



FFT *check* **Adhesive Layer Control (ALC)**

*“Perform quality measurements of different adhesive layer types on different materials with **FFTcheck Adhesive Layer Control.**”*

one step ahead in **INTELLIGENT** production systems



FFTcheck Adhesive Layer Control

quality measurements of different adhesive layer types

1

FFTcheck **ALC** - Process

What is being measured?

2

FFTcheck **ALC**- Advantages

Stable evaluation of the process, fast and accurate recording of measured values

3

FFTcheck **ALC**– types of the process

ALC - single / quad process

4

FFTcheck **ALC**- Equipment

Hardware / Software

1 **FFT**check **ALC**- Process

What is being measured?

one step ahead in **INTELLIGENT** production systems

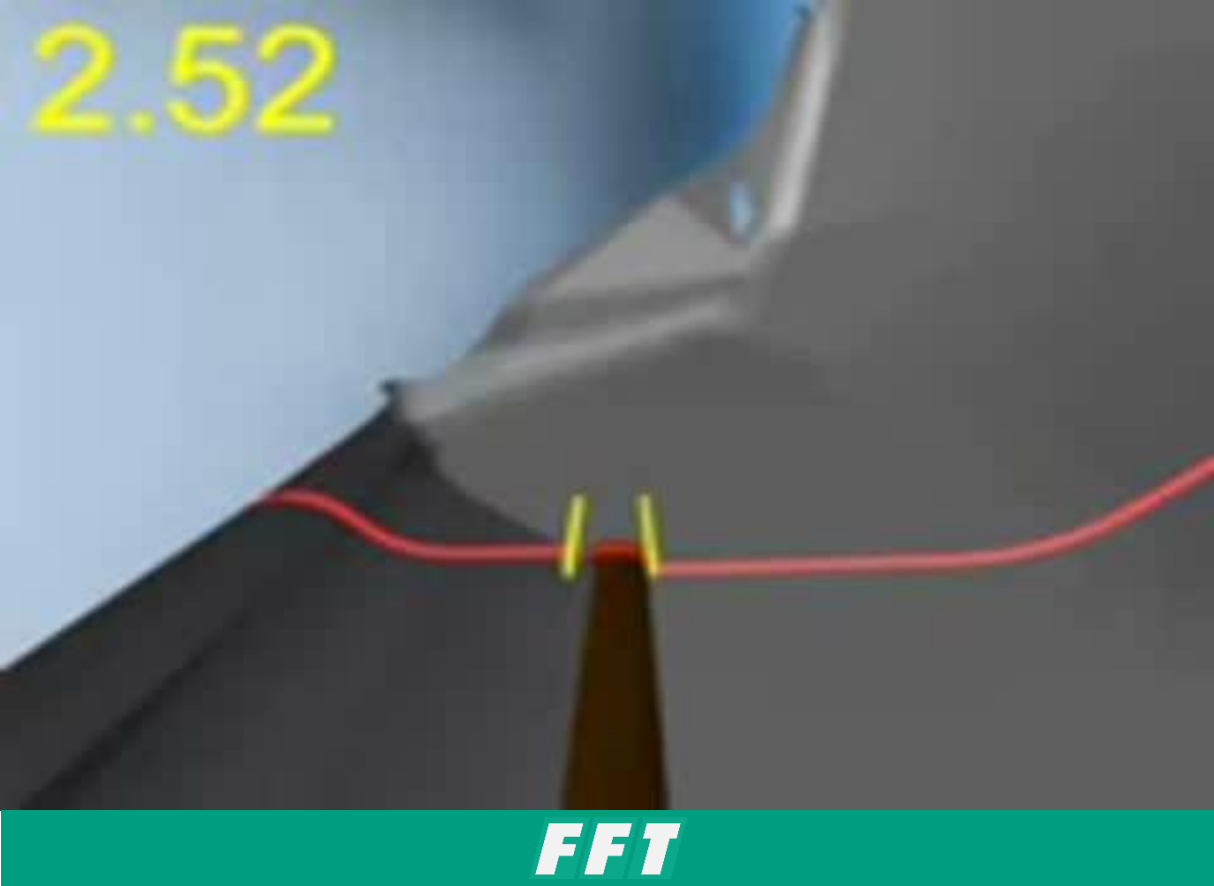
FFT*check* **ALC** - Process

Introduction

- Target:
 - Checking the quality of an adhesive application with a high degree of reliability
→ ensure correct use of the adhesive (tightness when installing the pane, ensuring corrosion resistance)
- Task:
 - Adversities (gaps, insufficient volume, wrong position) must be detected in the adhesive application process
- Solution: **FFT*check* ALC** - Process:
 - Scanning system for optical 3D detection of the adhesive bead
→ recording of position, width & height

FFTcheck ALC - Process

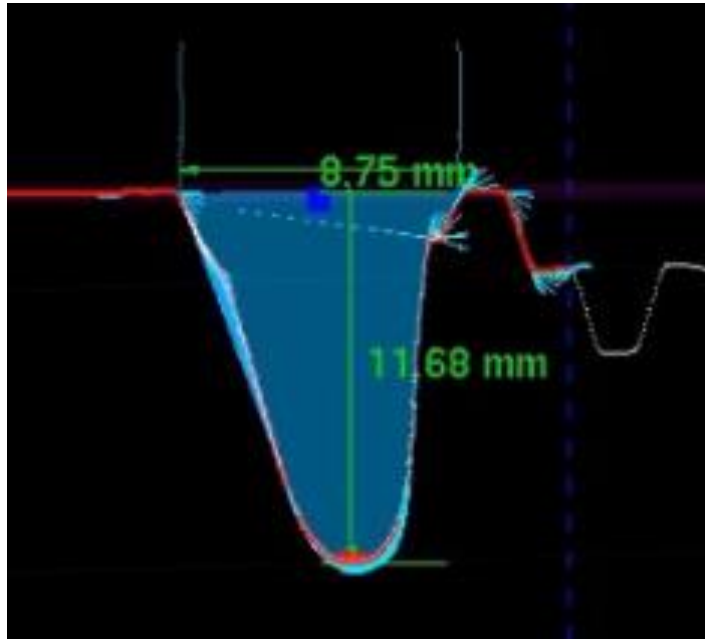
