



Australian Government

MEM48016 Select metal joining process

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSATCM504A Select metal forming process.

Application

This unit of competency defines the knowledge and skills required to select the appropriate metal forming process for an application. It requires using metallurgical principles and techniques to select a process which is appropriate for the required product end use and the metal(s) to be used.

It applies to technicians who are required to recommend a metal forming process for making a metal product.

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

Pre-requisite Unit

MEM09229 Read and interpret technical engineering drawings

MEM30007 Select common engineering materials

MEM48011 Apply basic chemical principles to metallurgy

MEM48012 Calculate and predict chemical outcomes in metallurgical situations

Competency Field

Metallurgy

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. 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 Identify job requirements from specifications
2. Confirm requirements	2.1 Communicate with stakeholders regarding technical and aesthetic specification 2.2 Identify process constraints including timelines and cost

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.3 Identify any special requirements of product or process 2.4 Confirm product and process requirements with stakeholders
3. Shortlist possible forming processes	3.1 Identify forming processes to suit the application 3.2 Discuss suitability of different processes with stakeholders 3.3 Guide stakeholders to determine relative benefits of individual processes 3.4 Clarify conflicts of information and benefits that arise
4. Select metal forming process	4.1 Select the most appropriate process for the application 4.2 Explain reasons for selecting process to stakeholders 4.3 Clarify any unresolved areas

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.

Specifications include one or more of the following:	- drawings - job sheets - work instructions.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MSATCM504A Select metal forming process.

Links

Companion Volume implementation guides are found in VETNet -

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