



Terahertz

Volumetric testing for defect analysis using millimeter wave radiation (Terahertz)

Analysis and three-dimensional detection of defects with 100 micron defect size:

- Delaminations
- Pores and voids
- Inserts
- Cracks

Applications:

- Non-conducting structures
- Specifically suited for oxide ceramics
- Plastics and fibreglass composites

Please contact us:

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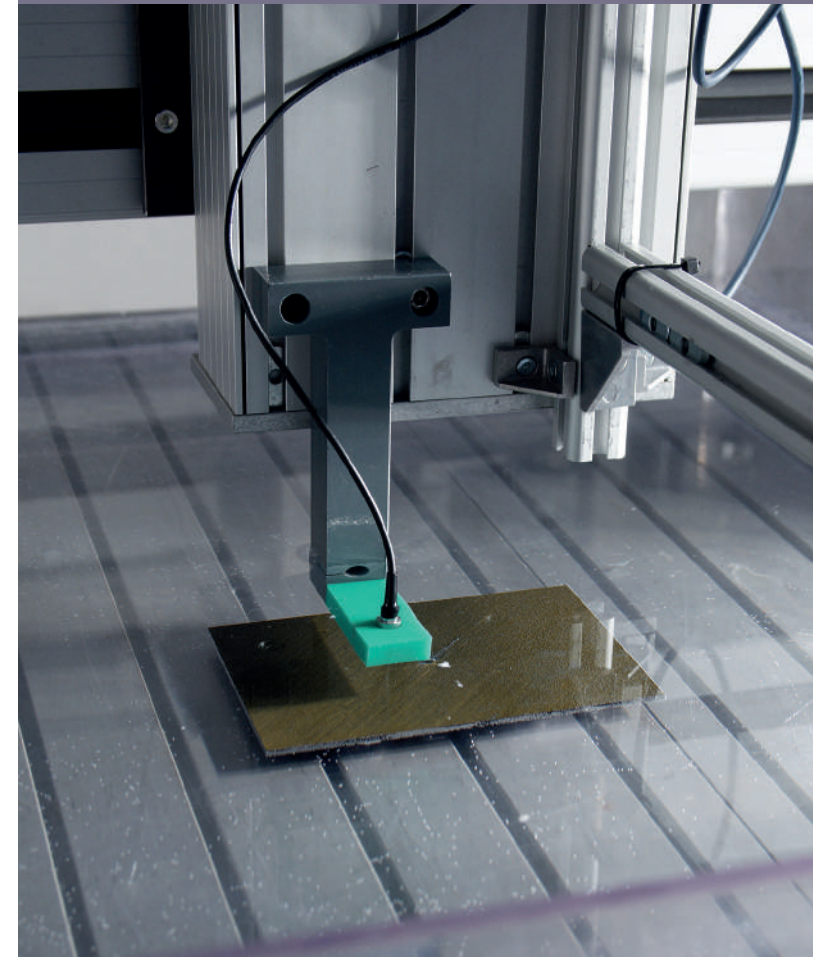
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Non-Destructive Testing Methods





Thermography

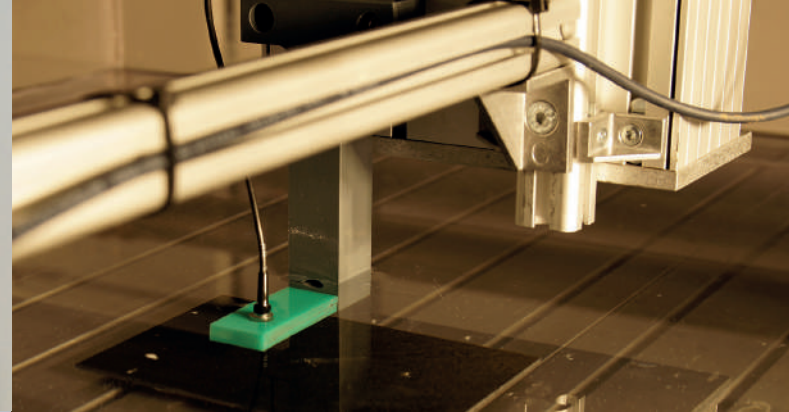
Non-contact thermal imaging using phase-contrast (LockIn) for fast analysis of structures and components.

Mobile in-field analysis of structures with dimensions between 10 mm and > 2000 mm:

- Cracks and Delaminations
- Pores, inserts and voids
- Coating adhesion
- Microstructural defects

Applications:

- Thin-walled structures (thickness up to 30mm) consisting of metal, plastics, ceramics, composites, joints



Ultrasonic Testing

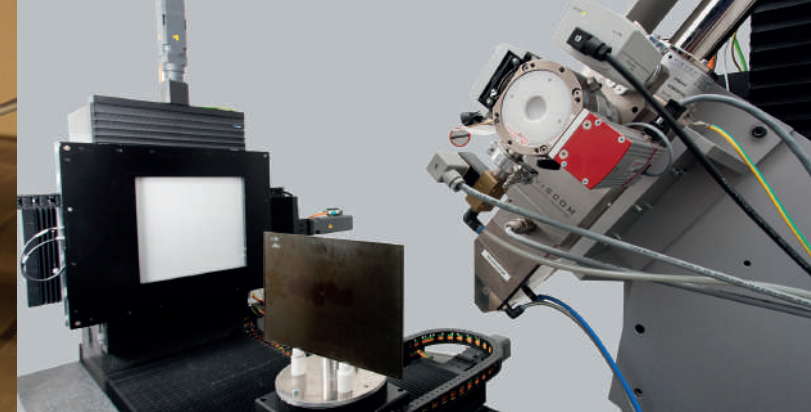
Method for detecting damage in laminar structures with 20 micron resolution.

Investigation of large laminate structures (sizes > 1000 mm by 1000 mm using water- and air-coupled ultrasonics:

- Delaminations
- Coating adhesion
- Pores and regions with high porosity
- Inserts and voids

Applications:

- Flat structures made of metals, plastics, ceramics
- Composites
- Honeycomb



Computer Tomography

Volumetric non-destructive testing method for structural analysis with 2 micron resolution.

Analysis of structures and components with size between 5 mm up to 1200 mm:

- Defect analysis (cracks, inhomogeneities)
- Local determination of individual pores
- Phase analysis of heterogeneous materials
- Fibre orientation in composites
- Geometric analysis and mapping

In-situ analysis of components under load:

- Mechanical load (tensile, flexural, shear)
- Temperature (-200 °C up to 1600 °C)
- Chemical (corrosion, reactivity)