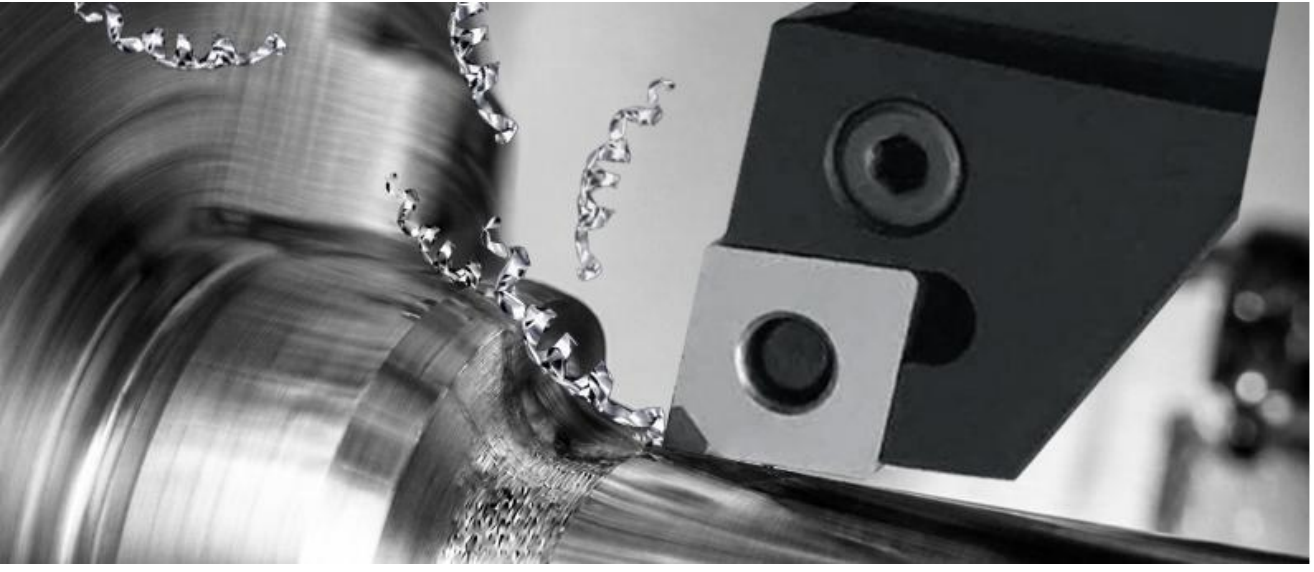
Wiper-Schneidplatte

WIPER INSERT

EHWA SINCE 1975



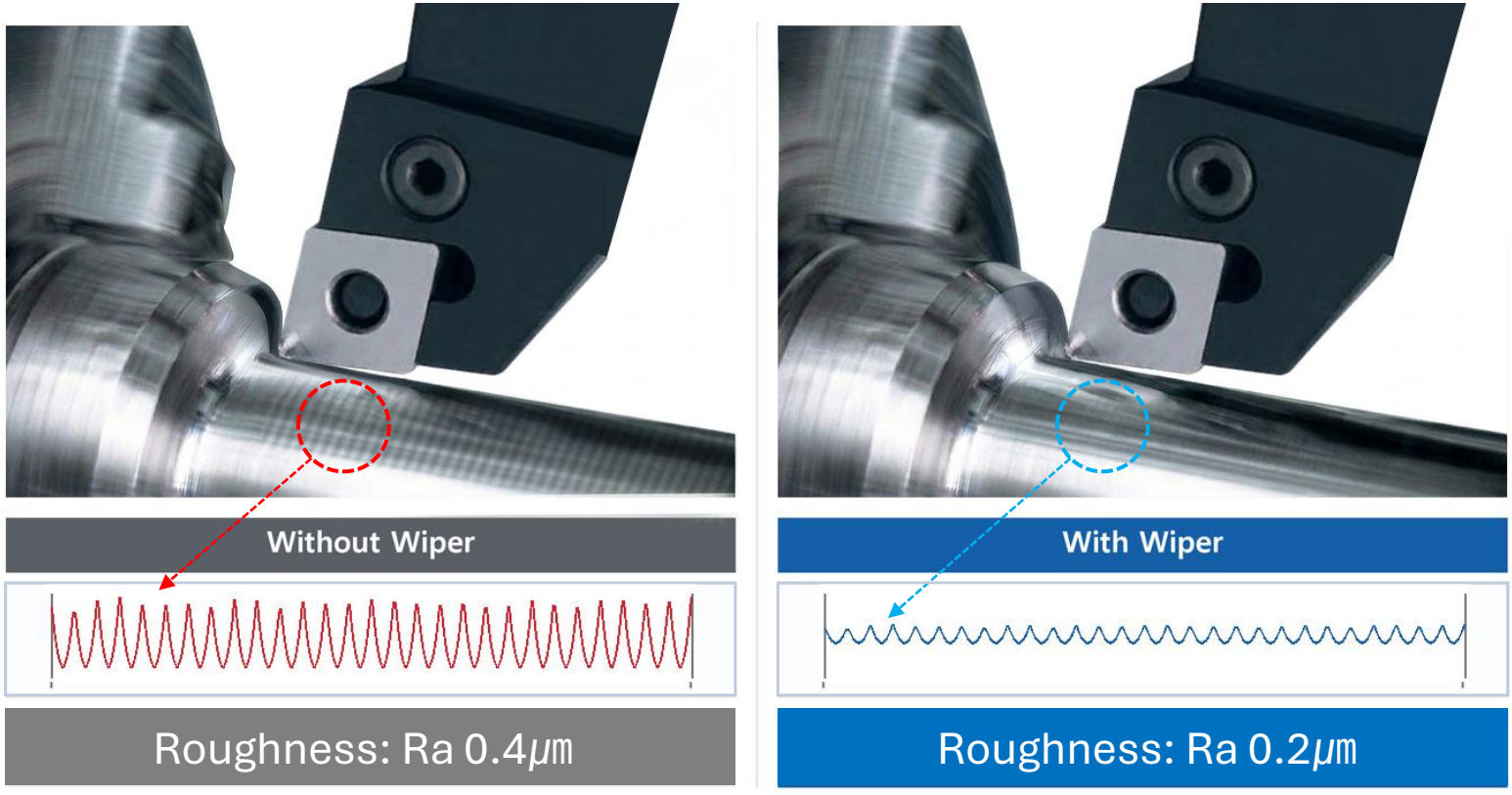
Excellent Quality and Superior Performance
Optimized Corner Geometry
Minimized Feed Marks

WITHOUT WIPER VS WITH WIPER-

UNDER THE SAME CUTTIG CONDITION

EHWA SINCE 1975

Ohne Wiper vs. mit Wiper - unter gleichen Schnittbedingungen



※ Based on the same cutting conditions. Ra 0.4μm → 0.2μm level(theoretical roughness). Images are for illustrative purposes only.

