


DOCUMENT NAME	Course Curriculum					
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ROYAL TECH TRAINING & CONSULTANCY

Method & level 2	Magnetic Particle Testing (Multi sector) – Level 2
Course Duration - Days & Hours	4 DAYS - 40 HOURS
Revision & updated on	Rev 4- Updated on 7-4-2023

PCN Level 2 Magnetic Particle Inspection

Duration: 4 days (40 Hours) min duration

Course Overview:

This course provides comprehensive knowledge of the theory and practice of magnetic particle testing for candidates to reach the Level 2 standard. You will learn to explain the basic principles of magnetic particle inspection methods, to carry out magnetic particle inspection & to write clear and concise inspection instructions and test reports.

Course Content:

1. Basics of NDT, classifications of NDT
2. History and Principles of magnetism, Classification of materials,
3. Electromagnetic induction, Magnetic Parameters, properties (Permeability and reluctance and many more)
4. Currents, Methods of Magnetization and field distribution
5. Demagnetization, techniques & field measurements, devices
6. Medium, properties and classification
7. Equipment's, accessories, and its applications
8. Quality control check
9. Inspection Techniques- Methods -Applications- -Magnetic field requirement (as per BS EN-9934-1)
10. Special techniques
11. Indication interpretation & recording techniques
12. Product technology- welding, casting, forging, wrought and its associate defects
13. Inspection & reporting of welds, casting, forgings using various magnetisation techniques using visible, fluorescent particles of various types of products
14. Practical exercise and Daily assessment

Course objectives:

1. Understand the basic principles of magnetic particle inspection
2. Understanding Electromagnetic induction, Magnetic Parameters, properties
3. Understanding the methods of magnetization, technique selections, chemicals, equipment's
4. Carry out Magnetic Particle Inspection on welds, casting, wrought using a range of magnetizing methods
5. Guidelines for written instruction, codes and test reports
6. Meet the syllabus requirements for PCN Level 2 as per PCN GEN Appendix Z1 & E1

Experience:

4 months experience required in order to gain full qualification.