



Australian Government

Department of Education, Employment and Workplace Relations

MEM10006B Install machine/plant

Release: 1

MEM10006B Install machine/plant

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers installing machine/plant where the equipment being installed requires substantial modification to the existing site and/or connecting equipment.
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Application of the Unit

Application of the unit	This unit applies to installation where the equipment being installed requires substantial modification to the existing site and/or connecting equipment, and excludes minor modifications. Installation covered by this unit also excludes electrical installation. Work is undertaken utilising new or existing external and internal locations and sites. Foundations, footings, beds and frameworks are completed prior to installation and commissioning. All specifications are applied via engineering drawings, written or verbal instructions. Routine modifications and alterations are of a minor nature not requiring specification changes or technical recording. Examples would be fitting of spacers, spool pieces, relocation of brackets, alignment of holes etc. Where existing machines/plant are replaced by the same or similar machine/plant, Unit MEM18006C (Repair and fit engineering components) applies. If balancing skills or manufacture of gaskets is required, these should be accessed from appropriate units. Where design skills are required, refer to Unit MEM09011B (Apply basic engineering design concepts). Band: A Unit Weight: 4
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	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
	MEM18006C	Repair and fit engineering components
	MEM18009B	Perform levelling and alignment of machines and engineering components
	MEM18055B	Dismantle, replace and assemble engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Inspect and prepare installation site	1.1.Site is checked for correct location, dimension and levels etc. utilising appropriate measuring equipment. 1.2.Non-compliance with specification is reported to appropriate authority. 1.3.Alteration/correction is undertaken with approval of appropriate authority. 1.4.All surfaces, materials and components are prepared for use.
2. Install machine/plant	2.1.All work is carried out safely and in accordance with site procedures and to Australian standards. 2.2.Machine components are prepared for correct sequential installation. 2.3.Machine/plant is installed in accordance with manufacturers' and site specifications. 2.4.Routine modifications/alterations are undertaken to standard operating procedures where required. 2.5.Machine/plant is levelled, aligned, coupled and connected (excluding electrical connections) in accordance with specifications. 2.6.Site is cleaned and cleared of all debris and left in safe state. 2.7.All reports and documentation are completed correctly to required specifications.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- interpreting and following information on written job instructions, manufacturer specifications, standard operating procedures, charts, lists, reports and other applicable reference documents
- interpreting layout drawings and specifications
- checking and clarifying information

REQUIRED SKILLS AND KNOWLEDGE

- orally reporting routine information
- planning and sequencing tasks
- locating and verifying site and levels for installation
- identifying non-compliances
- preparing surfaces prior to commencing the installation
- completing proformas, standard workplace forms, workplace reports and other applicable documents
- checking for conformance to specifications
- measuring to specified tolerances
- performing numerical operations, geometry and engineering calculations/formulae within unit's scope

Required knowledge

Look for evidence that confirms knowledge of:

- installation specification of the machine/plant
- procedures to follow if the location, dimensions and/or levels of the site do not comply with the specifications
- procedures for checking whether the installed machine/plant conforms to specifications
- materials and components to be used in the installation of the machine/plant
- applicable codes and standards
- installation sequence
- methods to locate, fix/fasten machine/plant
- methods of lifting/moving machine/plant and components
- techniques, tools and equipment to measure site and machine/plant installation
- use and application of personal protective equipment
- safe work practices and procedures
- hazards and control measures associated with installing machine/plant, including housekeeping

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to install machine/plant requiring substantial modification to the existing site and/or connecting equipment; excluding minor modifications. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with installing machine/plant or other units requiring the exercise of the skills and knowledge covered by this unit.

Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

EVIDENCE GUIDE**Guidance information for assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Machine/plant

Rotating equipment and machinery such as pumps, blowers, compressors, drive units, etc., production equipment and plant, process equipment, plant and machinery, engineering plant and machine tools etc.

Routine modifications/alterations

Fitting of spacers, relocation of brackets, alignment of holes etc.

Unit Sector(s)**Unit sector****Co-requisite units****Co-requisite units**

Competency field

Competency field	Installation and commissioning
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