WIPER INSERT TYPE

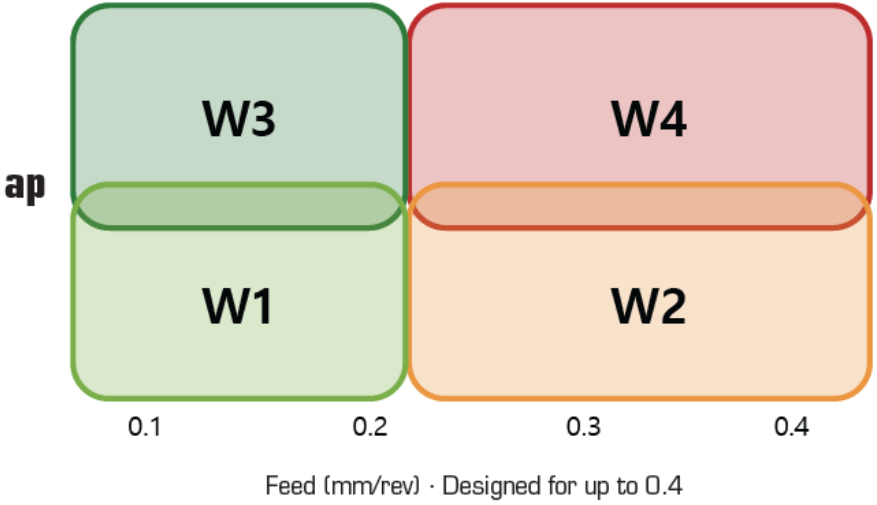
EHWA SINCE 1975

Wiper-Schneidplattentypen

Types

W1	W3	W2	W4
Low feed / Universal Purpose Stable machining	Enhanced version of W1 Reduction of cutting load and chatter vibration	High hardness/High performance High feed Finishing	Enhanced version of W3 Reduction of cutting load and chatter vibration

Recommendation



Application

PCBN
Hardened steel, cast iron, sintered metals
Hard turning finishing.

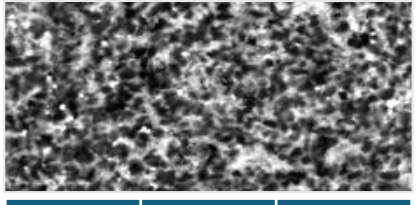
PCD
Aluminum, non-ferrous metals & composites
Mirror finishing & High feed machining.

EBC76S - Neue Sorte für die Zahnradbearbeitung

EBC76S NEW GRADE FOR GEAR MACHINING

EHWA SINCE 1975

Originally developed for gear machining, it is also well suited for bearing machining application.

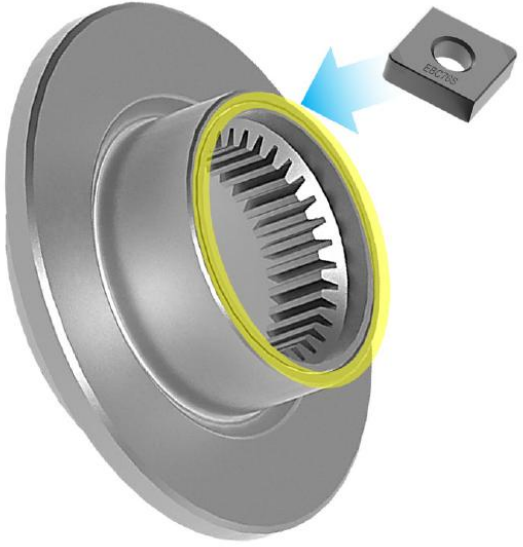


Grade	Grit Size	CBN vol.
EBC76S	1μm	65%

EBC76S NEW GRADE FOR GEAR MACHINING

EHWA SINCE 1975

EBC76S - Neue Sorte für die Zahnradbearbeitung

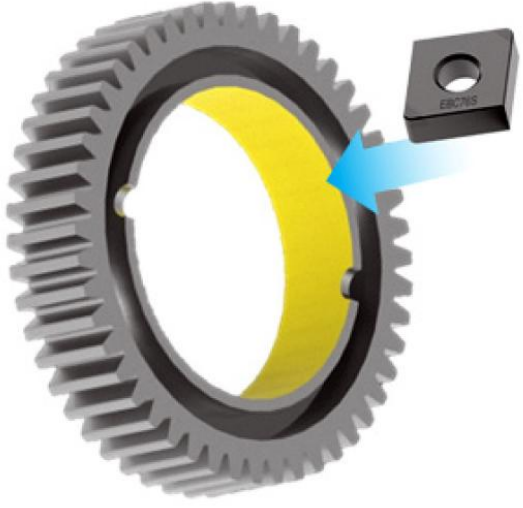


	EHWA	COMPETITOR
Workpiece	Spline gear	
Hardness(HRC)	60	
Continuous / Interrupt	Continuous	
Size	Ø50~Ø55	
Vc (m/min)	160~200	
Depth of cut(mm)	0.1~0.15	
Feed (mm/rev)	0.15	
Tool grade	EBC76S	Competitor
Test result	400ea	220~290ea
Tool failure	Normal wear (positive)	Fracture (negative)
Test result	400 200 0 EHWA	Competitor

