

Title	Produce expendable wax patterns for lost wax casting method		
Level	2	Credits	5

Purpose	People credited with this unit standard are able to: prepare equipment for making expendable wax patterns; make a wax pattern; and make wax pattern tree assembly.
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Classification	Mechanical Engineering > Metal Forming
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Available grade	Achieved
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Guidance Information

- 1 References and legislations
Health and Safety at Work Act 2015 and supporting regulations.
Hazardous Substances and New Organisms Act 1996.
Resource Management Act 1991.
WorkSafe New Zealand. *Health and Safety Guidelines on the Management of Hazards in the Metal Casting Industry*. Available at:
<http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/metal-casting-industry-health-and-safety-guidelines-for-the-management-of-hazards-in/metal-casting-hs-guidelines.pdf>.
- 2 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider mechanical engineering industry sectors as examples of best practice.
Workplace procedures refer to procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 Assessment Information
All activities must comply with applicable workplace procedures and must be consistent with accepted industry practice.

Outcomes and performance criteria

Outcome 1

Prepare equipment for making expendable wax patterns.

Performance criteria

- 1.1 Die for equipment is selected and checked in accordance with job specification.
- 1.2 Release agent is applied to wax contact surfaces on die.
- 1.3 Die is set up and located in equipment.
- 1.4 Wax is loaded in heating equipment and heated to operating temperature.

Outcome 2

Make a wax pattern.

Performance criteria

- 2.1 Wax is injected into die.
- 2.2 Wax pattern is removed from die when wax is solidified.
- 2.3 Pattern is inspected for conformance with specification and prepared.
- 2.4 Any defective patterns are repaired.

Outcome 3

Make wax pattern tree assembly.

Performance criteria

- 3.1 Sprue for assembly is made to component specification.
- 3.2 Patterns are attached to sprue.
- 3.3 Tree assembly is stored.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 October 1994	31 December 2012
Revision	2	14 April 1997	31 December 2012
Revision	3	5 January 1999	31 December 2012
Review	4	19 October 1999	31 December 2012
Review	5	19 May 2006	31 December 2016
Rollover and Revision	6	17 November 2011	31 December 2022
Review	7	15 September 2016	N/A
Revision	8	23 November 2017	N/A

Consent and Moderation Requirements (CMR) reference

0013

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.