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.

Classification
Mechanical Engineering > Metal Forming

Available grade
Achieved

Guidance Information

1 References and legislations
Health and Safety at Work Act 2015.
Hazardous Substances and New Organisms Act 1996.
WorkSafe New Zealand. *Health and Safety Guidelines on the Management of Hazards in the Metal Casting Industry*. Available at:

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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**Consent and Moderation Requirements (CMR) reference**

0013


**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.