



Australian Government

Assessment Requirements for MEM23149 Contribute to the design of commercial and industrial exhaust systems

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM23149A Contribute to the design of commercial and industrial exhaust systems.

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:

- identifying and interpreting drawings and specifications and requirements appropriate to the design task
- implementing work health and safety (WHS) procedures and practices including the use of risk control measures
- demonstrate the use of software tools related to design commercial or industrial exhaust systems
- determining performance aspects of the system, applying noise abatement measures and balancing fan duct systems on at least two occasions
- preparing the design, drawings and specifications of commercial or industrial exhaust systems consistent with codes and regulations for two different systems
- communicating technical and procedural requirements to others
- dealing with unexpected situations
- documenting technical information and designs in accordance with procedures.

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:

- WHS requirements
- appropriate personnel
- organisational procedures
- relevant codes and regulations
- commercial and industrial exhaust system types
- duct design
- fluid dynamics including laminar and turbulent flow, friction and pressure loss
- outlet design and location including consideration of:
 - environmental requirements

- noise
- access protection against pests
- cycling and operation control
- dust collection and control including:
 - filter types
 - cyclone and shaker type collectors
- motor ratings
- fan types
- noise control
- sound and flame proofing
- environmental requirements
- resource and equipment requirements.

Assessment Conditions

- Assessors must:
 - have vocational competency in contributing to the design of commercial and industrial exhaust systems 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.

Links

Companion Volume Implementation Guides are available on VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>