



Fraunhofer IZFP Saarbrücken

UER-MOBIL

PORTABLE SYSTEM FOR ULTRASONIC RESIDUAL STRESS ANALYSIS IN THE RIMS OF RAILROAD WHEELS



Are you familiar with our industrial-grade accredited inspection services?

- Test laboratory accredited according to DIN EN ISO / IEC 17025 and competent to issue certificates for qualifying and validating (new) nondestructive testing (NDT) processes for industrial testing
- Accelerated time-to-market and opportunity for qualified, standard-compliant deployment in industrial applications both for new in-house developments and for custom adaptations of innovative NDT technologies in fields where standards have not yet been established
- Certification of the corresponding quality management system in accordance with DIN EN ISO 9001



Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren IZFP

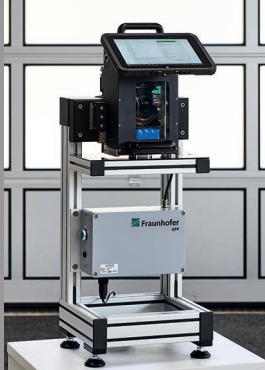
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UER-mobil on reference pedestal with charging station



UER-mobil in operation

Full range of functionality and flexibility in inspection

To develop this variant of its inspection system for ultrasonic residual stress analysis in the rims of railroad wheels (UER), Fraunhofer IZFP kept in mind special areal and structural requirements as faced in the frame of maintenance work for wheelsets in railbound traffic. Many maintenance facilities require high degrees of inspection flexibility concerning the site of operation within a single workshop or even over multiple locations while inspecting a small or medium number of wheelsets. For these facilities, “UER-mobil” will be the most favorable variant of our proven UER inspection systems.

Development and Enhancement

- Integration of the computer system into the manipulator
- Enhanced ergonomics through weight optimization
- Internal power supply by Lithium Ion storage batteries
- Improved reference pedestal with integrated charging station

Proven Technology

- Same basis of the ultrasonic hardware as the wire-based variants of 3rd generation UER
- Identical inspection software for all device versions
- Industrial-grade EMAT ultrasonic transducers and inspection technology
- Familiar handling structure of the inspection software and easy-to-learn processes with multiple documentation options, in accordance to customer requirements

Characteristics

- Improved ergonomics: No restrictions by wire-based connection with PC
- Long-term stand-alone operation
- Handling while using gloves is possible
- Industrial-grade computer hardware
- Fast and safe charging without manual plug connection
- Wireless connectivity for result transmission and remote maintenance

Technical Data

- Touchscreen with onscreen-keyboard
- Industrial-grade tablet on basis of Microsoft Windows 10
- Inspection software visualizing and evaluating stress states in the rim
- Documentation in portable system, optional transmission to network via WLAN
- Electromagnetic, couplant-free ultrasonic technology
- Voltage supply in the charging station: 110 – 240 Volt
- Height x width x depth: 370 x 285 x 290 mm
- Weight (including storage battery): approx. 10 kg