

TPW Prüfzentrum



Your reliable partner for

Industrial Computed Tomography

Assembly control
Porosity / Inclusion analysis
Wall-thickness analysis
Actual / Nominal comparison
STL-export

www.werkstoffpruefung.de





Materials testing
within the third dimension

**Non-destructive
testing**

**High-resolution
3D visualisations**

**Provides look inside
into machined parts**

3D

Your personal contact:

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X-ray inspections and Computed Tomography
Level III RT according to DIN EN ISO 9712

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Our facilities

GE phoenix nanotom m

- 180 kV nanofocus tube
- High spatial resolution (up to 0,2 μm)
- Max. part dimensions: 240 x 250 mm; Weight 3 kg
- Suitable for: small parts, polymers, biological specimens



GE phoenix v|tome|x s

- 225 kV microfocus x-ray tube
- Spatial resolution up to 10 μm
- Max. part dimensions: 420 x 135 mm; Weight 10 kg
- Suitable for: steel up to 20 mm, aluminium up to 80 mm, polymers up to 100 mm wall-thickness



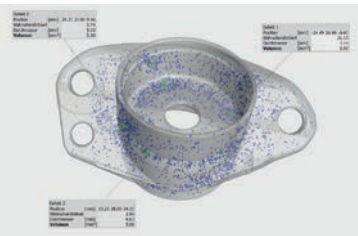
GE phoenix v|tome|x L450

- 240 kV microfocus and 450 kV minifocus x-ray tube
- Spatial resolution up to 20 μm
- Max. part dimensions: 2400 x 800 mm; Weight 100 kg
- Suitable for: steel up to 70 mm, aluminium up to 300 mm, polymers up to 500 mm wall-thickness



Assembly control

- Verification of the correct assembly of multi-component parts
- Non-destructive testing of hidden inner features

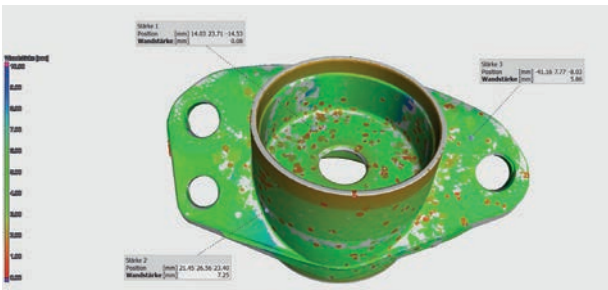


Porosity / Inclusion analysis

- Detection of pores and inclusions within the material
- Three-dimensional measurements of pores – volume determination of defects over the entire part
- Option to perform analyses for defects based on P201 /VW50097 and P202 /VW50093

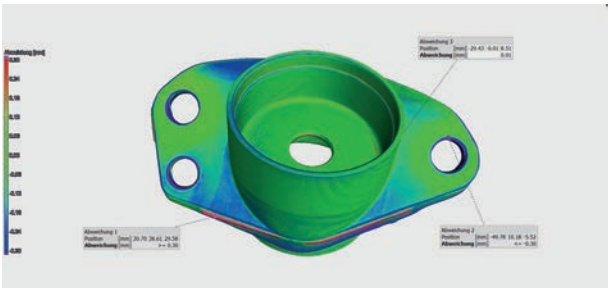
Wall-thickness analysis

- Determination of the wall-thicknesses over the entire geometry
- False color coding for 3D visualisation based on user defined tolerances (e.g. min./max.)



Actual/Nominal comparison

- Comparison of the actual part geometry with CAD data
- Also considers inner or overlapping structures that are not measurable with optical or tactile measuring devices



STL-export

- Calculation of polygonal surfaces based on 3D volumetric CT-data
- STLs can then be used for reverse engineering, 3D printing, and finite element simulations



TPW Prüfzentrum

Your reliable partner for...

Non-destructive testing

- Mobile Hardness Testing
- 3D Computed Tomography
- Radiographic Testing
- Digital Radiography
- Dye Penetrant Testing
- Magnetic Particle Testing
- Ultrasonic Testing
- Visual Inspections

- **Welding engineering**
- **Failure analysis**

Destructive testing

incl. in house sample preparation

- Chemical Analyses
- Hardness Testing
- Impact Testing
(Temperatures from -196°C)
- Corrosion Testing
- Metallographic Testing
- Heat treatments
- Technological Testing
- Hot tensile testing up to 900°C
- Tensile Testing



Deutsche
Akkreditierungsstelle
D-PL-11209-01-00

Accredited testing laboratory
D-PL-11209-01-00
DIN EN ISO/IEC 17025:2005
Incl. DIN EN ISO 9001:2008



Management
System
ISO 14001:2004
OHSAS 18001:2007

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Contact us!

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