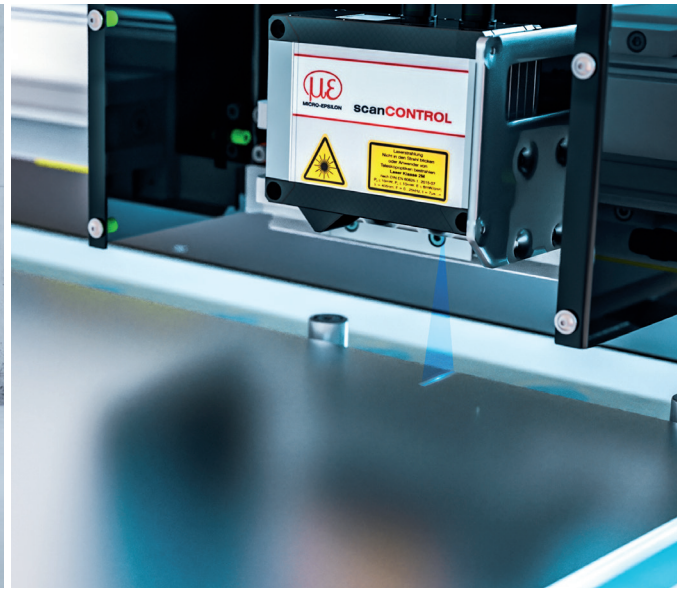




Fully automatic measurement of sheet metal

Dimensionics developed the Disionic Sheet Control measuring table for fully automatic testing of the dimensional accuracy of sheet metal. It operates with laser profile sensors by Micro-Epsilon. The sensors measure sheet metal blanks and check them for width, length, angle, straightness, deflection (convex/concave), and the planarity of the sheet metal edges.

Two scanCONTROL 3000 laser profile scanners are mounted on the XY table. Each scanner has a measuring range of 25 mm and is guided over two edges in the X or Y direction of the sheets. The Blue Laser technology ensures the sensors achieve maximum precision and reliable results on demanding metallic surfaces.

Measurement and data output for the entire test process take just a few seconds. The scanner transmits the measurement data to the extensive system software for analysis via Gigabit Ethernet. Based on the data, any production errors such as inaccurate edges or dimensional deviations due to inaccurate positioning can be detected. As a result, the production quality of the sheet metal blanks is checked in a traceable and reliable manner.

In this way, the Micro-Epsilon sensors, together with the Disionic Sheet Control, ensure an automated testing process that was previously a laborious manual process.

Requirements for the measurement system

- High lateral resolution for determining the edge position
- High Z-axis resolution for precise detection of burrs and edge flatness
- Blue Laser for metallic surfaces
- Compact design without external controllers

Ambient conditions

- Production hall or test laboratory

System design

- 2x scanCONTROL 3000-25/BL

Advantages

- Compact sensors with integrated controller save space in the control cabinet
- Reliable and precise measurement on metals thanks to blue laser light
- Calibrated profile data enable fully automatic shape and dimensional accuracy testing



"Both the versatility and reliable operation of the Micro-Epsilon sensors are impressive. We have already been won over by the product quality in numerous projects and will also count on Micro-Epsilon in future tasks."

*Mathias Evers
Application Engineer | Dimensionics*