

Title	Produce moulds and cores by hand for metal casting processes		
Level	4	Credits	25

Purpose	People credited with this unit standard are able to prepare foundry tooling for moulding medium, and make moulds and cores for metal casting processes.
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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.
 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.
Foundry tooling refers to all elements in the moulding process to produce final component.
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 foundry tooling for moulding medium.

Performance criteria

- 1.1 Foundry tooling is checked against specifications.
Range may include but is not limited to – job card, sketch or drawing.
- 1.2 Foundry tooling assembly order is established.
- 1.3 Foundry tooling condition is verified in accordance with job specifications.

Outcome 2

Make moulds and cores for metal casting processes.

Performance criteria

- 2.1 Moulding medium is ascertained from job card or specifications.
- 2.2 Methoding system is positioned in accordance with job specifications.
- 2.3 Foundry tooling are stripped.
- 2.4 Moulds and/or cores are produced, and are inspected for conformance to specifications.
- 2.5 Cores are located in moulds.
- 2.6 Mould coatings are applied if required.
- 2.7 Moulds are closed and secured ready for.
- 2.8 Foundry tooling is cleaned, examined, and any damage reported.
- 2.9 Work area is cleaned.

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

Process	Version	Date	Last Date for Assessment
Review	7	15 September 2016	N/A
Revision	8	23 November 2017	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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.