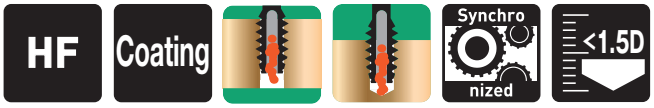
Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

EH-CT

Carbide Taps for Hard Materials

Specification



Tapping Speeds depending on Materials

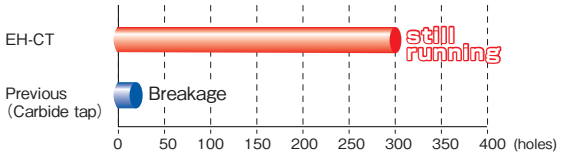
Thermal refined steels 調質鋼 ~5 (m/min)
45~55HRC

Product Features

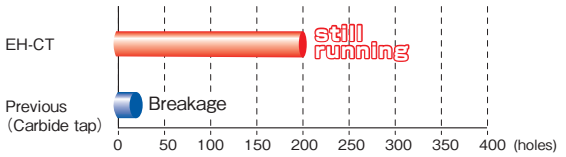
- Ideal for high hardness steel tapping from 45 to 55 HRC. For hot mold SKS 3 and SKD 11.
- The ultra fine grain cemented carbide is superior in abrasion resistance and impact resistance.
- Better concentricity improves the accuracy of the entire tap and roundness of the shank.
- Recommended tapping length is "Major diameter size x 1.5" or less 5P chamfer for better tool life.
- For the bored hole diameter, the maximum minor diameter of a 6H internal thread diameter maximum value is recommended.

Tapping Data [M8×1.25]

Tapping Data

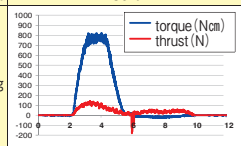
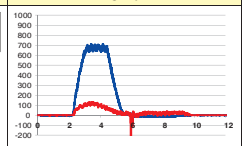
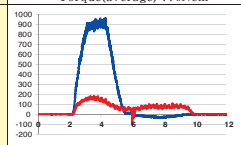
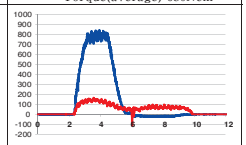


Work Material	Type	Hot forged die steel (SKD61)
	Hardness	50HRC
Tapping Speed		6m/min
Feed		Full rigid
Tapping Fluid		Non-water soluble cutting oil



Work Material	Type	Stainless steel for plastic die (SUS420J2)
	Hardness	52HRC
Tapping Speed		6m/min
Feed		Full rigid
Tapping Fluid		Non-water soluble cutting oil

〈Torque line in the different bored hole size〉

Bored Hole Size		6.8mm(Actual 6.79mm)	6.9mm(Actual 6.89mm)
Thread Engagement Ratio		89%	81%
Torque and Thrust Lines	Beginning	 Torque(average) 770Ncm	 Torque(average) 680Ncm
	After 50 Holes Tapping	 Torque(average) 890Ncm	 Torque(average) 780Ncm

Tapping condition

Work Material	DAC (equivalent to SKD61) 50HRC
Tapping Speed	6m/min
Feed	Rigid
Tapping Fluid	Non-water soluble cutting oil

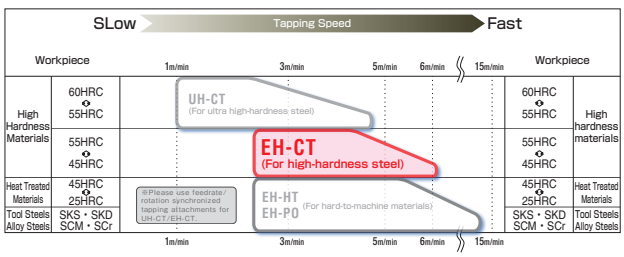
Bored hole size enlarged by 0.1mm can reduce the tapping resistance torque by 10%.
In tapping the material of high hardness, it is recommendable to make the bored hole size as large as possible.

Recommended bored hole size (for reference)

unit : mm

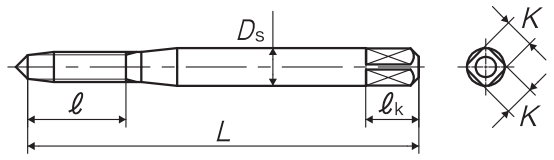
Size	Recommended Bored Hole Size	Minor Dia. of JIS 6H Class Internal Screw Thread	
		Max. Tolerance	Min. Tolerance
M3 × 0.5	2.56	2.599	2.459
M4 × 0.7	3.40	3.422	3.242
M5 × 0.8	4.30	4.334	4.134
M6 × 1	5.10	5.153	4.917
M8 × 1.25	6.90	6.912	6.647
M10 × 1.5	8.60	8.676	8.376
M12 × 1.75	10.4	10.441	10.106

Application

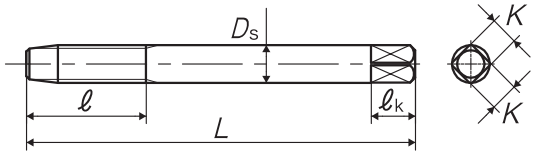


Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

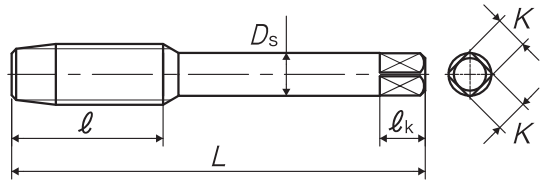
TYPE : 1



TYPE : 2



TYPE : 3



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M3 × 0.5	P3	EHCR3.0G5	5P	46	11	4	3.2	6	4	1	¥ 16,600
M4 × 0.7	P3	EHCR4.0I5	5P	52	13	5	4	7	4	1	¥ 17,600
M5 × 0.8	P3	EHCR5.0K5	5P	60	16	5.5	4.5	7	4	1	¥ 18,300
M6 × 1	P3	EHCR6.0M5	5P	62	19	6	4.5	7	5	2	¥ 19,900
M8 × 1.25	P4	EHCS8.0N5	5P	70	22	6.2	5	8	5	3	¥ 24,600
M10 × 1.5	P4	EHCS010O5	5P	75	24	7	5.5	8	5	3	¥ 33,200
M12 × 1.75	P4	EHCS012P5	5P	82	30	8.5	6.5	9	5	3	¥ 43,700