



Fraunhofer

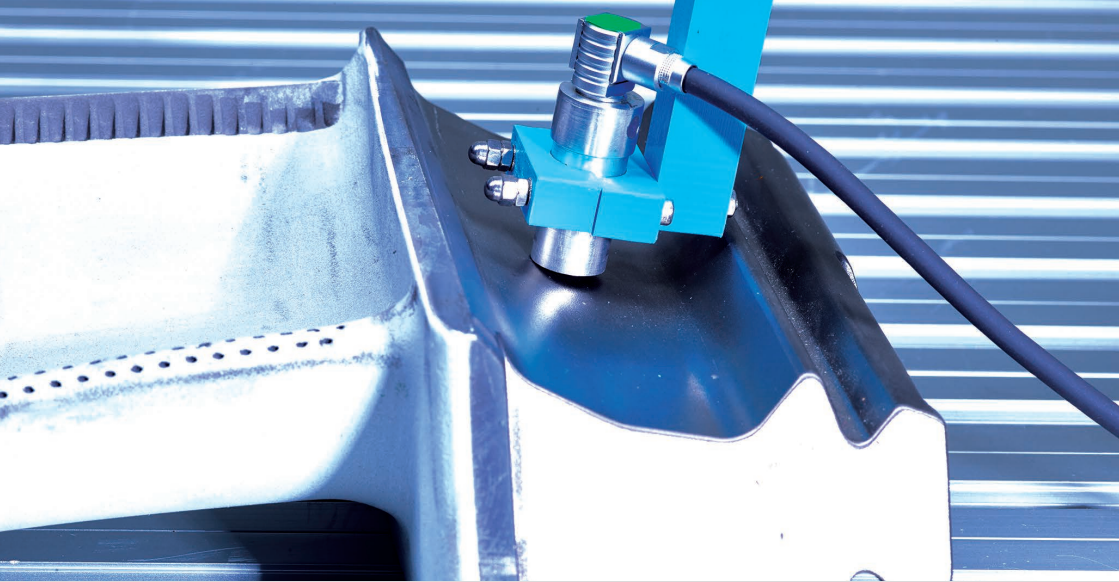
IZFP

FRAUNHOFER INSTITUTE FOR NONDESTRUCTIVE TESTING IZFP

3D-SmartInspect

INTELLIGENCE IN INSPECTION AND QUALITY CONTROL





© Photos front and rear side: Tom Gundelwein

Fraunhofer IZFP “3D-SmartInspect” technology provides unique options to ensure objective and quantified inspection of large and / or safety-relevant industrial structures. Parallel to the fully digitized recording of the manual or robot-assisted inspection process by cameras – including tracing of the probe position – all volume data, generated in realtime from the measurement signals, are visualized, optionally via HoloLens, tablet PC, or laptop. The automated generation of a digitized inspection protocol will significantly facilitate processing, analysis, and control of the manual inspection process. Then again, such an extension will substantially relieve the inspectors. In the long term, time-killing and failure-prone preparatory work will be superseded and the degree of the inspectors’ individual competence won’t influence the inspection reliability any longer. Additionally, engineers can accurately record relevant data with intelligent, assisting sensor systems and gainfully use it in the digital product memory – in every phase of the product lifecycle.

Vantages of “3D SmartInspect” Inspection Technology

- **One hundred percent inspection:** The system itself warrants the thorough scan of the inspection area and the localization of all identified imperfections (e.g., cracks, corrosion).
- **Reduction of the inspection time:** The inspection procedure is speeded up by visualization of areas which are already inspected and areas which have yet to be inspected. Thus, multiple scanning of one and the same area can be avoided.
- **Digital inspection memory:** The automated documentation of the inspection results works as a proof for the reliable realization of the manual inspection in accordance with requirements of quality assurance.



Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren IZFP



| Campus E3 1 || 66123 Saarbrücken ||

|| +49 681 9302 0 || info@izfp.fraunhofer.de || www.izfp.fraunhofer.de ||