

<b>Title</b>	<b>Set and remove complex injection moulds</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: set complex injection moulds; verify machine, mould and ancillary equipment functions; and remove complex injection moulds.
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<b>Classification</b>	Plastics Processing Technology > Injection Moulding
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<b>Available grade</b>	Achieved
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<b>Entry information</b>	
<b>Recommended skills and knowledge</b>	Unit 260, <i>Service and maintain a complex mould for injection moulding</i> ; and Unit 21913, <i>Shift loads in engineering installation, maintenance, and fabrication work</i> .

**Explanatory notes**

- 1 Legislation relevant to this unit standard includes but is not limited to the Health and Safety at Work Act 2015.
- 2 Definitions  
*Complex mould* – a mould which uses at least one external power and control source to actuate product forming components, and requires sequencing with the mould operation. Includes moulds which retain molten material within the mould between cycles. Typical features may include: hot runners; insulated runners; externally actuated sliding blocks, cores, and unscrewing systems; safety interlocks.  
*Workplace procedures* – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 Range  
 Competence in setting and removing is required for two complex moulds. Typical features must be different in each mould.
- 4 All evidence requirements must be performed in accordance with workplace procedures.

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## Outcomes and evidence requirements

### Outcome 1

Set complex injection moulds.

#### Evidence requirements

1.1 The injection moulding machine is prepared.

Range examples of items to prepare are – hydraulic, pneumatic, and electrical connections; water; gas; evidence is required for at least three items.

1.2 Mould is prepared for setting.

Range examples of items to prepare are – hydraulic, pneumatic, and electrical connections; water; gas; evidence is required for at least three items.

1.3 Mould is fitted to the machine.

1.4 Machine and ancillary equipment are set to job specification.

### Outcome 2

Verify machine, mould and ancillary equipment functions.

#### Evidence requirements

2.1 Machine and mould operations are verified.

Range mould operation examples are – mould temperature control, mould component stroke, speed, pressure, time, sequencing, interlocks; machine operation examples are – machine movement stroke, speed, pressure, time, sequencing, interlocks.

2.2 Ancillary equipment operation is verified.

Range ancillary equipment operation examples are – hot-runner temperature control; hydraulic or pneumatic power supply; mould temperature control; evidence is required for at least two equipment operations.

### Outcome 3

Remove complex injection moulds.

## Evidence requirements

3.1 The injection moulding machine is prepared for mould removal.

Range examples of items to prepare are – hydraulic, pneumatic, and electrical connections; water; gas; evidence is required for at least three items.

3.2 Mould is prepared for removal.

Range examples of items to prepare are – hydraulic, pneumatic, and electrical connections; water, gas; evidence is required for at least three items.

3.3 Mould is removed.

<b>Planned review date</b>	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	28 April 1997	31 December 2013
Revision	2	15 November 2002	31 December 2013
Review	3	24 August 2006	31 December 2019
Review	4	21 March 2013	31 December 2019
Review	5	15 September 2016	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

### Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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**Comments on this unit standard**

Please contact Competenz [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.