

Title	Cut aluminium extrusions for the manufacture of aluminium joinery products		
Level	3	Credits	8

Purpose	<p>This entry-level unit standard is for people employed in the aluminium joinery industry.</p> <p>A person credited with this unit standard is able to:</p> <ul style="list-style-type: none"> • demonstrate knowledge of the tools, machinery, and equipment used for cutting aluminium extrusions; • prepare tools, machinery, and work area for safe operation; • select and cut aluminium extrusions; and • care for tools, machinery, and equipment to maintain production unit integrity.
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Classification	Joinery > Architectural Aluminium Joinery
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes – Building Act 2004, Health and Safety at Work Act 2015, and Resource Management Act 1991.
- 2 Definition
Company procedures – the documents and procedures that include company rules, codes and practices; machine and equipment operating instructions; quality and conformance checks; and health and safety requirements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the tools, machinery, and equipment used for cutting aluminium extrusions.

Performance criteria

1.1 Tools, machinery, and equipment used for cutting are identified in terms of their types and products produced.

Range saws may include – drop saw, double mitre saw, double end saw, band saw, bench saw/rip saw, radial arm saw;
evidence is required of two different saws;
tools may include – cutting sheets, marker pens, measuring equipment, long nose pliers, steel rule, engineers' square, hammer, extrusion labels;
evidence is required of four different tools.

1.2 Cutting system is described in terms of company procedures.

Outcome 2

Prepare tools, machinery, and work area for safe operation.

Performance criteria

2.1 Work area is cleared of debris and abrasive material in accordance with company procedures.

2.2 Job specifications and quality requirements are verified in accordance with company procedures.

2.3 Sequence of operations is planned and verified with a supervisor in accordance with company procedures.

2.4 Tools, machinery, and equipment are selected with regard to material and safety, and checked to meet the requirements of the job in accordance with company procedures.

2.5 Any defective tools, machines, and equipment are reported to a supervisor in accordance with company procedures.

Range defects include – physical damage, bluntness.

2.6 Machinery are set up for safe operation and without damage to workpiece or machinery or injury to personnel in accordance with company procedures.

Range machinery include – drop saws, band saws, vertical mitre saws, mitre saws, profile blocks, bench stops, stop systems, cutting lubricant, tape calibration.

2.7 Accessories and workholding fixtures are selected and installed on machinery in accordance with manufacturer's instructions and/or company procedures.

Outcome 3

Select and cut aluminium extrusions.

Performance criteria

- 3.1 Job sheet and/or cutting list requirements are interpreted to make the most efficient use of available materials in accordance with company procedures.
- 3.2 Materials are selected, checked for conformance to requirements, and laid out in accordance with company procedures.
- 3.3 Any non-conforming materials are stored, or disposed of, in accordance with company procedures.
- 3.4 Extrusions are precision cut in accordance with company procedures.
- 3.5 Extrusions are checked for conformance with the job specifications and quality requirements.
- 3.6 Cut lengths are labelled for identification in accordance with company procedures.
- Range labelling includes – job number, unit number.
- 3.7 Any substandard cut lengths are identified and reported to a supervisor in accordance with company procedures.

Outcome 4

Care for tools, machinery, and equipment to maintain production unit integrity.

Performance criteria

- 4.1 Tools, machinery, and equipment are cleaned, lubricated, and maintained in accordance with manufacturer's specifications and/or company procedures.
- 4.2 Tools, machinery, and equipment are set up and used in accordance with manufacturer's recommendations in order to prevent damage to machinery and materials, and injury to personnel.
- 4.3 Work area is cleaned after each operation and waste is removed and placed in specified containers in accordance with company procedures.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 August 2006	31 December 2012
Rollover and Revision	2	20 May 2011	31 December 2017
Review	3	21 May 2015	31 December 2025
Review	4	26 May 2022	N/A

Consent and Moderation Requirements (CMR) reference

0048

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.