70#24	0.51	25.4	56	KCN-07000-0051-056-2540	KCF-07000-0051-056-2540
70#23	0.57	25.4	56	KCN-07000-0057-056-2540	KCF-07000-0057-056-2540
70#22	0.64	25.4	56	KCN-07000-0064-056-2540	KCF-07000-0064-056-2540
70#21	0.72	25.4	56	KCN-07000-0072-056-2540	KCF-07000-0072-056-2540
70#20	0.81	25.4	56	KCN-07000-0081-056-2540	KCF-07000-0081-056-2540
70#19	0.91	25.4	56	KCN-07000-0091-056-2540	KCF-07000-0091-056-2540
70#18	1.02	25.4	56	KCN-07000-0102-056-2540	KCF-07000-0102-056-2540
70#17	1.15	25.4	56	KCN-07000-0115-056-2540	KCF-07000-0115-056-2540
70#16	1.29	25.4	56	KCN-07000-0129-056-2540	KCF-07000-0129-056-2540
70#15	1.45	25.4	56	KCN-07000-0145-056-2540	KCF-07000-0145-056-2540
70#14	1.63	25.4	56	KCN-07000-0163-056-2540	KCF-07000-0163-056-2540
70#13	1.83	25.4	56	KCN-07000-0183-056-2540	KCF-07000-0183-056-2540
70#12	2.05	25.4	56	KCN-07000-0205-056-2540	KCF-07000-0205-056-2540
70#11	2.30	25.4	56	KCN-07000-0230-056-2540	KCF-07000-0230-056-2540
70#10	2.59	25.4	56	KCN-07000-0259-056-2540	KCF-07000-0259-056-2540
70#9	2.91	25.4	56	KCN-07000-0291-056-2540	KCF-07000-0291-056-2540
70#8	3.26	25.4	56	KCN-07000-0326-056-2540	KCF-07000-0326-056-2540
70#7	3.67	25.4	56	KCN-07000-0367-056-2540	KCF-07000-0367-056-2540
70#6	4.12	25.4	56	KCN-07000-0412-056-2540	KCF-07000-0412-056-2540
70#5	4.62	25.4	56	KCN-07000-0462-056-2540	KCF-07000-0462-056-2540
70#4	5.19	25.4	56	KCN-07000-0519-056-2540	KCF-07000-0519-056-2540
外徑 D	厚度 H	內徑 d	齒數 T	KCN 訂購編號 KCN Order No.	KCF 訂購編號 KCF Order No.
70#30	0.25	25.4	72	KCN-07000-0025-072-2540	KCF-07000-0025-072-2540
70#29	0.29	25.4	72	KCN-07000-0029-072-2540	KCF-07000-0029-072-2540
70#28	0.32	25.4	72	KCN-07000-0032-072-2540	KCF-07000-0032-072-2540
70#27	0.36	25.4	72	KCN-07000-0036-072-2540	KCF-07000-0036-072-2540
70#26	0.40	25.4	72	KCN-07000-0040-072-2540	KCF-07000-0040-072-2540
70#25	0.45	25.4	72	KCN-07000-0045-072-2540	KCF-07000-0045-072-2540
70#24	0.51	25.4	72	KCN-07000-0051-072-2540	KCF-07000-0051-072-2540
70#23	0.57	25.4	72	KCN-07000-0057-072-2540	KCF-07000-0057-072-2540
70#22	0.64	25.4	72	KCN-07000-0064-072-2540	KCF-07000-0064-072-2540
70#21	0.72	25.4	72	KCN-07000-0072-072-2540	KCF-07000-0072-072-2540
70#20	0.81	25.4	72	KCN-07000-0081-072-2540	KCF-07000-0081-072-2540
70#19	0.91	25.4	72	KCN-07000-0091-072-2540	KCF-07000-0091-072-2540
70#18	1.02	25.4	72	KCN-07000-0102-072-2540	KCF-07000-0102-072-2540
70#17	1.15	25.4	72	KCN-07000-0115-072-2540	KCF-07000-0115-072-2540
70#16	1.29	25.4	72	KCN-07000-0129-072-2540	KCF-07000-0129-072-2540
70#15	1.45	25.4	72	KCN-07000-0145-072-2540	KCF-07000-0145-072-2540
70#14	1.63	25.4	72	KCN-07000-0163-072-2540	KCF-07000-0163-072-2540
70#13	1.83	25.4	72	KCN-07000-0183-072-2540	KCF-07000-0183-072-2540
70#12	2.05	25.4	72	KCN-07000-0205-072-2540	KCF-07000-0205-072-2540
70#11	2.30	25.4	72	KCN-07000-0230-072-2540	KCF-07000-0230-072-2540
70#10	2.59	25.4	72	KCN-07000-0259-072-2540	KCF-07000-0259-072-2540
70#9	2.91	25.4	72	KCN-07000-0291-072-2540	KCF-07000-0291-072-2540
70#8	3.26	25.4	72	KCN-07000-0326-072-2540	KCF-07000-0326-072-2540

Table 01 鎢鋼平銑刀- 2 / 3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron					
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD					
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30					
切削速度 Vc	68m/min		54m/min		45m/min		27m/min		20m/min		54m/min		79m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)				
1mm	20,000	120	17,100	100	14,400	65	8,000	50	6,000	35	17,100	100	25,200	270				
2mm	10,800	155	8,640	120	7,200	85	4,320	65	3,240	45	8,640	120	12,600	290				
3mm	7,560	155	5,760	135	4,680	90	3,000	65	2,230	45	5,760	135	8,640	290				
4mm	5,400	165	4,320	135	3,600	100	2,160	65	1,620	50	4,320	135	6,480	290				
5mm	4,500	180	3,420	135	2,880	100	1,800	75	1,350	55	3,420	135	5,040	325				
6mm	3,600	180	2,880	135	2,340	100	1,440	75	1,080	55	2,880	135	4,320	360				
8mm	2,700	180	2,160	155	1,800	110	1,080	75	810	55	2,160	155	3,240	360				
10mm	2,160	180	1,710	155	1,440	120	870	75	650	55	1,710	155	2,520	380				
12mm	1,800	180	1,440	155	1,200	120	720	75	540	55	1,440	155	2,160	400				
14mm	1,800	200	1,360	170	1,140	130	720	80	540	60	1,360	170	2,000	440				
16mm	1,560	220	2,100	180	1,000	140	630	90	470	65	2,100	180	1,800	480				
18mm	1,560	220	1,060	180	880	140	630	90	470	65	1,060	180	1,600	480				
20mm	1,200	220	960	180	800	140	480	90	360	65	960	180	1,400	480				
切削量 Cutting Amount (mm)	Ap=0.5D (D<3, Ap≤0.25D)						Ap=0.1D (D<3, Ap≤0.05D)						Ap=0.5D (D<3, Ap≤0.25D)					

Table 02 鎢鋼平銑刀- 3 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron					
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD					
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30					
切削速度 Vc	68m/min		54m/min		45m/min		27m/min		20m/min		54m/min		79m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)				
3mm	7,560	490	5,760	345	4,680	165	3,020	200	2,300	150	5,760	345	8,640	900				
4mm	5,400	490	4,320	345	3,600	165	2,160	200	1,620	150	4,320	345	6,480	1,080				
5mm	4,500	490	3,420	345	2,880	165	1,800	200	1,350	150	3,420	345	5,040	1,080				
6mm	3,600	490	2,880	345	2,340	165	1,440	200	1,080	150	2,880	345	4,320	1,080				
8mm	2,700	490	2,160	345	1,800	175	1,080	200	810	150	2,160	345	3,240	1,080				
10mm	2,160	505	1,710	360	1,440	175	860	210	650	155	1,710	360	2,520	1,170				
12mm	1,800	505	1,440	360	1,200	175	720	210	540	155	1,440	360	2,160	1,260				
14mm	1,800	560	1,360	400	1,140	190	720	230	540	170	1,360	400	2,000	1,400				
16mm	1,560	600	1,200	420	1,000	200	620	240	470	180	1,200	420	1,800	1,500				
18mm	1,400	600	1,060	420	880	200	560	240	420	180	1,060	420	1,600	1,500				
20mm	1,200	600	960	420	800	200	480	240	360	180	960	420	1,490	1,400				
切削量 Cutting Amount (mm)	Ap=1.5D Ae≤0.1D						Ap=1.5D Ae≤0.05D						Ap=1.5D Ae≤0.1D					

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 03 不等分割雙心徑型- 3刃(鍍膜) 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		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鎳基合金 Ni-Based Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30		HRC<30	
切削速度 Vc	130m/min		120m/min		110m/min		70m/min		60m/min		20m/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)	S (rpm)	F (mm/min)
2mm	21,170	720	19,500	530	13,370	470	11,140	250	10,020	230	3,340	100
3mm	14,110	840	13,000	620	8,920	550	7,430	290	6,690	270	2,230	110
4mm	10,580	840	9,750	620	6,690	550	5,570	290	5,010	270	1,670	110
5mm	8,470	840	7,800	620	5,350	550	4,460	290	4,010	270	1,340	110
6mm	7,060	840	6,500	620	4,460	550	3,720	290	3,340	270	1,110	110
8mm	5,290	1,200	4,870	890	3,350	790	2,790	420	2,510	380	830	160
10mm	4,240	1,200	3,900	890	2,670	790	2,230	420	2,000	380	670	160
12mm	3,530	1,200	3,250	890	2,230	790	1,860	420	1,670	380	560	160
14mm	3,020	1,200	2,790	890	1,910	790	1,590	420	1,440	380	480	160
16mm	2,650	900	2,440	670	1,670	590	1,390	320	1,250	290	420	120
20mm	2,110	900	1,950	670	1,340	590	1,110	320	1,000	290	340	120
25mm	1,690	900	1,560	670	1,070	590	890	320	810	290	270	120
切削量 Cutting Amount (mm)	Ap=1D Ae=0.4D						Ap=1D Ae=0.4D		Ap=1D Ae=0.4D		Ap=0.5D Ae=0.15D	

溝銑加工 Slot Milling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鎳基合金 Ni-Based Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30		HRC<30	
切削速度 Vc	110m/min		100m/min		80m/min		56m/min		50m/min		17.5m/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)	S (rpm)	F (mm/min)
2mm	19,100	250	15,600	230	13,370	170	8,910	160	7,800	140	2,790	30
3mm	12,740	290	10,400	270	8,910	200	6,260	190	5,200	160	1,860	35
4mm	9,550	290	7,800	270	6,690	200	4,460	190	3,900	160	1,390	35
5mm	7,640	290	6,240	270	5,350	200	3,560	190	3,120	160	1,110	35
6mm	6,370	290	5,200	270	4,460	200	2,970	190	2,600	160	930	35
8mm	4,780	420	3,900	390	3,340	290	2,230	270	1,950	230	690	50
10mm	3,820	420	3,120	390	2,670	290	1,790	270	1,560	230	560	50
12mm	3,180	420	2,600	390	2,230	290	1,480	270	1,300	230	460	50
14mm	2,730	420	2,230	390	1,910	290	1,270	270	1,110	230	400	50
16mm	2,380	320	1,950	290	1,670	220	1,110	200	970	170	350	40
20mm	1,910	320	1,560	290	1,340	220	890	200	780	170	280	40
25mm	1,530	320	1,250	290	1,070	220	710	200	620	170	220	40
切削量 Cutting Amount (mm)	Ap=1D				Ap=0.8D		Ap=0.8D		Ap=0.5D		Ap=0.3D	

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 04 不等分割雙心徑型- 4刃(鍍膜) 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		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鎳基合金 Ni-Based Alloys	
	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30		HRC<30	
切削速度 Vc	130m/min		120m/min		110m/min		70m/min		60m/min		20m/min	
外徑 Diameter	S	F	S	F	S	F	S	F	S	F	S	F
	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)
3mm	14,110	820	13,000	880	11,140	630	7,430	390	6,690	360	2,230	150
4mm	10,580	820	9,750	880	8,360	630	5,570	390	5,010	360	1,670	150
5mm	8,470	820	7,800	880	6,690	630	4,460	390	4,010	360	1,340	150
6mm	7,060	820	6,500	880	5,570	630	3,720	390	3,340	360	1,110	150
8mm	5,290	1,370	4,870	1,260	4,180	900	2,790	560	2,510	510	830	210
10mm	4,240	1,370	3,900	1,260	3,340	900	2,230	560	2,000	510	670	210
12mm	3,530	1,370	3,250	1,260	2,790	900	1,860	560	1,670	510	560	210
16mm	2,650	1,030	2,440	950	2,090	680	1,390	420	1,250	380	420	160
20mm	2,110	1,030	1,950	950	1,670	680	1,110	420	1,000	380	340	160
25mm	1,690	1,030	1,560	950	1,340	680	890	420	810	380	270	160
切削量 Cutting Amount (mm)	Ap=1D Ae=0.4D				Ap=1D Ae=0.4D				Ap=1D Ae=0.4D		Ap=0.5D Ae=0.15D	

