Advanced Training – 3MA Non-Destructive Testing

Intensive Training | 2 Days

Revolutionize Your Quality Control – Discover the Power of Non-Destructive Testing

Step into the **next generation of quality assurance** with this advanced training focused on the groundbreaking **3MA micro-magnetic measurement system** from Fraunhofer IZFP. This method represents one of the most **exciting, efficient, and intelligent approaches** to material testing currently available offering a **completely non-destructive**, real-time alternative to traditional methods.

Once properly calibrated, the 3MA system allows for **rapid, contactless evaluation** of essential mechanical properties, such as:

- Yield and tensile strength
- Proportional and fracture elongation
- Hardness
- Coating thickness
- And more

With just a **quick sweep of the sensor** across the component, 3MA enables **in-line testing**, seamlessly integrating into production workflows. The result? **Reliable, high-speed 100% quality control**—without damaging a single part. Results are available in **mere seconds**, making this training a must for any modern manufacturing or quality assurance team.

Target Audience

This course is ideal for:

- Engineers and technicians in **production**, **material testing**, **quality management**, and **technical sales**
- Professionals eager to integrate **cutting-edge testing methods** into real-world applications

Your Benefits

- Learn to **master one of the most advanced NDT methods** in today's industry
- Understand how to **increase reliability** and **minimize scrap** with real-time testing
- Discover how to **optimize process validation** without slowing down production
  Gain hands-on experience in **calibration, application, and data interpretation**
- Work with expert trainers who are **leading figures in PHS and advanced materials testing**

This training transforms passive knowledge into **practical, high-impact skills** that immediately benefit your operations.

Learning Methods

Leading Insights ensures **practice-oriented knowledge transfer** through a mix of **expert-led seminars**, **interactive sessions**, and **hands-on testing exercises** using real samples. The trainers are seasoned professionals and recognized innovators in the PHS and NDT landscape.

Course Content – Deep Dive into Innovation

T1: Introduction to 3MA & Testing Principles

- Overview of Fraunhofer IZFP and the trainer's background
- NDT vs. destructive testing: scope, advantages, and industry relevance
- Requirements for qualified technical personnel
- Global standardization and why 3MA is reshaping inspection protocols
- The core question: What exactly is 3MA?

T2: 3MA in Practice – From Standards to Application

- Step-by-step qualification and validation workflows
- Theoretical foundation and physical background of 3MA
- Functional principles and software walkthrough
- Detailed look at calibration:
    - Defining and preparing calibration samples
    - Capturing and interpreting 3MA data
    - Building and validating calibration functions
    - Implementing and activating calibration in real scenarios
- Application boundaries and optimization strategies

P1: Hands-On – Calibrating the 3MA System

- Live calibration exercises and data recording
- Review of system behavior and accuracy metrics

P2: 3MA in Action – Determining Mechanical Properties

- Yield strength, tensile properties, hardness, and more
- Real-time evaluation using live samples
- Discussion of best practices and result interpretation

T3: Wrap-Up & Integration

- Recap of core concepts and calibration methods
- Open FAQ session with trainers
- Individual feedback and discussion on site-specific applications

Accelerate Precision. Enable Efficiency. Empower Your Team.

"Learn when, where and what you want! Sounds tempting, we support your needs..."

Christian Kovacs