



Australian Government

PMBTECH509E Modify an existing product

Release: 1

PMBTECH509E Modify an existing product

Modification History

Release 1. Unit code changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBTECH509 Modify an existing product.

Application

This unit covers the skills and knowledge required to make a major modification to an existing product where an examination of a broad range of design features is required. The aims of the modification may be broad (e.g. reduce cost, improve performance, improve manufacturing) or specific (e.g. meet a particular specification).

This unit applies to an experienced technician in a lead role. The modification project may contribute to a larger or more complex project being undertaken by a more senior technician.

The unit principally refers to the modification of an existing product using the technician's application of in-depth knowledge of materials, process, equipment and problem-solving.

No licensing or certification requirements apply to this unit of competency at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil.

Competency Field

Technical

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. Confirm required product specification	1.1 Communicate clearly with stakeholders regarding technical and aesthetic specifications and other requirements 1.2 Identify project constraints, such as timelines and cost, from workplace procedures and specifications 1.3 Draft product specification and project plan 1.4 Develop tests that verify if product meets specification 1.5 Communicate plan and output with stakeholders and consider any

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	feedback received
2. Determine requirements for manufacture	2.1 Identify appropriate compound from specifications and project plan 2.2 Select process, equipment and tooling and process conditions to achieve product specifications 2.3 Determine other requirements for manufacture to achieve product specifications 2.4 Draft trial manufacturing procedure to achieve product specifications 2.5 Identify any work health and safety issues and modify project plan to accommodate these as required
3. Make changes to drawings, tooling and procedures	3.1 Obtain all required drawings, materials and tools or equipment 3.2 Evaluate compliance of product with product specifications 3.3 Modify design of part and tooling as required to reach required specifications 3.4 Draft factory trial procedure based on modifications
4. Monitor factory trials	4.1 Identify and control work health and safety issues for factory trials according to workplace procedures 4.2 Ensure all required materials and tools or equipment are available in factory setting 4.3 Coordinate with the factory to organise trials 4.4 Provide instruction to factory trial personnel to ensure suitable monitoring and data collection 4.5 Evaluate success of factory trial product and procedure against plans and specifications 4.6 Modify specification procedure as needed according to workplace procedures
5. Complete product modification	5.1 Ensure final specification and procedures are recorded in workplace procedures 5.2 Ensure all required materials, tools and equipment will be routinely available for production 5.3 Ensure work health and safety controls are standardised according to workplace procedures

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	5.4 Ensure skill needs of operators have been addressed by workplace 5.5 Accurately complete all required reports and records 5.6 Advise stakeholders of outcome of project

Foundation Skills

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

- Numeracy skills to develop and communicate modified technical specifications including formulae, and record and analyse trial data.
- Reading skills to interpret required properties of modified product and workplace procedures.
- Writing and oral communication skills to work with stakeholders on project development, and record and report on trial results and finalise modified product and associated procedures.

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

Unit Mapping Information

Supersedes and is equivalent to PMBTECH509 Modify an existing product.

Links

Companion Volume implementation guides are found in VETNet –

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

Assessment Requirements for PMBTECH509E Modify an existing product

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- modify at least one existing product, using different processes, equipment, tools and conditions to achieve the required result and meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- processes, equipment and tooling that could be used to meet specifications and:
 - the properties each would bring to the product
 - the relative advantages and disadvantages of each
 - the change in product properties with changes to process, equipment and tooling
- impact of different processes, equipment, tools and conditions on the product modification
- types and application of tests relevant to the product
- factors that may affect product quality or production output and appropriate remedies
- organisational procedures relevant to the work environment or job role
- hazards that may arise in the job or work environment and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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