

## Mount mould, set and monitor the rotational moulding production process

**Level** 2

**Credits** 11

**Purpose** People credited with this unit standard are able to: demonstrate knowledge of the operation of rotational moulding machines; mount mould, set, and monitor the rotational moulding machine for a repeat production run; and identify, correct and report routine product moulding faults.

**Subfield** Plastics Processing Technology

**Domain** Rotational Moulding

**Status** Registered

**Status date** 20 January 1999

**Date version published** ~~XX Month 20XX~~

**Planned review date** 31 December ~~2014~~

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**Entry information** Recommended: Unit 16117, *Operate the rotational moulding machine*; Unit 23130, *Classify and name plastics materials*; or demonstrate equivalent knowledge and skills.

**Accreditation** Evaluation of documentation by NZQA and industry.

**Standard setting body (SSB)** Plastics and Materials Processing Industry Training Organisation Incorporated

**Accreditation and Moderation Action Plan (AMAP) reference** 0134

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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### Special notes

- 1 All work practices must meet enterprise health and safety requirements.
- 2 *Enterprise* means an organisation where training and/or assessment is taking place, and/or where the trainee is employed.

- 3 *Enterprise procedure* is defined as actions which comply with the policies, systems, and directives in a particular enterprise. Enterprise procedure must comply with the requirements of the Health and Safety in Employment Act 1992, and subsequent amendments.

## Elements and performance criteria

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Processing Industry Training  
Organisation unit designation is  
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### Element 1

Demonstrate knowledge of the operation of rotational moulding machines.

#### Performance criteria

- 1.1 The construction and operation of an enterprise rotational moulding machine control unit, heating system, cooling system, drive unit, and rotation transmission system are described.
- Range construction and operation – evidence is required for fundamental characteristics only.
- 1.2 The principles of operation of rotational moulding equipment heating systems, cooling systems, and rotation systems are described.
- Range heating systems – natural gas, liquified petroleum gas, diesel, electricity, oven, open flame;  
cooling systems – forced air, unforced air, internal air, water spray;  
rotation systems – biaxial, rock and roll.
- 1.3 The rotational moulding machine operation cycle is described.
- Range operation cycle – ~~loading, cook cycle, cooling cycle, unloading,~~

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### Element 2

Mount mould, set, and monitor the rotational moulding machine for a repeat production run.

#### Performance criteria

- 2.1 Moulds are prepared for removal and fitting in accordance with enterprise procedure.
- 2.2 Tools for mould changing are selected in accordance with enterprise requirements.
- 2.3 Mould changes are carried out in accordance with enterprise procedure.
- 2.4 Machine setting information is interpreted, and the rotational moulding machine is set in accordance with enterprise procedure.
- 2.5 Rotational moulding machine settings are monitored to maintain product specification, and are reported in accordance with enterprise procedures.

### Element 3

Identify, correct and report product moulding faults.

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Range product moulding faults may include – excessive flash, incorrect shot weight, contamination, shrinkage, incorrect wall sections, surface finish, warpage, blow holes, water marks, release failure.

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### Performance criteria

- 3.1 Routine product moulding faults are identified and corrected in accordance with enterprise procedure.
- 3.2 Rotational moulding process faults are reported according to enterprise procedure.

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### Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP 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 the Plastics and Materials Processing Industry Training Organisation Incorporated [info@pampito.org.nz](mailto:info@pampito.org.nz) if you wish to suggest changes to the content of this unit standard.

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