



Australian Government

MSMPMC329 Prepare moulds and dies

Release: 1

MSMPMC329 Prepare moulds and dies

Modification History

Release 1. New unit. Supersedes and is equivalent to PMC553020 Prepare moulds and dies

Application

This unit describes the skills and knowledge required to prepare moulds, dies, frames and cases to make products from materials, such as concrete, clay and ceramics. It applies to both large production and smaller craft contexts.

This unit applies to experienced operators who are required to take responsibility for own outputs and follow established procedures to make the items to ensure product is to specifications and prepare them for use. 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.

The experienced operator may work 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 cases and frames	1.1 Check manufacturing schedule to determine type of mould to be made 1.2 Set up materials for case making to procedure 1.3 Make case to specification 1.4 Check case against requirements
2. Prepare and make working moulds	2.1 Pick the required case or frame

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Make the working mould to procedures 2.3 Remove working mould from the case 2.4 Check, finish and store mould to procedures
3. Prepare dies	3.1 Check manufacturing schedule for type of die needed 3.2 Set up materials for die making to procedure 3.3 Make die to specifications 3.4 Remove working die from master die and prepare for use to procedure
4. Respond to problems	4.1 Identify routine and non-routine problems in the equipment or process 4.2 Rectify problem using appropriate solution within area of responsibility 4.3 Report problems outside area of responsibility to designated person
5. Control hazards	5.1 Identify hazards relating to moulds and dies 5.2 Assess the risks arising from those hazards 5.3 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 PMC553020 Prepare moulds and dies

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 MSMPMC329 Prepare moulds and dies

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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:

- constructed the following moulding items to specification on at least 1 occasion:
 - working mould
 - die
 - frame or case
- monitored the following key variables to ensure product integrity and conformance to specification:
 - shape
 - dimensions
 - shrinkage
 - type of material for product
 - integrity and conformance to specification of the moulding item
- recognised possible causes of the following routine problems:
 - incorrect materials
 - variations in materials
 - equipment malfunction
 - procedure errors
 - incorrect specifications.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- types of moulds, dies, frames, cases and their functions
- materials properties and impact on design and construction of moulds, dies, frames and cases, including:
 - additives
 - release agents
 - epoxy resins
 - concrete
 - clay

- plaster
- ceramics
- quality requirements at each stage of production
- the potential effects of variations in raw materials and equipment operation or processes in relation to quality of moulding items and product
- routine problems, their probable causes and relevant corrective actions
- mould and die hazards 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:
 - moulds, dies, frames or cases and 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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