


DOCUMENT NAME	Course Curriculum					
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ROYAL TECH TRAINING & CONSULTANCY

Method & level 2	Magnetic Particle Testing (Multi sector) – Level 3
Course Duration - Days & Hours	3 Days - 30Hrs * (duration depends on the gap analysis)
Revision & updated on	Rev 0- Updated on 7-4-2023

PCN Level 3 Magnetic Particle Inspection

Duration: 3 days (30 Hours) min duration

Course Overview:

The course is designed to provide guidance for preparing MT LEVEL 3 examination as per PCN requirements for Pre and in-service inspection sector. The aim of this course is to ensure candidates understand 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
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 associated defects
13. Daily assessment and EOC assessments

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. understanding calibrations, inspections, technique selection, planning
5. Duties and Responsibilities of a certified MT Level 3
6. Demonstrating the ability and competence to evaluate, interpret results in terms of standards, codes, specifications
7. Understanding the various product forms and its inspection methodology with MT
8. Selection of parameters, techniques and its implementation as per the equipment
9. calibration and validation process
10. Carry out Magnetic Particle Inspection on welds, casting, wrought using a range of magnetizing methods if candidate do not hold Level 2 in multi sector
11. Guidelines for procedure using the codes, Establishing the procedure, acceptance criteria when not available and guidance to all levels
12. Meet the syllabus requirements for PCN Level 3 as per PCN GEN Appendix Z1 and E1

Experience:

24 months experience required in order to gain full qualification.