

CV joint machining



Joint component in a vehicle

Consider the application and tool together

Constant-velocity joints transmit rotation at a varying joint angle. The EHWA documents assign inner race, outer race, cage and ball tracks to suitable machining tools. Grinding and PCBN hard machining are presented as different process routes.

This edited overview provides an introduction to the tool family. Complete original tables and illustrations remain accessible through the source links. You can move from the described operation directly to a technical discussion of your application.

Applications and tool assignment

Application or feature	Tool and assignment
Ball track	Drawing-based PCBN milling cutter
Hard turning	PCBN insert
Grinding	Vitrified CBN grinding wheel
Dressing	Profiled rotary dresser
Tool design	Contour, setting angle and machine interface

Tool features and benefits

EHWA describes customized cutting geometries and grades for ball-track machining. Selection combines cutting forces, wear behavior, profile quality and production time. The choice between milling, turning and grinding follows component requirements and the existing process; no route is presented as a universal replacement for every other route.

From your application to a tooling solution

The source questionnaire asks for contour form, gauge-ball diameter, pitch-circle diameter, contact angle and machine interface, among other details. These data help match the cutter to the actual track. Drawing and measurement method are therefore as important as tool length and setting angle.

Start with the information already available. An existing tool, a photo or a drawing is often a useful starting point. Also discuss your goal: replacing an existing design, improving surface quality or reducing tool changes and machining time. Comparisons record quality, time and useful output together; missing information can be added during the technical discussion.

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[Request tool selection](#)

Further original documents

- [CV joint machining - CV-joint-20200702 new](#) · Original PDF, 10 pages.
- [CV joint machining - EBC52X-NEW-GRADE-FOR-CV-JOINT web](#) · Original PDF, 1 page.
- [CV joint machining - PCBN-ENDMILLS-FOR-CV-JOINT web](#) · Original PDF, 2 pages.

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