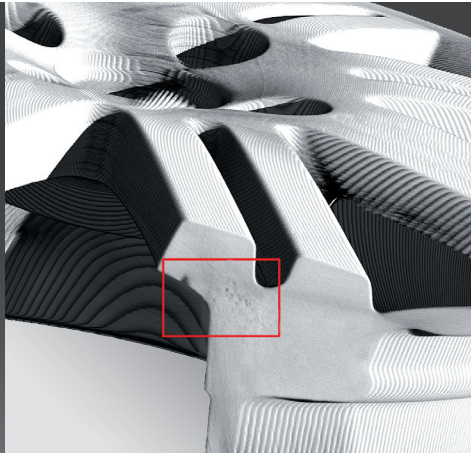


Application:

Detection of flaws and cavity



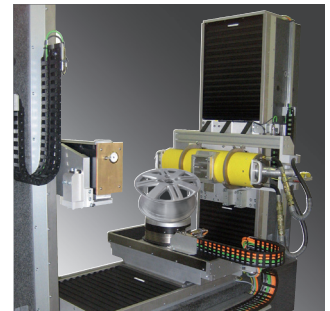
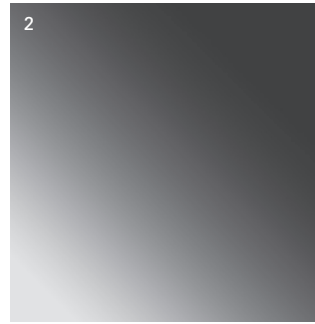
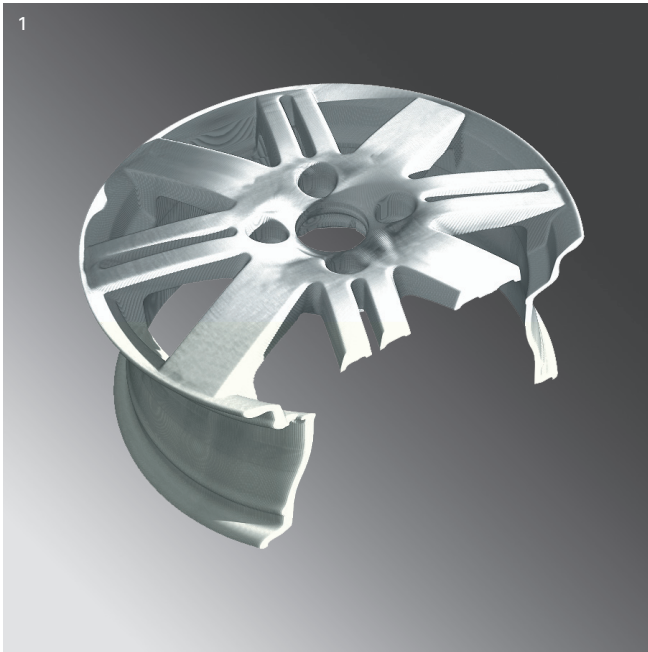
- Inspection item:
Wheel
- Material:
Light alloy

Inspection task

Even with the most modern production methods, material defects cannot be completely avoided in the casting process for light alloy wheels. A computed tomography scan is a safe test to determine whether material defects are present inside the material or at the surface. This investigation permits an accurate three-dimensional evaluation of the position, size and quantity of the material defects.

With the use of the CT scan, possible safety issues can be identified and the process adjusted to eliminate them. The advantages of this kind of quality control can be particularly beneficial in the examination of wheels. In addition to defects in the internal geometry, surface defects also be identified and possibly treated, e.g. varnishing.

YXLON. X-ray technology at its best.



- 1 The wheel can be cut virtually
- 2 Micro blowholes and skin hole in the material
- 3 YXCT Modular

Analysis

Computed tomography makes it possible to view the wheels as three-dimensional objects. By virtual cuts, defects can be detected on the basis of different material densities. Micro blowholes are especially difficult to find with alternative testing methods. For a quantitative determination of the defect, polished specimen are necessary. This is very time-consuming and the samples are frequently destroyed.

The CT measurement replaces this expensive procedure. Within a few minutes, a record of possible material defects can be made. This time savings is recognized with both a current casting process and a new process for a new wheel type. During an automatic defect evaluation by the evaluation software, limit values can be specified for the size of the blowholes which are to be detected.

Parameter	
X-ray source:	450 kV
Focal Spot (EN 12543)	2.5 mm
Detector:	Line Detector
System	YXCT Modular

YXLON

Technology with Passion

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