



Australian Government

MSMPMC308 Operate slip casting equipment

Release: 1

MSMPMC308 Operate slip casting equipment

Modification History

Release 1. New unit. Supersedes and is equivalent to PMC552020 Operate slip casting equipment.

Application

This unit describes the skills and knowledge required to operate slip casting equipment typically used to produce clay and ceramic products. It applies to both large production and smaller craft contexts.

This unit applies to operators who are required to take responsibility for own outputs and follow established procedures to prepare moulds and equipment, operate the forming equipment and remove product from mould. Operators are also required to work autonomously and apply their own judgement to interpret information; monitor processes; identify and address routine and non-routine problems and control hazards.

This unit does not apply to drying, firing or finishing operations and does not require the operation of a central control panel.

This unit applies to an individual working alone or as part of a team or group and in liaison with other shift team members, team leader and supervisor.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Operations

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the forming equipment	1.1 Determine the product formation requirements from the production program 1.2 Check the required moulds are in place 1.3 Set up and prepare the equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, pour or connect the required raw materials to the equipment 1.5 Check the equipment is safe to use
2. Operate forming equipment	2.1 Operate equipment to produce product to specification 2.2 Remove product from the mould 2.3 Monitor and adjust slip properties 2.4 Transfer product to drying racks, conveyor or trucks 2.5 Record production data
3. Rectify routine problems	3.1 Identify and rectify faults and equipment failure 3.2 Maintain records and log books of equipment operations 3.3 Identify non-routine problems and report to designated person
4. Control hazards	4.1 Identify hazards in the slip casting area 4.2 Assess the risks arising from those hazards 4.3 Implement measures to control those risks

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. New Unit. Supersedes and is equivalent to PMC552020 Operate slip casting equipment.

Links

Companion Volume Implementation Guides are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

Assessment Requirements for MSMPMC308 Operate slip casting equipment

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- set up, prepared, operated and adjusted equipment to meet product requirements on at least 1 occasion, including:
 - monitoring the following key variables to ensure product integrity and conformance to specification:
 - slip consistency
 - wall thickness
 - casting time
 - mould condition
 - excess slip
 - recognising possible causes of the following routine problems:
 - raw material variations
 - equipment malfunctions
 - mould abnormalities or deterioration
 - process abnormalities.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles of slip casting process
- slip casting tools and equipment, including:
 - functions, limitations
 - principles of operation
 - the potential effects of equipment operation in relation to quality of product
- the potential effects of variations in raw materials in relation to quality of product
- methods for determining wall thickness
- routine problems and factors which may affect product quality or production output, their probable causes and relevant corrective actions
- work health and safety (WHS) requirements relevant to work outcome
- slip casting hazards that may arise in the job and work environment and:

- their possible causes
- potential consequences
- risk control procedures.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - slip casting tools and equipment and ancillary equipment
 - raw materials
 - specifications, procedures and job sheets
- modelling of industry operating conditions, including:
 - routine and non-routine problems.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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