



**Australian Government**

# **Assessment Requirements for MEM19013 Produce jewellery metal masters**

**Release: 1**

# Assessment Requirements for MEM19013 Produce jewellery metal masters

## Modification History

Release 1. Supersedes and is equivalent to MEM19013B Produce jewellery metal masters

## 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 produce jewellery metal masters
- selecting technique and process appropriate to the task
- applying a working knowledge of metals and materials
- selecting and using tools and equipment, including precision measuring equipment to produce master
- marking out materials and developing construction plan to meet specifications
- undertaking numerical operations and calculations associated with producing jewellery metal masters
- inspecting surface condition for pre-treatment and plating process
- positioning and securing sprue section and undertaking final treatments
- checking product for compliance to specification and original design concepts and evaluating master against production sample.
- taking appropriate action with non-compliant items

## 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)
- principles of casting, moulding, shrinkage and wax injection
- location of information and specifications and clarification approval processes
- production processes used to finish reproductions
- wrought, forge, machine and cast techniques and applications
- properties, abilities, limitations and functions of materials
- planning and process stages
- difference between master and finished item specifications
- fine detail work processes
- levels of acceptable performance and productivity outcomes

- finishing processes
- inspection and compliance checks
- appropriate actions for non-compliant items
- surface, parts and areas appropriate for post-production processes for setting, electroplating and enamelling, and for the subsequent processes of moulding and waxing
- appropriate measuring devices and recording methods and reasons for the recording of specifications
- handling and design needs associated with sprue placement
- processes of wax injection, moulding, casting, molten metal flow and solidification
- procedures for final treatment and safe handling and storage of item
- relevancy of calculations and specifications
- techniques, tools and equipment to measure machined components.

## Assessment Conditions

- Assessors must:
  - have vocational competency in producing jewellery metal masters 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.

## Links

Companion Volume implementation guides are found in VETNet -

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