



Australian Government

MEM24005 Perform basic eddy current testing

Release: 1

MEM24005 Perform basic eddy current testing

Modification History

Release 1. Supersedes and is equivalent to MEM24005B Perform basic eddy current testing.

Application

This unit of competency defines the skills and knowledge required to operate eddy current testing equipment and the preparation and performance of eddy current testing on fabrications, structures and components across a wide range of industries where knowledge of metallurgy, electricity, magnetism and electromagnetism associated with the level of application in this unit is required.

Eddy current testing is performed on critical component or structural zones. Re-assessment of competency at regular intervals may be required in accordance with Australian Standards or other relevant standards. Actual and potential defects are to be considered, together with ongoing abnormalities in fabrications, components and structures.

Materials and chemicals which are subject to codes and regulations - for example, chemicals, explosives, solvents, dangerous materials, acids, or noxious waste products - are subject to safe work habits and must be stored and used in accordance with safe work practices.

This unit should not be selected when unit MEM24006 Perform eddy current testing has already been selected.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurements is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of power tools are required unit MEM18002 Use power tools/hand held operations should also be selected.

No licensing or legislative requirements apply to this unit at the time of publication. Certification against Australian Standards may be achieved where assessment in this unit of competency is carried out in conjunction with an examining authority as described in AS ISO 9712 Non-destructive testing — Qualification and certification of NDT personnel'.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011 Undertake manual handling

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

MEM18001 Use hand tools

Competency Field

Non-destructive testing

Unit Sector

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications
2. Prepare inspection areas for basic eddy current testing	2.1 Clean inspection areas and prepare for testing using appropriate procedures and materials 2.2 Carry out preparation processes in accordance with the relevant procedures 2.3 Assess inspection areas visually and identify obvious discontinuities
3. Perform basic tests	3.1 Identify nominated test from SOPs 3.2 Prepare test equipment in accordance with standards and/or procedures 3.3 Carry out eddy current test procedure in accordance with relevant work instructions 3.4 Maintain eddy current test equipment and store in accordance with SOPs
4. Report the results of basic eddy current test(s)	4.1 Check and confirm basic indications and identify defects in accordance with organisational standards and/or procedures 4.2 Report test results in accordance with organisational standards and/or procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Nominated tests include one or more of the following:

- wheel bead seat
- production line
- tube production line
- conductivity measurement methods.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM24005B Perform basic eddy current testing.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>