

Title	Carry out chemical cleaning process of aeronautical components		
Level	4	Credits	24

Purpose	People credited with this unit standard are able to: identify and prepare a suitable chemical bath for aeronautical components; monitor systems for a chemical bath; carry out chemical clean process; process trade waste; 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 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.
- 3 Chemical cleaning could also refer to coating removal in this standard.

Outcomes and performance criteria

Outcome 1

Identify and prepare a suitable chemical bath for aeronautical components.

Performance criteria

- 1.1 Component/s to be cleaned are confirmed against documentation.
- 1.2 Chemical cleaning process or processes are determined by reviewing documentation.
- 1.3 Work area is prepared and readied for chemical 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.

1.5 Bath level and temperature checks are conducted to ensure optimal cleaning process.

Range may include – visual check of bath, temperature check using calibrated gauge.

Outcome 2

Monitor systems for a chemical bath.

Performance criteria

2.1 Chemical bath systems are monitored.

Range may include but is not limited to – portable drum pumps and RCD's, chemical solution sampling, load rating limitations, warning lights for staff, de-ionised water sampling, rinse water PH sampling, potable and non-potable water shut-off valve.

Outcome 3

Carry out chemical clean removal process.

Performance criteria

3.1 Identify and select appropriate chemical clean process for component material.

Range may include but is not limited to – aluminium, titanium, steel.

3.2 Chemical clean process is carried out.

Range may include but is not limited to – chemical cleaning, hot chemical paint and sermetel stripping, cold paint stripping, etching fixture loading/unloading, cold etching, waxing process, post strip inspection of plasma coating removal and damage.

Outcome 4

Process trade waste resulting from chemical cleaning process.

Performance criteria

4.1 Trade waste is processed.

Range processing systems may include but are not limited to – trade waste system, extraction system, extractor scrubber system; environmental requirements.

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 2024
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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

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 ServicelQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.