



Australian Government

Assessment Requirements for MEM07021 Perform complex lathe operations

Release: 2

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Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM07021 Perform complex lathe operations (Release 1).

Release 1. Supersedes and is equivalent to MEM07021B Perform complex lathe operations.

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, drawings and other applicable reference documents in performing complex lathe operations
- setting and supporting work to avoid distortion on release of clamping devices
- selecting and setting up cutting tooling or inserts as appropriate to turning operation
- calculating cutting parameters, speeds and feeds to meet job requirements
- modifying tooling and accessories, as required
- performing complex turning operations according to specifications
- checking machined components for conformance to specifications.

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)
- precision measuring equipment and measuring techniques used in complex turning operations and reasons for selecting different measuring equipment
- procedures for accurately setting up work for a variety of techniques
- International Standards Organisation (ISO) or other standards applicable to cutting tool inserts
- cutting parameters for the given task
- feeds and speeds for complex turning operations
- formulae and data relating to feeds and speeds
- techniques and procedures for carrying out the following turning operations:
 - single-start thread cutting
 - multi-start thread cutting
 - internal blind hole thread cutting

- eccentrics
- copy turning
- taper turning
- counter balancing work on face plates
- mandrel work
- trepanning
- heavy (multi-tonne) shafts.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing complex lathe operations 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.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including 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>