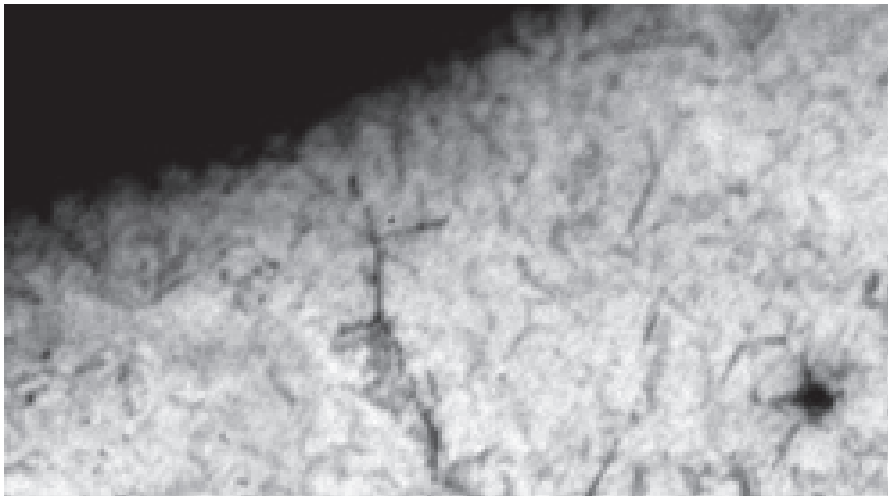
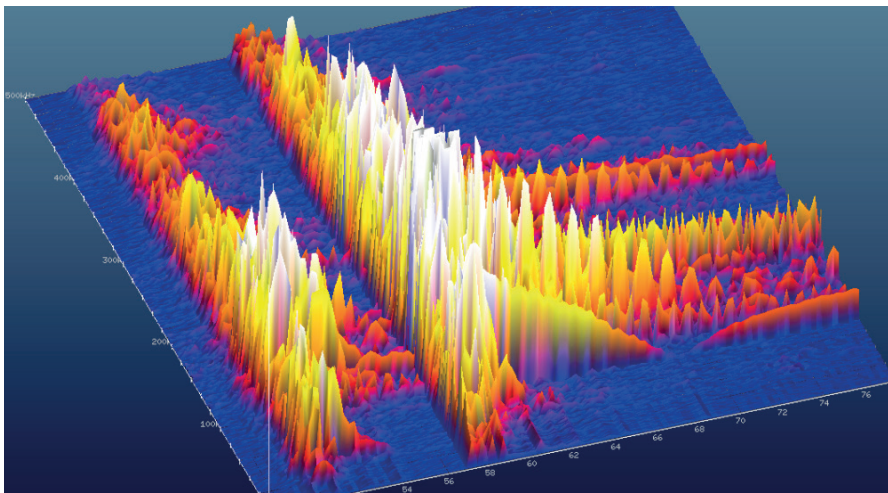


# Real-Time Crack Detection During Straightening



Microscopic image of a cracked component. The **crack closed itself at the surface** of the part. Most downstream quality control methods, like magnetic particle inspection or laser thermography do not detect cracks that are closed at the surface.



Crack Detection with QASS Optimizer4D-CiS.02. The signals are shown on the three axes time, amplitude and frequency. A crack that closed itself at the surface is negligible if crack detection takes place in-process. Optimizer4D-CiS.02 **detects cracks in the very moment they occur.**

## Detection of cracks that are closed at the surface

QASS develops the advantage of world market leader for destruction-free crack detection during bending and straightening of steel shafts. The new and innovative crack detection system Optimizer4D-CiS.02 analyzes structure-borne sound (acoustic emission) during the straightening process.

- No post-production testing with magnetic powder or laser-thermal imaging necessary
- Reduction of costs by saving supplies (e.g. magnetic particle inspection)
- Higher product quality by highly accurate crack detection
- Reduction of pseudo-waste
- Non-destructive testing of component quality
- In real-time during the straightening process



Process Optimization  
Optimizer4D

Cognitive Signal Analysis  
100% In-Process

Detection of tool wear  
Quality Assurance  
High Frequency Impulse Measurement

Tool Monitoring

Product Quality

Documenting Process Quality

Real-Time

Technology Leap

Reduction of reject rate

HIFIM  
Crack Detection

Increasing production speed

Process  
Evaluation

