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.

Classification	Aeronautical Engineering > Aeronautical Engineering - Core

Available grade	Achieved

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 2027

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

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.