

鎢鋼成型銑刀 系列

Carbide Special End Mills Series

泛用鋼材 $\leq 50\text{HRC}$

不銹鋼

鋁合金 / 銅合金

鑄鐵

For general steel ($\leq 50\text{HRC}$), stainless steel,
cast iron and aluminum/copper alloy machining.



產品選擇表 Product Selection Table

刀型 Type	刃數 Flute	型號 Model Number	產品類別 Product Classification	形狀 Appearance	尺寸 Size	頁數 Page
鎢鋼成型銑刀系列 Carbide Special End Mills						
T型刀 T-Slot Keyseat End Mills	四/六刃 4/6 Flutes	CEK000000000A			Ø4 ~ Ø12	166
	10/12/16刃 10/12/16 Flutes	AEK000000000			Ø16 ~ Ø30	167
外圓槽銑刀 Convex End Mills	四/六刃 4/6 Flutes	CEC000000000A			Ø4 ~ Ø12	168
	10/12/16刃 10/12/16 Flutes	AEC000000000			Ø16 ~ Ø30	169
鳩尾槽銑刀 Dovetail End Mills	四/六刃 4/6 Flutes	CECS0000000000A	45°		Ø3 ~ Ø12	170
		CECS0000000000A	60°		Ø3 ~ Ø12	170
等角鳩尾槽 銑刀 V-Type Dovetail End Mills	四/六刃 4/6 Flutes	CECSW000000000A	60°		Ø6 ~ Ø12	171
		CECSW000000000A	90°		Ø6 ~ Ø12	171
倒角兼用銑刀 V-Pointed End Mills	二刃 2 Flutes	CEC20000000A	90°		Ø3 ~ Ø20	172
		CEC20000000A	120°		Ø3 ~ Ø20	172
扁形倒角銑刀 Chamfering End Mills	二刃 2 Flutes	CEFC00000	標準型-Standard 60 / 90 / 120°		Ø3 ~ Ø16	173
多功能 倒角銑刀 Multifunctional Chamfer End Mills (Chamfering- Spotting- Engraving)	單刃 1 Flute	CEFC100000	標準型-Standard 60 / 90°		Ø3 ~ Ø12	174
		CEFCL100000	長柄型-Long Shank 60 / 90°		Ø3 ~ Ø12	174
	三刃 3 Flutes	MEFCD300000A	標準型-Standard 60 / 90°		Ø3 ~ Ø12	175
		MEFCDL300000A	長柄型-Long Shank 60 / 90°		Ø3 ~ Ø12	175
		MEFC300000A	標準型-Standard 60 / 90°		Ø3 ~ Ø12	176
		MEFCL300000A	長柄型-Long Shank 60 / 90°		Ø3 ~ Ø12	176
雕刻銑刀 Engraving End Mills	單刃 1 Flute	CEU(M)000000	標準型-Standard 30 / 60 / 90°		Ø0.1 ~ Ø1.5	177
內R角銑刀 Inner Radius End Mills	二刃 2 Flutes	CEIR200000000			0.5R ~ 6.0R	178