EBC76S NEW GRADE FOR GEAR MACHINING

EHWA SINCE 1975

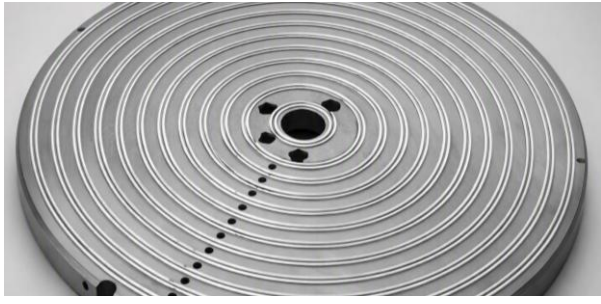
EBC76S - Neue Sorte für die Zahnradbearbeitung

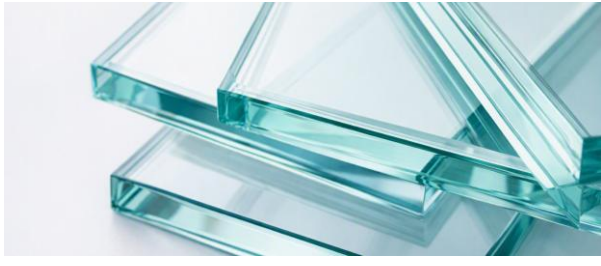


	EHWA	COMPETITOR
Workpiece	Spur gear inner	
Hardness(HRC)	58	
Continuous / Interrupt	Continuous to medium interrupted	
Size	Ø65	
Vc (m/min)	160~180	
Depth of cut(mm)	0.1~0.12	
Feed (mm/rev)	0.15~0.2	
Tool grade	EBC76S	Competitor
Test result	500ea	150ea
Tool failure	Normal wear (positive)	Fracture (negative)
Test result	500 250 0 EHWA	Competitor

PCD-3C-Werkzeuge

PCD 3C TOOLS





PCD 3C TOOLS

EHWA SINCE 1975

PCD-3C-Werkzeuge

EHWA PCD TOOS for 3C industrial

PCD-Werkzeuge für die 3C-Industrie

※ 3C :

Computer / Computer

Communication / Kommunikation

Consumer Electronics / Unterhaltungselektronik

With outstanding cutting performance, EHWA 3C tools ensure excellant high-feed machining with a high material removal rate and high process reliability.

- Burr free high rake angle
- High speed, high efficiency
- Excellent surface roughness

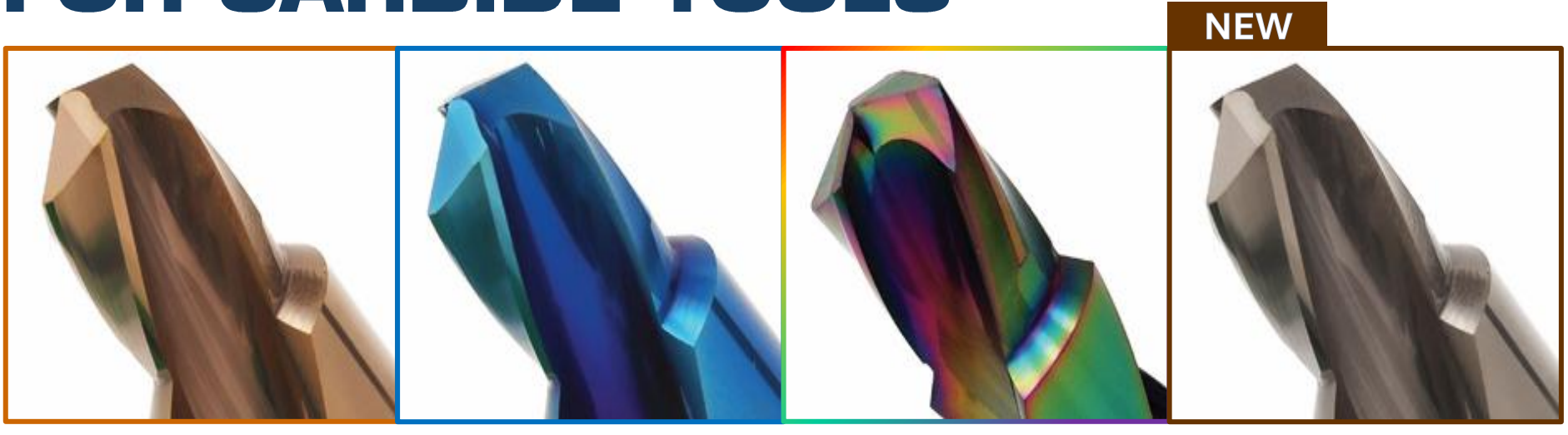
Optimized Tooling Service Upon Customer's Requests

