

Title	Polish welded stainless steel fabrications		
Level	3	Credits	10

Purpose	People credited with this unit standard are, on welded stainless steel fabrications, able to: prepare for polishing operations; perform polishing operations; and control polishing quality.
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Classification	Mechanical Engineering > Metal Surface Finishing
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Available grade	Achieved
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Guidance Information

- 1 Unit 2396, *Demonstrate and apply knowledge of the selection, use, and care of portable hand held engineering power tools*; and Unit 9184, *Erect and dismantle non-notifiable prefabricated scaffolding up to five metres in height*, are recommended for entry into this unit standard.
- 2 Legislation
Health and Safety at Work Act 2015 and supporting regulations.
- 3 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider mechanical engineering industry sectors as examples of best practice.
Workplace procedures refer to procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – 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.
- 4 Assessment information
 - a All activities must comply with applicable workplace procedures and must be consistent with accepted industry practice.
 - b This unit standard covers the skills and knowledge required to grind and polish welded seams to specified surface roughness values as required on stainless steel equipment fabricated for industries such as food processing, and pharmaceutical.

Outcomes and performance criteria

Outcome 1

Prepare for polishing operations on welded stainless steel fabrications.

Performance criteria

1.1 A safe workplace is assured by identifying potential hazards and following safety procedures.

Range potential hazards may include but are not limited to – risk of electrocution, risk of fire or explosion, inadequate ventilation, confined space, chemical, working at heights.

1.2 The polishing equipment is selected.

1.3 The polishing consumables are selected.

1.4 The surface to be polished is prepared.

Range preparation may include but is not limited to – cleaning, pickling and passivating, protecting adjacent areas with tape.

Outcome 2

Perform polishing operations on welded stainless steel fabrications.

Performance criteria

2.1 Polishing equipment and consumables are used.

Range equipment may include but is not limited to – grinding wheels and discs, wire brushes, sanding discs and belts, mops, buffs; consumables may include but are not limited to – soaps, lubricants.

2.2 Surface is checked at regular intervals during polishing operations to identify any imperfections that may need rework.

Range rework includes but is not limited to – spot grinding, rewelding, planishing.

2.3 Rework is undertaken, or imperfections reported.

Outcome 3

Control polishing quality on welded stainless steel fabrications.

Performance criteria

3.1 A clean surface is obtained.

3.2 Inspection verifies that the polished surface is in accordance with job specification.

Range inspection may include but is not limited to – visual examination, surface method such as penetrant inspection, surface roughness measurement.

3.3 The polished finish is protected from potential damage.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	30 August 1999	31 December 2016
Revision	2	15 May 2002	31 December 2022
Review	3	15 September 2016	N/A
Revision	4	1 November 2018	N/A
Revision	5	13 December 2018	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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 Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.