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

- Accredited laboratory in line with DIN EN ISO / IEC 17025, to qualify and validate new non-destructive testing (NDT) processes for industrial applications
- Accelerated time-to-market and opportunity for qualified, norm-compliant deployment in industrial applications as well as for new in-house developments or custom adaptation of innovative NDT technologies, even in fields where norms have not been established
- Certification of the corresponding quality management system in accordance with DIN EN ISO 9001
Results (example)

The adjacent figure represents the in situ application of EMAT on a cyclically loaded sample including (down right) the results of the time-of-flight (tof) measurement in relation to the occurring tensile and pressure stresses (top right).

The results of the measurements prove a good correlation to the corresponding fatigue processes in the loaded sample. Applied tensile stresses result in solidification processes, intrusions and extrusions at the sample surface and martensite formation, all of them leading to an increase of tof. Pressure stresses, however, result in softening processes redounding to a decrease of tof. Thus, a sample breakdown can be spotted early by an increase of tof. Moreover, this project was the first one worldwide to successfully monitor fatigue tests by integrated EMAT technology at temperatures of up to 300 °C and to document the results in realtime.

Further applications

Applications are found wherever existing infrastructure is subject to ageing or to possible damage so that a periodic monitoring is important to prevent physical injury or loss of property. Additionally, our technology is applied for quality control immediately after the production process. This comprises amongst others

- Measurement of relative and absolute stress values
- Distinction between load and residual stresses
- In situ stress measurements