Advanced Engineering

MMC Hitachi Tool

No. 419.2

Epoch21 Nano-PVD Coating TH45+

# Epoch Turbo High Feed Radius Pencil

## Solid Carbide 4-flute Corner Radius End Mill

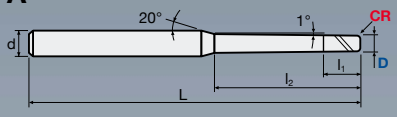
### Extremely high cutting efficiency

### Low r.p.m. – High Feed

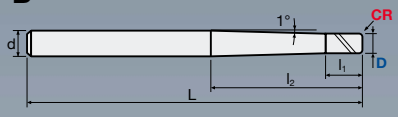
## EPOCH TURBO PENCIL NECK

| Q max | ▽ | ▽▽ | ▽▽▽ | HRC | No. of Teeth |
|---|---|---|---|---|---|
| High Efficient | Roughing | Semi-Finishing | Finishing | 60 | 4 |

**A**




**B**




| Carbide | TH45+ |
|---|---|
| Micro Grain | Nano-PVD Coating |

| | |
|---|---|
| D | 0 / -0.015 |
| R | ± 0.015 |
| d | h5 |

| ID Code | Item Code | D | CR | $l_2$ | $l_1$ | θ | L | d | Type |
|---|---|---|---|---|---|---|---|---|---|
| EP589 | **ETMP-4020-12-05** | 2 | 0.5 | 12 | 3 | 1° | 70 | 6 | A |
| EP590 | **ETMP-4020-16-05** | | | 16 | | | | | |
| EP591 | **ETMP-4020-20-05** | | | 20 | | | | | |
| EP592 | **ETMP-4030-18-08** | 3 | 0.8 | 18 | 4.5 | | 80 | | |
| EP593 | **ETMP-4030-24-08** | | | 24 | | | | | |
| EP594 | **ETMP-4030-30-08** | | | 30 | | | | | |
| EP595 | **ETMP-4040-24-10** | 4 | 1.0 | 24 | 6 | | 90 | | |
| EP596 | **ETMP-4040-32-10** | | | 32 | | | | | |
| EP597 | **ETMP-4040-40-10** | | | 40 | | | | | |
| EP598 | **ETMP-4050-30-12** | 5 | 1.2 | 30 | 7.5 | | 100 | 8 | |
| EP599 | **ETMP-4050-40-12** | | | 40 | | | | | |
| EP600 | **ETMP-4050-50-12** | | | 50 | | | 110 | | |
| EP601 | **ETMP-4060-40-15** | 6 | 1.5 | 40 | 9 | | 100 | | |
| EP602 | **ETMP-4060-55-15** | | | 55 | | | 110 | | |
| EP603 | **ETMP-4060-67-15** | | | 67 | | | 125 | | B |

More stability with θ = 1° neck angle


MMC Hitachi Tool Engineering Europe GmbH

www.high-speed-cutting.com

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**ATTENTION**
- Be careful of the newly developed flute shape when measuring tool diameter or oscillation.
- The bit is designed with a smaller outer diameter connected to end slave flutes.
- When measuring tool diameter or oscillation, measure the main flutes.

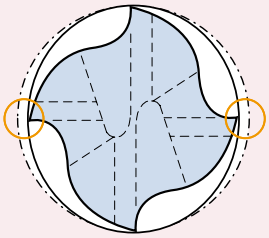
**ZUR BEACHTUNG**
- Bitte beachten Sie die Schneidengeometrie beim Messen von Werkzeugdurchmesser oder Oszillation.
- Der Fräser hat einen geringeren Außendurchmesser, verbunden mit den vorderen Sekundärschneiden.
- Für die Vermessung von Werkzeugdurchmesser / Oszillation sind die Hauptschneiden relevant.

**ATTENZIONE**
- Prestare attenzione alla nuova geometria dei taglienti durante la misurazione del diametro utensile o del run-out.
- Per determinare il diametro dell'utensile od il run-out, misurare i taglienti principali.

**ATENCIÓN**
- Tenga en cuenta la nueva geometría de los labios de la herramienta cuando mida el diámetro o el salto.
- Los labios secundarios están diseñados con un diámetro menor.
- Al medir diámetro de la herramienta o el salto, hay que medir los labios principales.

**ATTENTION**
- Faites attention à la forme de la dent développée pour cet outils, lors de la mesure du diamètre de l'outil ou de l'oscillation.
- Les dents secondaires sont légèrement en retrait des dents principales, ce qui donne un diamètre inférieur.
- Lors de la mesure du diamètre ou de l'oscillation, appliquer ces mesures aux dents principales.

**ATENÇÃO**
- Ter em atenção a nova geometria da navalha, quando se medir o diâmetro ou oscilação da ferramenta.
- As navalhas mais recolhidas estão desenhadas para um diâmetro mais pequeno
- Aquando da medição do diâmetro ou oscilação da ferramenta, medir as navalhas principais.



## Product Range

Solid Carbide End Mills

microEndMill

Epoch21 MINIATURE

CBN Cubic Boron Nitride

HD COATING

3D-Cut

Indexable Milling Tools

Indexable Milling

WHNSB Drills

WHNSB NONSTEP BOHER

Milling Chucks

Milling Chucks

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HTT615 1506 ETMP-6.5 BW-DS