



**Australian Government**

# **MEM04006 Operate sand moulding and core making machines**

**Release: 1**

# MEM04006 Operate sand moulding and core making machines

## Modification History

Release 1. Supersedes and is equivalent to MEM04006B Operate sand moulding and core making machines

## Application

This unit of competency defines the skills and knowledge required to operate sand moulding and core making machines in a foundry.

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

Where the selection and use of engineering measuring equipment is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, should also be selected as appropriate.

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

**Band: A**

**Unit Weight: 8**

## Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

## Competency Field

Casting and moulding

## Elements and Performance Criteria

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

1 **Determine job** 1.1 Follow standard operating procedures (SOPs)

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>requirements</b>	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>Conduct pre-operational checks</b>	2.1 Select and inspect pattern/core box for conformance to specifications and clean as required 2.2 Identify damaged patterns/core boxes for repair or replacement 2.3 Set up pattern/core box in bolster and core box according to specifications
3 <b>Operate machine to produce mould/cores</b>	3.1 Select appropriate moulding media to produce mould and core to specification 3.2 Fill moulds/cores to specification 3.3 Operate machine 3.4 Unload machine in a safe manner 3.5 Strip, inspect and paint moulds/cores as required
4 <b>Assemble moulds/cores</b>	4.1 Dry, glue and vent moulds/cores as required to specification and close 4.2 Set runner bush to specification as required
5 <b>Restore work area</b>	5.1 Leave the work site in a safe state, including clearing all materials/debris from the worksite 5.2 Dispose of unwanted treated sand according to SOPs and legislative and statutory requirements

## 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.

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

- automatic mould and core making
- semi-automatic mould and core making

**Moulding media includes one (1) or more of the following:**

- green sand
- shell sand
- chemically bonded media

## Unit Mapping Information

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## Links

Companion Volume implementation guides are found in VETNet -

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