

**Fast, smart, secure: detecting material defects with AI-based End-of-Line testing using QAIros**

gfai tech GmbH, in collaboration with Miba Sinter Austria GmbH, has developed the mobile testing system QAIros, which enables precise and automated quality inspection using artificial intelligence (AI). The AI-driven defect detection system QAIros can be applied across various industries, offering an efficient solution for testing processes, particularly for companies in the automotive, electronics, and mechanical engineering sectors—where zero-defect production is essential.

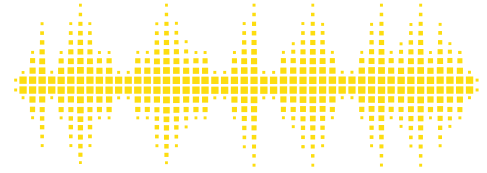
"Thanks to AI's continuous learning capability, QAIros adapts individually to the specific requirements of different test objects or components, increasing inspection accuracy by 100 percent," explains Philip Höhna, Managing Director of gfai tech. "The ability to conduct quality inspections directly on production lines saves time and costs while accelerating market launch." Additionally, no expert knowledge is required for classification. Initially, QAIros only needs a clear assignment of whether the tested parts meet the desired quality standards and should be classified as good or defective.

Once trained, QAIros analyzes the quality of the test object based on its characteristic fingerprint and continues testing using an AI model. The resulting data is stored in databases and is available for future analysis. Within seconds, QAIros detects subtle changes in the test object and classifies flawless and defective components.

Every physical object has unique natural frequencies, determined by its geometry and material structure. Together, they form a characteristic acoustic fingerprint. Any changes to the workpiece—whether due to defects or assembly adjustments—lead to shifts in resonance frequencies and alter this fingerprint. This enables the early detection of quality defects, optimization of production processes, and reduction of waste.

Find out [here](#) how QAIros can be effectively used during the prototyping phase of sintered parts in our practical measurement study.





### About gfai tech

gfai tech GmbH is a German company specializing in innovative sound and vibration measurement and analysis solutions. We offer advanced Acoustic Cameras, comprehensive analysis software, and cutting-edge structural dynamics solutions. Our expertise spans various industries, helping customers achieve noise reduction, false detection, sound design improvement, and precise vibration monitoring. As a subsidiary of GFal e.V., we provide unique hardware, software, and customized customer solutions backed by global support.

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High resolution images can be provided upon request.

