



Australian Government

MEM08003 Perform electroplating operations

Release: 1

MEM08003 Perform electroplating operations

Modification History

Release 1. Supersedes and is equivalent to MEM08003C Perform electroplating operations

Application

This unit of competency defines the skills and knowledge required to perform a range of metal plating processes in the electroplating, electronics, jewellery manufacture and metal fabrication industries.

It includes the general operation, monitoring and adjustment of manual, semi and automatic electroplating processes and applies to volume production and 'jobbing' involving rack and barrel type processes.

Where simple operating and monitoring of the electroplating process is required unit MEM07024 Operate and monitor machine and process should also be selected.

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

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

This unit should not be selected if unit MEM07025 Perform advanced machine and process operation has already been selected.

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: 6

Pre-requisite Unit

MEM07001	Perform operational maintenance of machines/equipment
MEM08001	Perform wire, jig and barrel load/unload work
MEM11011	Undertake manual handling
MEM13003	Work safely with industrial chemicals and materials
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

MEM18001

Use hand tools

Competency Field

Surface finishing

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, job sheets or work instructions |
| | | 1.5 Identify untreated materials and the required electroplating treatment |
| 2 | Prepare for electroplating process | 2.1 Check materials and racking arrangement for non-conformance to specifications/job requirements |
| | | 2.2 Check all plant and equipment relevant to process for compliance with safety and operational requirements |
| | | 2.3 Check instrumentation and gauges for operation |
| | | 2.4 Check condition of solution |
| 3 | Perform electroplating operations | 3.1 Carry out operations in the correct sequence according to work instructions and SOPs |
| | | 3.2 Ensure compliance with process operating parameters |
| | | 3.3 Make adjustments to rectify any process deviation |

Elements describe the essential outcomes.

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

- 3.4 Report uncontrollable variances to appropriate persons
- 3.5 Carry out a visual inspection of finished products for compliance to specification

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.

- Electroplating requirements include one (1) or more of the following:**
- coating thickness
 - appearance
 - ductility
 - hardness
 - corrosion resistance
 - wear

- Untreated materials include one (1) or more of the following:**
- steel
 - copper
 - brass
 - cast iron
 - stainless steel

- Electroplating treatment includes one (1) or more of the following:**
- pre-treatment
 - electroplating operations
 - post treatment

- Check includes (1) one or more of the following:**
- componentry
 - electrodes

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.

- circuitry equipment

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

- volt meters
- ammeters
- temperature recorders/indicators
- AMP per hour meters

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

- engineering coatings
- protective finishes
- decorative plating

Adjustment includes one (1) or more of the following:

- time
- temperature
- current density
- voltage

Visual inspection includes one (1) or more of the following:

- surface texture
- brightness
- free from roughness
- pitting
- cracking
- machining marks

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM08003C Perform electroplating operations

Links

Companion Volume implementation guides are found in VETNet -

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