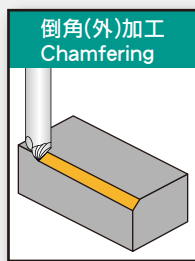
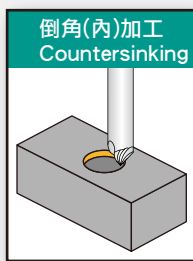


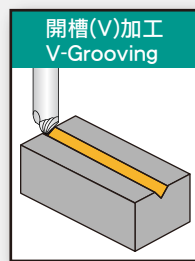
定點加工
Spotting



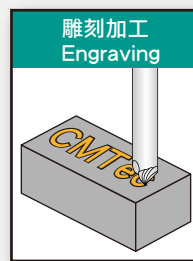
倒角(外)加工
Chamfering



倒角(內)加工
Countersinking



開槽(V)加工
V-Grooving



雕刻加工
Engraving

CEFC MEFCO

NEW- 多功能鎢鋼倒角銑刀系列
MULTIFUNCTIONAL CHAMFER CUTTER

1

CEFC型號: 鋁合金專用倒角刀(AI5052, 6061, 7075)。
CEFC for aluminum alloy(5052, 6061, 7075) machining.

切 削 實 例
CUT EXAMPLES



鋁合金Al6061加工

CEFC/ 1刃鋁用倒角銑刀

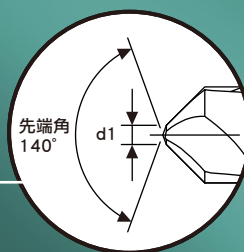
鋁, 銅合金, 塑膠軟材質之應用!

2

MEFCO型號: 高硬材質($\leq 50\text{HRC}$)專用倒角刀。
MEFCO for high hardness Steel($\leq 50\text{HRC}$) machining.

MEFCO/ 3刃高硬用倒角銑刀

碳素鋼, 合金鋼, 高硬鋼材之應用!



產品特色/ Features :

一把可倒角、定點、雕刻加工完美結合的多功能切削刀具。
A perfect multi-functional cutting tools in chamfering, spotting and engraving.

提供全長最長100mm, 適合各種精密模具深腔倒角加工用。
Maximum length with 100mm for any kind of mold machining.

提供常用倒角角度60 & 90°。
Chamfering for 60 & 90°.

切 削 實 例
CUT EXAMPLES

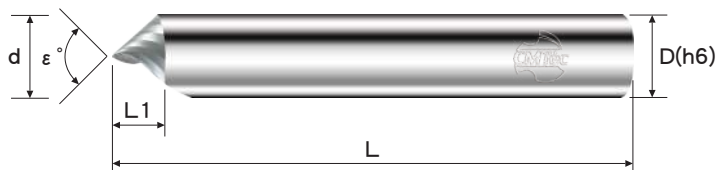


中碳鋼S45C加工

鎢鋼鋁用倒角銑刀- 標準 & 長柄型- 1 刃

CARBIDE CHAMFERING END MILLS FOR ALUMINUM- Standard & Long Shank- 1F

· CEFC100000
· CEFCL100000



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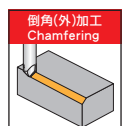
※ 切削刃中心小平面 ≤ 刃徑的10%。
The cutting edge center flat is
≤ 10% of the cutting diameter.



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

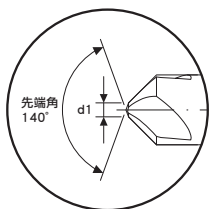
SPECIAL

Carbide Special End Mills

鎢鋼成型銑刀系列

CARBIDE CHAMFERING END MILLS FOR HIGH HARDNESS- Standard & Long Shank- 3F

Technical drawing of a double-flute drill bit. The drawing shows the drill bit with dimensions: d (flute diameter), $D(h6)$ (shaft diameter), L_1 (flute length), L (total length), and ε° (flute angle). The brand 'GEMEC' is visible on the shaft.