溝銑加工 Slot Milling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy SteelsL		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鎳基合金 Ni-Based Alloys	
	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30		HRC<30	
切削速度 Vc	110m/min		100m/min		80m/min		56m/min		60m/min		20m/min	
外徑 Diameter	S	F	S	F	S	F	S	F	S	F	S	F
	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)
3mm	11,140	340	10,400	320	8,910	230	5,940	200	5,200	150	1,860	40
4mm	8,360	340	7,800	320	6,690	230	4,460	200	3,900	150	1,390	40
5mm	6,690	340	6,240	320	5,350	230	3,560	200	3,120	150	1,110	40
6mm	5,570	340	5,200	320	4,460	230	2,970	200	2,600	150	930	40
8mm	4,180	480	3,900	450	3,340	320	2,230	290	1,950	250	690	70
10mm	3,340	480	3,120	450	2,670	320	1,790	290	1,560	250	560	70
12mm	2,790	480	2,600	450	2,230	320	1,480	290	1,300	250	460	70
16mm	2,090	360	2,080	340	1,670	240	1,110	220	970	190	350	50
20mm	1,670	360	1,560	340	1,340	240	890	220	780	190	280	50
25mm	1,340	360	1,250	340	1,070	240	710	220	620	190	220	50
切削量 Cutting Amount (mm)	Ap=1D				Ap=0.8D				Ap=1D		Ap=0.5D	

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 05 鎢鋼球型銑刀- 2 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

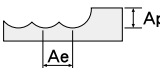
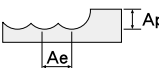
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	72m/min		54m/min		34m/min		29m/min		22m/min		54m/min		72m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5R	36,000	4,280	32,400	3,380	21,600	2,570	14,400	1,720	10,800	1,280	32,400	3,380	45,000	7,500
1.0R	20,520	2,440	16,200	1,690	11,700	1,390	8,200	980	6,160	730	16,200	1,690	22,860	3,810
2.0R	11,520	1,370	8,640	900	6,300	750	4,600	550	3,460	410	8,640	900	11,520	1,920
3.0R	7,560	900	5,760	600	3,780	450	3,020	360	2,270	270	5,760	600	7,560	1,260
4.0R	5,760	690	4,320	450	2,880	340	2,300	270	1,730	205	4,320	450	5,760	960
5.0R	4,590	550	3,420	360	2,160	255	1,830	215	1,380	160	3,420	360	4,590	765
6.0R	3,780	450	2,880	300	1,800	210	1,520	180	1,140	130	2,880	300	3,780	630
8.0R	3,200	380	2,400	250	1,560	180	1,280	150	960	110	2,400	250	3,200	530
10.0R	2,600	310	1,920	200	1,300	150	1,040	120	780	90	1,920	200	2,600	430
切削量 Cutting Amount (mm)	Ap=0.05D Ae=0.1D 													

Table 06 鎢鋼球型銑刀- 3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55	
切削速度 Vc	103m/min		76m/min		48m/min		42m/min	
半徑 R	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1.0R	24,620	2,930	19,440	2,030	14,040	1,670	9,840	1,180
2.0R	13,820	1,640	10,370	1,080	7,560	900	5,520	660
3.0R	9,070	1,080	6,910	720	4,540	540	3,620	430
4.0R	6,910	830	5,180	540	3,460	410	2,760	320
5.0R	5,510	660	4,100	430	2,590	310	2,200	260
6.0R	4,540	540	3,460	360	2,160	250	1,820	220
8.0R	3,840	460	2,880	300	1,870	220	1,540	180
10.0R	3,120	370	2,300	240	1,560	180	1,250	140
切削量 Cutting Amount (mm)	Ap=0.05D Ae=0.1D 							

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 07 鎢鋼圓鼻銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron					
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD					
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30					
切削速度 Vc	95m/min		75m/min		63m/min		38m/min		28m/min		75m/min		110m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)				
1mm	22,400	140	19,150	110	16,130	70	8,960	60	6,720	40	19,150	110	28,220	300				
2mm	12,100	180	9,680	140	8,060	100	4,840	70	3,630	50	9,680	140	14,110	330				
3mm	8,460	180	6,450	150	5,240	100	3,360	70	2,500	50	6,450	150	9,680	330				
4mm	6,050	180	4,840	150	4,030	110	2,420	70	1,820	60	4,840	150	7,260	330				
5mm	5,040	200	3,830	150	3,220	110	2,020	80	1,510	60	3,830	150	5,650	360				
6mm	4,030	200	3,220	150	2,620	110	1,620	80	1,210	60	3,220	150	4,840	400				
8mm	3,020	200	2,420	180	2,020	120	1,210	80	900	60	2,420	180	3,630	400				
10mm	2,420	200	1,910	180	1,620	140	980	80	730	60	1,910	180	2,820	420				
12mm	2,020	200	1,620	180	1,340	140	810	80	610	60	1,620	180	2,420	450				
14mm	2,020	220	1,520	190	1,280	140	810	90	610	60	1,520	190	2,240	500				
16mm	1,740	250	1,340	200	1,120	160	700	100	530	70	1,340	200	2,020	540				
18mm	1,740	250	1,180	200	980	160	700	100	530	70	1,180	200	1,790	540				
20mm	1,340	250	1,070	200	900	160	540	100	400	70	1,070	200	1,570	540				
切削量 Cutting Amount (mm)	Ap=0.5D (D<3, Ap≤0.25D)						Ap=0.1D (D<3, Ap≤0.05D)						Ap=0.5D (D<3, Ap≤0.25D)					

Table 08 鎢鋼圓鼻銑刀- 4刃(鍍膜) / 長柄型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron					
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD					
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30					
切削速度 Vc	94m/min		75m/min		63m/min		37m/min		28m/min		75m/min		110m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)				
3mm	5,040	550	6,450	380	5,240	180	3,380	220	2,580	170	6,450	380	9,680	1,010				
4mm	6,050	550	4,840	380	4,030	180	2,420	220	1,820	170	4,840	380	7,260	1,210				
5mm	5,040	550	3,830	380	3,220	180	2,020	220	1,510	170	3,830	380	5,650	1,210				
6mm	4,030	550	3,220	380	2,620	180	1,620	220	1,210	170	3,220	380	4,840	1,210				
8mm	3,020	550	2,420	380	2,020	200	1,210	220	900	170	2,420	380	3,630	1,210				
10mm	2,420	570	1,910	400	1,620	200	960	230	730	180	1,910	400	2,820	1,310				
12mm	2,020	570	1,920	400	1,340	200	810	230	610	180	1,620	400	2,420	1,410				
14mm	2,020	620	1,520	450	1,280	220	810	260	610	190	1,520	450	2,240	1,570				
16mm	1,740	670	1,340	470	1,120	220	700	270	530	200	1,340	470	2,020	1,680				
18mm	1,570	670	1,180	470	980	220	620	270	470	200	1,180	470	1,790	1,680				
20mm	1,340	670	1,070	470	900	220	540	270	400	200	1,070	470	1,570	1,790				
切削量 Cutting Amount (mm)	Ap=1.5D Ae≤0.1D						Ap=1D Ae≤0.05D						Ap=1.5D Ae≤0.1D					

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 09 鎢鋼平銑刀- 高導標準型- 3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

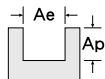

加工材質 Material	合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels	
工件料號 Material Code	SCM,SKT,SKD		SKT,SKD		SKT,SKD	
硬度 Hardness	HRC30~45		HRC45~55		HRC55~63	
切削速度 Vc	27m/min		18m/min		16m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	2,880	75	1,890	75	1,710	70
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 極細鎢鋼平銑刀- 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					

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 11 鎢鋼平銑刀- (特)高導鋁用型- 2 / 3刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

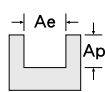
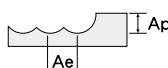
加工材質 Material	鋁合金 Aluminum Alloys		銅合金 Copper Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075		-	
切削速度 Vc	140m/min		150m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	16,000	1,200	16,000	1,100
4mm	12,000	1,000	12,000	900
5mm	9,600	900	9,600	800
6mm	8,000	820	8,000	650
8mm	6,000	750	6,000	600
10mm	4,800	680	4,800	550
12mm	4,000	620	4,000	500
切削量 Cutting Amount (mm)	Ap=0.1D 			

Table 12 鎢鋼鋁用球型銑刀- 2刃(白刀) 切削條件表

SOLID CARBIDE BALL NOSED END MILLS- CUTTING CONDITION TABLE

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		-	
切削速度 Vc	100~200m/min		70~110m/min	
半徑 R	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1.0R	21,420	1,485	17,190	630
2.0R	10,800	1,485	8,550	810
3.0R	7,200	1,485	5,760	810
4.0R	5,400	1,485	4,320	810
5.0R	7,320	1,485	3,420	810
6.0R	3,780	1,485	2,880	810
8.0R	2,980	1,170	1,790	500
切削量 Cutting Amount (mm)	Ap=0.02D Ae=0.05D 			

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 13 鎢鋼鋁用平銑刀- 波浪型- 3刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

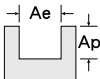
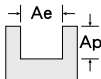
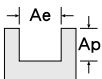

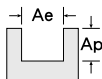

加工材質 Material	鋁合金 Aluminum Alloys			
工件料號 Material Code	Al 5052 / 6061 / 7075			
切削速度 Vc	200m/min		250m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
6mm	10,600	2,000	13,200	2,300
8mm	8,000	1,500	10,000	2,000
10mm	6,400	1,200	8,000	1,900
12mm	5,300	1,000	6,600	1,600
16mm	4,000	750	5,000	1,200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

Table 14 鎢鋼平銑刀- 波浪型- 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	TiAl6V4(DIN)		TiAl5Sn2(DIN)		TiAl6V4(DIN)		TiAl5Sn2(DIN)	
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 (2 / 3F) 		Ap=0.6D Ae=0.1D (4F) 		Ap=1D (2 / 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.							

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 15 鎢鋼平銑刀-強力型-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		TiAl5Sn2(DIN)		TiAl6V4(DIN)		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) 	

Table 16 鎢鋼平銑刀-強力型-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		TiAl5Sn2(DIN)		TiAl6V4(DIN)		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 	

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 17 鎢鋼平銑刀-高導強力型-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		TiAl5Sn2(DIN)		TiAl6V4(DIN)		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	10,320	620	11,460	450	7,640	290	22,930	180
3mm	6,910	410	7,640	300	5,100	190	15,290	230
4mm	5,180	410	5,740	230	3,820	140	11,460	170
5mm	4,100	410	4,580	180	3,060	110	9,170	230
6mm	3,460	410	3,820	150	2,540	100	7,640	190
8mm	2,590	410	2,870	170	1,910	110	5,740	200
10mm	2,050	430	2,290	190	1,520	130	4,580	230
12mm	1,730	430	1,910	220	1,270	140	3,820	190
16mm	1,440	500	1,430	190	950	130	2,870	230
切削量 Cutting Amount (mm)	Ap=0.5D (D≤3, Ap≤0.25D)		Ap=1D		Ap=0.5D		Ap=1D (D≤3, Ap≤0.5D)	

Table 18 鎢鋼平銑刀-高導強力型-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		TiAl5Sn2(DIN)		TiAl6V4(DIN)		Al 5052 / 6061 / 7075	
硬度 Hardness	-		HRC≈30		HRC>30		-	
切削速度 Vc	54 m/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	10,320	620	11,460	540	7,640	360	22,930	220
3mm	6,910	410	7,640	360	5,100	240	15,290	280
4mm	5,180	410	5,740	270	3,820	180	11,460	200
5mm	4,100	410	4,580	220	3,060	140	9,170	280
6mm	3,460	410	3,820	180	2,540	120	7,640	230
8mm	2,590	410	2,870	220	1,910	150	5,740	240
10mm	2,050	430	2,290	250	1,520	170	4,580	280
12mm	1,730	430	1,910	280	1,270	190	3,820	230
16mm	1,440	500	1,430	250	950	170	2,870	280
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	

- 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.

