

ALWAYS UP TO DATE

- ▶ Based on more than 30 years of practical experience in destructive and non-destructive material testing as well as welding technology, we support you with the application and advanced development of material testing methods and testing technologies.
- ▶ Since 2010, we have accumulated extensive expertise in the field of grinding burn and its testing. imq is your contact for all questions relating to grinding burn testing.



IMQ ACTIVELY RESEARCHES INNOVATIVE PROJECTS SINCE 2003

Current Projects:

BezZer - Laser-based generation and characterization of microstructures for the NDT reference blocks

ThebeS - Method for the production of artificial defects for non-destructive testing for thermally induced material damage

OVERVIEW OF IMQ SERVICES

- ▶ Non-destructive material and component testing: RT, UT, MT, PT, VT, ET, OES, XRF spectroscopy
- ▶ Application of innovative technology: Digital X-ray Technique, Ultrasonic, Phased Array Technique
- ▶ Supervision of inspections according to ISO 9712 Level III
- ▶ Destructive material testing: mechanical-technological and metallographic tests as well as chemical analyses and on-site metallography (replica technique)
- ▶ Surface analysis and Scanning Electron Microscopy SEM including EDX
- ▶ Cleanliness analysis incl. analysis of the chemical composition
- ▶ Quality Management / Welding Technology
- ▶ Development of customized applications
- ▶ Our employees: Metal materials testers and qualified NDT testing personnel in accordance with ISO 9712 Level I and II
- ▶ Locations: Crimmitschau, Chemnitz, Erfurt, Lippendorf, Jänschwalde, Schwarze Pumpe und Boxberg

**INDEPENDENT - CUSTOMER-ORIENTED - FLEXIBLE
ACCREDITED ACCORDING TO DIN EN ISO / IEC 17025**



imq Ingenieurbetrieb für
Materialprüfung, Qualitätssicherung
und Schweißtechnik GmbH

**SCOPE OF SERVICES
RESEARCH AND DEVELOPMENT**

Phone +49 (0)3762 9537 0

FAX +49 (0)3762 9537 22

info@imq-gmbh.com

www.schleifbrandprüfung.de



TRAINING AND WORKSHOPS

- ▶ 2-day training course "Grinding burn testing according to ISO 14104 and ASM 2649"
- ▶ Practical and theoretical training with examination according to SAE ARP 1923 (in-house or external)
- ▶ Workshop on grinding burn testing using the eddy current method (ET) and Barkhausen noise method (BHR)
- ▶ Content tailored to different target and user groups according to your needs

EQUIPMENT FOR GRINDING BURN TESTING

- ▶ Design and installation of etching laboratories
- ▶ Flexibly adapted laboratory tables
- ▶ Integrated exhaust air or gas scrubbing
- ▶ Other equipment



REFERENCE BLOCKS FOR GRINDING BURN TESTING ACCORDING TO DIN 4882:2023-12

Reference Blocks for NDT

- ▶ For the adjustment and regular review of NDT procedures
- ▶ Applied on customer components
- ▶ Tailored to the testing task



NE Test Set

- ▶ Reference blocks for regular review of processes for grinding burn etching

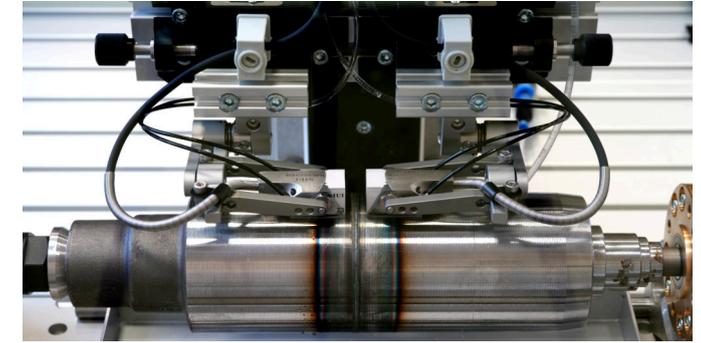
Gray scale according to ISO 14 104 / AMS 2649

- ▶ Tool for the standard-compliant evaluation of etching indications



APPLICATION OF TESTING PROCEDURES AND DEVELOPMENT OF CUSTOMIZED SOLUTIONS

- ▶ Semi-automatic testing machines ET, UT, camera technology
- ▶ Manual testing equipment



METROLOGICAL INSPECTION OF ARTIFICIAL DEFECT GEOMETRIES

- ▶ Inspection of reference material to ensure compliance with tolerances
- ▶ Validated replica technology
- ▶ Relative measurement deviation of < 3%
- ▶ Forming accuracy of 0.1 µm

