



Australian Government

Assessment Requirements for MEM19035

Plan and apply casting techniques for jewellery or object designs

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM19035A Plan and apply casting techniques for jewellery and object designs.

Performance Evidence

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

- following work instructions, standard operating procedures (SOPs) and safe work practices
- demonstrating the type of casting techniques and resources appropriate to design specifications
- selecting appropriate quality materials for the production of the wax model and producing wax model to given specifications
- minimising imperfections and applying required surface finish
- producing moulds for lost wax, cuttlefish or sand casting on at least two occasions
- vulcanising and curing rubber moulds
- releasing master pattern using appropriate tools
- establishing casting methods to meet specifications
- carrying out casting on at least two occasions in accordance with SOPs and allowing sufficient time for solidification
- removing castings from moulds and storing in accordance with SOPs
- disposing of waste according to environmental requirements.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

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)
- design casting process
- casting methods
- types and properties of metals and alloys
- procedures for making the master model
- moulding procedures
- procedures for making the wax pattern

- procedures for establishing and removing investment, burn out, melting and casting
- techniques for removing castings from moulds
- cutting and finishing processes
- surface finishing processes
- mathematical procedures for estimation and measurement
- environmental considerations related to casting jewellery or objects
- types of casting defects and procedures for minimising defects.
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Assessment Conditions

- Assessors must:
 - have vocational competency in planning and applying casting techniques for jewellery or object designs 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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Links

Companion Volume implementation guides are found in VETNet -

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