Size φ3～φ10

C-CTE4000

Super MG | UT COAT | 30° | Flatland | ±5′ | Shank Dia 0/-0.005

Material Applications（★ Highly Recommended ● Recommended ○ Suggested）

Work Material																
Carbon Steels S45C S55C	Alloy Steels SK / SCM SUS	Prehardened Steels NAK HPM	Hardened Steels ～50HRC	Hardened Steels ～55HRC	Hardened Steels ～60HRC	Hardened Steels ～65HRC	Hardened Steels ～70HRC	Cast Iron	Aluminum Alloys	Graphite	Copper	Plastics	Glass Filled Plastics	Titanium Alloys	Heat Resistant Alloys	Cemented Carbide	Hard Brittle (Non-Metallic) Materials
●	●	●	●	●				○			○						

Features

Extensive line up of tapered design from 30′ to 7° of half included angle.
Refer to page 564 for 2 flute C-CTE.

Total 46 models　　Unit（mm）

Model Number	Tip Diameter	Half Included Angle	Length of Cut	Dia. at Large End	Overall Length	Shank Diameter	Suggested Retail Price ¥
C-CTE 4030-1	3	30′	10	3.17	50	6	11,340
C-CTE 4030-2		1°		3.35	50	6	11,340
C-CTE 4030-3		1°30′		3.52	50	6	11,340
C-CTE 4030-4		2°		3.70	50	6	11,340
C-CTE 4030-5		2°30′		3.87	50	6	11,340
C-CTE 4030-6		3°		4.05	50	6	11,340
C-CTE 4030-10		5°		4.75	50	6	12,290
C-CTE 4030-14		7°		5.46	50	6	13,650
C-CTE 4040-1	4	30′	15	4.26	50	6	11,760
C-CTE 4040-2		1°		4.52	50	6	11,760
C-CTE 4040-3		1°30′		4.79	50	6	11,760
C-CTE 4040-4		2°		5.05	50	6	11,760
C-CTE 4040-5		2°30′		5.31	50	6	11,760
C-CTE 4040-6		3°		5.57	50	6	11,760
C-CTE 4040-10		5°		6.63	50	8	16,280
C-CTE 4040-14		7°		7.68	50	8	18,150

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Unit (mm)

Model Number	Tip Diameter	Half Included Angle	Length of Cut	Dia. at Large End	Overall Length	Shank Diameter	Suggested Retail Price ¥
C-CTE 4050-1	5	30′	20	5.35	60	6	13,650
C-CTE 4050-2		1°		5.70	60	6	13,650
C-CTE 4050-3		1°30′		6.05	60	8	14,300
C-CTE 4050-4		2°		6.40	60	8	14,300
C-CTE 4050-5		2°30′		6.75	60	8	14,300
C-CTE 4050-6		3°		7.10	60	8	14,300
C-CTE 4050-10		5°		8.50	60	10	21,780
C-CTE 4050-14		7°		9.91	60	10	24,200
C-CTE 4060-1	6	30′	20	6.35	60	8	14,300
C-CTE 4060-2		1°		6.70	60	8	14,300
C-CTE 4060-3		1°30′		7.05	60	8	14,300
C-CTE 4060-4		2°		7.40	60	8	14,300
C-CTE 4060-5		2°30′		7.75	60	8	15,840
C-CTE 4060-6		3°		8.10	60	10	15,840
C-CTE 4060-10		5°		9.50	60	10	23,320
C-CTE 4060-14		7°		10.91	60	12	25,960
C-CTE 4080-1	8	30′	25	8.44	70	10	22,440
C-CTE 4080-2		1°		8.87	70	10	23,100
C-CTE 4080-3		1°30′		9.31	70	10	24,750
C-CTE 4080-4		2°		9.75	70	10	26,070
C-CTE 4080-5		2°30′		10.18	75	12	28,600
C-CTE 4080-6		3°		10.62	75	12	30,360
C-CTE 4080-10		5°		12.37	90	12	52,800
C-CTE 4100-1	10	30′	35	10.61	90	12	37,950
C-CTE 4100-2		1°		11.22	90	12	40,260
C-CTE 4100-3		1°30′		11.83	90	12	42,900
C-CTE 4100-4		2°		12.44	90	12	49,500
C-CTE 4100-5		2°30′		13.05	90	12	53,900
C-CTE 4100-6		3°		13.67	90	12	57,750
C-CTE 4100-10		5°		16.12	90	16	69,300

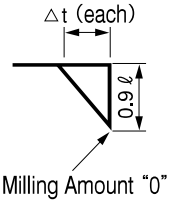
Milling Conditions for C-CTE（4 Flutes）

WORK MATERIAL		CARBON STEELS ALLOY STEELS (～325HB)		TOOL STEELS PREHARDENED STEELS (30～40HRC)		PREHARDENED STEELS HARDENED STEELS (40～50HRC)	
Model Number	Tip Diameter (mm)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	Spindle Speed (min^{-1})	Feed Rate (mm/min)
4030	**3**	4,200	200	3,200	150	2,100	90
4040	**4**	3,200	200	2,400	150	1,600	90
4050	**5**	2,600	200	1,900	150	1,300	90
4060	**6**	2,100	200	1,600	150	1,100	90
4080	**8**	1,600	200	1,200	150	800	90
4100	**10**	1,300	200	1,000	150	600	90

Milling Amount for Side Milling (mm)

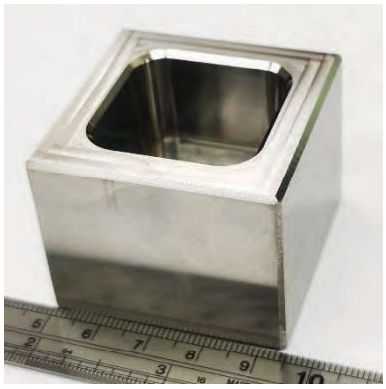
ℓ = Length of Cut

$\triangle t$ = tan Half Included Taper Angle × 0.9 ℓ

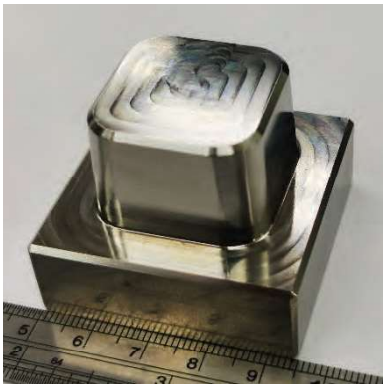


Note:
- Recommend water soluble or oil coolant.
- Recommend wet coolant for Copper.

Milling Example of Convex and Concave　　STAVAX (52HRC)



4 Flute Highly Efficient Radius HRRS



4 Flute Taper End Mill C-CTE4000

Work Size
45 × 45 × 35 mm

No chattering with both side of work and corner. Uniform milling surface.

Tool		Spindle Speed (min^{-1})	Feed Rate (mm/min)	a_p (mm)	a_e (mm)	Cycle Time (m:s)
4 Flute Highly Efficient Radius HRRS	φ6 × CR0.5	6,500	600	0.02	2.5	3min 7 sec
4 Flute Taper End Mill C-CTE4000	φ6 × Half Included Angle 3°	2,200	300	20	0.03	1min 43 sec