

<b>Title</b>	<b>Control and optimise the rotational moulding production process for a standard product</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	People credited with this unit standard are able to: control the moulding process for a repeat production run; trial a standard product in a specified rotational moulding machine; and start up the moulding process for an initial production run.
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<b>Classification</b>	Plastics Processing Technology > Rotational Moulding
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<b>Available grade</b>	Achieved
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### 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 product* – products such as double wall products, multiple shot products, products with moulded graphics, products with inserts, complex shaped products.  
*Standard product* – a conventional single skin product, except those classified as complex products below.  
*Trial* – the testing and evaluation of either a new mould, or a mould for which there is neither prior knowledge nor production set up information available.  
*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 All evidence requirements must be performed in accordance with workplace procedures.

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### Outcomes and evidence requirements

#### Outcome 1

Control the moulding process for a repeat production run.

#### Evidence requirements

- 1.1 Controls are monitored and adjusted to optimise production and quality.

1.2 Common machine malfunctions are explained.

Range common machine malfunction examples are – rotation failure, erratic rotation, heating failure, heating fluctuation, cooling failure, cooling fluctuation, control system malfunctions; evidence is required of two malfunctions.

1.3 Common machine malfunctions are identified, corrected, and reported.

Range common machine malfunction examples are – rotation failure, erratic rotation, heating failure, heating fluctuation, cooling failure, cooling fluctuation, control system malfunctions; evidence is required for one malfunction.

**Outcome 2**

Trial a standard product in a specified rotational moulding machine.

**Evidence requirements**

2.1 Mould and machine trial preparations are carried out.

2.2 The trial mould is fitted and pre-start procedures are carried out.

Range pre-start procedures include – mould balancing, verifying mould rotation and clearances.

2.3 Initial machine conditions are set according to product design, material type, and mould construction.

2.4 Trial procedures are carried out and adjustments are made to optimise product quality, and productivity.

2.5 Trial results are recorded.

**Outcome 3**

Start up the moulding process for an initial production run.

**Evidence requirements**

3.1 The machine and mould are put into production and are monitored to maintain job specification.

3.2 Running adjustments are made and recorded.

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<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	20 January 1999	31 December 2019
Revision	2	15 November 2002	31 December 2019
Revision	3	17 March 2004	31 December 2019
Rollover and Revision	4	25 September 2006	31 December 2019
Review	5	11 December 2009	31 December 2019
Review	6	15 September 2016	N/A

**Consent and Moderation Requirements (CMR) reference**

0013

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 (CMRs). 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.

**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.