Are you 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

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**Situation**

In the case of the widely used manual inspection, the quality of the inspection depends strongly on the personnel and the environmental conditions; this fact concerns the inspection of small components in production as well as the maintenance inspections of large industrial structures. The adequate interpretation of the measured values and the thorough coverage of the inspection area require a high degree of personal expertise.

In addition, companies face considerable challenges with regard to documentation. Often, inspection reports are drawn up by hand and any peculiar observations are marked on the components themselves. A digital link between the specimen and the documentation is not established. If inspections take several hours or days, errors and incomplete documentation can occur, leading to negative consequences for subsequent processes.

**Benefits**

- Interactive support of the inspection personnel in the manual inspection process
- Feedback mechanism to ensure complete scanning of the test area
- Digital inspection memory: Automatic documentation of test results as proof of correct inspection performance in accordance with quality assurance requirements, including transmission and storage of evaluated material data (central data memory)
- Combination with collaborative robotics possible
- Adaptation to customer-specific requirements through the option of integrating additional sensors on the basis of further inspection principles

3D SmartInspect provides unique options for objectifying and quantifying the inspection of large and/or safety-relevant industrial structures (“NDT 4.0”) with regard to the continuous digitization of industrial working environments (“Industry 4.0”).

**Fields of Application**

The 3D SmartInspect assistance system is suited for all fields of applications of manual inspection, a.o.

- Aerospace (wear-prone aircraft components)
- Energy plants (turbines, generators, high-pressure vessels, etc.)
- Large-scale equipment construction