Table 19 鎢鋼平銑刀- 石墨專用型- 2 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

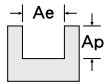
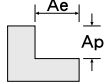
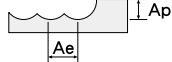
刀具 END MILLS	CESG2-A		CESG4-A		CEBG2-A	
切削速度 Vc	225m/min		250m/min		250m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	23,000	800	25,000	960	25,000	1,000
4mm	17,000	700	19,000	820	19,000	850
5mm	14,000	650	15,500	750	15,500	800
6mm	11,500	600	12,600	700	12,600	750
8mm	8,500	400	9,300	600	9,300	640
10mm	6,900	450	7,600	550	7,600	600
12mm	5,700	400	6,300	340	6,300	580
切削量 Cutting Amount (mm)						

Table 20 鎢鋼銅鋁用平銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	鋁合金 Aluminum Alloys		銅合金 Copper Alloys	
切削速度 Vc	60~120m/min		50m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5mm	40,000	420	30,400	120
1.0mm	38,400	640	15,200	120
1.5mm	25,600	800	10,400	120
2.0mm	19,200	800	7,680	120
2.5mm	15,200	800	6,160	160
3.0mm	12,800	800	5,120	160
4.0mm	9,600	800	3,840	160
5.0mm	7,680	800	3,040	160
6.0mm	6,400	800	2,560	160
8.0mm	4,800	800	1,920	160
10.0mm	3,840	800	1,520	160
12.0mm	3,200	800	1,280	160
16.0mm	2,400	800	960	160
20.0mm	1,920	800	770	160

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 21 鎢鋼銅鋁用平銑刀-長刀型-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	鋁合金 Aluminum Alloys		銅合金 Copper Alloys	
	40~80m/min		30m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	8,000	530	3,440	100
4mm	6,400	530	2,560	100
5mm	5,120	530	2,080	100
6mm	4,240	530	1,680	100
8mm	3,200	530	1,280	100
10mm	2,560	530	1,040	100
12mm	2,080	530	800	100
16mm	1,600	530	640	100
20.0mm	960	530	510	100

Table 22 鎢鋼銅鋁用球型銑刀-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	鋁合金 Aluminum Alloys			銅合金 Copper Alloys		
	80~160m/min			50~80m/min		
半徑 R	S (rpm)	F (mm/min)		S (rpm)	F (mm/min)	
		粗加工	精加工		粗加工	精加工
		Roughing	Finishing		Roughing	Finishing
0.50R	37,600	270	690	25,600	160	440
0.75R	37,600	270	690	16,800	160	440
1.00R	19,040	480	690	12,800	160	440
1.25R	15,200	600	1,320	10,400	200	560
1.50R	12,800	600	1,320	8,800	200	560
2.00R	9,600	600	1,320	6,400	200	560
2.50R	7,680	600	1,320	5,120	200	560
3.00R	6,400	600	1,320	4,240	200	560
4.00R	4,800	600	1,320	3,200	200	560
5.00R	3,840	600	1,320	2,560	200	560
6.00R	3,360	600	1,320	2,160	200	560
8.00R	2,400	600	1,320	1,600	200	560
10.00R	1,840	600	1,320	1,280	200	560

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.

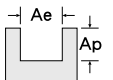
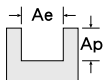
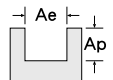
Table 23 鎢鋼銅鋁用球型銑刀-長頸型-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material		鋁合金 Aluminum Alloys		銅合金 Copper Alloys		塑膠 Plastics	
切削速度 Vc		80~160m/min		40~120m/min		30~50m/min	
半徑 R	切削量 (mm)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5R	0.015~0.180	25440	600~1,280	12,720~38,240	360~960	10,600~15,280	200~260
1.0R	0.030~0.300	12,720~25,440	600~1,280	6,400~19,120	360~960	5,120~7,680	200~260
1.5R	0.030~0.300	8,480~16,960	600~1,280	4,240~12,720	360~960	3,360~5,120	200~260
2.0R	0.070~0.400	6,400~12,720	600~1,280	3,200~9,520	360~960	2,560~3,840	150~190
3.0R	2.000~3.000	4,240~8,480	480~600	2,160~6,400	160~200	1,680~2,560	150~190
4.0R	2.000~4.000	3,200~4,800	480~600	1,600~4,800	160~200	1,280~1,920	150~190
5.0R	3.000~5.000	2,560~5,120	480~600	1,280~3,840	160~200	1,040~1,520	150~190
6.0R	3.500~6.000	2,160~4,240	480~600	1,040~3,200	160~200	880~1,280	150~190

Table 24 極細鎢鋼平銑刀-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron			
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD			
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30			
切削速度 Vc	136m/min		107m/min		90m/min		55m/min		41m/min		107m/min		158m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)		
1mm	40,000	180	34,200	150	28,800	97	16,000	75	12,000	52	34,200	150	50,400	405		
2mm	21,600	232	17,280	180	14,400	127	8,640	97	6,480	67	17,280	180	25,200	435		
3mm	15,120	232	11,520	202	9,360	135	6,000	97	4,460	67	11,520	202	17,280	435		
4mm	10,800	247	8,640	202	7,200	150	4,320	97	3,240	75	8,640	202	12,960	435		
5mm	9,000	270	6,840	202	5,760	150	3,600	112	2,700	82	6,840	202	10,080	487		
6mm	7,200	270	5,760	202	4,680	150	2,880	112	2,160	82	5,760	202	8,640	540		
8mm	5,400	270	4,320	232	3,600	165	2,160	112	1,620	82	4,320	232	6,480	540		
10mm	4,320	270	3,420	232	2,880	180	1,740	112	1,300	82	3,420	232	5,040	570		
12mm	3,600	270	2,880	232	2,400	180	1,440	112	1,080	82	2,880	232	4,320	600		
14mm	3,600	300	2,720	255	2,280	195	1,440	120	1,080	90	2,720	255	4,000	660		
16mm	3,120	330	2,400	270	2,000	210	1,260	135	940	97	2,400	270	3,600	720		
18mm	3,120	330	2,120	270	1,760	210	1,260	135	940	97	2,120	270	3,200	720		
20mm	2,400	330	1,920	270	1,600	210	960	135	720	97	1,920	270	2,800	720		
切削量 Cutting Amount (mm)	Ap=0.3D (D<3, Ap≤0.15D)						Ap=0.06D (D<3, Ap≤0.03D)						Ap=0.3D (D<3, Ap≤0.15D)			

- 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.

Table 25 極細鎢鋼平銑刀-短刃型-2刃(鍍膜) 切削條件表
極細鎢鋼平銑刀-短刃長柄型-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

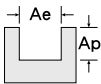

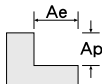

加工材質 Material	合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		鑄鐵 Cast Iron	
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		FC,FCD	
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63		HRC<30	
切削速度 Vc	94m/min		79m/min		55m/min		39m/min		94m/min	
外徑 Diameter	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)
1mm	22,650	410	20,200	320	15,130	220	10,060	100	23,920	430
2mm	12,280	420	10,690	320	7,840	220	5,300	100	12,590	440
3mm	8,390	460	6,730	320	5,030	220	3,800	110	8,390	480
4mm	6,940	450	5,660	320	4,080	220	2,980	110	6,940	450
6mm	5,030	420	4,200	420	2,930	200	2,100	100	5,030	420
8mm	3,800	420	3,170	300	2,220	200	1,580	100	3,800	420
10mm	3,010	420	2,540	300	1,780	200	1,260	100	3,010	420
12mm	2,540	420	2,100	300	1,470	200	1,070	100	2,540	420
切削量 Cutting Amount (mm)	D≤3, Ap=0.15D D>3, Ap=0.2D		D≤6, Ap=0.1D D>6, Ap=0.15D							

Table 26 極細鎢鋼平銑刀-3/4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron									
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD									
硬度 Hardness	HRC<20		HRC20~30		HRC 30~45		HRC45~55		HRC55~63		-		HRC<30									
切削速度 Vc	136m/min		107m/min		90m/min		54m/min		41m/min		107m/min		158m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)								
3mm	15,120	735	11,520	517	9,360	247	6,040	300	4,600	225	11,520	517	17,280	1,350								
4mm	10,800	735	8,640	517	7,200	247	4,320	300	3,240	225	8,640	517	12,960	1,620								
5mm	9,000	735	6,840	517	5,760	247	3,600	300	2,700	225	6,840	517	10,080	1,620								
6mm	7,200	735	5,760	517	4,680	247	2,880	300	2,160	225	5,760	517	8,640	1,620								
8mm	5,400	735	4,320	517	3,600	262	2,160	300	1,620	225	4,320	517	6,480	1,620								
10mm	4,320	757	3,420	540	2,880	262	1,720	315	1,300	232	3,420	540	5,040	1,755								
12mm	3,600	757	2,880	540	2,400	262	1,440	315	1,080	232	2,880	540	4,320	1,890								
14mm	3,600	840	2,720	600	2,280	285	1,440	345	1,080	255	2,720	600	4,000	2,100								
16mm	3,120	900	2,400	630	2,000	300	1,240	360	940	270	2,400	630	3,600	2,250								
18mm	3,120	900	2,120	630	1,760	300	1,120	360	940	270	2,120	630	3,200	2,250								
20mm	2,400	900	1,920	630	1,600	300	960	360	720	270	1,920	630	2,800	2,400								
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.06D						Ap=1D Ae=0.03D								Ap=1.5D Ae=0.06D							

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 27 極細鎢鋼平銑刀-短刃型-4刃(鍍膜) 切削條件表
極細鎢鋼平銑刀-短刃長柄型-4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	110m/min		110m/min		95m/min		79m/min		126m/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)
3mm	11,800	1,260	11,800	1,150	10,060	830	8,390	500	13,460	1,550
4mm	8,790	1,190	8,790	1,070	7,570	780	6,300	460	10,060	1,470
5mm	7,050	1,150	7,050	990	6,060	730	5,030	420	8,080	1,310
6mm	5,900	1,070	5,900	910	5,030	660	4,200	400	6,730	1,230
8mm	4,400	990	4,400	830	3,800	610	3,170	400	5,030	1,150
10mm	3,530	990	3,530	830	3,010	610	2,540	400	4,040	1,150
12mm	2,930	990	2,930	830	2,540	610	2,100	400	3,370	1,150
切削量 Cutting Amount (mm)	D<6, Ap=1D, Ae=0.02D D≥6, Ap=1D, Ae=0.05D									

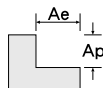
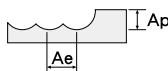


Table 28 極細鎢鋼球型銑刀-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	144m/min		107m/min		68m/min		57m/min		43m/min		107m/min		144m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5R	72,000	675	64,800	570	43,200	435	28,800	270	21,600	202	64,800	570	72,000	1,110
1.0R	41,040	900	32,400	735	23,400	570	16,400	360	12,320	270	32,400	735	41,040	1,350
2.0R	23,040	1,080	17,280	840	12,600	652	9,200	435	6,920	324	17,280	840	23,040	1,545
3.0R	15,120	1,350	11,520	900	7,560	675	6,040	540	4,540	405	11,520	900	15,120	1,890
4.0R	11,520	1,350	8,640	900	5,760	675	4,600	540	3,460	405	8,640	900	11,520	1,890
5.0R	9,180	1,350	6,840	900	4,320	675	3,660	540	2,760	405	6,840	900	9,180	1,890
6.0R	7,560	1,350	5,760	930	3,600	705	3,040	540	2,280	405	5,760	930	7,560	2,025
8.0R	6,400	1,500	4,800	1,020	3,120	780	2,560	600	1,920	450	4,800	1,020	6,400	2,250
10.0R	5,200	1,500	3,840	1,020	2,600	780	2,080	600	1,650	450	3,840	1,020	5,200	2,250
切削量 Cutting Amount (mm)	Ap=0.03D Ae=0.06D													



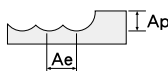
- 當加工聲音尖銳時，請調降主軸轉速(S) (10~40%)。 When the sound is piercing, please lower the spindle speed(S) (10~40%).
- 當機台震動太大時，請調降進給速度(F) (10~40%)。 When the machine is vibrating, please decrease the feed rate(F) (10~40%).
- 當主軸負載太大時，請調降進給速度(F) (10~40%)。 When the spindle load is high, please decrease the feed rate(F) (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.

Table 29 極細鎢鋼球型銑刀-短刃長柄型-2刃(鍍膜) 切削條件表
極細鎢鋼球型銑刀-短刃型-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	185m/min		135m/min		120m/min		90m/min		190m/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)
0.5R	39,600	2,220	37,620	1,780	25,340	1,150	19,800	790	39,600	2,220
1.0R	19,800	2,220	18,620	1,780	13,460	1,230	9,900	790	24,950	2,770
1.5R	13,070	2,220	12,280	1,780	8,710	1,230	6,700	790	16,630	2,770
2.0R	12,280	2,700	10,700	1,940	8,710	1,500	6,300	870	14,260	2,930
2.5R	11,880	3,210	8,710	1,820	7,920	1,660	6,020	950	12,280	3,170
3.0R	10,690	3,410	7,520	1,780	7,520	1,780	5,220	910	11,880	3,800
4.0R	7,920	2,540	5,660	1,340	5,540	1,340	3,920	700	9,110	2,900
5.0R	6,540	2,060	4,510	1,070	4,510	1,070	3,130	560	7,520	2,380
6.0R	5,430	1,700	3,770	870	3,770	870	2,620	470	6,300	1,980
切削量 Cutting Amount (mm)	Ap=0.02D Ae=0.05D									

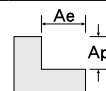
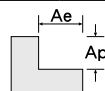
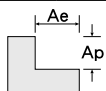


※ 傾斜角在15以下時，上表中的轉速和進給可以相應地提高1~1.2倍。
※ When is less than 15 milling speed and feed speed in the table can be increased 1.0~1.2 times.

Table 30 極細鎢鋼圓鼻銑刀-短刃型-4刃(鍍膜) 切削條件表
極細鎢鋼圓鼻銑刀-短刃長柄型-4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	128m/min		108m/min		65m/min		48m/min		189m/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)
3mm	13,820	620	11,230	300	7,250	360	5,520	270	20,740	1,620
4mm	10,370	620	8,640	300	5,180	360	3,890	270	15,550	1,940
5mm	8,210	620	6,910	300	4,320	360	3,240	270	12,100	1,940
6mm	6,910	620	5,620	300	3,460	360	2,590	270	10,370	1,940
8mm	5,180	620	4,320	310	2,590	360	1,940	270	7,780	1,940
10mm	4,100	650	3,460	310	2,060	380	1,560	280	6,050	2,100
12mm	3,460	650	2,880	310	1,730	380	1,300	280	5,180	2,270
14mm	3,260	720	2,740	340	1,730	410	1,300	310	4,800	2,520
16mm	2,880	760	2,400	360	1,490	430	1,130	320	4,320	2,700
18mm	2,540	760	2,110	360	1,340	430	1,130	320	3,840	2,700
20mm	2,300	760	1,920	360	1,150	430	860	320	3,360	2,880
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.06D		Ap=1D Ae=0.03D		Ap=1.5D Ae=0.06D				Ap=1.5D Ae=0.06D	



- 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.

