



Australian Government

MEM19016 Construct jewellery components

Release: 1

MEM19016 Construct jewellery components

Modification History

Release 1. Supersedes and is equivalent to MEM19016B Construct jewellery components

Application

This unit of competency defines the skills and knowledge required to transfer designs and construct jewellery components or single-piece items.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM05006	Perform brazing and/or silver soldering
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

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

Elements describe the essential outcomes.

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

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|---|--|-----|---|
| | | 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 | Transfer designs and produce 2-D patterns | 2.1 | Identify design features and requirements |
| | | 2.2 | Prepare work pieces for drawing transfer |
| | | 2.3 | Transfer accurate representations of component specifications onto templates or work pieces with minimal material wastage |
| | | 2.4 | Produce patterns or blanks to specification |
| 3 | Form and finish components or item | 3.1 | Follow design markings to form component or item and ensure conformity to design requirements |
| | | 3.2 | Select appropriate tools and equipment for forming, joining and finishing |
| | | 3.3 | Join components or formed items according to specifications |
| | | 3.4 | Finish components or items 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.

Forming methods include one (1) or more of the following:

- cutting
- folding
- bending
- curving
- dapping

Joining methods include one (1) or more of the following:

- brazing
- silver soldering
- riveting

Finishing processes include one (1) or more of the following:

- filing
- emery finishing
- basic polishing

Transfer methods include the use of one (1) or more of the following:

- direct transfer
- copied to template and adhered to work piece
- carbon paper tracing

Transfer tools include one (1) or more of the following:

- permanent pen
- scribe
- freehand
- compass
- dividers
- chinagraph
- pencil
- carbon paper

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 and equipment include one (1) or more of the following:

- compass
- dividers
- rules
- squares
- spring gauges
- vernier calipers
- piercing saw
- files
- drill press
- pedestal drill
- polishing equipment and compounds
- ultrasonic cleaner

Metals and consumables include one (1) or more of the following:

- precious metals
- non-precious metals
- solders
- fluxes
- drills
- blades
- polishing compounds
- cleaning materials
- finishing materials
- adhesives

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19016B Construct jewellery components

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 MEM19016 Construct jewellery components

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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 jewellery illustrations and samples to identify component type, design, material type and specifications
- identifying the forming and joining methods appropriate to the design requirements
- transferring design to work piece using appropriate methods
- selecting and using tools and equipment
- following design markings to form component or item, achieving desired symmetry, angle and shape and aligning joins
- removing excess materials by filing or emery and undertaking re-forming adjustments to achieve specifications, as necessary
- finishing component or item to specification to a fine emery finish and polishing item in accordance with SOPs
- identifying and rectifying problems/errors.

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)
- metal types, applications and properties
- methods and tools for transferring designs
- selection and uses of blades, drills and files
- tools, techniques and methods for forming and finishing
- polishing techniques
- procedures for identification and rectification of problems/errors.

Assessment Conditions

- Assessors must:

- have vocational competency in constructing jewellery components 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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