Introduction



FFTcheck **ALC** - Process

Characteristics

- Adhesive width and adhesive height in 3D
- Visualisation of the adhesive layer to the component



Technical data

- Measuring frequency 200 Hz
- Sensor resolution 0,05 mm
- +/- 0,2 mm accuracy adhesive height
- +/- 0,3 mm and better accuracy adhesive width (Depending on the characteristic)

2

FFTcheck **ALC** - Advantages

Stable evaluation of the process, fast and accurate recording of measured values

one step ahead in **INTELLIGENT** production systems

FFT *check* **ALC** - Advantages



Stable process evaluation



Fast and accurate measured value recording



3D capture of the adhesive bead



100% quality documentation for each body
→ Quality data can be made available for further processing



Hardware/software components come 100% from FFT
→ Changed requirements can be reacted to very quickly



Measurement result is stored with measurement position
→ Clear conclusion on NiO sites possible



Open interface with regard to PLC, BUS and measuring sensors

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FFTcheck **ALC** - Process types

FFTcheck **Adhesive Layer Control**
single / quad process

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FFT*check* **ALC** - Process types



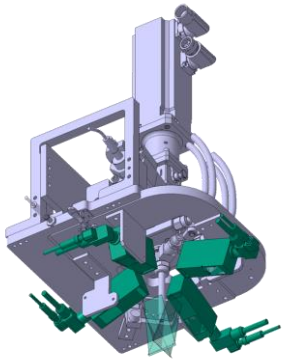
FFT*check* Adhesive Layer Control - single