Table 31 極細鎢鋼平銑刀- 強重型3 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

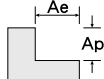

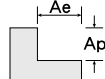
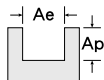
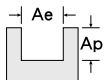
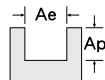
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	94m/min		75m/min		63m/min		37m/min		28m/min		75m/min		110m/min	
外徑 Diameter	S	F	S	F	S	F	S	F	S	F	S	F	S	F
	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)
3mm	10,500	675	8,000	475	6,500	225	4,200	250	3,150	200	8,000	475	12,000	1,250
4mm	7,500	675	6,000	475	5,000	225	3,000	275	2,250	200	6,000	475	9,000	1,500
5mm	6,250	675	4,000	475	4,000	225	2,500	275	1,875	200	4,750	475	7,000	1,500
6mm	5,000	675	3,250	475	3,250	225	2,000	275	1,500	200	4,000	475	6,000	1,500
8mm	3,750	675	3,000	475	2,500	238	1,500	275	1,125	200	3,000	475	4,500	1,500
10mm	3,000	700	2,375	500	2,000	238	1,200	275	900	213	2,375	500	3,500	1,625
12mm	2,500	700	2,000	500	1,650	238	1,000	275	750	213	2,000	500	3,000	1,750
14mm	2,250	700	1,700	500	1,425	238	900	275	675	213	1,700	500	2,500	1,750
16mm	1,950	750	1,500	525	1,250	250	800	300	575	225	1,500	525	2,250	1,875
18mm	1,750	750	1,325	525	1,100	250	700	300	525	225	1,325	525	2,000	1,875
20mm	1,500	750	1,200	525	1,000	250	600	300	450	225	1,200	525	1,750	2,000
切削量 Cutting Amount (mm)	Ap=1.5D Ap≤0.1D				Ap=1D Ae≤0.05D				Ap=1.5D Ae≤0.1D					

Table 32 極細鎢鋼圓鼻銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	95m/min		75m/min		63m/min		38m/min		28m/min		75m/min		110m/min	
外徑 Diameter	S	F	S	F	S	F	S	F	S	F	S	F	S	F
	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)	(rpm)	(mm/min)
1mm	28,000	170	23,940	140	20,160	90	11,200	70	8,400	50	23,940	140	35,280	380
2mm	15,120	220	12,100	170	10,080	120	6,050	90	4,540	60	12,100	170	17,640	410
3mm	10,580	220	8,060	190	6,550	125	4,200	90	3,120	60	8,060	190	12,100	410
4mm	7,560	230	6,050	190	5,040	140	3,020	90	2,270	70	6,050	190	9,070	410
5mm	6,300	250	4,790	190	4,030	140	2,520	105	1,890	80	4,790	190	7,060	455
6mm	5,040	250	4,030	190	3,280	140	2,020	105	1,510	80	4,030	190	6,050	500
8mm	3,780	250	3,020	220	2,520	150	1,510	105	1,130	80	3,020	220	4,540	500
10mm	3,020	250	2,390	220	2,020	170	1,220	105	910	80	2,390	220	3,530	530
12mm	2,520	250	2,020	220	1,680	170	1,010	105	760	80	2,020	220	3,020	560
14mm	2,520	280	1,900	240	1,600	180	1,010	110	760	80	1,900	240	2,800	620
16mm	2,180	310	1,680	250	1,400	200	880	130	660	90	1,680	250	2,520	670
18mm	2,180	310	1,480	250	1,230	200	880	130	660	90	1,480	250	2,240	670
20mm	1,680	310	1,340	250	1,120	200	670	130	500	90	1,340	250	1,960	670
切削量 Cutting Amount (mm)	Ap=0.5D (D<3, Ae≤0.25D)				Ap=0.1D (D<3, Ae≤0.05D)				Ap=0.5D (D<3, Ae≤0.25D)					

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 33 極細鎢鋼圓鼻銑刀- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

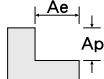

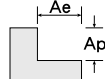
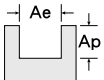
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	94m/min		75m/min		63m/min		37m/min		28m/min		75m/min		110m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	10,580	690	8,060	480	6,550	230	4,230	280	3,220	210	8,060	480	12,100	1,260
4mm	7,560	690	6,050	480	5,040	230	3,020	280	2,270	210	6,050	480	9,070	1,510
5mm	6,300	690	4,790	480	4,030	230	2,520	280	1,890	210	4,790	480	7,060	1,510
6mm	5,040	690	4,030	480	3,280	230	2,020	280	1,510	210	4,030	480	6,050	1,510
8mm	3,780	690	3,020	480	2,520	245	1,510	280	1,130	210	3,020	480	4,540	1,510
10mm	3,020	710	2,390	500	2,020	245	1,200	290	910	220	2,390	500	3,530	1,640
12mm	2,520	710	2,020	500	1,680	245	1,010	290	760	220	2,020	500	3,020	1,760
14mm	2,520	780	1,900	560	1,600	270	1,010	320	760	240	1,900	560	2,800	1,960
16mm	2,180	840	1,680	590	1,400	280	870	340	660	250	1,680	590	2,520	2,100
18mm	1,960	840	1,480	590	1,230	280	780	340	590	250	1,480	590	2,240	2,100
20mm	1,680	840	1,340	590	1,120	280	670	340	500	250	1,340	590	1,960	2,240
切削量 Cutting Amount (mm)	Ap=1.5D Ae≤0.1D				Ap=1D Ae≤0.05D				Ap=1.5D Ae≤0.1D					

Table 34 奈米鎢鋼平銑刀- 短刃型- 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	118m/min		108m/min		68m/min		48m/min		118m/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)		
1mm	28,310	510	25,245	405	18,910	270	12,570	120	29,900	540		
2mm	15,345	520	13,365	405	9,800	270	6,630	120	15,740	550		
3mm	10,490	570	8,415	405	6,290	280	4,750	140	10,490	600		
4mm	8,670	560	7,080	400	5,100	270	3,720	135	8,670	560		
6mm	6,290	530	5,250	530	3,660	250	2,630	130	6,290	530		
8mm	4,750	530	3,960	380	2,770	250	1,980	130	4,750	530		
10mm	3,760	530	3,170	380	2,230	250	1,580	130	3,760	530		
12mm	3,170	530	2,620	380	1,840	250	1,340	130	3,170	530		
切削量 Cutting Amount (mm)	D≤3, Ap=0.15D D>3, Ap=0.2D D≤6, Ap=0.1D D>6, Ap=0.15D											

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 35 奈米鎢鋼平銑刀-短刃型-3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

溝銑加工 Slot Milling

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		合金鋼 Alloy Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		鑄鐵 Cast Iron		
	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)		S (rpm)	F(mm/ min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		FC,FCD		SCM,SKT,SKD	SCM,SKT,SKD		SKT,SKD		FC,FCD		
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63		HRC<30		HRC20~30	HRC30~45		HRC45~55		HRC<30		
切削速度 Vc	179m/min		179m/min		134m/min		90m/min		179m/min		90m/min	89m/min		58m/min		107m/min		
外徑 Diameter	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	FEED (mm/min)	S (rpm)	F(mm/ min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	19,080	1,260	19,080	790	14,310	480	9,540	310	19,080	1,575	9,540	625	8,595	355	6,210	256	11,430	945
4mm	14,310	1,305	14,310	820	10,710	520	7,160	330	14,310	1,620	7,155	652	6,435	373	4,635	270	8,595	990
6mm	9,540	1,440	9,540	945	7,155	550	4,770	360	9,540	1,800	4,770	747	4,275	409	3,105	297	5,715	1,080
8mm	7,155	1,305	7,155	895	5,355	500	3,600	330	7,155	1,620	3,600	729	3,240	396	2,340	270	4,275	945
10mm	5,715	1,170	5,715	880	4,275	480	2,880	280	5,715	1,440	3,600	706	2,565	378	1,845	234	3,420	855
12mm	4,770	1,170	4,770	860	3,600	450	2,385	280	4,770	1,440	2,385	661	2,160	364	1,530	234	2,880	855
切削量 Cutting Amount (mm)	D≤6, Ap=1.5D, Ae=0.02D D>6, Ap=1.5D, Ae=0.05D										Ap=0.3D Ap(Max)=3mm		Ae Ap					

Table 36 奈米鎢鋼平銑刀-短刃型-4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			
	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)		
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	139m/min		139m/min		118m/min		98m/min		158m/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)		
3mm	14,750	1,580	14,750	1,440	12,570	1,040	10,490	630	16,830	1,935		
4mm	10,990	1,485	10,990	1,340	9,460	980	7,875	570	12,570	1,840		
5mm	8,810	1,440	8,810	1,240	7,580	910	6,290	530	10,100	1,640		
6mm	7,380	1,340	7,380	1,140	6,290	830	5,250	500	8,415	1,540		
8mm	5,500	1,240	5,500	1,040	4,750	760	3,960	500	6,290	1,440		
10mm	4,410	1,240	4,410	1,040	3,760	760	3,170	500	5,050	1,440		
12mm	3,660	1,240	3,660	1,040	3,170	760	2,630	500	4,210	1,440		
切削量 Cutting Amount (mm)	D≤6, Ap=1D, Ae=0.05D D>6, Ap=1D, Ae=0.02D										Ae Ap	

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 37 奈米鎢鋼平銑刀- 高導短刃型- 6刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE


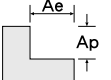
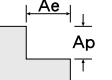
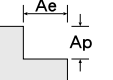
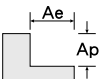
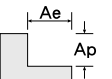

加工材質 Material	合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels	
	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD	
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63	
切削速度 Vc	178m/min		150m/min		117m/min		89m/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	9,600	3,630	7,950	1,875	6,300	1,305	4,800	900
8mm	7,200	3,630	6,000	1,890	4,800	1,335	3,600	900
10mm	5,700	3,450	4,800	1,815	3,750	1,245	2,850	855
12mm	4,800	3,225	4,050	1,695	3,150	1,170	2,400	810
16mm	3,600	3,105	3,000	1,620	2,400	1,140	1,800	780
20mm	2,850	2,880	2,400	1,515	1,950	1,080	1,500	750
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.1D 		Ap=1.5D Ae=0.1D 		Ap=1.5D Ae=0.06D 		Ap=1.5D Ae=0.04D 	

Table 38 奈米鎢鋼圓鼻銑刀- 短刃型- 4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	
	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)
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	161m/min		135m/min		81m/min		61m/min		237m/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)
3mm	17,280	775	14,040	370	9,060	450	6,900	337	25,920	2,025
4mm	12,960	775	10,800	370	6,480	450	4,860	337	19,440	2,430
5mm	10,260	775	8,640	370	5,400	450	4,050	337	15,120	2,430
6mm	8,640	775	7,020	370	4,320	450	3,240	337	12,960	2,430
8mm	6,480	775	5,400	393	3,240	450	2,430	337	9,720	2,430
10mm	5,130	810	4,320	393	2,580	472	1,950	348	7,560	2,630
12mm	4,320	810	3,600	393	2,160	472	1,620	348	6,480	2,835
14mm	4,080	900	3,420	427	2,160	517	1,620	382	6,000	3,150
16mm	3,600	945	3,000	450	1,860	540	1,410	405	5,400	3,375
18mm	3,180	945	2,640	450	1,680	540	1,410	405	4,800	3,375
20mm	2,880	945	2,400	450	1,440	540	1,080	405	4,200	3,600
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.06D 		Ap=1D Ae=0.03D 		Ap=1.5D Ae=0.06D 					

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 39 奈米鎢鋼球型銑刀-短刃長柄型-2刃(鍍膜) 切削條件表
奈米鎢鋼球型銑刀-短刃型-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	230m/min		170m/min		155m/min		115m/min		240m/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)
0.5R	49,500	2,770	47,030	2,230	31,680	1,440	24,750	990	49,500	2,770
1.0R	24,750	2,770	23,270	2,230	16,830	1,540	12,380	990	31,185	3,465
1.5R	16,335	2,770	15,350	2,230	10,890	1,540	8,370	990	20,790	3,465
2.0R	15,345	3,370	13,370	2,430	10,890	1,880	7,875	1,090	17,820	3,660
2.5R	14,850	4,010	10,890	2,280	9,900	2,080	7,520	1,190	15,345	3,960
3.0R	13,365	4,260	9,405	2,230	9,405	2,230	6,530	1,140	14,850	4,750
4.0R	9,900	3,170	7,080	1,680	6,920	1,680	4,905	880	11,385	3,620
5.0R	8,170	2,570	5,640	1,340	5,640	1,340	3,915	700	9,405	2,970
6.0R	6,790	2,130	4,710	1,090	4,710	1,090	3,270	585	7,875	2,475
切削量 Cutting Amount (mm)	Ap=0.02D Ae=0.05D 									

※ 傾斜角在15以下時，上表中的轉速和進給可以相應地提高1~1.2倍。
※ When is less than 15 milling speed and feed speed in the table can be increased 1.0~1.2 times.

