

Perform basic process operations for rotational moulding

Level 1

Credits 4

Purpose People credited with this unit standard are able to: identify and take precautions against operation hazards; perform process operations; and demonstrate knowledge of scrap material handling and size reduction equipment. This unit standard is to enable entry level people to perform basic process operations in a rotational moulding operation.

Subfield Plastics Processing Technology

Domain Rotational Moulding

Status Registered

Status date 20 January 1999

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Entry information Recommended: Unit 23128, *Demonstrate basic knowledge of plastics production processes and 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>.

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

Element 1

Identify and take precautions against operation hazards.

Performance criteria

- 1.1 The consequences and danger of handling and heating plastics materials in a rotational moulding operation are identified, and precautions are taken in accordance with enterprise procedure.

Range consequences – molten material, fumes, dust, gases;
danger – burns, pressure build up, fumes from thermal degradation, explosions, respiration difficulties.

- 1.2 Machine, hand tools, ancillary equipment, product, and chemical hazards are identified, and precautions are taken in accordance with enterprise procedure.

Element 2

Perform process operations.

Performance criteria

- 2.1 The rotational moulding process cycle is identified.

Range process cycle – charge mould, close mould, pre-heating, heating and rotating, cooling and rotating, open mould, demoulding.

- 2.2 Industry terminology is used to describe product, production, and equipment.

- 2.3 Basic moulding operations are performed for a standard single skin product in accordance with enterprise procedure.

Range basic moulding operations may include – mould cleaning, mould release application, mould charging, product demoulding, product inspection, product finishing, product packaging, scrap processing, cooling procedures, check vent clear, disengage insert.

- 2.4 Emergency stopping of the rotational moulding machine and ancillary equipment is demonstrated in accordance with enterprise procedure.

Range evidence may be simulated if required.

- 2.5 Demonstrate understanding of the difference between an emergency stop and a controlled stop.

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4 . Industry terminology is detailed in the Association of Rotational Moulders Glossary of Terms, available from the Association of Rotational Moulders (Australasia), 8/600 Sherwood Road, Sherwood, Queensland 4075, Australia.¶
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5 . Plastics and Materials Processing Industry Training Organisation unit designation is RP1.¶

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2.6 Production recording is carried out in accordance with enterprise procedure.

Element 3

Demonstrate knowledge of scrap material handling and size reduction equipment.

Range size reduction equipment may include but not limited to – band saws, granulators, routers, circular saws, jig saws, sabre saw.

Performance criteria

3.1 Scrap and recyclable material is identified in accordance with enterprise procedures.

3.2 Identified contaminants are separated into forms suitable for further processing or disposal

Range: identified contaminants may include – foam, plastics, metal.

3.3 The applications for scrap material size reduction equipment are described.

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3.4 Personal safety equipment requirements for use when operating size reduction equipment are described.

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Range safety equipment includes – ear protection, eye protection, breathing equipment, footwear, protective gloves.

3.5 Hazards associated with the use of size reduction equipment are described.

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Range hazards – personal injury, material contamination, equipment.

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.

Comments on this unit standard

Please contact the Plastics and Materials Processing Industry Training Organisation Incorporated info@pampito.org.nz if you wish to suggest changes to the content of this unit standard.

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