



Australian Government

Department of Education, Employment and Workplace Relations

MEM05013C Perform manual production welding

Release: 1

MEM05013C Perform manual production welding

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers performing tacking or production welding, including spot welding using a range of methods and metallic and non-metallic materials in a production environment.
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Application of the Unit

Application of the unit	This unit applies to welding undertaken in the production environment. Guidance may be required with respect to equipment settings, choice of consumables, gas mixture and pressures. For performing automated/production welding, Unit MEM07024B (Operate and monitor machine/process) or Unit MEM07025B (Perform advanced machine/process operation) should be considered. Band: A Unit Weight: 2
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Prerequisite units		

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. Tack and/or weld material using appropriate welding process	1.1. Material is prepared for the process to be used following standard operating procedures. 1.2. Material is aligned (if required) using dedicated jigs and fixtures. 1.3. Welding is carried out to accepted workplace standards.

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:

- aligning to jigs and fixtures
- welding within the scope of this unit
- following standard operating procedures

Required knowledge

Look for evidence that confirms knowledge of:

- function and use of jigs and fixtures in production welding
- hazards associated with the welding process used
- function, application and operation of welding equipment within the scope of this unit
- material preparation
- acceptable workplace standards

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 perform tacking or production welding, including spot welding using a range of methods and metallic and non-metallic materials in a production environment.

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 to 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 performing manual production welding 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.

Material	Metallic and non-metallic materials, including low carbon steels
Welding	Spot, resistance, hot air, ultrasonic

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

Co-requisite units	

Competency field

Competency field	Fabrication
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