



**Australian Government**

**Assessment Requirements for MEM234034  
Manage heating, ventilation, air  
conditioning and refrigeration systems or  
projects**

**Release: 1**

# Assessment Requirements for MEM234034 Manage heating, ventilation, air conditioning and refrigeration systems or projects

## Modification History

Release 1. Supersedes and is equivalent to MEM234034A Manage heating, ventilation, air conditioning and refrigeration systems or projects.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- interpreting plans, specifications and other documentation to determine features and performance characteristics and requirements of heating, ventilation, air conditioning and refrigeration (HVACR) systems
- advising other technicians, tradespersons and production personnel on HVACR system installation, modification, commissioning, operation or maintenance on at least two occasions
- determining adequacy of standard operating procedures (SOPs) for HVACR systems and making required adjustments
- selecting and using software and validation techniques including 2D and 3D modelling
- checking HVACR systems for safe operation
- determining situations that require other technical and professional assistance
- researching sustainability implications and current HVACR systems design techniques
- evaluating solutions for feasibility against the installation, modification, commissioning, operation or maintenance criteria, including relevant engineering and financial calculations and analysis
- determining work health and safety (WHS), regulatory and risk management requirements
- communicating, negotiating and reviewing with stakeholders and client throughout HVACR project or management activity.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

## Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- current options and trends in HVACR system modelling and simulation software including underpinning program techniques and software validation techniques
- research and investigations methods
- principles of HVACR systems
- HVACR system work requirements

- validation techniques
- types of control equipment
- common HVACR system hardware including industrial and commercial refrigeration systems, hydronic systems and automated controls
- HVACR load cycles
- HVACR system specifications
- HVACR system maintenance
- principles of building management systems (BMS)
- interface principles for HVACR system components
- building management control system software
- dimensions, capacity and position of system components
- electrical, electronic and mechanical features of HVACR systems including interface principles and techniques for electrical, electronic, pneumatic and hydraulic sensors and actuators
- WHS and regulatory requirements, codes of practice, standards, risk minimisation and registration requirements.

## Assessment Conditions

- Assessors must:
  - have vocational competency in managing heating, ventilation, air conditioning and refrigeration systems or projects at least to the level being assessed with relevant industry knowledge and experience
  - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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## Links

Companion Volume implementation guides are found in VETNet -

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