Table 40 奈米鎢鋼平銑刀-短刃長頸型-2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

溝銑加工 Slot Milling

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			HRC 55~63			HRC<30		
切削速度 Vc	59m/min			59m/min			42m/min			25m/min			67m/min		
外徑 Diameter	S (rpm)	F (mm/min)	Ap (mm)	S (rpm)	F (mm/min)	Ap (mm)	S (rpm)	F (mm/min)	Ap (mm)	S (rpm)	F (mm/min)	Ap (mm)	S (rpm)	F (mm/min)	Ap (mm)
0.5mm (2)	25,200	270	0.045	25,200	135	0.038	18,900	45	0.019	13,500	27	0.009	25,200	360	0.049
0.5mm (4)	21,600	180	0.021	21,600	90	0.018	16,200	27	0.009	13,500	27	0.009	21,600	225	0.023
1.0mm (06)	18,000	540	0.07	17,100	450	0.06	10,800	135	0.03	7,200	45	0.014	19,800	630	0.07
1.0mm (08)	15,300	315	0.04	14,400	270	0.04	9,000	90	0.02	7,200	45	0.014	16,200	360	0.05
1.5mm (08)	10,800	315	0.1	9,900	270	0.08	6,300	90	0.04	4,500	45	0.021	11,700	360	0.11
2.0mm (08)	9,000	540	0.26	9,000	450	0.22	5,400	135	0.11	3,600	90	0.06	9,900	630	0.29
2.0mm (10)	7,200	315	0.24	8,100	270	0.2	4,500	90	0.1	2,700	45	0.05	8,100	360	0.26
2.0mm (12)	7,200	315	0.13	8,100	270	0.11	4,500	90	0.06	2,700	45	0.03	8,100	360	0.14
3.0mm (08)	6,300	540	0.36	6,300	450	0.3	4,500	135	0.15	2,700	90	0.08	7,200	630	0.39
3.0mm (12)	6,300	540	0.27	6,300	450	0.23	4,500	135	0.11	2,700	90	0.055	7,200	630	0.29
3.0mm (16)	6,300	315	0.2	5,400	270	0.17	3,600	90	0.08	2,250	45	0.04	6,300	360	0.22
3.0mm (20)	6,300	315	0.13	5,400	270	0.11	3,600	90	0.05	2,250	45	0.025	6,300	360	0.14
4.0mm (16)	4,500	540	0.36	4,500	450	0.3	2,700	135	0.15	1,800	90	0.075	4,500	630	0.39
4.0mm (20)	4,500	315	0.34	3,600	270	0.28	1,800	90	0.14	900	90	0.07	4,500	360	0.36
5.0mm (20)	3,600	450	0.45	3,150	450	0.38	1,800	135	0.19	1,800	90	0.09	3,600	540	0.49
5.0mm (30)	2,700	270	0.33	2,700	180	0.28	1,800	135	0.14	1,800	90	0.07	2,700	270	0.36
切削量 Cutting Amount (mm)															

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 奈米鎢鋼球型銑刀- 短刃長頸型- 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		F		Ap		Ae		S		F		Ap		Ae		S		F		Ap		Ae	
	(rpm)	(mm/min)	(mm)	(mm)	(rpm)	(mm/min)	(mm)	(mm)	(rpm)	(mm/min)	(mm)	(mm)	(rpm)	(mm/min)	(mm)	(mm)	(rpm)	(mm/min)	(mm)	(mm)	(rpm)	(mm/min)	(mm)	(mm)
0.30R (03)	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 (04)	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 (04)	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 (06)	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 (06)	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 (08)	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 (09)	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 (12)	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 (12)	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 (16)	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 (12)	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 (25)	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 (25)	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 (30)	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 (30)	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 (40)	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 (30)	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 (45)	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)																								

Table 42 鎢鋼T型銑刀 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels			鋁合金 Aluminum Alloys		
工件料號 Material Code	S35C,S45C,S50C			Al 5052 / 6061 / 7075		
硬度 Hardness	HRC<20			-		
外徑 Diameter	Vc		F	Vc		F
	(m/min)	S (rpm)	(mm/min)	(m/min)	S (rpm)	(mm/min)
4mm	6~10	640~1,000	25~170	15~30	1,500~3,100	60~510
5mm	10~20	640~1,200	25~200	30~50	1,900~3,100	70~510
6mm	10~20	540~1,070	30~250	30~50	1,500~2,600	90~630
8mm	10~20	400~790	24~190	30~50	1,100~1,900	70~470
10mm	10~20	320~640	20~150	30~50	950~1,600	60~380
12mm	10~20	270~530	16~130	30~50	800~1,330	50~320

Table 43 鎢鋼外圓槽銑刀 切削條件表

加工材質 Material	碳素鋼 Carbon Steels			
工件料號 Material Code	S35C,S45C,S50C			
硬度 Hardness	HRC<20			
外徑 Diameter	Vc		S	
	(m/min)	(rpm)	(mm/min)	(rpm)
4mm	20	25	1,600	1,990
5mm	20	25	1,280	1,600
6mm	20	25	1,060	1,330
8mm	20	25	800	1,000
10mm	30	35	960	1,110
12mm	30	35	800	930

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 44

鎢鋼鳩尾槽銑刀
切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels			
工件料號 Material Code	S35C,S45C,S50C			
硬度 Hardness	HRC<20			
外徑 Diameter	Vc (m/min)		S (rpm)	
	5mm	15	20	950
6mm	15	20	800	1,060
8mm	15	20	600	800
10mm	20	25	640	800
12mm	20	25	530	660

Table 45

鎢鋼等角鳩尾槽銑刀
切削條件表

加工材質 Material	碳素鋼 Carbon Steels			
工件料號 Material Code	S35C,S45C,S50C			
硬度 Hardness	HRC<20			
外徑 Diameter	Vc (m/min)		S (rpm)	
	5MM	15	20	950
6MM	15	20	800	1,060
8MM	15	20	600	800
10MM	20	25	640	800
12MM	20	25	530	660

Table 46

鎢鋼倒角兼用銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels			合金鋼 Alloy Steels			不銹鋼 Stainless Steels			鋁合金 Aluminum Alloys		
工件料號 Material Code	S35C,S45C,S50C			SCM, SKT, SKD			SUS304			Al 5052 / 6061 / 7075		
硬度 Hardness	HRC<20			HRC20~30			-			-		
切削速度 Vc	60m/min			50m/min			40m/min			50m/min		
外徑 Diameter	S (rpm)	縱向 F Vertical (mm/min)		S (rpm)	縱向 F Vertical (mm/min)		S (rpm)	縱向 F Vertical (mm/min)		S (rpm)	縱向 F Vertical (mm/min)	
		橫向 F Horizontal (mm/min)			橫向 F Horizontal (mm/min)			橫向 F Horizontal (mm/min)			橫向 F Horizontal (mm/min)	
3mm	6,400	25	50	5,300	20	40	4,200	20	40	5,300	40	80
4mm	4,800	25	55	4,000	20	45	3,200	20	45	4,000	40	85
6mm	3,200	25	60	2,650	20	50	2,100	20	50	2,650	40	90
8mm	2,400	25	65	2,000	20	55	1,600	20	55	2,000	40	110
10mm	1,900	25	70	1,600	20	60	1,300	20	60	1,600	40	110
12mm	1,600	25	70	1,350	20	60	1,050	20	60	1,350	40	120
16mm	1,200	30	80	1,000	25	65	800	25	65	1,000	50	120
20mm	950	30	80	800	25	65	640	25	65	800	50	110
備註 Remarks	※ 先端角=120°，可將進給量增加30%。 ※ Tip Angle=120°，might increase 30% Feed Speed.											

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 47 鎢鋼內R角銑刀- 2刃 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE


加工材質 Material	碳素鋼 Carbon Steels			合金鋼 Alloy Steels			調質鋼 Hardened Steels		
工件料號 Material Code	S35C,S45C,S50C			SCM,SKD			SKT,SKD		
硬度 Hardness	HRC<20			HRC<30~45			HRC<45~55		
切削速度 Vc	30~40m/min			20~30m/min			15~25m/min		
半徑 R	S (rpm)	粗加工Roughing F (mm/min)	細加工Finishing F (mm/min)	S (rpm)	粗加工Roughing F (mm/min)	細加工Finishing F (mm/min)	S (rpm)	粗加工Roughing F (mm/min)	細加工Finishing F (mm/min)
0.50R	9,900	50	90	7,200	45	60	5,760	35	50
0.75R	8,100	50	90	5,760	45	60	4,590	35	50
1.00R	5,580	50	90	3,960	45	60	3,780	35	50
1.25R	4,860	50	90	3,510	45	60	3,240	35	50
1.50R	3,330	50	90	2,430	45	60	2,880	35	50
1.75R	3,060	50	90	2,160	45	60	2,520	35	50
2.00R	2,880	50	90	2,070	45	60	2,250	35	50
2.50R	2,520	50	90	1,800	45	60	1,890	35	50
3.00R	2,250	50	90	1,620	45	60	1,620	35	50
4.00R	1,665	50	90	1,170	45	60	1,260	35	50
5.00R	1,440	50	90	990	45	60	1,080	35	50
6.00R	1,250	50	90	810	45	60	900	35	50
切削量 Cutting Amount (mm)									
備註 Remarks	※ 切削量須區分多次切削。 Divide the cutting depth into several time paths. ※ 須使用切削油。 Use cutting fluid.								

Table 48 鎢鋼中心鑽頭(60°,90°) 切削條件表

SOLID CARBIDE CENTER DRILLS (60°,90°) - DRILLING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鈦合金 Titanium Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		-		HRC<30		HRC<30	
切削速度 Vc	60m/min		50m/min		50m/min		50m/min		50m/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)
1.0mm	12,740	200	9,550	124	15,920	254	15,920	207	15,920	365
1.5mm	12,740	382	10,620	244	11,990	359	10,615	244	10,615	244
2.0mm	9,550	382	7,960	239	7,960	318	7,960	239	7,960	239
3.0mm	6,370	318	5,305	121	5,310	212	5,310	212	5,310	212
5.0mm	3,820	382	3,185	255	3,185	318	3,185	255	3,185	255

- 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.

Table 49

鎢鋼定點鑽頭 (90°, 120°) - 標準型 切削條件表
鎢鋼定點鑽頭 (90°, 120°) - 長柄型 切削條件表

SOLID CARBIDE SPOTTING DRILLS 90°/120°-DRILLING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鈦合金 Titanium Alloys	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		-		HRC<30		HRC<30	
切削速度 Vc	48m/min		40m/min		28m/min		40m/min		24m/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)
4mm	3,820	310	3,180	220	2,230	160	3,180	220	1,910	110
5mm	3,060	240	2,550	180	1,780	120	2,550	180	1,530	90
6mm	2,550	200	2,120	150	1,490	100	2,120	150	1,270	80
8mm	1,910	210	1,590	140	1,110	100	1,590	140	960	80
10mm	1,530	240	1,270	170	890	120	1,270	170	760	80
12mm	1,270	360	1,060	220	740	160	1,060	220	640	130
16mm	960	310	800	190	560	130	800	190	480	120

Table 50

CDM 鎢鋼微徑鑽頭-標準型-2刃(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		-		HRC<30	
切削速度 Vc	60m/min		40m/min		20m/min		50m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.50mm	38,220	630	25,480	400	12,740	70	31,850	550
0.95mm	20,110	700	13,410	450	6,710	80	16,760	610
1.00mm	19,110	630	12,740	380	6,370	70	15,920	550
1.45mm	13,180	670	8,790	450	4,390	60	10,980	610
1.50mm	12,740	640	8,490	400	4,250	70	10,620	550
1.95mm	9,800	700	6,530	450	3,270	80	8,170	620
2.00mm	9,550	640	6,370	380	3,190	70	7,960	560
2.45mm	7,800	700	5,200	440	2,600	80	6,500	510
2.50mm	7,640	630	5,100	410	2,550	70	6,370	540
2.95mm	6,480	700	4,320	450	2,160	80	5,400	610

- 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.

