



Australian Government

**Assessment Requirements for UEERA0082
Select residential air conditioning system
equipment, components and accessories**

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- arranging pipe work to comply with regulatory and functional requirements
- selecting appropriate type, size and quantity of pipe and tubing
- selecting air conditioning unitary equipment and components that meets load requirements
- selecting air distribution components and controls that meets load requirements
- selecting automatic control devices that meet functional and regulatory requirements
- documenting pipe work arrangement, specification for items selected and reasons for the selections made
- dealing with unplanned events
- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements and workplace procedures and practices, including using risk control measures
- applying sustainable energy principles and practices.

Knowledge Evidence

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

- air conditioning system equipment, component selection, components and piping selection, safe working practices and relevant standards, codes and regulations, including:
 - residential air conditioning unitary equipment:
 - construction, operation, application and selection of:
 - room air conditioners
 - split systems – wall hang, cassettes and ducted
 - small package units
 - cooling only and reverse cycle
 - line sizing and design:
 - quick selection tables

- velocity tables
- pressure drop in lines and fittings
- oil migration stabilisation
- effect of varying system capacity
- oil traps
- liquid migration
- control systems:
 - construction, operation, application and selection of:
 - cycling and safety controls
 - pressure-stats
 - thermostats
 - de-ice controls
 - air conditioning automation systems
 - control strategies
- air distribution:
 - principles:
 - factors affecting the design of ductwork systems
 - flexible ductwork systems
 - static, velocity and total pressure
 - pressure loss:
 - friction and dynamic
 - in ducts, friction charts
 - in fittings, loss coefficients
 - diffuser pressure loss
 - system sizing:
 - standard duct sizes and gauges
 - duct selection
 - fitting selection
 - air diffuser selection
 - balancing
- relevant industry standards, including industry practices and technologies
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training

Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>