

<b>Title</b>	<b>Machine and prepare aluminium extrusions for the manufacture of non-standard aluminium joinery products</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	<p>This unit standard is for experienced 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"> <li>• prepare to machine extrusions for the manufacture of non-standard aluminium joinery products;</li> <li>• machine and prepare the aluminium extrusions; and</li> <li>• care for tools, equipment, and machinery.</li> </ul>
----------------	--

<b>Classification</b>	Joinery > Architectural Aluminium Joinery
-----------------------	---

<b>Available grade</b>	Achieved
------------------------	----------

### Guidance Information

- 1 Legislation and standards relevant to this unit standard include – Building Act 2004, Health and Safety at Work Act 2015, Resource Management Act 1991, New Zealand Building Code Compliance Documents and Handbooks. Wellington: Department of Building and Housing, 2008, available at <http://www.dbh.govt.nz/building-code-compliance-documents>, New Zealand Standard (NZS) 4211:2008 *Specification for performance of windows*, and NZS 3504:1979 *Specification for aluminium windows*, available at <http://www.standards.co.nz>.
- 2 Definitions
 

*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;

*Non-standard aluminium joinery products* – unique designs or ‘one-off’ products characterised by unusual or non-standard angles and dimensions. They include – windows (arch, bay, bow, curved, faceted, raked, internal and external in plan corners, double hung, greenhouse), doors (arch, raked, internal/external in plan corners).

*Unusual angles* – any angles that are not 45 or 90 degrees, or not common to the company’s products.
- 3 Range
 

Evidence is required for three non-standard items, one of which must include one or more non standard corners, produced in the candidate’s workplace.

---

## Outcomes and performance criteria

### Outcome 1

Prepare to machine extrusions for the manufacture of non-standard aluminium joinery products.

#### Performance criteria

- 1.1 Product and job specifications and quality requirements are verified in accordance with company procedures.
- Range specifications include – drawings (computerised, by hand), job sheets, templates, site measurements.
- 1.2 Work area is cleared of debris and abrasive material in accordance with company procedures.
- 1.3 Machines, tools, and equipment are selected and checked to meet the requirements of the job, in accordance with company procedures.
- Range machines may include – milling machines, profile routers, punching machine, drill presses;  
tools and equipment may include – cutting sheets, cutting lubricant, tape calibration, marker pens, steel ruler, steel scriber, dot punch, engineer's square, profile blocks, bench stops.
- 1.4 Machines are set up to accept the shape, dimension, and profile of the required product.

### Outcome 2

Machine and prepare the aluminium extrusions.

#### Performance criteria

- 2.1 Personal protective equipment is selected and worn in accordance with company safety procedures.
- Range personal protective equipment may include – safety glasses, dust masks, protective footwear, ear protection.
- 2.2 Holes in extrusions are drilled in accordance with the job specifications, with special attention to drainage holes and weathertightness.
- 2.3 Rebates in extrusions are milled in accordance with the job specifications.
- 2.4 Holes and slots in extrusions are routed or punched in accordance with the job specifications.

- 2.5 Prepared extrusions are checked for compliance with the job specifications and quality requirements in accordance with company procedures.

### Outcome 3

Care for tools, equipment, and machinery.

#### Performance criteria

- 3.1 Tools, equipment, and machinery are cleaned, lubricated, and maintained in accordance with manufacturer's specifications and company procedures.
- 3.2 Work area is cleaned, surplus materials are stored, and waste materials are disposed of in accordance with company procedures.

<b>Planned review date</b>	31 December 2026
----------------------------	------------------

#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 June 2008	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

<b>Consent and Moderation Requirements (CMR) reference</b>	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](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.