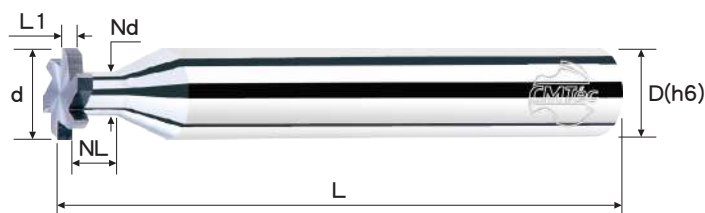
碳素鋼 Carbon Steels (<20HRC)	合金鋼 Alloy Steels (20~30HRC)	合金鋼 Alloy Steels (30~45HRC)	調質鋼 Hardened Steels (45~55HRC)	調質鋼 Hardened Steels (55~65HRC)	不銹鋼 Stainless Steels	鑄鐵 Cast Iron	鋁合金 Aluminum Alloys	銅 Copper	非金屬 Non-metal	高溫合金 High-Temp Alloys	冷卻方式推薦 Suitable Coolant	加工型態 Type of Finishing			
P	P	P	H	H	M	K	N	N	X	S		A	B	C	D
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	○	○	—	—	濕式(Wet)				
○	○	○	—	—	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	○	○	—	—	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	○	—	—	—	○	○	○	○	—	—	濕式(Wet)				
—	—	—	—	—	—	—	○	○	○	—	濕式(Wet)				
—	—	—	—	—	—	—	○	○	○	—	濕式(Wet)				
○	○	○	○	○	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	○	○	○	○	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	○	○	○	○	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	○	○	○	○	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				
○	—	—	—	—	—	—	○	○	○	○	濕式(Wet)				
○	○	○	—	—	○	○	—	—	—	—	乾式 / 濕式 (Dry / Wet)				

加工型態 Type of Finishing → A=超精銑 Bright Finishing B=精銑 Finishing C=中銑 Semi Finishing D=粗銑 Roughing

鎢鋼T型刀- 直刃

CARBIDE END MILLS- T-Slot Keyseat- Flat Flute

· CEK000000000A



刃長	公差 Tolerance
L1	±0.02



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※ 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.	鍍膜訂購編號 Coated Order No.
4.0	0.5	2.5	3.5	50	4	4	CEK040005004	CEK040005004A
4.0	0.6	2.5	3.5	50	4	4	CEK040006004	CEK040006004A
4.0	0.7	2.5	3.5	50	4	4	CEK040007004	CEK040007004A
4.0	0.8	2.5	3.5	50	4	4	CEK040008004	CEK040008004A
4.0	0.9	2.5	3.5	50	4	4	CEK040009004	CEK040009004A
4.0	1.0	2.5	3.5	50	4	4	CEK040010004	CEK040010004A
4.0	1.5	2.5	3.5	50	4	4	CEK040015004	CEK040015004A
4.0	2.0	2.5	3.5	50	4	4	CEK040020004	CEK040020004A
5.0	0.5	2.5	4.0	50	6	4	CEK050005004	CEK050005004A
5.0	0.6	2.5	4.0	50	6	4	CEK050006004	CEK050006004A
5.0	0.7	2.5	4.0	50	6	4	CEK050007004	CEK050007004A
5.0	0.8	2.5	4.0	50	6	4	CEK050008004	CEK050008004A
5.0	0.9	2.5	4.0	50	6	4	CEK050009004	CEK050009004A
5.0	1.0	2.5	4.0	50	6	4	CEK050010004	CEK050010004A
5.0	1.5	2.5	4.0	50	6	4	CEK050015004	CEK050015004A
5.0	2.0	2.5	4.0	50	6	4	CEK050020004	CEK050020004A
6.0	0.5	3.0	4.0	50	6	6	CEK060005006	CEK060005006A
6.0	0.6	3.0	4.0	50	6	6	CEK060006006	CEK060006006A
6.0	0.7	3.0	4.0	50	6	6	CEK060007006	CEK060007006A
6.0	0.8	3.0	4.0	50	6	6	CEK060008006	CEK060008006A
6.0	0.9	3.0	4.0	50	6	6	CEK060009006	CEK060009006A
6.0	1.0	3.0	4.0	50	6	6	CEK060010006	CEK060010006A
6.0	1.5	3.0	4.0	50	6	6	CEK060015006	CEK060015006A
6.0	2.0	3.0	4.0	50	6	6	CEK060020006	CEK060020006A
8.0	1.0	4.0	4.0	60	8	6	CEK080010006	CEK080010006A
8.0	1.5	4.0	4.0	60	8	6	CEK080015006	CEK080015006A
8.0	2.0	4.0	4.0	60	8	6	CEK080020006	CEK080020006A
10.0	1.0	5.0	6.0	75	10	6	CEK100010006	CEK100010006A
10.0	1.5	5.0	6.0	75	10	6	CEK100015006	CEK100015006A
10.0	2.0	5.0	6.0	75	10	6	CEK100020006	CEK100020006A
12.0	1.0	6.0	7.0	75	12	6	CEK120010006	CEK120010006A
12.0	1.5	6.0	7.0	75	12	6	CEK120015006	CEK120015006A
12.0	2.0	6.0	7.0	75	12	6	CEK120020006	CEK120020006A