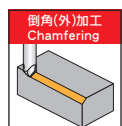
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切 削 實 例
CUT EXAMPLES

角度	Tolerance(公差)
ε°	$\pm 1^\circ$

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 P.622
Technical Data

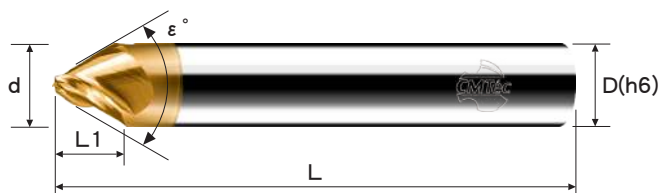
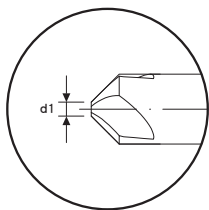
SPECIAL

Carbide Special End Mills

鎢鋼成型銑刀系列

CARBIDE CHAMFERING END MILLS- Standard & Long Shank- 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°	$\pm 0.5^\circ$



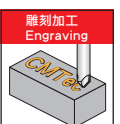
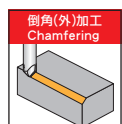
※ 產品特色：可由編程精準控制倒角尺寸。
Programming control chamfer dimension.



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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



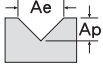
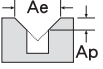
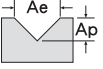
➡ 切削條件表 P.556
Cutting Condition

→ 技術資料 P.622
Technical Data

Table 43

鋁鋼鋁用倒角銑刀- 1刃(白刀) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

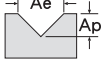
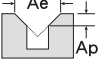
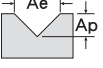
加工材質 Material	鋁合金 Aluminum Alloys					
工件料號 Material Code	Al 5052 / 6061 / 7075					
硬度 Hardness	—					
加工方式 Cutting Mode	定點加工 Spotting		倒角加工 Chamfering		雕刻加工 Engraving	
切削速度 Vc	100~200m/min		100~200m/min		100~200m/min	
外徑 Diameter	S (rpm)	f (mm/rev)	S (rpm)	f (mm/rev)	S (rpm)	f (mm/rev)
3mm	11,000~21,000	0.01	11,000~21,000	0.01~0.04	11,000~21,000	0.01~0.02
4mm	8,000~16,000	0.01	8,000~16,000	0.01~0.04	8,000~16,000	0.01~0.03
6mm	5,000~11,000	0.02	5,000~11,000	0.02~0.07	5,000~11,000	0.02~0.04
8mm	4,000~8,000	0.03	4,000~8,000	0.02~0.10	4,000~8,000	0.03~0.06
10mm	3,200~6,400	0.03	3,200~6,400	0.02~0.15	3,200~6,400	0.03~0.06
12mm	2,700~5,300	0.04	2,700~5,300	0.02~0.14	2,700~5,300	0.04~0.08
16mm	2,000~4,000	0.05	2,000~4,000	0.02~0.14	2,000~4,000	0.05~0.10
切削量 Cutting Amount (mm)			Ap=0.5~1.0mm 		Ap≤0.03D 	

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

Table 44

極細鋁鋼高硬度倒角銑刀- 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					
工件料號 Material Code	SCM,SKT,SKD					
硬度 Hardness	HRC≤50					
加工方式 Cutting Mode	定點加工 Spotting		倒角加工 Chamfering		雕刻加工 Engraving	
切削速度 Vc	90~150m/min		90~150m/min		90~150m/min	
外徑 Diameter	S (rpm)	f (mm/rev)	S (rpm)	f (mm/rev)	S (rpm)	f (mm/rev)
3mm	9,550~15,920	0.01	9,550~15,920	0.03~0.06	9,550~15,920	0.02~0.04
4mm	7,170~11,940	0.02	7,170~11,940	0.03~0.06	7,170~11,940	0.02~0.04
6mm	4,780~7,960	0.02	4,780~7,960	0.05~0.10	4,780~7,960	0.03~0.08
8mm	3,580~5,970	0.03	3,580~5,970	0.10~0.20	3,580~5,970	0.03~0.08
10mm	2,870~4,780	0.05	2,870~4,780	0.15~0.30	2,870~4,780	0.05~0.13
12mm	2,390~3,980	0.07	2,390~3,980	0.20~0.35	2,390~3,980	0.10~0.15
16mm	1,790~2,990	0.08	1,790~2,990	0.20~0.35	1,790~2,990	0.10~0.15
切削量 Cutting Amount (mm)			Ap=0.5~1.0mm 		Ap≤0.03D 	

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

- 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.