



Australian Government

MEM18013 Perform gland packing

Release: 1

MEM18013 Perform gland packing

Modification History

Release 1. Supersedes and is equivalent to MEM18013B Perform gland packing

Application

This unit of competency defines the skills and knowledge required to inspect glands and gland packing and remove and replace or top up gland packing. It applies to packing for high or low temperatures and pressures, solids, gases and liquids.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of power tools/hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

Where skills that relate to maintaining simple gland top-ups in non-critical applications and routine gland maintenance are required unit MEM18006 Perform precision fitting of engineering components should be selected.

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

Band: A

Unit Weight: 2

Pre-requisite Unit

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

Maintenance and diagnostics

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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|---|---|-----|---|
| 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 appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| | | | |
| 2 | Inspect glands and gland packing | 2.1 | Apply principles of gland packing |
| | | 2.2 | Inspect stuffing box assembly and gland packing and determine packing requirements |
| | | | |
| 3 | Remove and replace or top up gland packing | 3.1 | Extract or remove gland packing using appropriate engineering techniques, tools and equipment |
| | | 3.2 | Select correct and appropriate gland packing and cut to size and shape to conform to application and/or specifications |
| | | 3.3 | Fill the stuffing box with packing material and reassemble the gland using site procedures or manufacturers' recommended procedures |

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.

Packing includes one (1) or more of the following:

- flat
- ribbon
- round
- square
- moulded
- dry
- lubricated

Packing material includes one (1) or more of the following:

- carbon
- hemp
- rubber
- leather
- Teflon
- felt
- neoprene

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM18013B Perform gland packing

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 MEM18013 Perform gland packing

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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 specifications, charts, lists and other reference material to perform gland packing
- inspecting stuffing box assembly and gland packing and determining task requirements
- extracting or removing gland packing using appropriate tools, equipment, techniques and procedures to specifications
- replacing gland packing material, cutting to size and shaping to conform to application and/or specifications
- topping up stuffing box with packing material and reassembling the gland according to procedures.

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 gland packing
- tools, techniques and equipment required to remove gland packing
- various types of gland packing
- reasons for selecting gland packing
- methods of cutting gland packing to size and shape
- reassembling procedures.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing gland packing 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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