



Australian Government

MEM19011 Perform wax injection of moulds for lost wax casting process

Release: 1

MEM19011 Perform wax injection of moulds for lost wax casting process

Modification History

Release 1. Supersedes and is equivalent to MEM19011B Perform wax injection of moulds for lost wax casting process

Application

This unit of competency defines the skills and knowledge required to inject materials under pressure for investment and burn-out aspects within 'lost wax' casting procedures.

This unit applies primarily to organic and synthetic wax injection, but can include resin and plastic materials injected under pressure for investment and burn-out aspects within 'lost wax' casting procedures.

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

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

Competency Field

Jewellery and horological

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

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accordance with SOPs

1.4 Identify job requirements from specifications, job sheets or work instructions

2 **Perform wax injection of moulds**

2.1 Select appropriate wax material according to design specification requirements

2.2 Prepare injection tools and equipment

2.3 Prepare moulds

2.4 Carry out wax injection procedures

3 **Remove and inspect patterns**

3.1 Remove wax pattern without damage and inspect

3.2 Determine the action required when inspected wax patterns are imperfect and carry out the determined action

3.3 Store according to SOPs and secure and clean work area

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.

Inspection includes checking for one (1) or more of the following:

- missing elements
- alignment of rubber mould
- air bubbles

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- shrinkage
- distortion

Actions to be taken for imperfect wax patterns include one (1) or more of the following:

- repair
- re-work
- recycle
- discard

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>