ROYAL TECH TRAINING & CONSULTANCY

Method & Level	**PCN Level 2- Ultrasonic Testing 3.1, 3.2,3.8 & 3.9**
Minimum Course Duration - Days & Hours	18 days & 126 Hours
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

PCN Level 2 Ultrasonic Testing 3.1, 3.2, 3.8 & 3.9

Course Duration: 18 days (126 Hours) minimum duration

Course Overview:

This course provides comprehensive knowledge of the theory and practice of ultrasonic testing of welds for technicians to reach the Level II standard. Training accredited to PCN Level 2. This course is suitable for NDT personnel, inspectors, testers and engineers who require a thorough introduction to ultrasonic testing of plates and welded joints.

Course Content:

1. Basics of NDT, classifications of NDT
2. History of ultrasonics' & Physics of Sound, classification of sounds
3. Parameters-Modes of Ultrasound, behaviour of sound at interface, impedance, couplant, snells law, angles
4. Behaviour of sound in material- attenuation losses, near field, far field, Area amplitude distance relations
5. Generation of Ultrasound-Probe-Properties- Piezo Electrical Crystals- Factors Affecting Selection of a piezoelectric transducer-Pulse Characteristic -Probe Parts-classification and Construction
6. Equipment- control systems- Data Display- A, B, C Scan, PRF
7. Techniques- Pulse echo- straight, Delay, focussed, Dual, angle beam, tandem, Pitch catch, straddle, immersion
8. Blocks- AAC, DAC, ASTM, V1, V2, IOW, Reference blocks- Equipment, probe performance checks, DAC, Transferer correction, DGS
9. Inspection – Parent metal, sizing techniques- mathematics, weld inspection, sizing techniques
10. Indication interpretation & recording techniques
11. Product technology- welding process and its associate defects
12. Inspection & reporting of welds using Pulse echo UT for various types of weld joints
13. Practical exercise and Daily assessment

Course Objectives:

1. Understand the basic concept of ultrasonic's, technique selection, equipment's, and probes
2. Calibrate ultrasonic equipment using calibration blocks
3. Determine attenuation levels, Measure the thickness of steel plates, parent metal inspection
4. Locate and determine size of laminations in steel plates
5. Select correct type of probe to examine butt welded joints
6. Inspect, Detect, and report the location and size of defects in butt welds
7. Interpret code requirements related to ultrasonic testing
8. Guidelines for written instruction, codes and test reports
9. Meet the syllabus requirements for PCN Level 2 as per , PCN24/GEN/APP/UT & PCN24/AQB/REQ/UT .

Experience:

1. With level 1- 135 days, Direct access- 180 days
2. 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.

Note: . 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

PCN Level 2 Ultrasonic Testing 3.8, 3.9 (supplementary Category)

Duration: 3 days (depends on practice and experience)

About Course: If an NDT Engineer wishes to upgrade his career in the testing of ultrasonic welds, then he or she may wish to undertake the training for the PCN UT 3.8/3.9 supplementary examination. This training course offers training and instructions for the ultrasonic inspection of alternative configurations of welds, specifically being structural Tee welds, Nozzle weld configurations and/or Structural Node weld configurations. The training covers both partial and full penetration welds of these configurations.

Experience:

1) To be eligible for the 3.8/3.9 training course, all students must hold a valid PCN level 2 - 3.1 & 3.2 qualifications and be fully competent in the testing of butt-welded plate & pipe.
2) BINDT/PCN mandates that any additional training requirements are met and a minimum of 15 days' experience is documented for each additional category sought.