Table 51 CDS 鎢鋼同柄鑽頭-短刃型-2刃(3倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	110m/min		100m/min		60m/min		50m/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)	S (rpm)	F (mm/min)
3mm	11,680	860	10,620	620	6,370	470	5,310	240	12,740	780
5mm	7,000	860	6,370	640	3,820	350	3,190	190	7,640	760
8mm	4,380	820	3,980	600	2,390	320	1,990	180	4,780	740
10mm	3,500	800	3,190	560	1,910	280	1,590	140	3,820	730
12mm	2,920	770	2,650	550	1,590	270	1,330	130	3,190	720
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

乾式鑽孔 Dry- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	90m/min		65m/min		50m/min		40m/min		100m/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)
3mm	9,550	720	6,900	520	5,310	420	4,250	200	10,620	650
5mm	5,730	720	4,140	530	3,190	320	2,550	160	6,370	630
8mm	3,580	680	2,590	500	1,990	290	1,590	150	3,980	620
10mm	2,870	670	2,070	470	1,590	250	1,270	120	3,190	610
12mm	2,390	640	1,730	460	1,330	240	1,060	110	2,650	600
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

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 52 CDH 鎢鋼高速鑽頭- 短刃型- 2刃(3倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	120m/min		100m/min		60m/min		40m/min		130m/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)
3mm	12,740	1,040	10,620	770	6,370	510	4,250	290	13,800	1,080
4mm	9,550	1,040	7,960	770	4,780	510	3,180	290	10,350	1,080
5mm	7,640	780	6,370	590	3,820	380	2,550	220	8,280	810
6mm	6,370	780	5,310	590	3,190	350	2,120	220	6,900	810
8mm	4,780	720	3,980	540	2,390	350	1,590	200	5,180	760
10mm	3,820	640	3,180	490	1,910	320	1,270	180	4,140	680
12mm	3,180	600	2,650	430	1,590	290	1,060	160	3,450	610
14mm	2,730	600	2,270	430	1,370	290	910	160	2,960	610
16mm	2,390	490	1,990	380	1,190	260	800	140	2,590	530
18mm	2,120	490	1,770	380	1,060	260	710	140	2,300	530
20mm	1,910	390	1,590	300	960	210	640	110	2,070	420
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

Table 53 CDHF 鎢鋼高速鑽頭- 標準型- 2刃(5倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		GG40	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	120m/min		100m/min		60m/min		40m/min		130m/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)
3mm	12,740	930	10,620	690	6,370	470	4,250	260	13,800	970
4mm	9,550	930	7,960	690	4,780	470	3,180	260	10,350	970
5mm	7,640	700	6,370	520	3,820	350	2,550	200	8,280	730
6mm	6,370	700	5,310	520	3,190	350	2,120	200	6,900	730
8mm	4,780	660	3,980	490	2,390	320	1,590	180	5,180	680
10mm	3,820	580	3,180	430	1,910	280	1,270	160	4,140	610
12mm	3,180	530	2,650	390	1,590	270	1,060	150	3,450	550
14mm	2,730	530	2,270	390	1,370	270	910	150	2,960	550
16mm	2,390	450	1,990	350	1,190	240	800	130	2,590	470
18mm	2,120	450	1,770	350	1,060	240	710	130	2,300	470
20mm	1,910	360	1,590	280	960	190	640	100	2,070	380
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

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 54 CDHC 鎢鋼高速內冷鑽頭- 短刃型- 2刃(3倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	150m/min		135m/min		70m/min		60m/min		160m/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)
4mm	11,940	1,130	10,750	860	5,570	570	4,780	320	12,740	1,180
5mm	9,550	860	8,600	640	4,460	430	3,820	240	10,190	890
6mm	7,960	860	7,170	640	3,720	430	3,180	240	8,490	890
8mm	5,970	790	5,370	590	2,790	400	2,390	220	6,370	830
10mm	4,780	710	4,300	530	2,230	360	1,910	200	5,100	740
12mm	3,980	660	3,580	490	1,860	330	1,590	180	4,250	740
14mm	3,410	660	3,070	490	1,590	330	1,360	180	3,640	660
16mm	2,990	560	2,690	420	1,390	280	1,190	160	3,180	570
18mm	2,650	560	2,390	420	1,240	280	1,060	160	2,830	570
20mm	2,390	450	2,150	340	1,120	220	960	130	2,550	460
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

Table 55 CDHCF 鎢鋼高速內冷鑽頭- 標準型- 2刃(5倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	150m/min		135m/min		70m/min		60m/min		160m/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)
4mm	11,940	1,020	10,750	770	5,570	510	4,780	280	12,740	1,060
5mm	9,550	770	8,600	570	4,460	380	3,820	210	10,190	800
6mm	7,960	770	7,170	570	3,720	380	3,180	210	8,490	800
8mm	5,970	720	5,370	540	2,790	350	2,390	200	6,370	740
10mm	4,780	640	4,300	490	2,230	320	1,910	180	5,100	660
12mm	3,980	570	3,580	430	1,860	290	1,590	160	4,250	610
14mm	3,410	570	3,070	430	1,590	290	1,360	160	3,640	610
16mm	2,990	490	2,690	380	1,390	260	1,190	140	3,180	530
18mm	2,650	490	2,390	380	1,240	260	1,060	140	2,830	530
20mm	2,390	390	2,150	300	1,120	210	960	110	2,550	420
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

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 56 CDHCS 鎢鋼高速內冷鑽頭-長刃型-2刃(7倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
切削速度 Vc	120m/min		85m/min		50m/min		40m/min		130m/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)
3mm	12,700	910	10,600	680	5,310	450	4,200	250	13,800	950
4mm	9,500	910	8,000	680	3,980	450	3,100	250	10,300	950
5mm	7,600	690	6,400	510	3,190	340	2,500	190	8,200	710
6mm	6,400	690	5,300	510	2,650	340	2,100	190	6,900	710
8mm	4,800	640	4,000	470	1,990	320	1,600	180	5,100	670
10mm	3,800	560	3,200	430	1,590	280	1,300	160	4,100	590
12mm	3,200	510	2,600	390	1,330	270	1,000	150	3,500	530
14mm	2,700	510	2,300	390	1,140	270	910	150	3,000	530
16mm	2,400	450	2,000	330	995	210	700	120	2,300	470
18mm	2,100	450	1,800	330	890	210	700	120	2,300	470
20mm	1,900	360	1,600	260	800	170	650	100	2,000	380
備註 Remarks	※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。 Uncoated Drills Reduce 30% RPM & FEED From Coating One.									

Table 57 鎢鋼銅鋁用直刃鑽鉸刀(白刀) 切削條件表

SOLID CARBIDE STRAIGHT FLUTE DRILLS for Aluminum & Copper- DRILLING CONDITION TABLE

加工材質 Material	鑄鐵 Cast Iron		青銅 Bronze		鋁合金 Aluminum Alloys	
工件料號 Material Code	FC,FCD		-		Al 5052 / 6061 / 7075	
硬度 Hardness	HRC<30		HRC≤25		-	
切削速度 Vc	120m/min		80m/min		140m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
5mm	7,640	960	5,100	410	8,920	1,430
6mm	6,370	800	4,250	340	7,430	1,190
8mm	4,780	600	3,190	260	5,570	890
10mm	3,820	480	2,550	200	4,460	710
12mm	3,190	400	2,120	170	3,720	600
16mm	2,390	300	1,590	130	2,790	450
20mm	1,910	240	1,270	100	2,230	360

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 58 鎢鋼螺旋機械鉸刀(白刀) 切削條件表

SOLID CARBIDE REAMER(STRAIGHT SHANK)- REAMING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels			合金鋼 Alloy Steels			鑄鐵 Cast Iron			銅合金 Copper Alloys			鋁合金 Aluminum Alloys		
工件料號 Material Code	S35C,S45C,S50C			SCM,SKT,SKD			FC,FCD			-			Al 5052 / 6061 / 707		
硬度 Hardness	HRC<20			HRC 20~30			HRC<30			-			-		
切削速度 Vc	16m/min			12m/min			18m/min			30m/min			30m/min		
外徑 Diameter	S (rpm)	F (mm/min)	預留量 Stock Amount	S (rpm)	F (mm/min)	預留量 Stock Amount	S (rpm)	F (mm/min)	預留量 Stock Amount	S (rpm)	F (mm/min)	預留量 Stock Amount	S (rpm)	F (mm/min)	預留量 Stock Amount
2mm	2,550	200	0.1~0.2	1,910	100	0.1~0.2	2,870	180	0.1~0.2	4,780	480	0.1~0.2	4,780	480	0.1~0.2
4mm	1,270	200	0.1~0.2	960	100	0.1~0.2	1,430	180	0.1~0.2	2,390	480	0.1~0.2	2,390	480	0.1~0.2
5mm	1,020	160	0.1~0.2	760	80	0.1~0.2	1,150	140	0.1~0.2	1,910	380	0.1~0.2	1,910	380	0.1~0.2
8mm	640	160	0.2	480	80	0.2	720	140	0.2	1,190	370	0.2~0.3	1,190	370	0.2
10mm	510	160	0.2	380	80	0.2	570	140	0.2	960	380	0.2~0.3	960	380	0.2~0.3

Table 59 鎢鋼車刀(鍍膜) 切削條件表(內孔專用)

SOLID CARBIDE TURNING TOOLS CUTTING CONDITION TABLE (FOR INTERNAL CUTTING ONLY)

材質 Material Group	加工材質 Material	切削速度 Vc (m/min)	每轉進給量 f (mm/rev)
P	非合金鋼 Unalloyed Steels	低碳Low Carbon	0.01~0.03
		中碳Medium Carbon	0.01~0.03
		高碳High Carbon	0.01~0.03
	合金鋼 Alloy Steels	40~80	0.01~0.03
M	不銹鋼 Stainless Steels	20~80	0.01~0.03
K	鑄鋼 Cast Steels	40~80	0.01~0.03
	鑄鐵 Cast Iron	40~110	0.01~0.03
N	非金屬 & 鋁 Non-Ferrous & Aluminium	50~110	0.01~0.03
S	高溫合金 High temperature Alloys	15~25	0.01~0.03
	鈦 Titanium	15~25	0.01~0.03
H	高硬度材 Hard Materials	13~25	0.01~0.03

車牙進刀數 Threading Passes							
牙距 Pitch:	mm	0.5	0.7	0.8	1.0	1.25	1.5
進刀數 Number of Passes		6~12	7~14	7~16	8~18	8~20	10~22

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 60 鎢鋼多功能螺旋鑽銑牙刀(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

材料種類 Material Group	加工材質 Material		布式硬度 HB	抗拉強度 Strength (N-mm)	Vc (m/min)	每轉進給量 f (mm/rev)		每刃進給量 fz (mm)	
						≤6mm	≤12mm	≤6mm	≤12mm
K	灰鑄鐵 Grey Cast Iron	灰鑄鐵 Grey Cast Iron	≤150	≤500	55~85	0.07~0.105	0.105~0.154	0.014~0.035	0.035~0.07
		灰鑄鐵(熱處理) Grey Cast Iron (Heat Treated)	150~300	500~1000	55~85	0.07~0.105	0.105~0.154	0.014~0.035	0.035~0.07
N	銅 Copper	短屑、黃銅、青銅 Short Chips、Brass、Bronze	≤200	≤700	—	0.07~0.21	0.042~0.07	0.021~0.042	0.042~0.07
		鋁、鎂(非合金) Aluminium、Magnesium Non Alloy	≤100	≤350	70~280	0.07~0.175	0.175~0.21	0.021~0.042	0.042~0.07
		鋁鑄造合金 Aluminium、Cast AlloyS (矽 Si<10%)	≤180	≤600	70~280	0.07~0.175	0.175~0.21	0.021~0.042	0.042~0.07
X	塑膠 Plastic	熱塑性塑膠 Thermoplastics	—	—	40~80	0.07~0.175	0.175~0.21	0.021~0.042	0.042~0.07
		熱固性塑膠 Thermosetting Plastic	—	—	40~70	0.07~0.175	0.175~0.21	0.021~0.042	0.042~0.07
		纖維增強塑膠 Fiber Reinforce Plastic	—	—	40~55	0.07~0.105	0.105~0.154	0.014~0.035	0.035~0.07
備註 Remarks	※ f(鑽孔)=每轉進給量(mm/rev.) ※ fz(銑削)=每刃進給量(mm)								

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 61 鈹鋼直刀 / 螺旋銑牙刀(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

