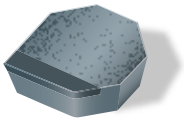
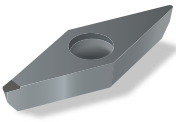
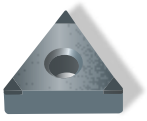
Neo
Application examples

Accelerated production of superhard materials







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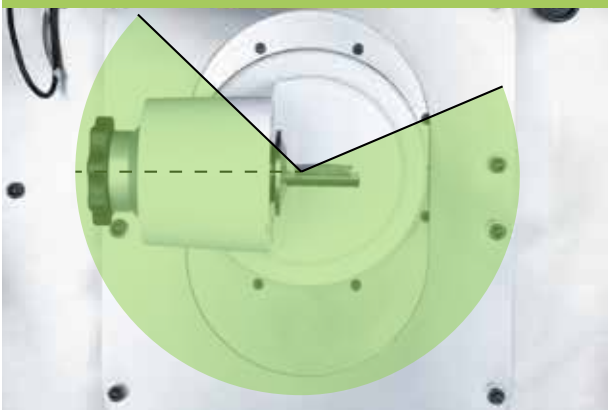
Technical information

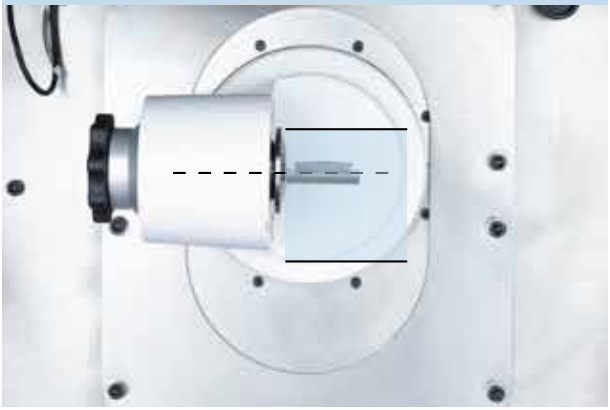
Kinematic possibilities

- 3 mechanical and 3 optical axes
- B axis: 360°
- A axis: 225°
- Z axis: 70 mm mechanical, 30 mm optical
- Work volume: 50 x 50 x 50 mm

A: -45° ... +195°

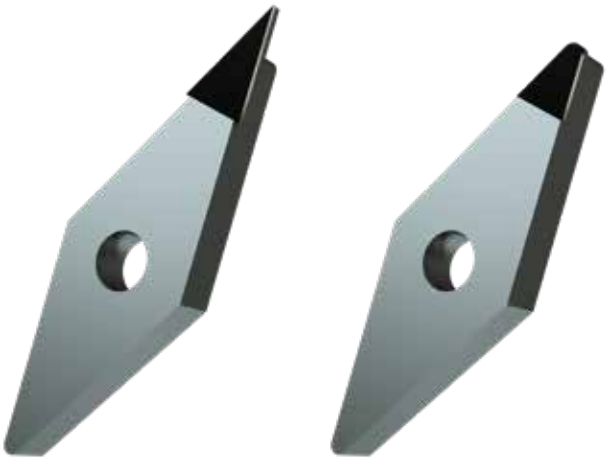


Z: -50 mm ... +20 mm



PCD indexable insert

Near-to-net-shape processing



Indexable insert data

- Material: PCD
- Inscribed circle diameter: 9.52 mm
- Geometry: VCGW 160408, tipped on one side
- PCD stock removal per side: 400 µm
- Thickness of PCD layer: 0.5 mm
- Edge length of PCD: 4.9 mm

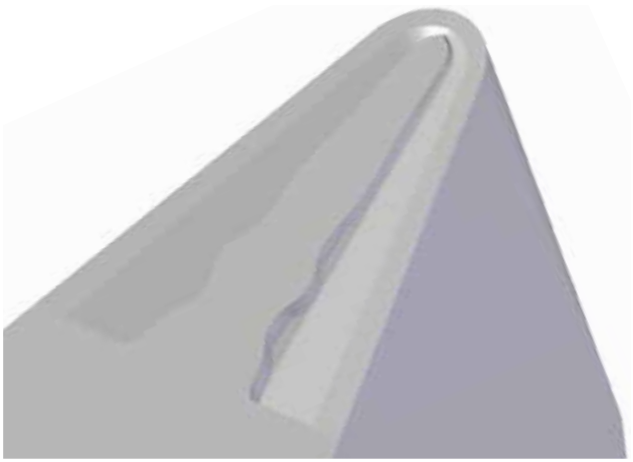
Production process

1. Easy creation of processing program with GUI
2. Measure the indexable insert on the machine
3. workpiece zero point
4. Laser contour (side, radius, side)

Processing data

- Processing time: approx. 60 s
- Remaining PCD stock: 30 µm
- Including clearance angle

Chip breaker lasering (finishing)



Indexable insert data

- Material: PCD
- Inscribed circle diameter: 9.52mm
- Geometry: VCGW 160408

Production process

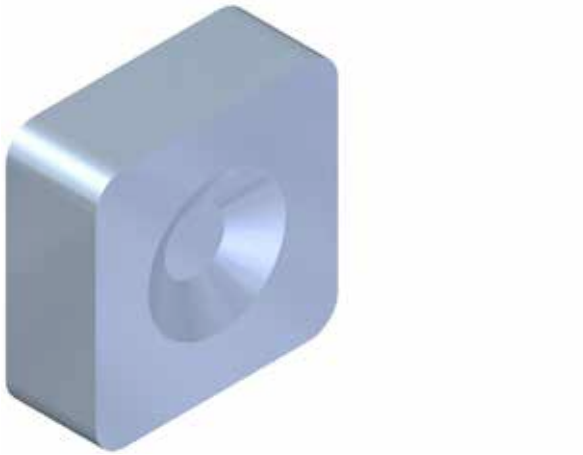
1. Create program from 3D Step file
2. Measure the ground indexable insert on the machine
3. Set workpiece zero point
4. Laser chip breaker geometry

Processing data

- Processing time: approx. 60 s
- Removal volume: 0.5 mm^3

PCBN indexable insert

Clamping trough lasering (finishing)



Indexable insert data

- Material: Solid PCBN
- Inscribed circle diameter: 12.7 mm
- Geometry: SNMX 120412

Production process

1. Create program from base and top surface diameter of truncated cone (no CAD data necessary)
2. Measure the indexable insert on the machine
3. Set workpiece zero point
4. Laser clamping trough

Processing data per side

- Processing time: approx. 90 s
- Removal volume: 26 mm^3

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