

Title	Repair or fabricate aeronautical components using precision grinding machines		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to: prepare to repair or fabricate aeronautical components using precision grinding machines; set up precision grinding machines; grind aeronautical components; prepare aeronautical components; and complete finishing activities.
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Classification	Aeronautical Engineering > Aeronautical Machining
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Available grade	Achieved
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Guidance Information

- 1 All tasks must be carried out in accordance with enterprise procedures.
- 2 Definition
Enterprise procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – 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.

Outcomes and performance criteria

Outcome 1

Prepare to repair or fabricate components using precision grinding machines.

Performance criteria

- 1.1 Component identity is confirmed with documentation by comparing serial and part numbers.
- 1.2 Tasks are determined and documented.
 Range repair, fabricate, modify.
- 1.3 Work area is prepared, and resources are obtained.
 Range may include but is not limited to – publications, materials, tooling, equipment, spares, safety equipment, environmental conditions.

Outcome 2

Set up precision grinding machines.

Performance criteria

2.1 Machines are prepared.

Range set up, made safe to work on, guards positioned, isolation procedures complied with, protective equipment.

2.2 Machines serviceability are checked.

2.3 Sequence of operations is planned and verified.

Outcome 3

Grind aeronautical components.

Performance criteria

3.1 Components are ground to shape.

3.2 Components are measured and checked for conformity with specifications.

3.3 Serviceability of component parts is assessed.

Range dimensional and angular accuracy, profile, surface finish.

3.4 Non-conforming components are reported, recorded, and rectified.

3.5 Inspections are obtained.

Range independent, duplicate, progressive.

Outcome 4

Prepare aeronautical components.

Performance criteria

4.1 Components are prepared.

Range may include but is not limited to – use, storage, transit, surface protection, packing.

4.2 Documentation is completed.

Outcome 5

Complete finishing activities.

Performance criteria

5.1 Completion activities specific to the task and work area are carried out.

Range may include but are not limited to – tool control, cleanliness, tidiness, return of publications, preparation for next activity, return of aircraft and systems to normal.

5.2 Hazardous waste materials are disposed of.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 June 1995	31 December 2016
Revision	2	7 August 1997	31 December 2016
Revision	3	8 May 2001	31 December 2016
Review	4	20 April 2006	31 December 2016
Review	5	24 October 2014	31 December 2021
Review	6	26 March 2020	N/A

Consent and Moderation Requirements (CMR) reference	0028
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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 ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.