



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD283B Demould product

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the removal of products from moulds.

Application of the Unit

Application of this unit

This competency applies to operators who are involved in the removal of products from moulds and is typically performed by operators working either independently or as part of a work team.

It includes:

- taking product off mould
- checking product for quality and conformity to specifications
- noticing any problems and takes required action (eg reporting)
- dealing with non-conforming products, waste and scrap
- completing logs and reports.

This unit does not include:

- packing of product - see *MSASUP204A Pack products or materials*
- finishing of product - see *PMBFIN201 Finish products and components*
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Check work requirements.	1.1 Identify work requirements from production plan or request. 1.2 Check product, materials and equipment meet requirements for job(s). 1.3 Recognise requirements which may not be in accordance with usual practice. 1.4 Ask questions of appropriate person to confirm non standard job specifications. 1.5 Identify hazards associated with the job and take appropriate action. 1.6 Perform other pre-operational checks in accordance with procedures.
2. Demould product to procedures.	2.1 Open mould. 2.2 Remove product in accordance with procedures. 2.3 Clean surface of mould and apply release agent as required. 2.4 Maintain supply of material(s) as required. 2.5 Complete logs and records as required. 2.6 Collect and segregate scrap, waste and other materials as required. 2.7 Keep equipment and work area clean.
3. Respond to routine problems in accordance with procedures.	3.1 Recognise known faults that occur during the operation. 3.2 Identify and take action on causes of routine faults. 3.3 Log problems as required. 3.4 Identify non-routine process and quality problems and take appropriate action.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Application of an operational knowledge of the materials, equipment and process sufficient to recognise out-of-specification products, process problems and materials faults. For example, demoulding temperature is dependent on the type of resin used for moulding of the product. Therefore, care needs to be taken to ensure the resin used is known and the correct temperature is chosen for demoulding.

Knowledge of organization procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Application of the knowledge of managing risks using the hierarchy of controls applied to the demoulding process. Application of approved hazard control and safety procedures and the use of PPE in relation to handling materials, equipment operation and cleanup.

Knowledge of and skills in the operation of demoulding equipment and main components sufficient for consistent production of quality products including:

- production workflow sequences and materials demand
- the potential effect of variations on demoulding products such as temperature
- accurately monitoring equipment operation and product quality
- waste management and knowing the importance of reusing non-conforming products wherever possible
- correct selection and use of equipment, materials, processes and procedures
- identify factors which may affect product quality or production output and appropriate remedies.

Competence includes the ability to:

- plan own work, including predicting consequences and identifying improvements
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- identify and describe role and role of others involved directly in the process.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets, procedures, material labels and safety information as provided to operators.

Writing is required to the level of completing workplace forms.

Basic numeracy is required, eg to determine that two 25 kg bags are needed to make up a requirement for 50 kg.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- apply the required skills and knowledge to operate demoulding equipment
- apply approved procedures.

Consistent performance should be demonstrated. For example, look to see that:

- demoulding standards are met consistently
- all safety procedures are followed.

Assessment method and context

Assessment will occur using industrial demoulding equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- by use of appropriate, industrial demoulding equipment requiring demonstration of operation and emergency stop procedures
- in a situation allowing for the generation of evidence of the ability to respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement**RANGE STATEMENT**

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to all work environments and sectors within rotational moulding, polyurethane, composites and thermoforming where moulds are used. It includes the operation of all relevant additional equipment where that equipment is integral to the process.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- use of handling aid (eg handcarts, hoists, jigs and gantries)
- pedestrian forklift
- hand tools (eg applicators, dispensers, measuring devices, cutters and cleaning utensils)
- relevant personal protective equipment.

Hazards

Typical hazards include:

- handling moulds/products not cooled properly
- manual handling
- noise
- light
- energy sources
- humidity
- air temperatures
- radiant heat
- stationary and moving machinery, parts or components.

Problems

Respond to/rectify 'non-routine problems' means 'apply known solutions to a variety of predictable problems'. Typical process problems may include:

- badly prepared mould
- leakage/spillage of raw materials
- incorrect quantity of materials
- contaminated materials/additives
- equipment faults
- mould damage.

Typical product problems may include:

- malformed product
- damage of product on removal
- cracking
- warping
- poor surface finish.
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Unit Sector(s)

Not applicable.