→ 切削條件表
Cutting Condition P.557

→ 技術資料
Technical Data P.622

BRAZED- CARBIDE END MILLS- T-Slot Keyseat- Flat Flute

Technical drawing of a gear-shaft assembly. The drawing shows a gear with d teeth and a shaft of length L . The gear has a pitch diameter d and a module m . The shaft has a diameter $D(h6)$ and a length L . The gear is mounted on the shaft with a key. The dimensions are labeled as follows: $L1$ is the distance from the gear face to the key, Nd is the distance from the gear face to the shaft end, NL is the distance from the gear face to the shaft end, and L is the total length of the shaft.



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※ 刃徑(d)≥16mm，柄部為焊接設計。
Dia.(d)≥16mm is brazed shank.

SPECIAL

Carbide Special End Mills

鎢鋼成型銑刀系列

→ 技術資料
Technical Data

CARBIDE END MILLS- Convex

Technical drawing of a tapered shaft. The drawing shows a shaft with a tapered section on the left and a cylindrical section on the right. The dimensions are labeled as follows: $L1$ is the length of the tapered section; Nd is the diameter of the tapered section; d is the diameter of the cylindrical section; R is the radius of the fillet transition; NL is the length of the cylindrical section; L is the total length of the shaft; and $D(h6)$ is the diameter of the cylindrical section with a tolerance of $h6$.



R角	公差 Tolerance
R	±0.02



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➡ 切削條件表 P.557
Cutting Condition

→ 技術資料
Technical Data

BRAZED- CARBIDE END MILLS- Convex

Technical drawing of a double-flute drill bit. The drawing shows the bit from a side perspective, highlighting its double-flute design. Key dimensions are labeled: $L1$ (length of the cutting edge), Nd (width of the cutting edge), d (outer diameter), R (radius of the cutting edge), NL (length of the cutting edge), L (total length), and $D(h6)$ (outer diameter tolerance class). The bit is shown in a 3D perspective view.



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→ 技術資料
Technical Data

CARBIDE END MILLS- Dovetail- Flat Flute

A 3D perspective view of a tapered bolt. The bolt has a conical head with a taper angle δ° and a diameter d . The shank has a total length L and a diameter $D(h6)$. The shank is divided into two sections: a length $L1$ from the head to the start of the taper, and a length NL for the tapered section.



角度(單邊)	公差 Tolerance
δ°	$\pm 1^\circ$



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

[illegible]

➡ 切削條件表 P.557
Cutting Condition

→ 技術資料 P.622
Technical Data

CARBIDE END MILLS- V-Type Dovetail- Flat Flute

Technical drawing of a conical drill bit. The drawing shows the bit's geometry with the following dimensions and labels:

- δ° : Conical angle of the drill bit.
- Nd : Label near the cutting edge.
- d : Diameter of the cutting edge.
- $L1$: Length of the cutting edge.
- NL : Length of the neck.
- L : Total length of the drill bit.
- $D(h6)$: Diameter of the shank.



角度	公差 Tolerance
δ°	$\pm 1^\circ$



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[illegible]

→ 切削條件表 P.557
Cutting Condition

→ 技術資料
Technical Data

CARBIDE END MILLS- V-Pointed- 2F

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

- d : Diameter of the drill bit.
- ε : Angle of the cutting edge.
- L_1 : Length of the cutting edge.
- L : Total length of the drill bit.
- $D(h6)$: Diameter of the shank of the drill bit.

