



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD284B Operate open flame moulding equipment

Revision Number: 1

PMBPROD284B Operate open flame moulding equipment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the operation of open flame moulding equipment and the resolving of routine problems to procedure.

Application of the Unit

Application of this unit

This competency applies to operators who are involved in the operation of open flame moulding equipment and monitoring production. The key factors are the monitoring of the production process and identifying routine problems. This competency is typically performed by operators working either independently or as part of a work team.

It includes

- checking job sheets for work to be done
- conducting pre-start checks of setup
- starting up and shutting down of equipment
- monitoring equipment during production process
- resolving routine production problems and notifying appropriate persons of non- routine problems.
-

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 procedures. 1.2 Recognise hazards and adopt steps required to ensure safety. 1.3 Identify quantity and quality of product required and any special requirements. 1.4 Examine process control cards to identify adjustments and operating parameters. 1.5 Identify procedures for obtaining raw materials. 1.6 Check with supervisor/appropriate person if requirements are not in accordance with usual practice.
2. Conduct pre-start checks as required.	2.1 Check safety gates and guards are in position and working. 2.2 Check set-up speed and ratios for rotation according to specification sheets. 2.3 Check raw materials for conformity to specifications. 2.4 Undertake other pre-start checks in accordance with procedures.
3. Operate equipment.	3.1 Start machine safely and correctly when required. 3.2 Check product/process is within required limits. 3.3 Collect products and store as required. 3.4 Check mould to ensure it is rotating on axes at correct speed. 3.5 Monitor control panel in accordance with procedures/work instructions. 3.6 Check product is in specification/to required quality standard. 3.7 Maintain supply of material(s) as required. 3.8 Complete logs and records when required. 3.9 Collect and reprocess/discard scrap/trim and other materials in accordance with procedures. 3.10 Clean up equipment and work area in accordance with procedures. 3.11 Shut down machine safely and correctly in accordance with procedures/work instructions.

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.
4. Resolve routine problems	4.1 Identify likely faults that occur during the operation. 4.2 Identify and take action on causes of routine faults in accordance with procedures. 4.3 Make sure appropriate records and log books of equipment operations are maintained to meet procedures. 4.4 Identify non-routine problems and report to designated person.

Required Skills and Knowledge

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

Application of knowledge of the materials, equipment and process sufficient to recognise out of specification products, process problems and materials faults.

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

Competence includes the ability for the practical completion of the job to:

- apply and/or describe differences between LPG and natural gas, different types of raw materials used, range of products made using this method, component parts of open flame moulding equipment
- plan own work, including predicting consequences and identifying improvements
- monitor equipment operation and product quality
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- identify and describe own role and role of others involved directly in the flame rotational moulding process
- identify factors which may affect product quality or production output and appropriate remedies
- use PPE, safely handle products and materials, read relevant safety information and apply safety precautions appropriate to the task
- pause shut down equipment in abnormal circumstances
- explain the effect of unauthorised or emergency shutdown in relation to safety and production requirements
- distinguish between possible causes of routine faults such as incorrect quantity of materials, contaminated materials/additives, equipment faults, mould damage, wrong raw materials/additives, incorrect quantity of materials/additives, machine failure.
- original manufacturer instructions and guidelines for the use of the equipment
- relevant procedures relating to safe working practices prescribed for the equipment
- local OHS legislation and/or regulations
- site specific instructions based on production requirements.

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:

- recognise the importance of material properties and qualities
- apply approved procedures
- take appropriate action to resolve faults or report faults to appropriate personnel
- explain and implement emergency shutdown procedures.

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

- production standards are met consistently
- upstream and downstream communication is timely
- effective operating procedures and work instructions are read and interpreted correctly
- problems are identified and appropriate action is taken (ie the problem is fixed or reported)
- all safety procedures are followed.

Assessment method and context

Assessment will occur on an industrial flame moulding machine(s) equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed

- on a processing plant, allowing for operation under all normal and a range of abnormal conditions
- 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 operators working either independently or as part of a work team.

Procedures

All operations are performed in accordance with procedures.

Procedures means 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:

- hand tools as required
- interpretation of production schedules/work cards as appropriate
- relevant personal protective equipment.

Hazards

Typical hazards include:

- noise, light, energy sources
- humidity, air temperatures, radiant heat
- stationary and moving machinery, parts and components.

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'. Typical process and product problems may include:

- equipment - blockages in gas burner, mould incorrectly placed on machine
- process - even temperatures, temperature profiles
- product - wall thickness profile, too thick/too thin product.

Variables

Key variables to be monitored include:

- mould design
- equipment temperatures
- range of products
- product residence time
- rotational speeds
- cooling methods.
-

Unit Sector(s)

Not applicable.