



Bending/smoothness of aluminium cast covers

After AL covers have been cast and prior to milling of the sealing surface the covers must be manually straightened and sorted into OK/NOK. This operation takes place in a rough environment (casting bay). The measuring technique that was used earlier (probes) are subject to a high degree of wear and had to be replaced in regular intervals. In order to minimise spare parts costs the customers have decided in favour of the non-contacting and non-wearing eddy-current measuring system. What is of special importance for the success of this measuring method is the fact that eddyNCDT eddy-current sensors, due to the possibility of 3-point-linearisation, supply reliable measuring values even with complex target geometries.

Requirements for the measurement system

- Measuring range: 3mm
- Accuracy: $\pm 0.05\text{mm}$
- Resolution: 0.01mm
- Band width: static

Ambient conditions

- Temperature: 15 - 35°C
- Medium: air
- Rough ambient (foundry)

System design

- DT3300
- EU1
- CSP2008

Reasons for choosing the system

- Eddy-current sensors operate in the roughest environments
- Non-wearing measurement
- No spare parts costs
- Easy compensation due to 3-point-linearisation against uneven target geometries
- Aluminium is especially suitable as a target

