



**Australian Government**

# **MEM07030 Perform basic metal spinning lathe operations**

**Release: 1**

# MEM07030 Perform basic metal spinning lathe operations

## Modification History

Release 1. Supersedes and is equivalent to MEM07030C Perform metal spinning lathe operations (basic)

## Application

This unit of competency defines the skills and knowledge required to perform basic metal spinning lathe (excluding computer numerically controlled [CNC]) operations.

It applies to manual metal spinning of sheet metals of varying thicknesses but does not include hot spinning procedures. Tool use will include either hand and/or slide tooling of varying design and materials.

Where annealing is required unit MEM05007 Perform manual heating and thermal cutting should also be selected.

Where disc blanks are required to be cut out using a dedicated circle cutter or similar unit MEM07032 Use workshop machines for basic operations should also be selected.

Where operational maintenance requires dismantling and replacing components unit MEM18055 Dismantle, replace and assemble engineering components should also be selected.

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

**Band: A**

**Unit Weight: 8**

## Pre-requisite Unit

MEM09002	Interpret technical drawing
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
MEM18002	Use power tools/hand held operations

## 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 | <b>Determine job requirements</b>  | 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 | <b>Perform spinning operations</b>   | 2.1 | Select tools to produce components to specifications   |
|   |  | 2.2 | Determine disc size in accordance with procedures  |
|   |  | 2.3 | Calculate spinning speeds for various metals and metal thicknesses using appropriate mathematical techniques and reference materials |
|   |  | 2.4 | Select correct back centre and form chucks and mount in accordance with procedures and specifications                                |
|   |  | 2.5 | Mount prepared disc for forming  |
|   |  | 2.6 | Perform spinning operations using a full range of spinning accessories   |
|   |  | 2.7 | Carry out routine maintenance  |
| 3 | <b>Check components for conformance to specifications, remove and store them</b> | 3.1 | Check components for conformance to specifications using appropriate techniques, tools and equipment                                 |
|   |  | 3.2 | Make adjustments, as required  |
|   |  | 3.3 | Remove components from the spinning lathe without marking or any deformation   |

Elements describe the essential outcomes.

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

- 3.4 Store components and package to avoid oxidation and damage

## 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, accessibility of the item, and local industry and regional contexts) are included.

**Tools include one (1) or more of the following:**

- spinning tools
- planishing tools
- backstick
- trimming
- beading tools

**Spinning accessories include one (1) or more of the following:**

- back centre
- various chucks
- trimming accessories
- blank centre equipment
- tee-rest

**Metals include one (1) or more of the following:**

- steel
- aluminium
- monel
- copper
- brass
- zinc
- pewter
- silver
- gold

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- tin

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

- spinning
- beading
- trimming
- finishing
- annealing
- pickling

**Maintenance and adjustments include the following:**

- cleaning and lubrication

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM07030C Perform metal spinning lathe operations (basic)

## Links

Companion Volume implementation guides are found in VETNet -

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