

**CASE STUDY •****Application:** Knoepfel AG Wheel Bearing**Material:** High-Tensile Steel**Savings:** 12min Per Workpiece  
280 Hours Annually**Industry:** Precision Manufacturing**Tool:** COFA-X

**CHALLENGE:** Knoepfel AG, a leading manufacturer specializing in high-precision mechanical components, faced a challenge in the production of wheel bearings made of high-tensile steel. The intersecting cross bores with a diameter of 7.0 mm resulted in time-consuming manual deburring using scrapers and brushes. As the company aimed for complete automation and burr-free components, a more efficient solution was essential.

**SOLUTION:** Turning to HEULE Precision Tools, a trusted partner represented by Eisenbart GmbH, Knoepfel AG explored the feasibility of automating the deburring process. An application analysis, accompanied by Thomas Eisenbart, led to the selection of the COFA-X tool from the X-BORES series. Customized to meet the specific requirements of Knoepfel's application, this tool proved suitable for intersecting bores with a main bore to cross bore ratio of 1:1.

**OUTCOME:** Following initial tests and modifications to address challenges posed by the workpiece material, the X-BORES tool was seamlessly integrated into series production. The results were outstanding – not only did it eliminate the need for time-consuming manual deburring, saving up to 12 minutes per workpiece, but it also contributed to an annual time savings of around 280 hours. The stable and reliable process achieved with the tool allowed Knoepfel AG to focus on more valuable tasks. The long blade life and professional support from Eisenbart GmbH and HEULE further solidified the success of this partnership, showcasing a solution-oriented approach and customer proximity.

