



Australian Government

MEM07010 Perform tool and cutter grinding operations

Release: 2

MEM07010 Perform tool and cutter grinding operations

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM07010 Perform tool and cutter grinding operations (Release 1).

Release 1. Supersedes and is equivalent to MEM07010B Perform tool and cutter grinding operations.

Application

This unit of competency defines the skills and knowledge required to perform a range of tool and cutter grinding operations, including the use of precision measuring instruments.

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
MEM07008	Perform grinding operations
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12003	Perform precision mechanical measurement
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.

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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, drawings, job sheets or work instructions |
| | | | |
| 2 | Prepare to undertake work | 2.1 | Determine sequence of operations |
| | | 2.2 | Check machine guards, coolant and dust extraction devices |
| | | 2.3 | Select, balance and dress tool and cutter grinding wheels based on shape and grit/bond composition |
| | | 2.4 | Select accessories to facilitate production to specification |
| | | | |
| 3 | Perform tool and cutter grinding | 3.1 | Operate universal tool and cutter grinding machines to sharpen and shape tools and cutters |
| | | 3.2 | Carry out parallel internal and/or external grinding |
| | | 3.3 | Carry out internal and/or external taper grinding to drawing specifications |
| | | 3.4 | Check components for conformance to specification using appropriate techniques, tools and equipment |

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 and cutters include one (1) or more of the following:

- side and face cutters
- end mill
- form relieved milling cutters
- flat
- vee and circular form tools and hobs
- slitting saws
- drills

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM07010 Perform tool and cutter grinding operations (Release 1).

Release 1. Supersedes and is equivalent to MEM07010B Perform tool and cutter grinding operations.

Links

Companion Volume implementation guides are found in VETNet -

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