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ROYAL TECH TRAINING & CONSULTANCY

Method & Level	Ultrasonic Testing – Level 3
Minimum Course Duration - Days & Hours	5 Days - 35Hrs * (duration depends on the gap analysis)
Revision & Updated on	Rev 6- Updated on 22-4-2026

Prerequisite Mandatory Product Technology Course

Please be informed that PCN has introduced a new requirement for all first-time PCN aspirants. Effective from 1st November 2025, candidates must complete an online Product Technology Training before registering for any PCN course at an approved institute.


The mandatory Product Technology Training Course being introduced exceeds these 'basic prior knowledge' requirements and all students (at whatever level) are required to complete this Product Technology training in advance of attending their first BINDT ATO-approved training course.

This also applies to Level 3 bespoke training where the applicant does not hold a valid ISO 9712 certificate. This training course need only be completed once. Valid ISO 9712 certificates are those recognised by BINDT and as listed in ICNDT OP19 – MRA Schedule 2 and/or European Federation for Non-Destructive Testing (EFNDT) MRA Schedule 2.

If you have already completed this course, please reply with a copy of your certificate. If you have not yet completed it, please follow the instructions below:

Key Points to Note:

- Training Access: <https://wcet-online-training.bindt.org/> (Step-by-step registration guidance is attached).
- A fee of **£60 + VAT** (charged by BINDT) is payable online and is valid for **365 days**.
- Duration: The 24-hour course can be completed online at your convenience.
- Upon payment, you will gain access to course materials consisting of **three modules**: -
 - Module 1:** Industrial Materials –
 - Module 2:** Manufacturing Processes –
 - Module 3:** Introduction to NDT (*Total course duration: approximately 24 hours*)
- A **minimum passing score of 80%** is required.
- Each candidate will have **three attempts** to achieve the passing score.
- Certification: Upon passing, you will receive a Course Completion Certificate, which is mandatory for your registration.
- We encourage all new aspirants to complete this training at the earliest to avoid any delay in the registration process.
- Should you have any questions, please feel free to contact the **Royal Tech team** for assistance.
- Once Product Technology Certificate received, we will proceed with your enrolment for any Level course

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PCN Level 3- Ultrasonic Testing

Duration: 5days (35 Hours)

Course Overview:


The course is designed to provide guidance for preparing UT LEVEL 3 examination as per PCN requirements for welds sector. The aim of this course is to ensure candidates understood the scope of the examination, theory concepts and procedure requirements as per CP 25. On arrival, Mock test on the method is conducted and gap analysis report is prepared based on the outcome of mock test. This will also enable candidates to identify their weak subject areas. Training duration is decided based on the weak areas and candidate requirement.

Course content

1. Basics of NDT, classifications of NDT, History of ultrasonics' & Physics of Sound, classification of sounds
2. velocity and dispersion-Isotropic and anisotropic materials-Parameters-Modes of Ultrasound, behaviour of sound at interface, impedance, couplant, snells law, angles
3. Behaviour of sound in material- attenuation losses, near field, far field, Area amplitude distance relations
4. Generation of Ultrasound-Probe-Properties- Piezo Electrical Crystals- Factors Affecting Selection of a piezoelectric transducer-Pulse Characteristic - Types of resolutions -Probe Parts-classification and Construction- Temperature and the speed of sound- high temperature testing
5. Equipment- components- control systems- Data Display- A, B, C Scan- Digitisation- PRF
6. Techniques- Pulse echo- straight, Delay, focussed, Dual, angle beam, tandem, delta, Pitch catch, straddle, phased array, guided waves, immersion, Advance Ultrasonic testing techniques
7. Blocks- AAC, DAC, ASTM, V1, V2, IOW, Reference blocks- Equipment, probe performance checks, DAC, Transferer correction, DGS
8. Inspection – Parent metal, sizing techniques- mathematics, weld inspection, sizing techniques
9. Indication interpretation & recording techniques
10. Understanding Specifications, procedures, techniques, Analysis of codes, standards, Procedure writing
11. Daily assessment and End of course examinations

Course objective

- 1) Understanding the physics, fundamental of ultrasound, probe models, techniques and its applications
- 2) Understanding the importance of near field, equipment , display views & its applications
- 3) understanding calibrations, inspections , technique selection, planning
- 4) Duties and Responsibilities of an certified UT Level 3
- 5) Demonstrating the ability and competence to evaluate, interpret results in terms of standards, codes, specifications
- 6) Understanding the various product forms and its inspection methodology with UT
- 7) Selection of parameters, techniques and its implementation as per the equipment
- 8) Establishing the procedure, acceptance criteria when not available and guidance to all levels
- 9) calibration and validation process
- 10) Meet the syllabus requirements for PCN Level 3 as per , PCN24/GEN/APP/UT & PCN24/AQB/REQ/UT .

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Eligibility & Experience:

- Note1: *Higher education recognised by BINDT is restricted to a recognised degree in non-destructive testing.
 - Note 2: One-day duration is at least seven hours, which can be achieved on a single day or by accumulating hours. The maximum allowable hours in any one day is 12 hours. Experience in days is achieved by dividing the total accumulated hours by 7.
- 1) Higher education*, with Level 2 -270 days
 - 2) With Level 2 - 450 days
 - 3) Direct access, with higher education* - 540 days
 - 4) PCN UT Level 2 or any BINDT recognised UT Level 2 qualification is mandatory to be eligible for UT Level 3 exam.
 - 5) Refer PCN24- GEN (latest issue for experience requirement), PCN 24-PSL 30 and RT-FM-A-03 - JOINING INSTRUCTIONS-(latest) for Training duration, experience requirement.