

Title	Produce a half-model to scale		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to: prepare to produce a half-model; produce templates to scale; and produce a half-model to scale.
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Classification	Boating Industries > Boatbuilding
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Available grade	Achieved
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Guidance Information

- 1 All work practices must meet recognised codes of practice and documented worksite health and safety procedures (where these exceed code) for personal, product, and worksite health and safety, and must meet the obligations required under Health and Safety at Work Act 2015, Health and Safety in Employment Regulations 1995, Resource Management Act 1991, Hazardous Substances and New Organisms Amendment Act 2015, and any subsequent amendments.
- 2 Definitions
craft refers to deck, superstructure, hull, rudder, keel.
half-model refers to a model split vertically from bow to stern.
hull refers to hard chined or round bilged.
Job specifications refers to the specification requirements of the job being undertaken.
- 3 Range
Scale – 1:10 or less.
- 4 The candidates are able to work from a supplied design in the form of drawings and offsets.

Outcomes and performance criteria

Outcome 1

Prepare to produce a half-model.

Performance criteria

- 1.1 Supplied drawings and offsets are interpreted to establish datum lines in accordance with design requirements.

Range datum lines – centre line, water lines, baselines.

- 1.2 Tools, equipment, template materials, and finished model materials are selected and prepared in accordance with job specifications.

Range template materials may include – timber, metal, composites, or a combination of these;
finished model materials may include – solid timber, reconstituted timber, metal, composites.

- 1.3 Scale is identified in accordance with job specifications and design requirements.

Outcome 2

Produce templates to scale.

Performance criteria

- 2.1 Produced templates are dimensioned to the identified scale.
- 2.2 Vertical station templates are evenly spaced in accordance with the identified scale.
- Range evidence of four vertical templates is required.
- 2.3 Horizontal template is matched in relation to fair lines and water line.

Outcome 3

Produce a half-model to scale.

Performance criteria

- 3.1 The water line is marked in accordance with job specifications and design requirements.
- 3.2 The model's external shape is matched with the identified scale of templates.
- 3.3 Faired lines cross grid lines in all three views at the same points.
- 3.4 Half-model is produced in accordance with job specifications and design requirements.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 May 1997	31 December 2017
Revision	2	9 October 1998	31 December 2017
Revision	3	20 March 2001	31 December 2017
Revision	4	16 April 2004	31 December 2017
Rollover and Revision	5	17 October 2008	31 December 2017
Review	6	19 January 2017	31 December 2024
Review	7	25 August 2022	N/A

Consent and Moderation Requirements (CMR) reference

0136

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

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.