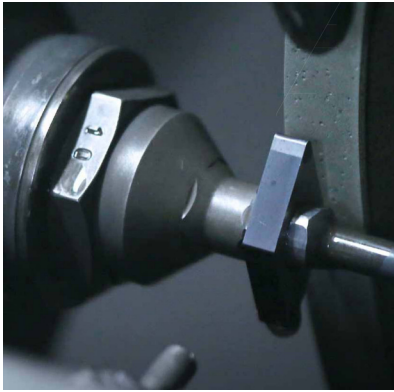


Grinding tools for inserts and rotary cutting tools



Grinding process on an indexable insert

Separate the grinding wheel and cutting tool

In this application, the cutting insert is the workpiece. EHWA describes grinding wheels for machining its contour, top and bottom surfaces, and cutting edges. The "Cutting Tools" catalogue excerpt also covers rotary cutting tool manufacture and grinding of tipped saw blades.

Tool design starts with insert material and machining surface. Carbide, ceramic, cermet and PCD/PCBN materials are explicitly named. The material of the insert being ground must be distinguished from the abrasive and bond of the grinding wheel.

Surfaces and tool families

Workpiece or surface	Tool solution described	Quality objective
Insert periphery	Peripheral grinding wheels	Contour, edge quality and small chips
Insert top and bottom	Face grinding wheels	Dimensional stability and surface quality
Carbide drills and endmills	Wheel packs, including hybrid bond	Flutes, clearance surfaces and cutting geometry
Micro rotary tools	Precision wheel packs	Fine surfaces and stable cutting edges
Carbide-tipped circular saws	Tool grinding wheels	Flank, top and face grinding

Bond, removal and edge quality

The catalogue describes resin and hybrid bonds for peripheral grinding, and dedicated designs for PCD/PCBN inserts. Selection connects grinding performance, dressing interval and edge chipping. Face grinding adds dimensional stability and machining of the insert surfaces.

For rotary tools, the source explains polyimide and hybrid bonds. A porous hybrid structure is described in relation to grain protrusion, grinding fluid access and reduced grinding load. These benefits belong to the specific grinding task and are assessed using the required cutting edge and tool geometry.

Improved cycle time is useful only alongside dimensional accuracy and edge quality. Process comparison therefore considers removal, feed, chipping and useful machining time between dressing operations together.

Two separate peripheral grinding examples

PDF page 4 of the catalogue excerpt contains two different applications:

Example	Machine	Wheel speed stated
Carbide insert	Wendt 715 WAC Quattro	20 m/s
PCBN insert	Agathon	18 m/s

The source gives different wheel specifications and bonds. The speeds therefore belong to their respective examples and are not harmonised operating instructions. Selection requires a complete match of wheel drawing, insert material, machine and dressing process.

Your technical enquiry

Send a drawing, material designation, machine and mounting details, and the intended result. For existing processes, the current tool specification, machining data and a description of the wear pattern help. Mention the topic and relevant catalogue page. We discuss the tool design and next steps with you.

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- [Submit a technical enquiry](#)

Sources and complete catalogues

- [Cutting Tools - wheels for inserts and cutting tool manufacture](#), PDF pages 3-7; printed pages 42-46; [HQ source](#).

This thematic overview is a compact introduction to these applications. The linked original catalogues contain further designs, tables and technical information.