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→ 技術資料
Technical Data

鎢鋼扁形倒角銑刀- 2刃

CARBIDE CHAMFERING END MILLS- Flat- 2F

· CEFC00000



角度	公差 Tolerance
ε °	± 1 °

代碼	角度
C0	120

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



頂角 ε °	刃徑 d	刃長 L1	全長 L	柄徑 D	白刀訂購編號 Uncoated Order No.
60°	3	2.59	50	3	CEFC03060
60°	4	3.46	50	4	CEFC04060
60°	6	5.19	50	6	CEFC06060
60°	8	6.92	50	8	CEFC08060
60°	10	8.66	75	10	CEFC10060
60°	12	10.39	75	12	CEFC12060
60°	16	13.85	75	16	CEFC16060
60°	3	2.59	75	3	CEFCL03060
60°	4	3.46	75	4	CEFCL04060
60°	6	5.19	75	6	CEFCL06060
60°	8	6.92	75	8	CEFCL08060
60°	10	8.66	100	10	CEFCL10060
60°	12	10.39	100	12	CEFCL12060
90°	3	1.50	50	3	CEFC03090
90°	4	2.00	50	4	CEFC04090
90°	6	3.00	50	6	CEFC06090
90°	8	4.00	50	8	CEFC08090
90°	10	5.00	75	10	CEFC10090
90°	12	6.00	75	12	CEFC12090
90°	16	8.00	75	16	CEFC16090
90°	3	1.50	75	3	CEFCL03090
90°	4	2.00	75	4	CEFCL04090
90°	6	3.00	75	6	CEFCL06090
90°	8	4.00	75	8	CEFCL08090
90°	10	5.00	100	10	CEFCL10090
90°	12	6.00	100	12	CEFCL12090
120°	3	0.86	50	3	CEFC030C0
120°	4	1.15	50	4	CEFC040C0
120°	6	1.73	50	6	CEFC060C0
120°	8	2.30	50	8	CEFC080C0
120°	10	2.88	75	10	CEFC100C0
120°	12	3.46	75	12	CEFC120C0
120°	16	4.61	75	16	CEFC160C0

→ 技術資料
Technical Data P.622

SPECIAL

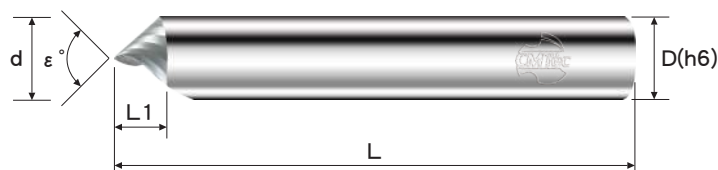
Carbide Special End Mills

鎢鋼成型銑刀系列

鎢鋼鋁用倒角銑刀- 標準 & 長柄型- 1 刃

CARBIDE CHAMFERING END MILLS- For Aluminum- 1F

· CEFC100000
· CEFCL100000



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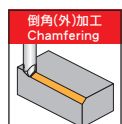
※ 切削刃中心小平面 ≤ 刃徑的10%。
The cutting edge center flat is
≤ 10% of the cutting diameter.



