



# ULTRASONIC PHASED ARRAY

Phased Array Ultrasonic Testing (PAUT) today is a widely accepted and frequently applied method of inspection. It can be used to enhance the existing ultrasonic capability. PAUT is a powerful but complex imaging technique, based on the physics of ultrasound and there are no shortcut solutions to ensure its competent use. This course is intended for level 2 ultrasound examiners who want to gain knowledge of the rather new UT imaging techniques using PAUT, allowing a full visual documentation of manual and automatic ultrasonic scanning of the objects, which could possibly replace radiographical inspection with its high cost and risks. In Order to successfully work with Phased Array you need to understand the potential and limits of this technology. We will provide you with the basics to get the best use out of PAUT. One of the many great features of PAUT is its ability to create visual representations with exact coordinates of your testing results (location of possible defects).

The accredited certification body in Germany provides you with the internationally recognized ISO 9712 certificate after passing the written theoretical and practical examinations, and showing proof of sufficient time of practical experience.

## COURSE CONTENT

Basics of the Phased Array technique (probes, instruments, beam steering and focusing)

Phased Array instruments and probes

Electronic scanning techniques (linear scan 0° and fixed angle, sector scan, compound scan)

Instrument setup (wedge calibration, AGC, DAC, TCG and sensitivity setting for amplitude evaluation techniques)

Scan plan design using simulation and test procedures

Standards on Phased Array and their application

Manual and automatic inspection techniques

## PRACTICE

Operation of the PA instrument, including verification of calibration

Inspection of forgings and castings

Inspection of welds (butt welds)

Scan plan and test instruction, Test reports and indications tables

**PLACE** | Training centre Dortmund

If you are interested, please send an e-mail to [ausbildung@dgzfp.de](mailto:ausbildung@dgzfp.de)

## FEES

standard fee: 2.520,00 € plus 755,00 € examination fee

member fee: 2.140,00 € plus 640,00 € examination fee

For questions regarding the registration for the course, conditions of participation and questions regarding the course contents, please contact our registration office (phone: +49 30 67807-130 or by mail [ausbildung@dgzfp.de](mailto:ausbildung@dgzfp.de)).

If you want to register for the course, please send us an e-mail: [ausbildung@dgzfp.de](mailto:ausbildung@dgzfp.de)



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