



Australian Government

UEPMNT339 Perform sheet metal work

Release: 1

UEPMNT339 Perform sheet metal work

Modification History

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 the marking out, development, fabrication and installation of sheet metal work.

Sheet metal is a thin flat piece of metal that can be cut and bent into a variety of shapes that is used to fabricate and repair components and parts that are used in equipment and systems in a power generation facility.

Competency in this unit requires the ability to plan work, mark out and develop sheet metal work, fabricate sheet metal work, install sheet metal 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 of competency may require a licence or training permit to practice in the workplace, where work is carried out on gas and electrical installations. Additional and/or other conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

MEM18006C Repair and fit engineering components

MEM09002B Interpret technical drawing

MEM12023A Perform engineering measurements

MEM18001C Use hand tools

MEM18002B Use power tools/hand held operations

MEM18003C Use tools for precision work

MEM18055B 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** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) 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 workplace 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 procedures
- 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 Mark out and develop

- 2.1** Development method and materials are selected and

sheet metal work		applied, in accordance with workplace procedures
	2.2	Datum points are established to ensure efficient use of materials, in accordance with workplace procedures
	2.3	Marking out of sheet metal work and development is performed within established tolerances, in accordance with workplace procedures
	2.4	Marking out of sheet metal work and development is checked to ensure compliance with job specification, in accordance with workplace procedures
3 Fabricate sheet metal work	3.1	Sheet metal work is fabricated, in accordance with workplace procedures and job specification
	3.2	Materials and templates, where appropriate, are cut and formed using sheet metal machinery or tools, in accordance with workplace procedures
	3.3	Sheet metal machinery and tools are used, in accordance with workplace procedures and manufacturers' specifications
	3.4	Fabricated work is checked to ensure compliance, in accordance with workplace procedures and job specification
4 Install sheet metal work	4.1	Isolations are confirmed, where appropriate, in accordance with workplace procedures
	4.2	Installation of sheet metal work is performed, in accordance with workplace procedures
	4.3	Repairs or modifications are carried out, where necessary, in accordance with workplace procedures
	4.4	Machinery and tools are used, in accordance with workplace procedures and manufacturers' specification
	4.5	Installed work is checked to ensure compliance, in accordance with workplace procedures and job specification
5 Complete work	5.1	Work is completed and appropriate personnel are notified, in accordance with workplace requirements
	5.2	Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures

- 5.3 Tools, equipment and materials are cleaned, maintained and stored, in accordance with workplace procedures
- 5.4 Work completion and documentation 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 UEPMT339B Perform sheet metal 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 UEPMNT339 Perform sheet metal work

Modification History

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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:

- 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 scheduling requirements
- determining permit to work requirements
- fabricating sheet metal work using fabrication techniques and procedures
- implementing legislation, industry standards, codes of practice and regulations
- installing sheet metal work utilising installation techniques and procedures
- interpreting manufacturers' specifications and manuals
- marking out and developing sheet metal work using laying out, marking off/out and development techniques and procedures
- performing with environmental procedures
- planning for sheet metal work
- reading technical drawings and plans
- selecting materials and machinery
- undertaking measurements
- using tools

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:

- basic metallurgy

- fabrication marking off/out and development methods
- fabrication techniques
- generation plant and equipment and its location
- installation techniques
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- permit to work system
- sheet metal machinery
- sheet metal work
- technical drawings and plans
- tools
- typical arrangements of power production plant
- 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.

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

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
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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