切 削 實 例
CUT EXAMPLES

角度	Tolerance(公差)
ε °	± 1 °

頂角 ε °	刃徑 d	刃長 L1	全長 L	柄徑 D	白刀訂購編號 Uncoated Order No.
60°	3	2.59	50	3	CEFC103060
60°	4	3.46	50	4	CEFC104060
60°	6	5.19	50	6	CEFC106060
60°	8	6.92	60	8	CEFC108060
60°	10	8.66	60	10	CEFC110060
60°	12	10.39	60	12	CEFC112060
60°	3	2.59	75	3	CEFCL103060
60°	4	3.46	75	4	CEFCL104060
60°	6	5.19	75	6	CEFCL106060
60°	8	6.92	100	8	CEFCL108060
60°	10	8.66	100	10	CEFCL110060
60°	12	10.39	100	12	CEFCL112060
90°	3	1.50	50	3	CEFC103090
90°	4	2.00	50	4	CEFC104090
90°	6	3.00	50	6	CEFC106090
90°	8	4.00	60	8	CEFC108090
90°	10	5.00	60	10	CEFC110090
90°	12	6.00	60	12	CEFC112090
90°	3	1.50	75	3	CEFCL103090
90°	4	2.00	75	4	CEFCL104090
90°	6	3.00	75	6	CEFCL106090
90°	8	4.00	100	8	CEFCL108090
90°	10	5.00	100	10	CEFCL110090
90°	12	6.00	100	12	CEFCL112090



→ 切削條件表
Cutting Condition P.556

→ 技術資料
Technical Data P.622

SPECIAL

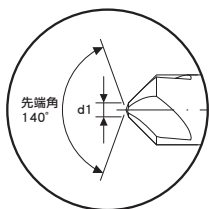
Carbide Special End Mills

鎢鋼成型銑刀系列

CARBIDE CHAMFERING END MILLS- For High Hardness- 3F

Technical drawing of a drill bit. The drawing shows a side view of the drill bit with the following dimensions and labels:

- d : Diameter of the drill bit.
- L : Total length of the drill bit.
- L_1 : Length of the cutting edge.
- ε° : Angle of the cutting edge.
- $D(h6)$: Diameter of the hole to be drilled.



角度	Tolerance(公差)
ε°	$\pm 1^{\circ}$

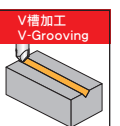
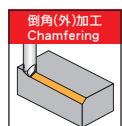


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切 削 實 例
CUT EXAMPLES

頂角 ε °	刃徑 d	先端徑 d1	刃長 L1	全長 L	柄徑 D	鍍膜訂購編號 Coated Order No.
60°	3	0.6	2.17	50	3	MEFCD303060A
60°	4	0.8	2.91	50	4	MEFCD304060A
60°	6	1.2	4.37	50	6	MEFCD306060A
60°	8	1.6	5.83	60	8	MEFCD308060A
60°	10	2.0	7.28	60	10	MEFCD310060A
60°	12	2.4	8.74	60	12	MEFCD312060A
60°	3	0.6	2.17	75	3	MEFCDL303060A
60°	4	0.8	2.91	75	4	MEFCDL304060A
60°	6	1.2	4.37	75	6	MEFCDL306060A
60°	8	1.6	5.83	100	8	MEFCDL308060A
60°	10	2.0	7.28	100	10	MEFCDL310060A
60°	12	2.4	8.74	100	12	MEFCDL312060A
90°	3	0.6	1.30	50	3	MEFCD303090A
90°	4	0.8	1.74	50	4	MEFCD304090A
90°	6	1.2	2.61	50	6	MEFCD306090A
90°	8	1.6	3.49	60	8	MEFCD308090A
90°	10	2.0	4.36	60	10	MEFCD310090A
90°	12	2.4	5.23	60	12	MEFCD312090A
90°	3	0.6	1.30	75	3	MEFCDL303090A
90°	4	0.8	1.74	75	4	MEFCDL304090A
90°	6	1.2	2.61	75	6	MEFCDL306090A
90°	8	1.6	3.49	100	8	MEFCDL308090A
90°	10	2.0	4.36	100	10	MEFCDL310090A
90°	12	2.4	5.23	100	12	MEFCDL312090A