材質 Material Group	加工材質 Material	布式硬度 HB	直刃 Straight		螺旋 Helix		
			切削速度 Vc (m/min)	每刃進給量 fz (mm)	切削速度 Vc (m/min)	每刃進給量 fz (mm)	
P	非合金鋼 Unalloyed steels	低碳(C=0.1~0.25%) Low carbon	125	40~140	0.008~0.08	65~200	0.024~0.12
		中碳(C=0.25~0.55%) Medium carbon	150	40~110	0.008~0.064	65~185	0.024~0.08
		高碳(C=0.55~0.85%) High carbon	170	40~100	0.008~0.04	65~160	0.024~0.064
	低合金鋼(含量5%) Low alloy steels	易切的 Non hardened	180	50~140	0.024~0.06	50~145	0.024~0.08
		調質的 Hardened	275	50~130	0.024~0.06	50~135	0.024~0.056
		調質的 Hardened	350	50~130	0.004~0.008	50~130	0.008~0.024
	高合金鋼(含量5%>) High alloy steels	退火的 Annealed	200	30~70	0.008~0.024	30~80	0.024~0.04
		淬硬的 Hardened	325	20~60	0.004~0.008	25~65	0.008~0.024
鑄鋼 Cast steels	低合金鋼(含量≤5%) Low alloy	200	60~160	0.008~0.024	65~200	0.024~0.08	
	高合金鋼(含量>5%) High alloy	225	50~120	0.004~0.008	50~135	0.008~0.024	
M	鐵素不銹鋼 Stainless steels Ferritic	易切的 Non hardened	200	40~110	0.008~0.04	50~120	0.032~0.08
		淬硬的 Hardened	330	40~90	0.004~0.008	50~95	0.008~0.04
	奧氏不銹鋼 Stainless steels Austenitic	奧氏 Austenitic	180	50~100	0.006~0.016	50~110	0.032~0.08
		優良奧氏 Super Austenitic	200	40~100	0.006~0.016	50~105	0.032~0.08
	鐵素鑄造不銹鋼 Stainless steels Cast Ferritic	易切的 Non hardened	200	40~120	0.008~0.024	50~130	0.032~0.08
		淬硬的 Hardened	330	40~80	0.004~0.008	50~90	0.024~0.04
	奧氏鑄造不銹鋼 Stainless steels Cast Austenitic	奧氏 Austenitic	200	40~110	0.008~0.024	50~120	0.032~0.08
		淬硬的 Hardened	330	40~70	0.008~0.024	50~80	0.024~0.04
K	球墨鑄鐵 Malleable Cast Iron	鐵素(短屑) Ferritic(short chips)	130	50~120	0.004~0.008	50~55	0.008~0.024
		珠光(長屑) Pearlitic(long chips)	230	40~110	0.004~0.008	50~120	0.024~0.04
	灰鑄鐵 Grey Cast Iron	低抗拉強度 Low tensile strength	180	40~110	0.006~0.016	55~130	0.02~0.08
		高抗拉強度 High tensile strength	260	30~90	0.004~0.008	30~95	0.024~0.04
可鍛鑄鐵 Nodular SG Iron	鐵素 Ferritic	160	30~80	0.006~0.016	30~90	0.04~0.08	
	珠光 Pearlitic	260	30~70	0.004~0.12	30~80	0.024~0.04	
N	可鍛壓鋁合金 Aluminium Alloys Wrought	鍛造 Non aging	60	120~200	0.04~0.12	160~240	0.08~0.2
		時效處理 Aged	100	80~180	0.024~0.12	120~200	0.08~0.16
	鋁合金 Aluminium Alloys	鑄造 Cast	75	60~120	0.04~0.12	80~160	0.08~0.16
		鑄造和時效 Cast & Aged	90	70~130	0.24~0.08	95~175	0.08~0.12
銅及鋁合金 Copper & Aluminium Alloys	鑄鋁, 含矽量13~22% Cast Si	130	120~200	0.04~0.12	160~240	0.08~0.16	
	黃銅 Brass	90	120~200	0.04~0.12	160~240	0.08~0.2	
S	高溫合金 High temperature Alloys	退火的(鐵基) Annealed(iron based)	200	20~40	0.006~0.016	25~50	0.032~0.08
		時效的(鐵基) Aged(iron based)	280	15~30	0.004~0.008	15~40	0.008~0.024
		退火的(鎳或鈷基) Annealed(Nickel or Cobalt based)	250	10~20	0.004~0.008	10~30	0.008~0.024
		時效的(鎳或鈷基) Aged(Nickel or Cobalt based)	350	12~20	0.004~0.008	10~25	0.008~0.024
		純鈦(99.5%) Pure(99.5% Ti)	400Rm	20~60	0.006~0.016	30~65	0.024~0.04
		α + β 合金 α + β alloys	1050Rm	15~40	0.006~0.016	15~40	0.024~0.04
H	超硬鋼 Extra Hard Steels	調質鋼 Hardened & Tempered	45~50HRC	10~30	0.002~0.005	10~35	0.004~0.008
			50~55HRC	10~20	0.002~0.005	10~30	0.004~0.008

※ 刀具「切入進給量」建議採取低於「螺紋切削時進給量」60%。
 ※ At tools entry, set the Feed (mm) to 60% lower than the threading Feed.

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 62 鎢鋼鋸片 切削條件表

MICRO GRAIN CARBIDE SLITTING SAWS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鋁合金,銅合金 Aluminum/ Copper	
	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)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		-		HRC<30		-	
切削速度 Vc	68m/min		59m/min		45m/min		28m/min		59m/min		68m/min		148m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
30mm	740	280	630	240	470	180	310	120	630	240	740	280	1,590	620
45mm	490	280	420	240	310	180	210	120	420	240	490	220	1,060	620
70mm	310	330	270	280	200	210	130	140	270	280	310	330	680	710
75mm	290	330	250	280	190	210	120	140	250	280	290	330	630	710
100mm	220	370	190	320	140	230	90	150	190	320	220	370	470	800
125mm	170	360	150	310	110	220	70	140	150	310	170	360	380	790

Table 63 高速鋼 / 高鈷鋼鋸片 切削條件表

HSS & HSS-Co SLITTING SAWS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鋁合金,銅合金 Aluminum/ Copper	
	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)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		-		HRC<30		-	
切削速度 Vc	48m/min		41m/min		32m/min		20m/min		41m/min		48m/min		104m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
30mm	520	200	440	170	330	130	220	80	440	170	520	200	1,110	430
45mm	340	230	290	170	220	130	150	80	290	170	340	150	740	430
70mm	220	230	190	200	140	150	90	100	190	200	220	230	480	500
75mm	200	260	175	200	130	150	80	100	175	200	200	230	440	500
100mm	150	250	130	220	100	160	60	105	130	220	150	260	330	560
125mm	120	250	105	220	80	150	50	100	105	220	120	252	270	550

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 64 極細鎢鋼球型銑刀- 2 / 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

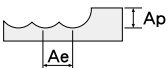
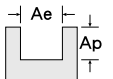
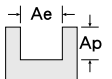
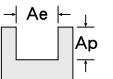
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	72m/min		54m/min		34m/min		29m/min		22m/min		54m/min		72m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5R	36,000	4,280	32,400	3,380	21,600	2,570	14,400	1,720	10,800	1,280	32,400	3,380	45,000	7,500
1.0R	20,520	2,440	16,200	1,690	11,700	1,390	8,200	980	6,160	730	16,200	1,690	22,860	3,810
2.0R	11,520	1,370	8,640	900	6,300	750	4,600	550	3,460	410	8,640	900	11,520	1,920
3.0R	7,560	900	5,760	600	3,780	450	3,020	360	2,270	270	5,760	600	7,560	1,260
4.0R	5,760	690	4,320	450	2,880	340	2,300	270	1,730	205	4,320	450	5,760	960
5.0R	4,590	550	3,420	360	2,160	255	1,830	215	1,380	160	3,420	360	4,590	765
6.0R	3,780	450	2,880	300	1,800	210	1,520	180	1,140	130	2,880	300	3,780	630
8.0R	3,200	380	2,400	250	1,560	180	1,280	150	960	110	2,400	250	3,200	530
10.0R	2,600	310	1,920	200	1,300	150	1,040	120	780	90	1,920	200	2,600	430
切削量 Cutting Amount (mm)	Ap=0.05D Ae=0.1D 													

Table 65 極細鎢鋼圓鼻銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
	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)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	95m/min		75m/min		63m/min		38m/min		28m/min		75m/min		110m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1mm	22,400	140	19,150	110	16,130	70	8,960	60	6,720	40	19,150	110	28,220	300
2mm	12,100	180	9,680	140	8,060	100	4,840	70	3,630	50	9,680	140	14,110	330
3mm	8,460	180	6,450	150	5,240	100	3,360	70	2,500	50	6,450	150	9,680	330
4mm	6,050	180	4,840	150	4,030	110	2,420	70	1,820	60	4,840	150	7,260	330
5mm	5,040	200	3,830	150	3,220	110	2,020	80	1,510	60	3,830	150	5,650	360
6mm	4,030	200	3,220	150	2,620	110	1,620	80	1,210	60	3,220	150	4,840	400
8mm	3,020	200	2,420	180	2,020	120	1,210	80	900	60	2,420	180	3,630	400
10mm	2,420	200	1,910	180	1,620	140	980	80	730	60	1,910	180	2,820	420
12mm	2,020	200	1,620	180	1,340	140	810	80	610	60	1,620	180	2,420	450
14mm	2,020	220	1,520	190	1,280	140	810	90	610	60	1,520	190	2,240	500
16mm	1,740	250	1,340	200	1,120	160	700	100	530	70	1,340	200	2,020	540
18mm	1,740	250	1,180	200	980	160	700	100	530	70	1,180	200	1,790	540
20mm	1,340	250	1,070	200	900	160	540	100	400	70	1,070	200	1,570	540
切削量 Cutting Amount (mm)	Ap=0.5D (D<3, Ap≤0.25D)  Ap=0.1D (D<3, Ap≤0.05D)  Ap=0.5D (D<3, Ap≤0.25D) 													

- 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.

Table 66 極細鎢鋼圓鼻銑刀- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE







加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		SUS304		FC,FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		HRC55~63		-		HRC<30	
切削速度 Vc	94m/min		75m/min		63m/min		37m/min		28m/min		75m/min		110m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1mm	5,040	550	6,450	380	5,240	180	3,380	220	2,580	170	6,450	380	9,680	1,010
2mm	6,050	550	4,840	380	4,030	180	2,420	220	1,820	170	4,840	380	7,260	1,210
3mm	5,040	550	3,830	380	3,220	180	2,020	220	1,510	170	3,830	380	5,650	1,210
4mm	4,030	550	3,220	380	2,620	180	1,620	220	1,210	170	3,220	380	4,840	1,210
5mm	3,020	550	2,420	380	2,020	200	1,210	220	900	170	2,420	380	3,630	1,210
6mm	2,420	570	1,910	400	1,620	200	960	230	730	180	1,910	400	2,820	1,310
8mm	2,020	570	1,620	400	1,340	200	810	230	610	180	1,620	400	2,420	1,410
10mm	2,020	620	1,520	450	1,280	220	810	260	610	190	1,520	450	2,240	1,570
12mm	1,740	670	1,340	470	1,120	220	700	270	530	200	1,340	470	2,020	1,680
14mm	1,570	670	1,180	470	980	220	620	270	470	200	1,180	470	1,790	1,680
16mm	1,340	670	1,070	470	900	220	540	270	400	200	1,070	470	1,570	1,790
18mm	1,740	250	1,180	200	980	160	700	100	530	70	1,180	200	1,790	540
20mm	1,340	250	1,070	200	900	160	540	100	400	70	1,070	200	1,570	540
切削量 Cutting Amount (mm)	Ap=1.5D Ae≤0.1D				Ap=1D Ae≤0.05D				Ap=1.5D Ae≤0.1D					

Table 67 極細鎢鋼平銑刀- 高效型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

溝銑加工 Slot Milling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys			
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-			
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30			
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)		
3mm	7,880	550	6,410	510	5,890	390	5,590	350	5,400	330		
4mm	5,810	550	4,800	580	4,430	390	4,160	390	4,050	370		
5mm	4,650	550	3,830	570	3,530	410	3,340	410	3,230	400		
6mm	3,860	560	3,190	480	2,960	430	2,780	430	2,700	410		
8mm	2,890	450	2,400	410	2,210	410	2,100	390	2,030	380		
10mm	2,330	440	1,910	410	1,760	360	1,690	360	1,610	340		
12mm	1,950	420	1,610	360	1,460	350	1,390	330	1,350	330		
切削量 Cutting Amount (mm)	Ap≤1D Ap(Max)=9mm				Ap≤0.5D				Ap≤0.2D			

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 68 極細鎢鋼平銑刀- 高效型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

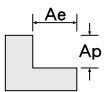
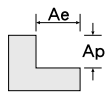
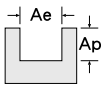
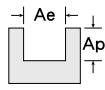
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys	
	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
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)
3mm	9,380	830	7,160	630	6,080	470	5,740	460	5,550	410
4mm	7,310	900	5,660	740	4,800	510	4,540	530	4,390	470
5mm	5,960	980	4,610	790	3,940	540	3,710	580	3,600	500
6mm	5,060	1,200	3,940	900	3,340	670	3,150	630	3,040	520
8mm	3,790	1,160	2,960	830	2,510	610	2,360	610	2,290	510
10mm	3,080	1,090	2,400	790	2,030	540	1,910	540	1,840	480
12mm	2,550	1,050	1,990	750	1,690	540	1,580	510	1,540	450
切削量 Cutting Amount (mm)	Ap ≤ 1.5D Ae ≤ 0.2D				Ap ≤ 1.5D Ae ≤ 0.1D				Ap ≤ 1.5D Ae ≤ 0.05D	

Table 69 極細鎢鋼圓鼻銑刀- 高效型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

溝銑加工 Slot Milling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys	
	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)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
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)
3mm	7,880	550	6,410	510	5,890	390	5,590	350	5,400	330
4mm	5,810	550	4,800	580	4,430	390	4,160	390	4,050	370
5mm	4,650	550	3,830	570	3,530	410	3,340	410	3,230	400
6mm	3,860	560	3,190	480	2,960	430	2,780	430	2,700	410
8mm	2,890	450	2,400	410	2,210	410	2,100	390	2,030	380
10mm	2,330	440	1,910	410	1,760	360	1,690	360	1,610	340
12mm	1,950	420	1,610	360	1,460	350	1,390	330	1,350	330
切削量 Cutting Amount (mm)	Ap ≤ 1D Ap(Max)=9mm				Ap ≤ 0.5D				Ap ≤ 0.2D	

