



Australian Government

MEM18086 Test, recover, evacuate and charge refrigeration systems

Release: 1

MEM18086 Test, recover, evacuate and charge refrigeration systems

Modification History

Release 1. Supersedes and is equivalent to MEM18086B Test, recover, evacuate and charge refrigeration systems

Application

This unit of competency defines the skills and knowledge required to test, recover, evacuate and charge refrigeration systems to achieve performance specification.

It applies to refrigeration systems associated with refrigeration and air conditioning in commercial, industrial, domestic, marine and transport applications. This unit does not apply to vehicle in-cab air conditioning systems.

Demonstration of competency must be in accordance with Australian Standards, including AS - HB40 Refrigeration and Air Conditioning codes of practice, and relevant ozone and greenhouse substance legislation.

A Refrigerant Handling Licence must be held by any person who carries out work in relation to refrigeration and air conditioning equipment.

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18055	Dismantle, replace and assemble engineering components

Competency Field

Maintenance and diagnostics

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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, drawings, job sheets or work instructions
2	Assess refrigeration system operation	2.1 Apply refrigeration system operating principles and terminology to assessment of system operation 2.2 Access and interpret all relevant information to commencement of work on the refrigeration system 2.3 Undertake checks on the refrigeration system, including appropriate basic electrical safety checks in accordance with relevant codes and regulations 2.4 Develop appropriate operating procedures, as required 2.5 Determine and record pressures and temperatures 2.6 Isolate faults to component level and determine appropriate corrective action 2.7 Check the refrigeration system for leaks and any contamination
3	Recover refrigerant and evacuate system	3.1 Recover and contain refrigerant used in the system in accordance with codes and regulations 3.2 Evacuate the refrigeration system in accordance with codes and regulations

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|--|-----|--|
| 4 | Charge the refrigeration system | 4.1 | Charge the refrigeration system with the correct refrigerant |
| | | 4.2 | Add appropriate lubricating oil to the refrigeration system |
| | | 4.3 | Check the refrigeration system for leaks |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

Relevant information includes one (1) or more of the following:

- manufacturers' technical data
- pressure temperature charts
- operating manuals

Appropriate corrective action includes:

- isolation and tagging of faulty components, repair and/or replacement

Contamination includes one (1) or more of the following:

- moisture
- non-condensables
- solids and acids

Refrigerant includes one (1) or more of the following:

- chlorofluorocarbons (CFCs)
- hydrochlorofluorocarbons (HCFCs)
- hydrofluorocarbons (HFCs)

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.

- natural refrigerants
- ammonia

Relevant codes and regulations include:

- Australian Standards, refrigeration and air conditioning codes of practice, relevant ozone and greenhouse substance legislation

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM18086B Test, recover, evacuate and charge refrigeration systems

Links

Companion Volume implementation guides are found in VETNet -

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