

Title	Run and monitor the extrusion blow moulding production process		
Level	3	Credits	10

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the operation of an extrusion blow moulding machine; apply and monitor extrusion blow moulding machine settings; perform a material or colour changeover on the extrusion blow moulding machine; and identify and correct routine product moulding faults.
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Classification	Plastics Processing Technology > Extrusion Blow Moulding
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 296, <i>Operate an extrusion blow moulding machine</i> ; Unit 23130, <i>Classify and name plastics materials</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
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.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of the operation of an extrusion blow moulding machine.

Evidence requirements

1.1 The blow moulding machine components are identified and their purpose described.

Range component examples are – extruder drive motor, drive coupling, gear box, thrust bearing, screw, barrel, die head, pin and die, parison programmer, platens, mould close equaliser, tie bars, strong back, platen support, blow pin assembly, parison cutting/sealing unit; evidence is required for at least 10 components.

1.2 Process operations are described.

Range operation cycle – extrusion, clamping, cutting, blowing, cooling, deflating, opening, ejection, deflashing, trepanning, post cooling, leak testing.

Outcome 2

Apply and monitor extrusion blow moulding machine settings.

Range evidence is required for one machine set-up.

Evidence requirements

2.1 Machine set-up information is interpreted and the extrusion blow moulding machine is set up.

2.2 Extrusion blow moulding machine settings are monitored to maintain product quality and output, and settings are reported in accordance with the job specification.

Outcome 3

Perform a material or colour changeover on the extrusion blow moulding machine.

Evidence requirements

3.1 Machine is cleaned of all previous materials and is loaded with the selected purging material.

3.2 Purging is performed.

3.3 Raw material and additives are selected to comply with job specification and loaded into the extrusion blow moulding machine.

3.4 Machine is run with new material and monitored to meet job specifications.

Outcome 4

Identify and correct routine product moulding faults.

Evidence requirements

4.1 Routine product moulding faults are identified and corrected.

Range three of the following routine product moulding faults – sizing, holes, deformations, colour, surface finish, product weight, wall thickness distribution (perimeter and length), mandrel lines and die lines, under inflation, air trapping.

4.2 Blow moulding process faults are reported.

4.3 Extrusion diehead pin and die type are identified and die and pin are removed, cleaned, and refitted.

Range examples are – converging, diverging, parallel, ovalised; evidence is required for one diehead pin and die type, and knowledge of three others.

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	28 April 1993	31 December 2014
Revision	2	13 February 1997	31 December 2014
Review	3	23 January 1998	31 December 2014
Review	4	24 August 2006	31 December 2014
Review	5	21 March 2013	31 December 2019
Review	6	15 September 2016	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>.

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 if you wish to suggest changes to the content of this unit standard.