Cutting edge : PCD

EHWA-Beschichtungen für Hartmetallwerkzeuge

EHWA COATINGS FOR CARBIDE TOOLS

EHWA SINCE 1975



EHWA's H4 coating, offering excellent wear resistance, is designed for machining high-hardness steel. Combined with the three conventional coatings, it fully satisfies customer requirements.

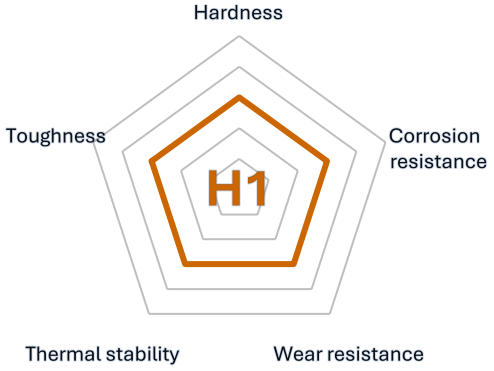
EHWA

COATINGS FOR CARBIDE TOOLS

EHWA SINCE 1975

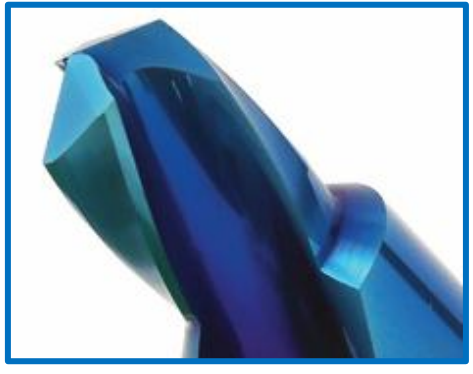
Beschichtungen für Hartmetallwerkzeuge

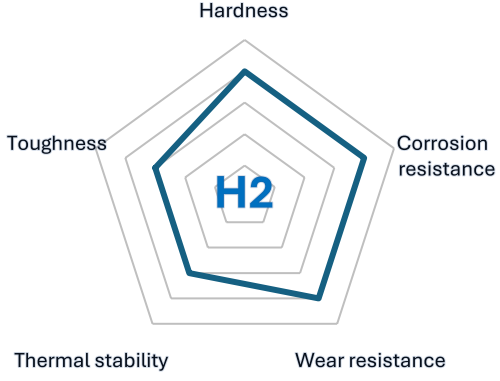
H1



- High-speed dry machining of hardened steel (≥HRC50)
- High-speed dry machining of gears
- Hv3600~

H2





- Enhanced wear and corrosion resistance over H1
- High-speed dry machining of ultra-hardened steel (≥HRC50)
- Hv3900~

