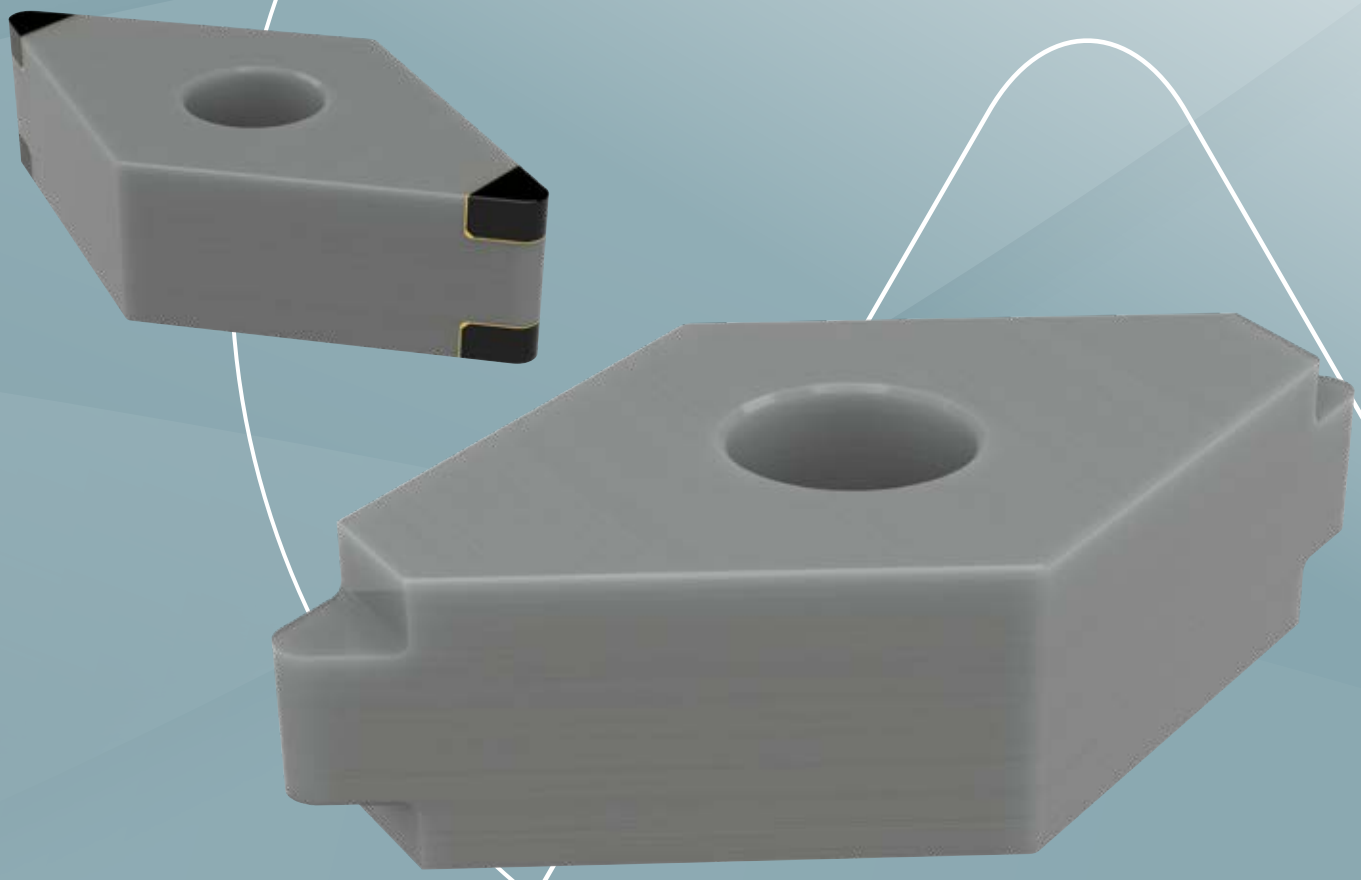
OEM

SPK by CeramTec



CUTTING TOOLS

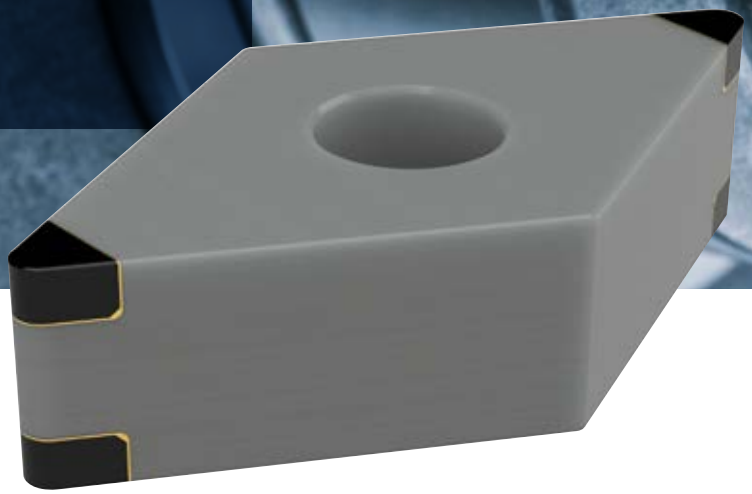
Ceramic Base for CBN-Tipped Inserts

MACHINING MATTERS

Ceramic base support for hard-turning inserts

Three components, one task: ceramic base support, braze joint and CBN cutting tip. Together they form the basis for reliable machining processes. In hard turning this means repeatable surfaces, stable dimensional accuracy and defined tool life.

The ceramic base support is made of SiAlON ceramic, on which CBN tips can be brazed. The result is a CBN-tipped indexable insert with optimum performance and thermal stability.



A thermally robust substrate concept

In hard turning, the thermal stability of the insert is often decisive. This is where the ceramic base shows one of its strengths: it withstands high thermal loads and thus reliably supports high cutting speeds.

Strong impact loads, high cutting speeds and demanding feeds make the complete system a reliable solution for defined hard-turning applications.

Proven performance

Machining tests have confirmed that the ceramic substrate performs reliably under extreme conditions. This provides your customers with tangible benefits:

- Stable processes at high cutting speeds
- Repeatable machining results
- Reliability even under demanding conditions: interrupted cuts, high feeds, extreme temperatures

Material strategy: tungsten- and cobalt-free

The ceramic substrate contains neither tungsten nor cobalt. This is becoming increasingly relevant for many end customers:

- Material and compliance requirements
- Sustainability targets and internal guidelines
- Supply chain and raw material risks
- Local manufacturing source, Made in Germany

For tool manufacturers this is a differentiating feature in sales — without having to convince your customers with "green claims". The added value is evident in the material concept and in the performance.

Standard geometries and tailored solutions

The program starts with proven standard geometries:
CNMA1204, DNMA1504/1506, SNMA1204, TNMA1604, VNMA1604, WNMA0804.
We develop positive geometries according to requirements. We are also pleased to realize special geometries for specific applications and quantities.

This results in concrete advantages:

- Flexibility – from standard to tailored solutions
- Clear technical positioning for defined process windows
- Integration into the existing product portfolio

Support and consulting

If questions arise regarding the grinding of ceramic substrates with CBN tips, we are pleased to support you with advice on grinding processes and best practices.

SPK® Cutting Tools
by CeramTec GmbH
Hauptstraße 56
73061 Ebersbach / Fils, Germany

Phone: +49 7163 166-239
info@spk-tools.com
www.spk-tools.com

Website
www.spk-tools.com

YouTube Channel:
SPKCuttingTools

LinkedIn Channel:
SPK-by-ceramtec