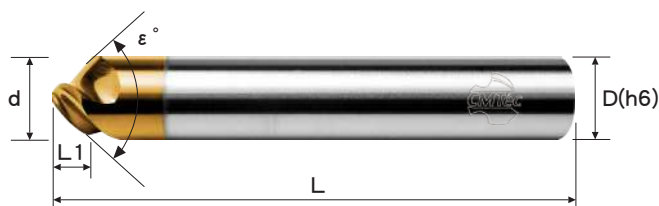
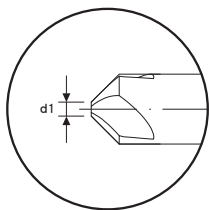


➡ 切削條件表 P.556
Cutting Condition

➡ 技術資料 Technical Data P.622

CARBIDE CHAMFERING END MILLS- Standard- 3F

▪ **MEFCL300000A**



先端径 d1	公差 Tolerance
$d1 \leq 1$	0 ~ -0.02
$d1 > 1$	0 ~ -0.05

角度	Tolerance(公差)
ε°	$\pm 0.5^\circ$



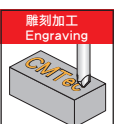
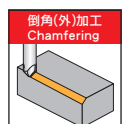
※ 產品特色：可由編程精準控制倒角尺寸。
Programming control chamfer dimension.



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頂角 ε °	刃徑 d	先端徑 d1 (Max)	刃長 L1	全長 L	柄徑 D	鍍膜訂購編號 Coated Order No.
60°	3	0.8	1.90	50	3	MEFC303060A
60°	4	0.8	2.77	50	4	MEFC304060A
60°	6	1.0	4.33	50	6	MEFC306060A
60°	8	1.0	6.06	60	8	MEFC308060A
60°	10	2.0	6.92	60	10	MEFC310060A
60°	12	2.0	8.66	60	12	MEFC312060A
60°	3	0.8	1.90	75	3	MEFCL303060A
60°	4	0.8	2.77	75	4	MEFCL304060A
60°	6	1.0	4.33	75	6	MEFCL306060A
60°	8	1.0	6.06	100	8	MEFCL308060A
60°	10	2.0	6.92	100	10	MEFCL310060A
60°	12	2.0	8.66	100	12	MEFCL312060A
90°	3	0.8	1.10	50	3	MEFC303090A
90°	4	0.8	1.60	50	4	MEFC304090A
90°	6	1.0	2.50	50	6	MEFC306090A
90°	8	1.0	3.50	60	8	MEFC308090A
90°	10	2.0	4.00	60	10	MEFC310090A
90°	12	2.0	5.00	60	12	MEFC312090A
90°	3	0.8	1.10	75	3	MEFCL303090A
90°	4	0.8	1.60	75	4	MEFCL304090A
90°	6	1.0	2.50	75	6	MEFCL306090A
90°	8	1.0	3.50	100	8	MEFCL308090A
90°	10	2.0	4.00	100	10	MEFCL310090A
90°	12	2.0	5.00	100	12	MEFCL312090A



➡ 切削條件表 P.556
Cutting Condition

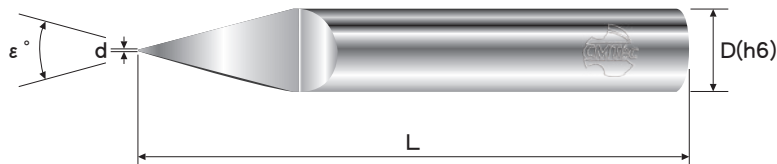
→ 技術資料 P.622
Technical Data

鎢鋼雕刻刀- 標準型- 1 刃

CARBIDE ENGRAVING END MILLS- Standard- 1F

· CEUM000000

· CEU000000



加工材質：鋼材、鋁合金、黃銅、塑膠、木材。

For steel, aluminum, brass, plastic, wood.

※ 其他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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切 削 實 例
CUT EXAMPLES

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

→ 切削條件表 P.555
Cutting Condition

→ 技術資料 P.622
Technical Data

SPECIAL

Carbide Special End Mills

鎢鋼成型銑刀系列

CARBIDE END MILLS- Inner Radius- 2F



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→ 技術資料
Technical Data