



Australian Government

PMC552054 Spin concrete pipes

Release: 1

PMC552054 Spin concrete pipes

Modification History

Release 1. Supersedes and is equivalent to PMC552054C Spin concrete pipes

Application

This unit of competency covers the skills and knowledge required operate pipe spinning equipment and ancillary equipment that is integral to the process.

This unit of competency applies to operators who are required to ensure the mould is correctly assembled and safe to spin, load and operate equipment, monitor the process, remove and inspect product and rectify routine problems.

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

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Operations

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Assemble and prepare the pipe mould	1.1	Check mould for distortion, cracks or other defects
		1.2	Clean mould cavity and apply stripping agent
		1.3	Check and insert reinforcing cage and/or other fitments

- and secure in accordance with procedures/work instructions
- 1.4 Check cover to steel and fix or report as appropriate
 - 1.5 Check holding of cage
 - 1.6 Assemble mould and secure in accordance with procedures/work instructions
 - 1.7 Move pipe mould to spinning equipment
- 2 **Load mould onto pipe spinning equipment**
- 2.1 Load pipe mould onto spinning equipment
 - 2.2 Check that mould is stabilised and correctly mounted on rollers
 - 2.3 Make adjustments to equipment settings to ensure conformance with procedures/work instructions
 - 2.4 Notify appropriate personnel of intention to start spinning equipment
- 3 **Spin pipe**
- 3.1 Conduct additional pre-start checks as required in accordance with procedures/work instructions
 - 3.2 Ensure an adequate supply of the specified concrete mix is available to meet production requirements
 - 3.3 Start spinning equipment in accordance with procedures/work instructions
 - 3.4 Monitor instrument/control panels and adjust rate of spin and material flow as necessary to remain within specified operating parameters
 - 3.5 Make observations of plant and equipment at specified intervals to identify any anomalies in procedures/work instructions
 - 3.6 Maximise product throughput and efficiency to maintain target parameters
 - 3.7 Communicate with appropriate personnel regarding the status of operations in line with enterprise requirements

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| | | 3.8 | Employ safe working practices which conform to work health and safety (WHS) and enterprise requirements |
| 4 | Finish and cure pipe | 4.1 | Float/finish pipes as required |
| | | 4.2 | Remove spun pipe and mould from spinning equipment |
| | | 4.3 | Inspect inside diameter of pipe, ends and inside surface finish |
| | | 4.4 | Undertake any repairs to pipe caused by irregularities in material flow |
| | | 4.5 | Move pipe to curing tunnel or kiln in accordance with procedures/work instructions |
| | | 4.6 | Monitor curing of pipe to ensure compliance with enterprise quality requirements |
| | | 4.7 | Remove pipe and mould from curing equipment |
| 5 | Demould pipe | 5.1 | Remove any separators, non-permanent inserts, plugs or blinds |
| | | 5.2 | Disassemble mould and release pipe in accordance with safe working practice and procedures/work instructions |
| | | 5.3 | Return mould segments for reuse or storage in accordance with enterprise storage quality requirements |
| 6 | Inspect and store pipe | 6.1 | Inspect pipe outside diameter and ends/flanges for defects |
| | | 6.2 | Make allowable repairs in accordance with specification and procedures/work instructions |
| | | 6.3 | Identify and mark pipe with appropriate brand or identification number |
| | | 6.4 | Apply appropriate interior surface coatings or coverings as required by the specification |
| | | 6.5 | Move pipe and store in compliance with enterprise storage quality/quantity requirements |

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| 7 | Rectify routine problems | 7.1 | Identify the range of faults that can occur during the operation |
| | | 7.2 | Determine and rectify fault causes in accordance with procedures/work instructions |
| | | 7.3 | Identify and rectify equipment failure causes in accordance with procedures/work instructions |
| | | 7.4 | Ensure appropriate records and log books of equipment operations are maintained to meet procedures/work instructions |
| | | 7.5 | Identify non-routine problems and report to designated person |

Foundation Skills

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

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures may be written, verbal, visual, computer-based or in some other form. They include one or any combination of:

- job cards
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment Tools and equipment include:

- spinning equipment

- moulds
- ancillary equipment that is integral to the process.

Problems Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- variations in sectional thickness/distribution of materials
- incorrect spinning speeds/conditions for the size of pipe being produced
- incorrect type, positioning, securing of cages and inserts in moulds
- mould problems.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Hazards Hazards must be identified and controlled. Identifying hazards requires consideration of:

- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- electricity
- gas
- gases and liquids under pressure
- noise
- rotational equipment or vibration
- plant services (steam, condensate, cooling water, etc)
- structural hazards
- equipment failures
- machinery, equipment and product mass
- limited head spaces or overhangs
- working at heights
- working in restricted or confined spaces

- other hazards that might arise.

Records and reports Records include one or more of:

- log books/sheets
- electronic records
- job/work sheets
- other records used for the smooth running of the plant.

Reports include one or more of:

- paper or electronic-based logs and reports
- verbal/radio reports
- reporting items found which require action.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>