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 70 極細鎢鋼圓鼻銑刀- 高效型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

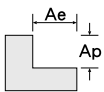
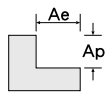

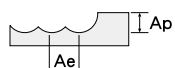
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys	
	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30	
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)
3mm	9,380	830	7,160	630	6,080	470	5,740	460	5,550	410
4mm	7,310	900	5,660	740	4,800	510	4,540	530	4,390	470
5mm	5,960	980	4,610	790	3,940	540	3,710	580	3,600	500
6mm	5,060	1,200	3,940	900	3,340	670	3,150	630	3,040	520
8mm	3,790	1,160	2,960	830	2,510	610	2,360	610	2,290	510
10mm	3,080	1,090	2,400	790	2,030	540	1,910	540	1,840	480
12mm	2,550	1,050	1,990	750	1,690	540	1,580	510	1,540	450
切削量 Cutting Amount (mm)	Ap≤1.5D Ae≤0.2D				Ap≤1.5D Ae≤0.1D				Ap≤1.5D Ae≤0.05D	

Table 71 極細鎢鋼球型銑刀- 高效型- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

溝銑加工 Slot Milling

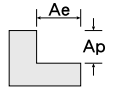
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鈦合金 Titanium Alloys		鎳基合金 Ni-Based Alloys	
	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		-		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		-		HRC<30		HRC<30	
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)	S (rpm)	F (mm/min)
2.5R	5,565	910	4,305	735	3,675	508	3,465	543	3,360	469	1,715	172
3.0R	4,725	1,120	3,675	840	3,115	623	2,940	585	2,835	487	1,470	175
4.0R	3,535	1,085	2,765	770	2,345	571	2,205	567	2,135	473	1,120	158
5.0R	2,870	1,015	2,240	735	1,890	508	1,785	501	1,715	445	875	151
6.0R	2,380	980	1,855	700	1,575	504	1,470	473	1,435	424	735	147
8.0R	1,785	840	1,400	658	1,190	445	1,120	389	1,085	354	536	147
10.0R	1,435	690	1,120	529	945	413	875	361	875	322	445	140
切削量 Cutting Amount (mm)	Ap=1D Ae=0.5D				Ap=1D Ae=0.4D		Ap=1D Ae=0.2D					

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.

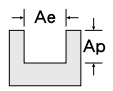
Table 72 鎢鋼鋁用銑刀-強力型-3刃(白刀) 切削條件表

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	880	1,260	430
切削量 Cutting Amount (mm)	Ap=0.5D			

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 73 極細鎢鋼平銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

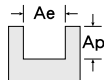
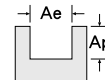
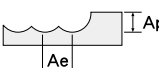
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鋁合金,銅合金 Aluminum/ Copper	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		-		HRC<30		-	
切削速度 Vc	102m/min		81m/min		67m/min		40m/min		80m/min		118m/min		30m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1mm	11,340	130	25,650	110	21,600	70	12,000	60	25,650	110	37,800	300	9,000	40
2mm	16,200	170	12,960	130	10,800	90	6,480	70	12,960	130	18,900	320	4,860	50
3mm	11,340	170	8,640	150	7,020	100	4,500	70	8,640	150	12,960	320	3,350	50
4mm	8,100	180	6,480	150	5,400	110	3,240	70	6,480	150	9,720	320	2,430	60
5mm	6,750	200	5,130	150	4,320	110	2,700	80	5,130	150	7,560	360	2,030	60
切削量 Cutting Amount (mm)	Ap=0.3D (D<3, Ap≤0.15D)				Ap=0.06D (D<3, Ap≤0.03D)		Ap=0.3D (D<3, Ap≤0.15D)				Ap=0.06D (D<3, Ap≤0.03D)			

Table 74 極細鎢鋼球型銑刀- 2刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

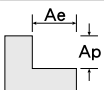
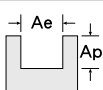
加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron		鋁合金,銅合金 Aluminum/ Copper	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		FC,FCD		-	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		HRC45~55		-		HRC<30		-	
切削速度 Vc	180m/min		158m/min		109m/min		79m/min		158m/min		214m/min		60m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
0.5R	54,000	675	48,600	570	32,400	435	21,600	270	48,600	570	67,500	1,100	16,200	202
1.0R	30,780	900	24,300	735	17,550	570	12,300	360	24,300	735	34,290	1,350	9,240	270
2.0R	17,280	1,080	12,960	840	9,450	652	6,900	435	12,960	840	17,280	1,545	5,190	324
3.0R	11,340	1,350	8,640	900	5,670	675	4,530	540	8,640	900	11,340	1,890	3,410	405
切削量 Cutting Amount (mm)	Ap=0.03D Ae=0.06D													

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 75 極細鎢鋼不銹鋼用平銑刀-高導型-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			
工件料號 Material Code	SUS304			
硬度 Hardness	-			
切削速度 Vc	70m/min			
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
1mm	22,290	300~1,000	22,290	100~200
2mm	11,146	300~1,000	11,146	100~200
3mm	7,430	300~1,000	7,430	100~200
4mm	5,570	300~1,000	5,570	100~200
5mm	4,460	500~1,000	4,460	200~300
6mm	3,720	500~1,200	3,720	200~300
7mm	3,190	500~1,200	3,190	300~400
8mm	2,790	500~1,100	2,790	300~400
10mm	2,230	500~1,100	2,230	300~400
12mm	1,860	600~800	1,860	250~300
14mm	1,590	600~800	1,590	250~300
15mm	1,490	400~600	1,490	250~300
16mm	1,390	400~600	1,390	250~300
18mm	1,240	300~500	1,240	100~250
20mm	1,120	300~500	1,120	100~250
25mm	890	300~500	890	100~250
切削量 Cutting Amount (mm)	$A_p=0.5D$ $A_e=0.1\sim0.5D$ 		$A_p=0.5D$ 	

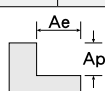
1. 當加工聲音尖銳時，請調降主軸轉速(S) (10~40%)。 When the sound is piercing, please lower the spindle speed(S) (10~40%).
2. 當機台震動太大時，請調降進給速度(F) (10~40%)。 When the machine is vibrating, please decrease the feed rate(F) (10~40%).
3. 當主軸負載太大時，請調降進給速度(F) (10~40%)。 When the spindle load is high, please decrease the feed 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.

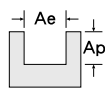
Table 76 鎢鋼鋁用平銑刀- 高效型- 3刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

加工材質 Material	鋁合金 Aluminum Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075	
硬度 Hardness	—	
切削速度 Vc	180m/min	
外徑 Diameter	S (rpm)	F (mm/min)
3mm	19,100	970
4mm	14,330	1,140
5mm	11,460	1,200
6mm	9,550	1,300
8mm	7,170	1,400
10mm	5,730	1,500
12mm	4,780	1,600
16mm	3,580	1,600
切削量 Cutting Amount (mm)	$A_p=1.5D$ $A_e=0.1\sim 0.5D$ 	

溝銑加工 Slot Milling

加工材質 Material	鋁合金 Aluminum Alloys	
工件料號 Material Code	Al 5052 / 6061 / 7075	
硬度 Hardness	—	
切削速度 Vc	180m/min	
外徑 Diameter	S (rpm)	F (mm/min)
3mm	19,100	700
4mm	14,330	740
5mm	11,460	760
6mm	9,550	860
8mm	7,170	900
10mm	5,730	1,020
12mm	4,780	1,080
16mm	3,580	1,080
切削量 Cutting Amount (mm)	$A_p=0.5D$ 	

- 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.

Table 77 極細鎢鋼多功能單 / 雙牙鑽銑牙刀 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

材質 Material Group	加工材質 Material		硬度 Hardness	MSHIA		MSHDIA	
				切削速度 Vc (m/min)	每刃進給量 fz (mm)	切削速度 Vc (m/min)	每刃進給量 fz (mm)
P	碳素鋼 Carbon Steels	S35C,S45C,S50C	HRC<20	—	—	65~200	0.008~0.01
	合金鋼 Alloy Steels	SCM,SKT,SKD	HRC20~30	—	—	65~185	0.005~0.008
	合金鋼 Alloy Steels	SCM,SKT,SKD	HRC30~45	—	—	65~160	0.004~0.005
M	不銹鋼 Stainless Steels	SUS304	—	—	—	50~100	0.004~0.008
K	鑄鐵 Cast Iron	FC,FCD	HRC<30	—	—	40~110	0.004~0.008
N	鋁合金 Aluminum Alloys	Al 5052 / 6061 / 7075	—	60~120	0.007~0.08	—	—

※ 刀具「切入進給量」建議採取低於「螺紋切削時進給量」60%。
 ※ At tools entry, set the Feed (mm) to 60% lower than the threading Feed.

Table 78 CDSF 鎢鋼同柄鑽頭- 2刃(5倍長)(鍍膜) 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE

濕式鑽孔 Wet- Drilling

加工材質 Material	碳素鋼 Carbon Steels		合金鋼 Alloy Steels		合金鋼 Alloy Steels		不銹鋼 Stainless Steels		鑄鐵 Cast Iron	
工件料號 Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304		FC/FCD	
硬度 Hardness	HRC<20		HRC20~30		HRC30~45		—		HRC<30	
切削速度 Vc	90m/min		65m/min		50m/min		40m/min		80m/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)
3mm	9,550	830	6,900	620	5,310	410	4,250	230	8,490	860
5mm	5,730	620	4,140	460	3,190	320	2,550	170	5,100	840
8mm	3,580	570	2,590	440	1,990	290	1,590	160	3,190	810
10mm	2,870	530	2,070	390	1,590	260	1,270	140	2,550	800
12mm	2,390	470	1,730	350	1,330	230	1,060	140	2,120	800
16mm	1,790	400	1,290	310	1,000	210	800	110	1,590	790

備註
Remarks

※ 未鍍膜鑽頭，請依照上表，減少30%左右轉速和進給量。
 Uncoated Drills Reduce 30% RPM & FEED From Coating One.

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 79 鎢鋼鋁用平底型鑽頭- 2刃 切削條件表

SOLID CARBIDE DRILLS- DRILLING CONDITION TABLE


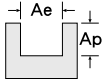
加工材質 Material	鋁合金 Aluminum Alloys	
工件料號 Material Code	Al 6061	
硬度 Hardness	—	
切削速度 Vc	100m/min	
外徑 Diameter	S (rpm)	F (mm/min)
3mm	10,620	400
4mm	7,960	400
5mm	6,370	400
6mm	5,310	500
8mm	4,000	500
10mm	3,180	600
12mm	2,650	600
16mm	1,990	550
20mm	1,590	550
切削量 Cutting Amount (mm)	$Ap \leq 3D$ 	
備註 Remarks	※ 加工工件斜度(θ)在 30° 以下, 請調降進給速度(F)至50%。 ※ When drilling incline angle is less than 30° , reduce the feed rate by 50%. ※ 加工工件斜度在(θ) 30° 以上, 請調降主軸轉速(S)至70%以下, 進給速度(F)至30%以下。 ※ When drilling incline angle is over 30° , reduce the spindle speed by under 70%, the feed rate by under 30%.	

Table 80 鎢鋼雕刻銑刀- 1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		鈦合金 Titanium Alloys		非金屬 Non-metal	
	S35C,S45C,S50C		SUS304		FC,FCD		Al 6061		—		塑膠 Plastic	
硬度 Hardness	HRC<30		—		HRC<30		—		HRC<30		—	
切削速度 Vc	75m/min		75m/min		75m/min		75m/min		75m/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	6,000	70	6,000	150	6,000	150	6,000	70	6,000	220
60°	6,000	120	6,000	100	6,000	200	6,000	200	6,000	100	6,000	300
切削量 Cutting Amount (mm)	$Ap \leq 0.25$ 											

- 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.

Table 81 鎢鋼複合材料銑刀- DIA鑽石塗層- 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE



加工材質 Material	非金屬 Non-metal			
工件料號 Material Code	碳纖維 Carbon Fiber CERP		玻璃纖維 Glass Fiber GFRP	
硬度 Hardness	-		-	
切削速度 Vc	100m/min		70m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3	10,610	640	7,430	450
4	7,960	720	5,570	500
5	6,370	960	4,450	670
6	5,310	1,110	3,710	780
8	3,980	1,310	2,780	910
10	3,180	1,530	2,230	1,060
12	2,650	1,700	1,860	1,190
切削量 Cutting Amount (mm)	$A_p \leq 2D$ $A_e \leq 0.35D$			

Table 82 鎢鋼複合材料銑刀- RD彩鑽塗層- 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	非金屬 Non-metal			
工件料號 Material Code	碳纖維 Carbon Fiber CERP		玻璃纖維 Glass Fiber GFRP	
硬度 Hardness	-		-	
切削速度 Vc	100m/min		70m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3	10,610	260	7,430	180
4	7,960	290	5,570	200
5	6,370	380	4,450	270
6	5,310	440	3,710	310
8	3,980	520	2,780	360
10	3,180	610	2,230	420
12	2,650	680	1,860	480
切削量 Cutting Amount (mm)	$A_p \leq 2D$ $A_e \leq 0.35D$			

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.