



Australian Government

MEM10012 Erect structures

Release: 1

MEM10012 Erect structures

Modification History

Release 1. Supersedes and is equivalent to MEM10001 Erect structures.

Application

This unit of competency defines the skills and knowledge required to inspect and prepare the erection site, erect structures and applies to structures that are exclusively/predominantly steel metal and are load-bearing of substantial size made out of steel and/or other metals.

Specifications for the structure must be supplied via engineering drawings or the like and would include site location information.

Where workshop assembly techniques are required, see unit MEM05089 Assemble fabricated components.

Where design skills are required, see unit MEM09011 Apply basic engineering design concepts.

Where lifting or rigging skills are required, see appropriate units.

Where welds are required to meet legislative or regulating requirements then see appropriate welding units.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM05007	Perform manual heating and thermal cutting
MEM05052	Apply safe welding practices
MEM05085	Select welding processes
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12007	Mark off/out structural fabrications and shapes
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

Plus, one or more of the following, including their prerequisites:

MEM05090 Weld using manual metal arc welding process

MEM05091 Weld using gas metal arc welding process

Competency Field

Installation and commissioning

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications, drawings, job sheets or work instructions
2. Inspect and prepare erection site	2.1 Check site for correct location, dimensions and levels 2.2 Report non-compliance with specifications to appropriate authority 2.3 Undertake minor alterations, corrections or adjustments with approval of appropriate authority 2.4 Prepare all surfaces and materials and/or components for use 2.5 Identify and check structure components against specifications
3. Erect structures	3.1 Carry out all work in a safe manner and in accordance with defined procedures 3.2 Prepare structure components for correct sequential erection 3.3 Erect components and fix according to specifications 3.4 Adjust structures to specifications 3.5 Ensure all reports and documentation is completed to required specifications

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Levels include:	straightforward levelling and alignment using plumb bob/lines and levels.
Appropriate authority includes one or more of the following:	• site supervisor • building inspector • contractor.
Materials/components include one or more of the following:	• ferrous and nonferrous materials of a: • variety of material sizes • variety of borne loads • variety of joining systems • variety of component profiles.
Prepared includes one or more of the following:	• cleaning • assembly sequencing • surface finishing.
Structures include one or more of the following:	• metal frameworks • portals • stairways • walkways • vessels • tanks • platforms • conveyors • moving lines • associated railings.

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Reports and documentation include one or more of the following:

- contract documents
- building inspection documentation
- compliance reports.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM10001 Erect structures.

Links

Companion Volume implementation guides are found in VETNet -

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