

Drills, PCD endmills, ceramic endmills and HBN grades



Vehicle components as an application example

Product families selected by machining task

These product sheets describe different tool and cutting material families: carbide drills for aluminium alloys, solid carbide drills for steel, PCD helical endmills, ceramic endmills and the Solid HBN series. Each workpiece material assignment is taken from the specific product sheet. The families are not interchangeable designs of one tool.

A suitable solution connects workpiece material with tool geometry, mounting, cooling and surface objectives. Product comparison therefore starts by checking the machining task actually described by the sheet.

Tools and design features

Product family	Documented application	Feature described
ET110 carbide drills	Aluminium alloys	Polished surfaces; helical and burnishing designs
ET220 solid carbide drills	Steel	Ultra-fine carbide, coolant holes and coating variants
PCD helical endmills	Milling with PCD edges; workpiece material selected by application	High rake angle, carbide shank
EC2008 ceramic endmills	Heat-resistant superalloys / HRSA	SiAlON cutting material and adapted geometry
Solid HBN	Cast iron, especially roughing	EHWA PCBN grade series

Chip flow, cutting edge and wear

The aluminium drill sheet describes polished tool surfaces to reduce built-up edge and support chip flow. The steel drill focuses on tool hardness, toughness, coolant holes and coating. These features belong to different tool tasks.

For PCD helical endmills, EHWA names high removal performance, good surfaces and sharp cutting edges as objectives. The EC2008 ceramic endmill sheet describes heat-resistant superalloy machining, including nickel alloys for turbine components. Geometry and number of flutes are coordinated with the application.

"HBN" in this sheet is an EHWA designation for a PCBN series. It is not translated as hexagonal boron nitride. Grade selection considers wear behaviour, surface objectives and mechanical loading.

Examples from the product sheets

Source and example	Checked values
PCD Helical Endmills, PDF 2: EDEH 31616 - 30 -120	D 16 mm; Y 16 mm; L1 30 mm; L 120 mm; F 3
Solid HBN Series, PDF 1: HBN-N	Grain size 4 µm; CBN content 90-95 vol.%

Dimension letters and the value F follow the tool drawing and table. The examples describe individual designs and grade characteristics. They are not recommendations for an arbitrary machine or unspecified material. Complete product drawings remain essential to tool design.

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.

EHWA Europe GmbH

- info@ehwadia.de
- +49 (0) 6173 - 99 77 80
- [Submit a technical enquiry](#)

Sources and complete catalogues

- [Carbide Drills for Al Alloys](#), PDF pages 2; [HQ source](#).
- [Ceramic Endmills](#), PDF pages 2-4; [HQ source](#).
- [PCD Helical Endmills](#), PDF pages 2; [HQ source](#).
- [Solid Carbide Drills](#), PDF pages 2; [HQ source](#).
- [Solid HBN Series](#), PDF pages 1; [HQ source](#).

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