- Sensor can be installed stationary, on a robot or on a rotating unit
 - Component is moved relative to the laser
 - Sensor is moved over component by robot
- Measurement result is stored with measurement position
→ Clear conclusion on NiO sites possible

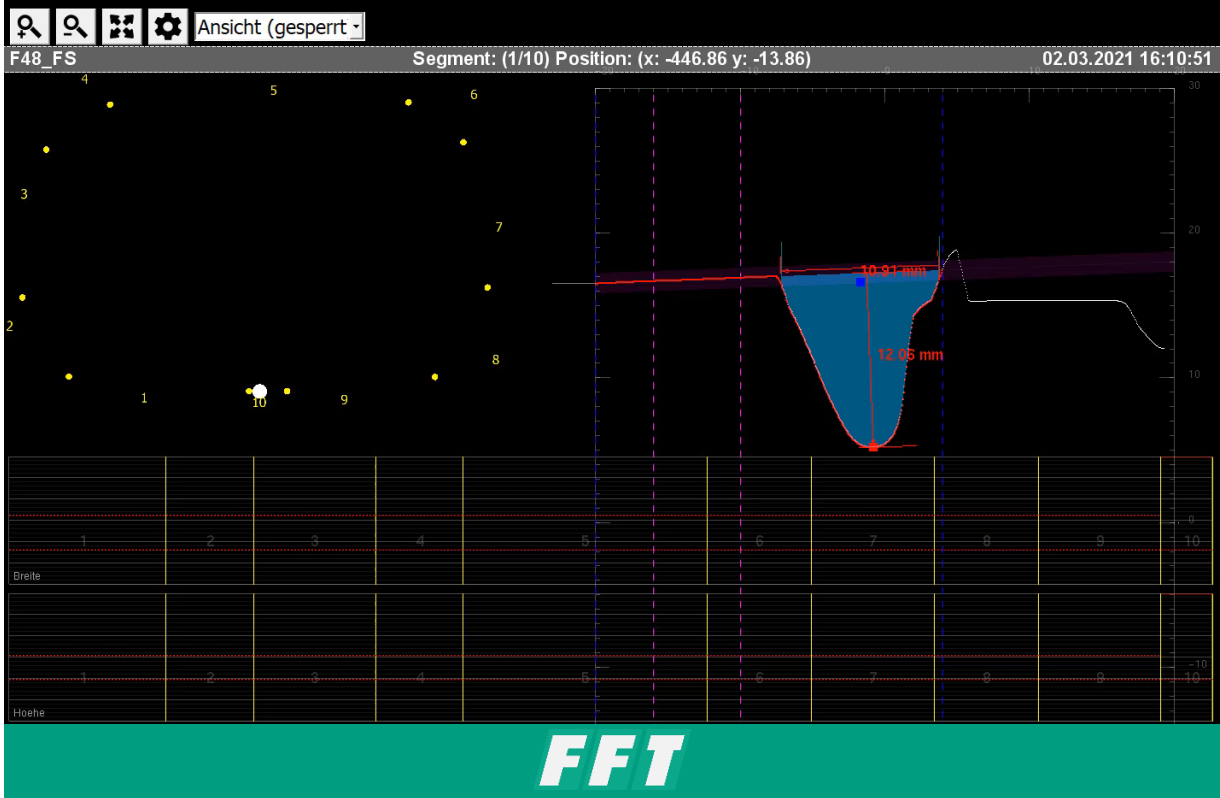
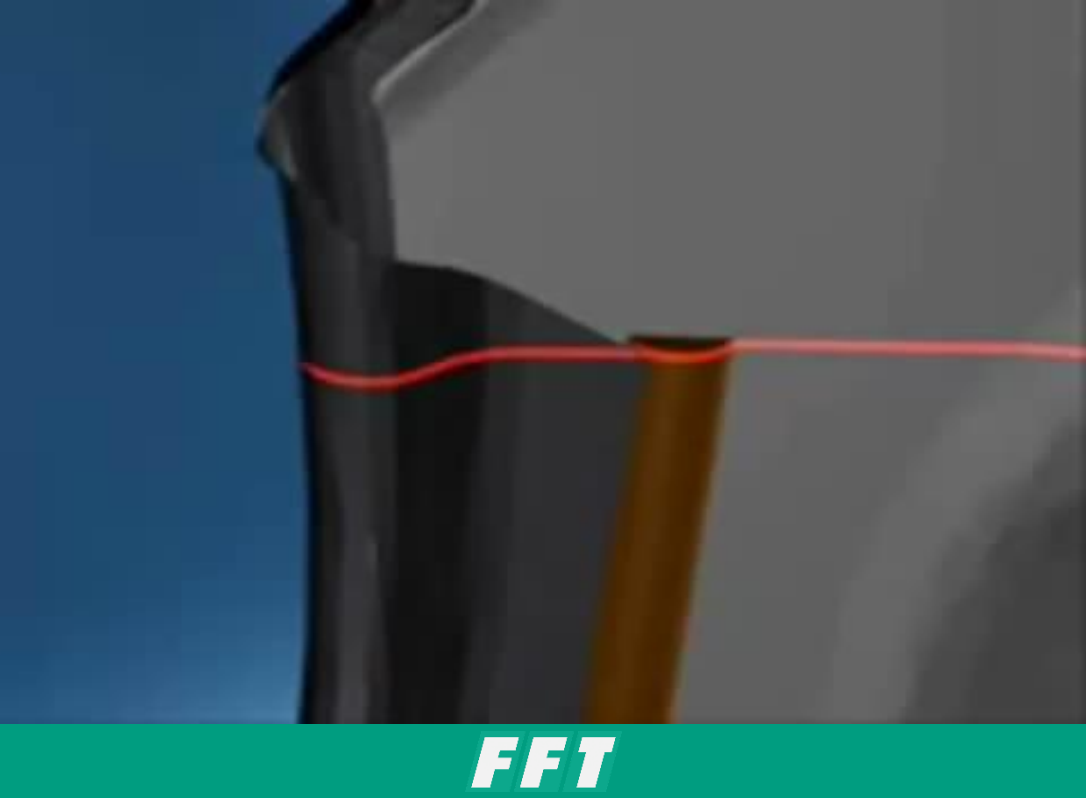