EHWA

COATINGS FOR CARBIDE TOOLS

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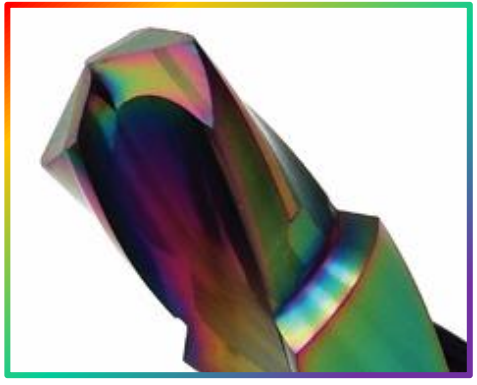
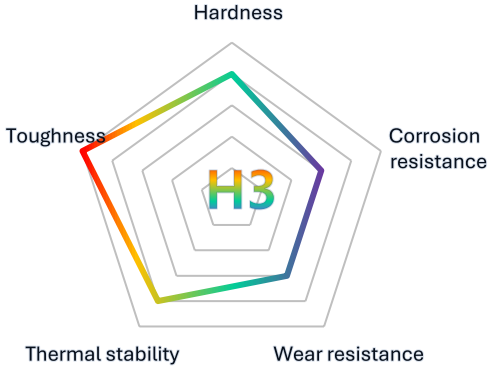
Beschichtungen für Hartmetallwerkzeuge

H3

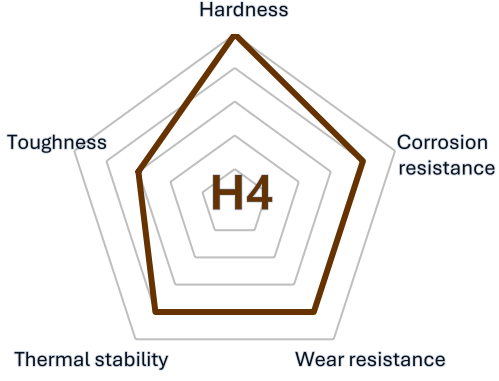




- Improved chipping resistance with higher toughness compared to H1
- Low friction through additional functional coating layer
- Machining difficult-to-cut materials such as Inconel, titanium alloys, stainless steel Hv3800~

H4

NEW

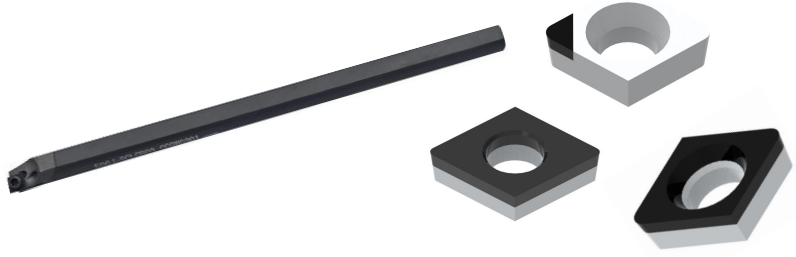


- Suitable for ultra-hardened material machining with enhanced hardness over H1
- Stable machining in high-temperature wet / dry conditions through improved high-temperature oxidation and corrosion resitance
- Hv4000~

Mikro-Ausdrehschneidplatten

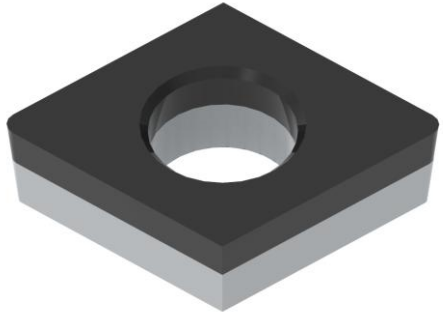
MICRO BORING INSERTS

EHWA provides micro boring inserts for bore diameters starting from 4mm.



