



Australian Government

**MEM234031 Manage installation,
commissioning or modification of machines
and equipment**

Release: 1

MEM234031 Manage installation, commissioning or modification of machines and equipment

Modification History

Release 1. Supersedes and is equivalent to MEM234031A Manage installation, commissioning or modification of machines and equipment.

Application

This unit of competency defines the skills and knowledge required to provide a high-level technical leadership role in the installation, commissioning or modification of machines and equipment across all forms of manufacturing and engineering. It includes interpreting manufacturer specifications, determining implications of relevant regulation and internal or external client brief, liaison with designers, and ensuring that team members are aware of technical and performance requirements.

The unit complements the more general technical leadership and management skills found in unit MEM234001 Plan and manage engineering-related projects or operations. Informal technical or engineering advice situations are covered by the unit MEM234030 Provide specialised technical and engineering guidance to other technical employees.

This unit does not reflect all technical skills and knowledge required for machine and equipment installation, commissioning or modification tasks. The required technical skills will depend on the particular task and will normally be covered through the selection of relevant technical units as well as the combined skill and knowledge of the team. However, the unit presumes engineering skills and knowledge to at least Advanced Diploma level.

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

Pre-requisite Unit

Nil

Competency Field

Engineering science

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify scope of machine installation,	1.1 Examine machine and equipment drawings, manufacturer manuals

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
commissioning or modification task	<p>and other technical data</p> <p>1.2 Determine performance and production requirements expected from machines and equipment after installation, commissioning or modification</p> <p>1.3 Determine relevant regulatory requirements</p> <p>1.4 Inspect site and determine appropriateness of structural supports, ventilation, services, security and other critical requirements</p> <p>1.5 Determine mechanical, electrical, fabrication and machine control skills and task requirements</p> <p>1.6 Produce or review installation, commissioning or modification schedule and establish work requirements</p>
2. Brief team on requirements	<p>2.1 Distribute and discuss drawings, schedules, and major materials and equipment</p> <p>2.2 Arrange for request for further information (RFIs) with designers</p> <p>2.3 Brief team on key compliance and risk factors, including regulatory, WHS and environmental requirements</p> <p>2.4 Agree with team on critical control points and reporting requirements</p>
3. Commence installation, commissioning or modification task	<p>3.1 Supervise machine and equipment shutdowns required for task</p> <p>3.2 Supervise unloading of any new machines, equipment and materials for compliance with workplace requirements</p> <p>3.3 Determine that supply of services to work is adequate for task commencement</p> <p>3.4 Ensure all tradespersons have correct drawings</p>
4. Monitor progress and deal with contingencies	<p>4.1 Establish procedures to ensure assembly and connections meet design specifications</p> <p>4.2 Ensure electrical, fluid power and control systems and circuits are consistent with specifications and regulations</p> <p>4.3 Identify problems and contingencies and establish and rectify root cause</p>
5. Finalise installation, commissioning or modification	<p>5.1 Conduct final check to ensure installation, commissioning or modification is consistent with drawings, manufacturer manuals and any regulatory requirements</p>

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.2 Conduct test run of equipment 5.3 Identify and correct any malfunctions or errors in required output
6. Conduct handover and finalise documentation	6.1 Brief client and operators on machine or equipment operation after completion of work 6.2 Prepare and submit required reports in accordance with organisational procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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.

Installation, commissioning or modification to machinery and equipment projects includes:	<ul style="list-style-type: none"> • verifying the performance of the whole machine or equipment against drawings, client brief and manufacturer specifications at the conclusion of the project • planning and supervising the installation, commissioning or modification project • conducting work against a formal design.
Appropriate technical personnel and professionals include:	<ul style="list-style-type: none"> • technical support and advice relating to elements which have intrinsic dangers • professional support for technologies • professional services for: <ul style="list-style-type: none"> • finance, accounts and tax • insurance and legal • training and human resources (HR).
WHS, regulatory, sustainability and environmental issues	<ul style="list-style-type: none"> • WHS acts, regulations and relevant standards • industry codes of practice • risk assessments

include:	<ul style="list-style-type: none">• registration requirements• safe work practices• minimising ecological and environmental footprint of process, plant and project• maximising economic benefit of process plant and product to the organisation and the community• minimising the negative WHS impact on employees, community and customer• state and territory regulatory requirements.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM234031A Manage installation, commissioning or modification of machines and equipment.

Links

Companion Volume implementation guides are found in VETNet -

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