FFT*check* Adhesive Layer Control - quad

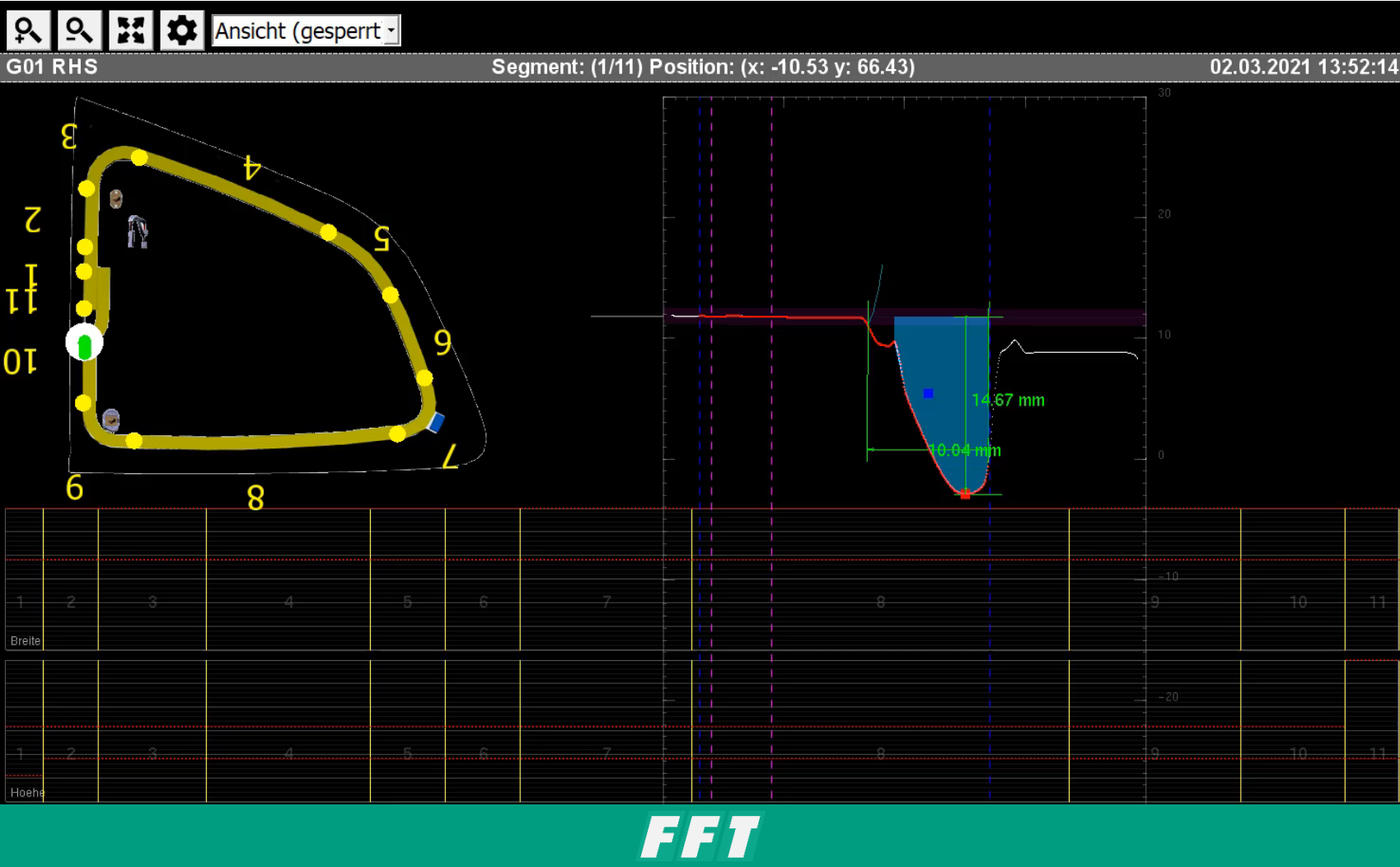
- 4 sensors are placed around the adhesive nozzle
→ a rectangle is formed around the adhesive outlet
- The adhesive bead is always detected even during dynamic movement sequences
- Measurement result is stored with measurement position
→ Clear conclusion on NiO sites possible



