



Australian Government

UEPMNT302 Install and maintain industrial pipe work

Release: 2

UEPMNT302 Install and maintain industrial pipe work

Modification History

Release 2. Minor release to update superseded pre-requisite units.

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to undertake work associated with the installation, maintenance and fabrication of industrial pipe work, which may also involve fault finding and repairs.

Industrial piping is used to convey fluids, liquids and gases from one location to another. Pipe fabrication is the process of making and assembling industrial pipe work to suit each power generation facility's requirements.

Competency in this unit requires the ability to plan work, fabricate and install industrial pipe work, maintain industrial pipe work and to report on all completed work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or on site.

Power generation maintenance personnel are typically trained and authorised to receive permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

MEM09002 Interpret technical drawing

MEM12023 Perform engineering measurements

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

MEM18003 Use tools for precision work

MEM18006 Perform precision fitting of engineering components

MEM18055 Dismantle, replace and assemble engineering components

Competency Field

Maintenance

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for work

PERFORMANCE CRITERIA

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

- 1.1** Requirements including scope of work and assigned roles are identified and confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures
- 1.2** Occupational Health and Safety (OHS)/Work, Health and Safety (WHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are reviewed in preparation for work
- 1.3** Resources are obtained and inspected for compliance with job specification
- 1.4** Relevant plans, drawings and manuals are selected and used, in accordance with the work procedures
- 1.5** Correct materials and components for work are obtained and inspected, in accordance with workplace procedures, for compliance with job specification
- 1.6** Work is planned, sequenced and prioritised, in accordance with workplace
- 1.7** Potential hazards are identified, and risk control measures, are selected and implemented, in accordance with workplace procedures
- 1.8** Work area is prepared, in accordance with workplace procedures

2 Fabricate and install pipe

- 2.1** Isolations are confirmed, where appropriate, in

work	accordance with workplace procedures
	2.2 Pipe runs are identified, calculations performed and sketches made of planned installation in accordance with workplace procedures
	2.3 Pipe work is fabricated, using appropriate techniques and equipment, in accordance with workplace procedures
	2.4 Pipe work is levelled and aligned, and installed or coupled, in accordance with the workplace procedures
3 Maintain industrial pipework	
	3.1 Pipe work found to be faulty is repaired and replaced to conform to site requirements or manufacturers' specifications, in accordance with workplace procedures
	3.2 Pipe work modifications and alterations are undertaken, in accordance with workplace procedures, site requirements and manufacturers' specifications
	3.3 Machinery and/or plant is returned to service, and pipe work is monitored and adjusted, in accordance with workplace procedures
4 Complete work	
	4.1 Work is completed, and appropriate personnel notified, in accordance with workplace procedures
	4.2 Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
	4.3 Tools and equipment are cleaned, maintained and stored, in accordance with workplace procedures
	4.4 Work completion details are finalised, in accordance with workplace procedures

Foundation Skills

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

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPMNT302B Install and maintain industrial pipe work.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

Assessment Requirements for UEPMNT302 Install and maintain industrial pipe work

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and includes:

- analysing data using analysis techniques
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
 - safe working practices
- communicating with personnel
- completing work as per scheduled requirements
- determining work to permit requirements
- dismantling and reassembling industrial pipework using approved techniques
- fabricating and installing industrial pipe work using installation and fabrication techniques and procedures maintain industrial pipe work using maintenance techniques and procedures
- fabricating and installing industrial pipework
- implementing legislation, relevant industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- interpreting technical drawings and data
- planning for installation and maintenance pipe work
- recognising worn or damaged components
- selecting materials and components
- undertaking measurements with measuring equipment
- using tools
- utilising testing techniques
- working with pipe levelling and alignment techniques

Knowledge Evidence

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

- data analysis techniques
- isolations
- legislation, industry standards, codes of practices and regulations
- maintenance of industrial pipework
- manufacturers' specifications and manuals
- materials and components
- measuring equipment
- permit to work system
- pipe levelling and alignment techniques
- pipe work fabrication and installation techniques
- technical drawings and plans
- techniques for dismantling and reassembling industrial pipes recognition of worn or damaged components
- testing techniques
- tools
- types and characteristics of industrial pipe work
- WHS/OHS legislated requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions. Resources for assessment must include access to:

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

Links

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