MICRO INSERTS

Mikro-Schneidplatten



FF-ECXA030X02

PCBN

Full Face PCBN

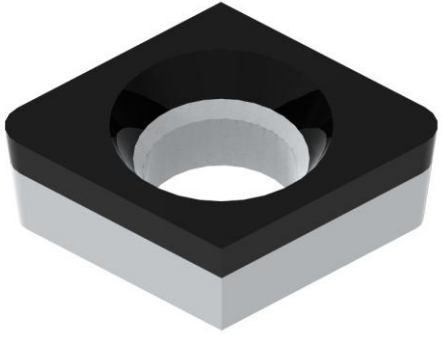
Geometry	75° Rhombus · Full face Geometry, 7° Clearance angle
Nose R / IC	R0.2 · ø3.31 mm
Application	Hardened steel HRC 45~60 · Sintered Metals · Cast Iron

▶ **ø4~6mm small-diameter boring · Precision ID machining of small components**

- All dimensions and geometries shown are based on standard specifications. See page 2 for recommended cutting conditions.
- Custom nose radii are available starting from R0.1

MICRO INSERTS

Mikro-Schneidplatten



FF-CCGW030104

PCD

Full Face PCD

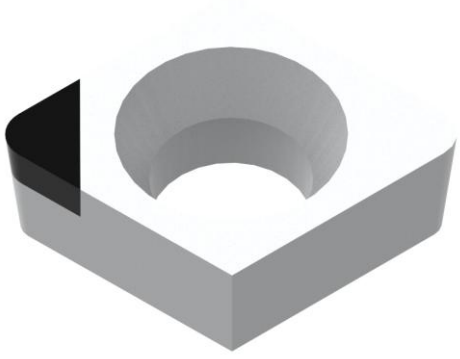
Geometry	80° Rhombus · Full face Geometry, 7° Clearance angle
Nose R / IC	R0.4 · ø3.5 mm
Application	Aluminum · Non-ferrous metals · Composite materials

▶ **Full PCD cutting edge**
Ideal for continuous precision finishing of Aluminum and Non-ferrous metals

- All dimensions and geometries shown are based on standard specifications. See page 2 for recommended cutting conditions.
- Custom nose radii are available starting from R0.1

MICRO INSERTS

Mikro-Schneidplatten



CCGW03X104

PCD

1 corner PCD

Geometry	80° Rhombus · 1 corner · 7° clearance angle
Nose R / IC	R0.4 · ø3.5 mm
Application	Aluminum · Non-ferrous metals · Composite materials

▶ **1 Corner brazed tip**
High-feed mirror finishing, Cost-effective design

- All dimensions and geometries shown are based on standard specifications. See page 2 for recommended cutting conditions.
- Custom nose radii are available starting from R0.1

SPECIFICATION & SELECTION GUIDE

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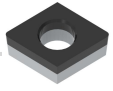
Spezifikations- und Auswahlleitfaden

Specifications (Spezifikationen)

Product	Grade	Geometry	Nose R / I.C	Application
FF-ECXA030X02	**PCBN**	75° · 7° Clearance angle	R0.2 / ø3.31	Hardened steel HRC 45~60 · Sintered Metals · Cast Iron
FF-CCGW030104	**PCD**	80° · 7° Clearance angle	R0.4 / ø3.5	Aluminum · Non-ferrous metals · Composite materials
CCGW03X104	**PCD**	80° · 7° Clearance angle	R0.4 / ø3.5	Aluminum · Non-ferrous metals · Composite materials



SPECIFICATION & SELECTION GUIDE

EHWA SINCE 1975

Spezifikations- und Auswahlleitfaden

Recommended Cutting Condition & Machining Range (Based on Standard Specification)

Recommended Cutting Conditions · ECXA
Empfohlene Schnittbedingungen - ECXA

Spindle Speed (n)	**Over 2,000 min^{-1}**
Depth of Cut (ap)	**0.02 ~ 0.10 mm**
Feed Rate (f)	**0.03 ~ 0.10 mm/rev**

Machining Diameter Range
Bearbeitbarer Durchmesserbereich

Small-Diameter Boring ø4 mm ~

For small precision components

Custom Options Available for Thickness · I.C. · Nose R · Grade

2corners: Available in PCBN only / FF: Available in both PCD and PCBN

Key Application

Automotive Small Components Injectors, Valves	Bearing Small Diameter Races	Hydraulic & Pneumatic Components Spools, Bushings	Mold & Precision Components Cores, Pins	Aluminum Components Housings, Connectors