



Australian Government

MEM19007 Perform gemstone setting

Release: 1

MEM19007 Perform gemstone setting

Modification History

Release 1. Supersedes and is equivalent to MEM19007B Perform gemstone setting

Application

This unit of competency defines the skills and knowledge required to perform manual setting of gemstones in a range of metals and design styles.

The unit is not intended to cover the work of a specialist gemstone setter and do not select this unit for the setting of stones into wax, rubber and resin.

Where production setting is required unit MEM07024 Operate and monitor machine and process should also be selected.

Where annealing and tempering is required unit MEM19005 Produce three-dimensional precision items should also be selected.

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

Band: A

Unit Weight: 6

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18003	Use tools for precision work
MEM19003	Handle gem materials

Competency Field

Jewellery and horological

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Prepare materials and equipment and perform gemstone setting	2.1	Identify metal and setting requirements
		2.2	Assess gemstone status
		2.3	Select, prepare and maintain tools to achieve desired outcome
		2.4	Prepare metal for setting
		2.5	Handle and secure gemstones in a correct manner
		2.6	Ensure setting metal is finished and burnished to specification

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

Tools include one (1) or

- holding and securing devices
- pliers

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more of the following:

- burrs
- scaupers
- burnishers
- emery
- beadars
- electronic tools
- mechanical tools

Setting styles include one or more of the following:

- claw
- grain
- rub-over

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM19007 Perform gemstone setting

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, drawings, job sheets or work instructions to identify gemstone features and setting requirements, including the type of setting and specific product handling measures
- selecting and using tools to prepare metals for setting and securing gemstones to achieve desired outcome in accordance with specifications
- adjusting, sharpening and maintaining tools to achieve optimum performance.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- setting processes and terminology
- gemstone features and handling procedures
- suitability of metal for carving and setting
- maintenance requirements of tools
- setting techniques, processes and procedures
- working properties of materials.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing gemstone setting at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires

- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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