

Title	Carry out mechanical cleaning process of aeronautical components		
Level	4	Credits	16

Purpose	People credited with this unit standard are able to: identify and prepare a suitable mechanical cleaning treatment for aeronautical components; carry out non-metallic coating removal; carry out mechanical coating removal on critical aeronautical components; carry out mechanical coating removal on non-critical aeronautical components; and complete the cleaning process.
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Classification	Aeronautical Engineering > Aeronautical Engineering - Core
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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 Definitions

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.

Critical aeronautical component refers to one that if it fails during flight it could cause the aircraft to crash.

Non-critical aeronautical component would require replacement before the next flight.

Component also refers to parts.

Outcomes and performance criteria

Outcome 1

Identify and prepare a suitable mechanical cleaning treatment for aeronautical components.

Performance criteria

- 1.1 Component/s to be cleaned are confirmed against job documentation.
- 1.2 Mechanical cleaning treatment/s are determined by reviewing documentation.

1.3 Work area is prepared and readied for mechanical cleaning process.

Range may include but is not limited to – materials, equipment, safety equipment, environmental conditions established.

1.4 Substrate, surface contaminant and condition are identified.

Outcome 2

Carry out non-metallic coating removal.

Performance criteria

2.1 Non-metallic coating removal is carried out.

Range may include but is not limited to – chemical cleaning, hot chemical paint and sermetel stripping, cold paint stripping, alkaline rust and scale remover, alodine treatment, cold etching, ceramic coating strip, masking plasma coated areas, rotating fixture loading/unloading, water jet plasma removal, ceramic removal by aluminium oxide blasting, post strip inspection.

Outcome 3

Carry out mechanical coating removal on critical aeronautical components.

Performance criteria

3.1 Mechanical coating removal is carried out on critical aeronautical components.

Range may include but is not limited to – pre-oxide blast masking, etching fixture loading/unloading, waxing process, post strip inspection of plasma coating removal and damage, dry plastic blasting, wet oxide blasting, dry oxide blasting, non-metallic scrapers.

Outcome 4

Carry out mechanical coating removal on non-critical aeronautical components.

Performance criteria

4.1 Mechanical coating removal is carried out on non-critical aeronautical components.

Range may include but is not limited to – pre-oxide blast masking, etching fixture loading/unloading, waxing process, post strip inspection of plasma coating removal and damage, dry plastic blasting, wet oxide blasting, dry oxide blasting, non-metallic scrapers.

Outcome 5

Complete the cleaning process.

Performance criteria

5.1 Resources are checked for serviceability and returned to service or storage.

Range may include but is not limited to – tools, equipment, safety equipment.

5.2 Leftover materials are disposed of.

Range may include but is not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.

5.3 Documentation is completed.

Range may include but is not limited to – labels, work cards, release notes, certification.

5.4 Work area is left in a state that enables the next task to begin.

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	20 April 2017	31 December 2021
Review	2	26 March 2020	N/A
Rollover and Revision	3	26 April 2024	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 Ringa Hora Services Workforce Development Council qualifications@ringahora.nz if you wish to suggest changes to the content of this unit standard.