



Australian Government

Assessment Requirements for MEM19046

Apply grain setting techniques

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM19046A Apply grain setting techniques.

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
- preparing for grain setting by identifying metals and gems
- applying techniques for handling gems safely and minimising stress during setting processes
- producing grain setting to industry standard on at least two occasions using gem setting tools and equipment
- calculating required material size
- securing the jewellery item to be set without inflicting damage
- marking out and drilling the layout for the gem to be grain set
- selecting the appropriate depth at which to countersink and form a bearing reflective of the gem height on at least two occasions
- seating the gem material level and straight in the bearing
- securing the gem by raising two or more grains over the gem
- using gravers to remove excess metal from around the gem to highlight the reflective properties of the gem on at least two occasions
- choosing the correct size beading tool and forming the grains into beads over the gem
- bright cutting the edges of the setting area using gravers to finish the setting work in accordance with industry standard
- completing workplace documentation in accordance with procedures.

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)
- characteristics and purpose of grain in a setting, including characteristics of pave, thread and grain, and single stone bead set

- gem materials
- setting terminology
- gem features and handling procedures
- grain setting styles, tools and equipment
- use and maintenance requirements of tools
- setting techniques, processes and procedures
- working properties of gems
- suitability of metal for carving and setting
- essential characteristics of various styles of grain settings
- various securing techniques for jewellery items to be set
- spacing and layout techniques for pave, thread and grain, and single stone bead setting
- techniques for inspection and quality control of the setting work
- industry standards for setting work
- environmental considerations during grain setting.
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Assessment Conditions

- Assessors must:
 - have vocational competency in applying grain setting techniques 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>