

Title	Correct extrusion dies		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to: respond to hazards and emergencies for correction of extrusion dies; assess operational capability of a die; perform die correction; trial die; and verify die performance.
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Classification	Manufacturing Skills > Manufacturing Processes
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Available grade	Achieved
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Guidance Information

1 Definitions

Enterprise procedures – documented 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, worksite safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, charging of time and materials, management of drawings and documentation, procedures to comply with legislative and local body requirements.

Relevant personnel may include but are not limited to – die designer, toolmaker and/or production personnel.

2 Range

Competence must be demonstrated in the correction of faults in two of the following die types: single hole solid profile die; multi hole solid profile die; single hole hollow profile die; and multi hole hollow profile die. Corrections must be made with a view to optimising die life.

Outcomes and performance criteria

Outcome 1

Respond to hazards and emergencies for correction of extrusion dies.

Performance criteria

- 1.1 Hazards resulting from handling raw material and/or chemicals are identified, and precautions are taken in accordance with enterprise procedures.
- 1.2 Machine and ancillary equipment hazards are identified and precautions are taken in accordance with enterprise procedures.

1.3 Product hazards are identified and precautions are taken in accordance with enterprise procedures.

1.4 Emergency procedures associated with the machine and/or process are demonstrated in accordance with enterprise procedures.

Range may include but is not limited to – emergency stops, spills, power cut, leaks.

Outcome 2

Assess operational capability of a die.

Performance criteria

2.1 Documentation relating to the operation, use, and history of a die is reviewed in accordance with enterprise procedures.

2.2 If required, product specifications and drawings are accessed and interpreted to establish production requirements in accordance with enterprise procedures.

2.3 Previously extruded product and die are inspected, and any faults are established in conjunction with documentation.

Range faults may include but are not limited to – flow, dimensions, output, surface finish.

Outcome 3

Perform die correction.

Performance criteria

3.1 Selection of machine and/or tools for die correction is carried out in accordance with enterprise procedures.

3.2 Machine and equipment safety devices and personal protective equipment are used in accordance with job requirements and enterprise procedures.

3.3 Correction procedures are performed in accordance with enterprise procedures.

Outcome 4

Trial die.

Performance criteria

4.1 Die is trialled in liaison with relevant personnel in accordance with enterprise procedures.

- 4.2 Personnel affected by the trial run are advised in accordance with enterprise procedures.
- 4.3 Trial procedures are carried out and results evaluated in accordance with enterprise procedures.

Outcome 5

Verify die performance.

Performance criteria

- 5.1 Extruded product and die are inspected and any faults are established in conjunction with documentation.

Range faults may include but are not limited to – flow, dimensions, output, surface finish.
- 5.2 Where necessary, corrections are made until die produces product which conforms to specification in accordance with enterprise procedures.
- 5.3 Die status and any faults are reported to relevant personnel in accordance with enterprise procedures.
- 5.4 Required documentation is completed in accordance with enterprise procedures.

Range may include but is not limited to – hard copy and/or electronic documentation.
- 5.5 Product, production, and equipment terminology is used in accordance with enterprise procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 June 1995	31 December 2013
Revision	2	14 April 1997	31 December 2013
Revision	3	5 January 1999	31 December 2013
Review	4	26 July 2005	31 December 2013
Review	5	18 March 2011	31 December 2013
Reinstatement	6	20 November 2014	31 December 2023
Review	7	26 August 2021	31 December 2023

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>.

This unit standard is expiring