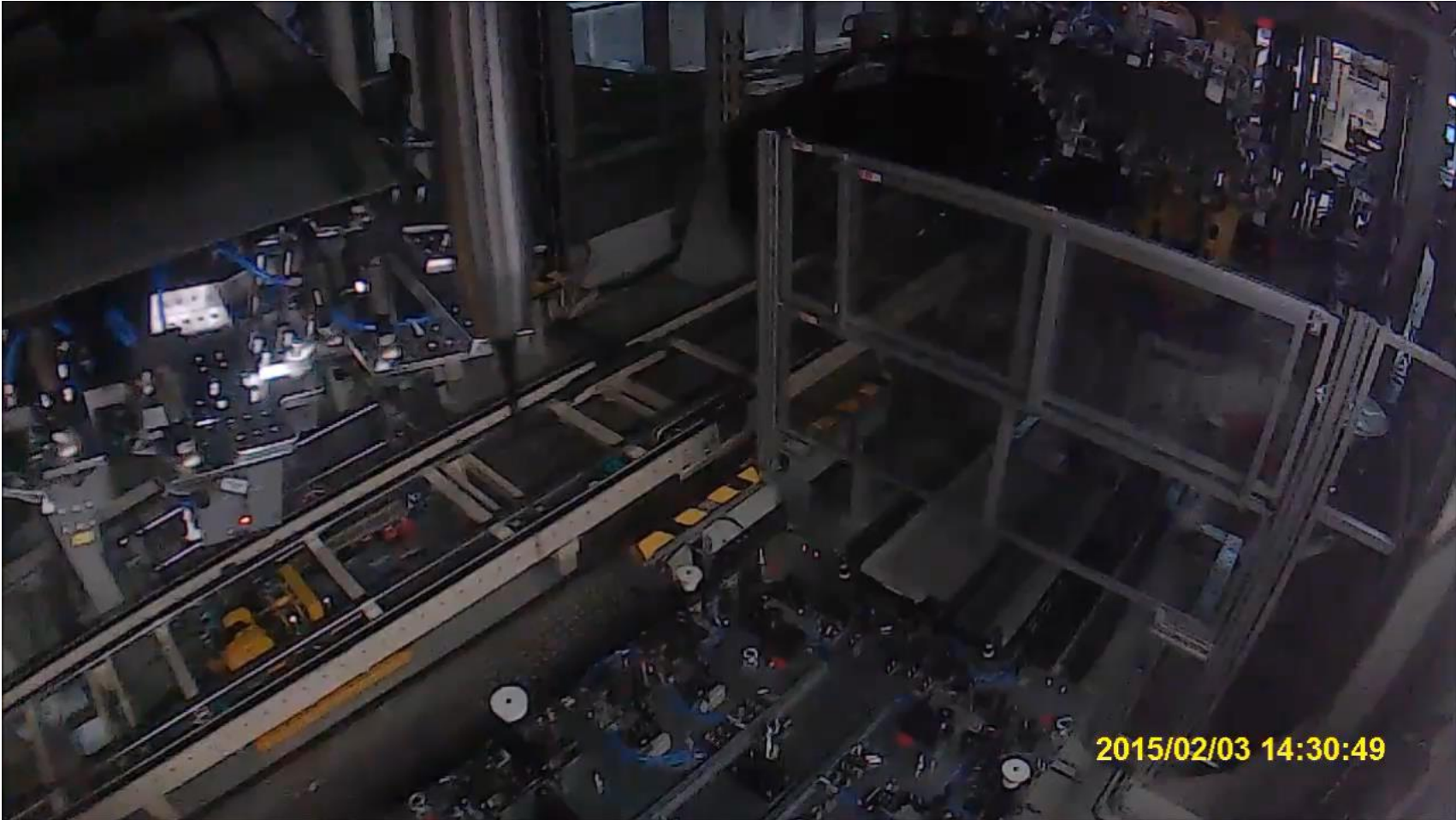
FFTcheck ALC - single



FFTcheck ALC - single



FFT *check* **ALC** - quad



4 **FFT**check **ALC** - Equipment

Hardware / Software

one step ahead in **INTELLIGENT** production systems

FFT *check* **ALC** - Equipment



Hardware

- Single line laser (FFTBlue) → optional Wenglor, keyence, μ Epsilon
- Panel PC
- Ethernet, TCP/IP communication
- Several robots and controllers can be used



Software

- FFT VisionAnalyserXT
- Different DBMS, MySQL, MariaDB

SERVICE OPTIONS

We support your project from the idea to the realization and gladly beyond.



We take into account quality and deadline requirements and we assume the responsibility for the project until turnkey handover.



Consulting

Use our experience for your tasks



Project Management

Support from the idea to the start of production



Risk Analysis

Identification of risks in the process



Custom design

Creation of individual solutions



Manufacturing

Successful manufacturing with modern technologies



Documentation

Clear and logical




Conformity

Compliance with standards and regulations



After Sales

Competent service through FFT



We support our customers in efficiently implementing their production systems according to their specifications.

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DO YOU NEED AN
INDIVIDUAL SOLUTION
FOR YOUR TASK?



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