

Vibrant GmbH

A Vibrant Corporation company in Germany

About this organisation

Machine translation

This organisation has been machine-translated based on data provided in German.

Vibrant works as a service provider for the global aerospace, power generation and automotive industries. Process Compensated Resonant Testing (PCRT) qualifies components based on their resonant behaviour in a non-destructive manner and only on the basis of their structural properties determined by material and process.

PCRT offers new possibilities for non-destructive qualification of series components. In lightweight construction, the life-saving safety reserves of conventional production will be reduced in future and the focus will be on the function of the component. Qualification and series testing of AM components - Comparison of FEM model and prototype (digital twin) - Process monitoring on the basis of qualified characteristic values (gold standard) - Correlation with the material properties - Correlation with known AM defects (LoF, keyhole, etc.) - No random sampling, 100% testing and cost reduction by eliminating other processes

Vor den Eichen 4
65604 Elz
Hesse
Germany
vibrantndt.com

Main areas covered PCRT testing technology, Measurement technology, Crack testing, Quality inspection, Digital twin

Infrastructure

Certifications AS9100D, ISO9001:2015

Keywords PCRT, Process Compensated, Resonance Testing, Resonance test

Memberships Fraunhofer Additive Alliance



Organisation type

Small or medium-sized enterprise

Sectors



Others: Luftfahrt

Employees

10 up to 49

Turnover

Up to €2m

Funding

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Validation, Simulation, Others (PCRT as a service)	✓	✓	✓
Field of technology			
<i>Design & layout</i>			
<i>Functional integration</i>			
Measuring and testing technology Component and part analysis, Materials analysis, Non-destructive analysis	✓	✓	✓
Modelling and simulation Structural mechanics, Materials, Reliability validation	✓	✓	✓
Plant construction & automation Automation technology, Handling technology, Robotics		✓	✓
<i>Recycling technologies</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing			
Coating (surface engineering)			
Fibre composite technology			
Forming			
Joining			
Material property alteration			
Primary forming			
Processing and separating			
Textile technology			
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals			
Plastics			
Structural ceramics			
(Technical) textiles			

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Contacts

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