



Australian Government

MEM19045 Set gems in channel style settings

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM19045A Set gems in channel style settings.

Application

This unit of competency defines the skills and knowledge required to prepare, seat and set gems into channel style settings. It applies to pre-manufactured jewellery items and includes application of both tapered and parallel channel setting techniques.

This unit applies to individuals involved in jewellery manufacture in a small or large-scale production context. They use and adapt technical skills and knowledge to produce work that meets pre-determined design and production requirements.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

Competency Field

Jewellery

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 Use personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications

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. Prepare for gem setting	2.1 Plan gem setting procedure and associated materials and equipment based on job requirements 2.2 Obtain and prepare equipment for the task 2.3 Handle gem in a manner which ensures damage is prevented 2.4 Determine the characteristics and purpose of the channel in setting gem material from job requirements
3. Construct channel settings	3.1 Secure the item to be set in a manner which prevents damage to the jewellery piece during the setting process 3.2 Check the thickness, width and length of the channel construction in regard to the gem dimension to be set 3.3 Prepare, lay out and cut the appropriate channel to suit the gem shape and number to be set 3.4 Cut the bearing by hand or with a burr and seat the gem in accordance with industry standards 3.5 Form the channel edge by hand or with an automatic hammer handpiece to secure the gem in the setting, including executing a bright cut on the inside edge of the channel
4. Finish work	4.1 Remove any securing compound and clean the jewellery piece for inspection 4.2 Ensure that jewellery piece meets quality standards 4.3 Complete documentation in accordance with workplace procedures 4.4 Clean up and maintain production environment and equipment in accordance with SOPs

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.
Gemstones include one or more of the following:	• brilliant shaped stones • baguette shaped stones.
Materials used in channel settings include one or more of the following:	• gemstones • natural stones • modified and synthetics gems • gold • silver • platinum • cast and handmade alloys • faceted and cabochon cut gems in either calibrated or freeform shapes.
Gem setting tools and equipment include one or more of the following:	• gravers • grinders • micro-motors • polishing machines • sharpening stones • setters wax or cement • jewellers burrs and drills • 10X loupe or head set • emery paper • flat and half pliers • needle files • pocket knife • oil • workbench • blocks or dowels covered with setters cement • bench mate setters clamp • engravers vice • bench vice • hand held setters clamp.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19045A Set gems in channel style settings.

Links

Companion Volume implementation guides are found in VETNet -

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