

ROBOT-DUO DEBURRS IN TEAMWORK

BRANCH OF INDUSTRY

automotive-supplier industry

ITEM

system for deburring gearbox parts

JOB

reproducible results

SPECIAL TECHNICAL FEATURES

- laser dimensioning of all finished parts
- vision system for checking part orientation and positioning

TASK

ASA GmbH developed a robotic deburring cell in order to improve product quality, maximize reproducibility, and increase productivity.

The basic demands imposed on the dual-robot system were achievement of a guaranteed, predefined, high throughput rate, excellent finished-product quality and, of course, reliable processing.

IMPLEMENTATION

A team of two collaborating robots handle the fabrication of parts for hybrid-drive gearboxes for the automobile industry. While one of the robots positions a part, the other deburrs its numerous holes, machined surfaces and edges using various tools. The cell handles four different parts. The entire set of procedures, which were formerly laboriously, manually performed, now takes just a few minutes.

The special feature of this cell is that, in addition to the traditional key processes of, e.g., product logistics (in mixed-product operation for single-part batches), product handling, and the deburring of steel alloys, it also incorporates laser dimensioning of stub shafts and slots and a vision system for checking finished-product geometries. Every part is thus measured, checked for compliance with specifications, and documented.

BENEFITS

Compared to manual deburring, the system provides shorter cycle times and perfectly identical appearances of all finished parts.

