



Australian Government

MEM07006 Perform lathe operations

Release: 2

MEM07006 Perform lathe operations

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM07006 Perform lathe operations (Release 1).

Release 1. Supersedes and is equivalent to MEM07006C Perform lathe operations.

Application

This unit of competency has been developed for Engineering Tradesperson - Mechanical apprenticeship training and the recognition of trade-level skills in performing machining operations on a lathe to produce components to required tolerances and specifications using all types of accessories.

Skills covered by this unit are generally applied in occupational and work situations associated with trade-level fitting and machining work.

This unit does not cover turning of multi-start threads or use of taper turning attachment, copy turning attachment or multi-start threads.

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.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM07005	Perform general machining
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools

Competency Field

Machine and process operations

Elements and Performance Criteria

Elements describe the essential outcomes.

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

- | | | |
|---|-----------------------------------|--|
| 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, drawings, job sheets or work instructions |
| 2 | Prepare to undertake work | 2.1 Determine sequence of operation
2.2 Select tooling, using International Standard Organisation (ISO) standards or according to SOPs, to produce component to specification
2.3 Set up job using appropriate measuring instruments |
| 3 | Perform turning operations | 3.1 Calculate speeds and feeds
3.2 Set up machine, changing gears and speed using a lead screw and appropriate mathematical techniques and reference material
3.3 Use the full range of accessories on a centre lathe
3.4 Perform turning operations to specification |
| 4 | Check components | 4.1 Check components for compliance with specifications
4.2 Rectify non-compliant product in accordance with SOPs |

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.

- Tooling includes one (1) or more of the following:**
- high speed steel, tungsten carbide, ceramic graphite and other standard cutting tools
 - boring bars
 - drills
 - reamers
 - thread chasers
 - tapping heads
 - taps

- Instruments include one (1) or more of the following:**
- manual and digital micrometres
 - vernier calipers
 - dial indicators
 - scribing blocks

- Speeds and feeds include one (1) or more of the following:**
- setting up machine
 - changing gears and speeds
 - use of lead screw
 - calculations

- Accessories include the following:**
- three and four jaw chucks
 - centres
 - face plate
 - steadies
 - cross slide
 - tailstock

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.

Turning operations include one (1) or more of the following:

- manual parallel and taper turning
- internal and external turning, including boring drilling, reaming, single start thread cutting and parting off

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM07006 Perform lathe operations (Release 1).

Release 1. Supersedes and is equivalent to MEM07006C Perform lathe operations.

Links

Companion Volume implementation guides are found in VETNet -

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