

Title	Perform edge-working, cutouts, notching, drilling and countersinking on glass products		
Level	4	Credits	15

Purpose	People credited with this standard are able to: prepare the work area and glass for edgework, cutouts, notching, drilling and countersinking; and perform edge-working, notching and cutouts, drilling and countersinking on glass products.
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Classification	Glass and Glazing > Glass Processing and Manufacturing
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Available grade	Achieved
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Guidance Information

- 1 Legislation and guidelines relevant to this unit standard include:
[Health and Safety at Work Act 2015](#);
Safe Use of Machinery: Best Practice Guidelines; available at www.worksafe.govt.nz.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes.

- 2 Definitions
CNC machining refers to computer numerical control machining; it is a subtractive manufacturing process that typically employs computerised controls and machine tools to remove layers of material from a stock piece known as the blank or workpiece and produces a custom-designed part.
Job specifications refer to the scope of the work being undertaken. They include the objectives, quality requirements, deliverables, timeline, budget.
NC machining refers to numerical control machining; it is a subtractive manufacturing process that typically employs digital controls and machine tools to remove layers of material from a stock piece known as the blank or workpiece and produces a custom-designed part.
Workplace procedures refer to the documented procedures specific to a workplace that set out the standard and the required practices of that workplace. These may include job specifications, procedures, practices, manufacturer recommendations, technical data sheets and material safety data sheets.
- 3 Assessment
 Evidence for this unit standard must reflect:
 - industry standards, current health, safety, industry, and workplace procedures;
 - job specifications and customer requirements;
 - industry requirements for commercially acceptable timeframes.

- 4 Evidence for assessment can be collected from either or all of the following – CNC, NC or manually operated equipment.

Outcomes and performance criteria

Outcome 1

Prepare the work area and glass for edgework, cutouts, notching, drilling and countersinking.

Performance criteria

- 1.1 Preparation of work area and personal safety precautions are carried out.
- Range preparation includes – the selection and use of protective clothing and safety equipment, identification of hazards and risks, ventilation of the production area, clearing the work area, and ensuring the cleanliness of the work area.
- 1.2 Equipment and processing areas are checked to ensure they are clear of debris and abrasive material before work commences.
- 1.3 Glass is checked upon reception or selected to meet requirements for type, thickness, and size, and is checked for imperfections before processing.
- Range checking includes but is not limited to – dimensions, squareness, breakout quality, shape compliance, processing requirements and conformance to job requirements.
- 1.4 Glass is checked for cleaning, and further processing requirements are marked out.

Outcome 2

Perform edge-working on glass products.

Performance criteria

- 2.1 Equipment is selected, set up, and tested.
- Range set-up may include but is not limited to – tooling, holding devices, inputting equipment parameters, material selection.
- 2.2 Glass to be processed is checked.
- 2.3 Processing machine selected is operated without damage to the glass, equipment, or danger to the operator or others.
- Range machines may include but are not limited to – straight-line edger (SLE) double edger, edge beveller, CNC or NC machines.

2.4 Finished glass is cleaned, checked, labelled and prepared for next processes.

2.5 Work area and equipment are left clean and free from process debris.

Outcome 3

Perform notching and cutouts on glass products.

Performance criteria

3.1 Equipment is selected, set up and tested.

Range set-up may include but is not limited to – tooling, holding devices, inputting equipment parameters, material selection.

3.2 Glass to be processed is checked.

3.3 Processing machine selected is operated without damage to the glass, equipment or danger to the operator or others.

Range machines may include but are not limited to – waterjet, CNC, manual drill, and manual notching.

3.4 Finished glass is cleaned, checked, labelled and prepared for next processes.

3.5 Work area and equipment are left clean and free from process debris.

Outcome 4

Perform drilling and countersinking on glass products.

Performance criteria

4.1 Equipment is set up and tested.

Range set-up may include but is not limited to – tooling, holding devices, inputting equipment parameters, material selection.

4.2 Glass to be processed is checked.

4.3 Drilling machine selected is operated without damage to the glass or equipment, or danger to the operator or others.

Range operations may include but are not limited to – loading, drilling, countersinking, unloading.

4.4 Finished glass is cleaned, checked, labelled and prepared for the next processes.

4.5 Work area and equipment are left clean and free from process debris.

Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 October 2024	N/A

Consent and Moderation Requirements (CMR) reference	0073
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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 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.