

Title	Demonstrate knowledge of concrete pipe manufacture		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to demonstrate knowledge of: concrete pipes; preparation of concrete pipe manufacture; and concrete pipe manufacture.
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Classification	Concrete > Concrete Product Manufacture
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Available grade	Achieved
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Guidance Information

- Definitions
Methods of concrete pipe manufacture may include any of the following: wet spun, roller, precast, vertical casting.
Specifications refer to documented specifications and may include any of the following: drawings, project or job requirements, manufacturers' specifications, recommendations or instructions, material specifications.
Workplace practice refers to the documented procedures specific to a workplace which set out the standard and required practices of that workplace.
- Evidence for this unit standard must comply with industry practice. *Industry practice* refers to the ability to demonstrate knowledge that reflects the productivity, uniformity, finish quality and material economies currently accepted within industry.
- Legislation and publications relevant to this unit standard include: Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995; AS/NZS 4058:2007 *Precast concrete pipes (pressure and non-pressure)*, available from Standards New Zealand (<http://www.standards.co.nz>).

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of concrete pipes.

Performance criteria

- 1.1 Different types of concrete pipes are described in terms of end use and manufacturing requirements.

Range jacking pipe, rubber ring jointed, inspection chambers, flush joint, skid rings.

- 1.2 Differences between the classes of pipe are described in terms of load bearing requirements in accordance with AS/NZS 4058.
- 1.3 Reinforcing for concrete pipe is described in terms of function in relation to loading.
- Range internal loading, external loading, internal and external loading, oval-shaped reinforcing cages.
- 1.4 The importance of cover and correct joint formation are explained in terms of end use for concrete pipes.
- 1.5 Methods of concrete pipe manufacture are described in accordance with industry practice.
- Range three different methods.

Outcome 2

Demonstrate knowledge of preparation of concrete pipe manufacture.

Performance criteria

- 2.1 Reasons and process for checking of mould and confirmation as ready to start are described in accordance with workplace practice and specifications.
- Range reinforcing, spacers or nibs, cover, clearance.
- 2.2 Reasons and process for moving of mould to manufacturing area and checking to ensure safety during manufacturing are described in accordance with workplace practice.

Outcome 3

Demonstrate knowledge of concrete pipe manufacture.

Performance criteria

- 3.1 Reasons and process for filling of mould and compaction of concrete are described in accordance with workplace practice.
- 3.2 Reasons and process for monitoring of manufacturing process, and required actions to maintain tolerances, are described in accordance with workplace practice.
- 3.3 Reasons and process for trowelling of product surface, checking for processing faults, and required remedial action are described in accordance with workplace practice.
- 3.4 Reasons and process for preparation for curing are described in accordance with workplace practice.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 March 2011	31 December 2023
Review	2	28 October 2021	31 December 2023

Consent and Moderation Requirements (CMR) reference

0048

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.