



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **PMC552043C Operate float forming equipment**

**Revision Number: 1**

## PMC552043C Operate float forming equipment

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the operation of float forming equipment used for the manufacture of sheet glass. It involves setting up and tuning the process, operating and maintaining equipment, undertaking routine checks, rectifying routine problems and completing documentation.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit of competency applies to operators who are responsible for operating float forming equipment within the manufactured mineral products industry.</p> <p>This competency includes the operation of all ancillary equipment.</p> <p>This competency is typically performed by operators working either independently or as part of a work team. At all times they would be liaising with other members of the team.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare formation equipment	1.1. Interpret job specifications and set up the appropriate line/equipment 1.2. Set quality and quantity of molten glass conditions to be consistent with production program requirements 1.3. Undertake equipment preparation and checks according to established procedures
2. Fine tune forming processes	2.1. Conduct pre-run checks according to equipment procedures 2.2. Make machinery/equipment adjustments and final preparations to ensure that work instructions are met 2.3. Confirm that quality meets specifications
3. Form the products	3.1. Monitor equipment to ensure that quality specifications are met 3.2. Make operation adjustments according to established procedures to maintain product quality 3.3. Conduct product sampling and quality control checks according to standard procedures 3.4. Use and monitor ancillary equipment and safety procedures in accordance with enterprise requirements 3.5. Maintain records according to enterprise requirements
4. Rectify routine problems	4.1. Identify the range of faults that can occur during the operation 4.2. Determine and rectify fault causes in accordance with procedures 4.3. Identify and rectify equipment failure causes in accordance with procedures 4.4. Ensure appropriate records and log books of equipment operations are maintained to meet procedures 4.5. Identify non-routine problems and report to designated person
5. Control hazards.	5.1. Identify hazards from the job to be done 5.2. Identify other hazards in the work area 5.3. Assess the risks arising from those hazards 5.4. Implement measures to control those risks in line with procedures

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills include:

- recognising process conditions which will lead to out of specification production and taking appropriate action
- implement the enterprise's standard procedures and work instructions and relevant regulatory requirements within appropriate time constraints and in a manner relevant to the operation of the forming equipment
- reading and numeracy to interpret workplace documents and technical information

#### Required knowledge

Required knowledge includes:

- composition and nature of the glass
- setup/changeover of equipment
- startup and shutdown processes
- construction and limitations of the equipment
- out of specification situations
- quality problems include:
  - poor optics
  - excessive breakage
  - non-uniform break pattern
  - excessive bow
  - scratches
  - poor glass shape
- distinguish between causes of faults such as:
  - raw materials
  - equipment
  - types of defects/faults
  - electrical/instrumental

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p><b>Overview of assessment</b></p>	<p>The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>It is essential that the reheating equipment be understood and that the importance of critical material properties, settings, parameters and readings is known. Competence must be demonstrated in the ability to recognise and analyse potential situations requiring action and then in implementing appropriate corrective action.</p> <p>Consistent performance should be demonstrated. In particular look to see that:</p> <ul style="list-style-type: none"> <li>• temperatures are maintained within limits</li> <li>• startup and shutdown occur first time</li> <li>• signals and alarms are responded to immediately</li> <li>• process measurements are continually made, observed and interpreted</li> <li>• quality is maintained to customer specifications.</li> </ul>
<p><b>Context of and specific resources for assessment</b></p>	<p>Assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations.</p> <p>Assessment will occur over a range of situations which will include disruptions to normal, smooth operation.</p> <p>Simulation or case studies/scenarios may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual plant and will include 'walk-throughs' of the relevant competency components. A bank of scenarios/case studies/what ifs and questions will be required to probe the reasoning behind observable actions.</p>
<p><b>Method of assessment</b></p>	<p>In all plants it may be appropriate to assess this unit concurrently with relevant teamwork and communication units.</p> <p>Individual enterprises may choose to add prerequisites and co-requisites relevant to their processes.</p>

**EVIDENCE GUIDE****Guidance information for  
assessment**

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

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. 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) may also be included.</p>	
<b>Procedures</b>	All operations are performed in accordance with standard procedures and work instructions
<b>Equipment</b>	<p>Equipment may include:</p> <ul style="list-style-type: none"> <li>• bath</li> <li>• ancillary equipment</li> <li>• computers</li> <li>• measuring recording equipment</li> <li>• communication equipment</li> <li>• hand tools</li> <li>• safety clothing and equipment</li> </ul>
<b>Typical problems</b>	<p>Typical problems may include:</p> <ul style="list-style-type: none"> <li>• temperature and pressure problems</li> <li>• equipment problems</li> <li>• quality problems</li> <li>• loss of ribbon</li> </ul>
<b>Occupational health and safety (OHS)</b>	All operations are subject to stringent OHS requirements and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and OHS requirements, the OHS requirements take precedence

## Unit Sector(s)

<b>Unit sector</b>	Operational/technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		