Title	Prepare to manufacture ferro-cement tanks		
Level	4	Credits	8

Purpose	This unit standard is intended for people working in the ferro- cement tank manufacture industry.
	People credited with this unit standard are able to prepare to manufacture ferro-cement tanks to the level required of a commercially competent ferro-cement tank manufacturer.

Classification	Concrete > Precast Concrete
----------------	-----------------------------

Available grade	Achieved
-----------------	----------

### **Guidance Information**

#### 1 Assessment

This unit standard is one of a family of standards intended to align with the *New Zealand Certificate in Trowel Trades – Specifications*, and the New Zealand Certificate in Trowel Trades (Level 4) with strands in Brick and Block Laying, Floor and Wall Tiling, Proprietary Plaster Cladding Systems, Ferro-cement Tank Manufacture, Refractory Installation, and Solid Plastering (with optional strands in Fixing Cavities and Substrates, and Decorative Mouldings) [Ref: 3137].

Evidence for this unit standard must reflect commercial competence.

Commercial competence requires a candidate to be capable of consistently performing the requirements of the unit specification:

- to current regulatory, industry and commercial standards
- within a commercially viable timeframe
- in commercial environments
- without supervision
- in different and unfamiliar contexts.

Commercial competence must be confirmed by a person who has current expertise in the ferro-cement tank manufacture trade.

#### 2 Definition

Workplace procedures refer to the documented procedures specific to a workplace which sets out the standard and the required practices of that workplace.

3 Legislation, and guidance information relevant to this standard includes the following, and any subsequent amendments and replacements:

New Zealand Certificate in Trowel Trades – Specifications, BCITO, August 2021, available from <a href="https://www.waihangaararau.nz">www.waihangaararau.nz</a>.

Legislation accessed at <a href="https://www.legislation.govt.nz">www.legislation.govt.nz</a>

- Building Act 2004,
- Health and Safety at Work Act 2015,
- The New Zealand Building Code.

Best practice and good practice guidelines

- The Absolutely Essential Health and Safety Toolkit for Small Construction Sites, and other Worksafe NZ publications available from www.worksafe.govt.nz.

# Skill specification and performance level guidance

## Skill specification

Prepare to manufacture ferro-cement tanks.

### Knowledge

The different types of moulds and formwork used to manufacture ferro-cement tanks.

The requirements and methods to set up moulds for the different tank components.

Range tank components include – base, internal wall, external wall, roof.

The requirements and methods to cut, bend, tie and position reinforcing for the different tank components.

Range tank components include – base, internal wall, external wall, roof; reinforcing includes – steel bars, mesh, chain link wire, wire.

The requirements and methods to place and secure in position any accessories that are cast into the tank.

Range risers, pipes, lifters.

#### Skills

Set up moulds and formwork for the different tank components.

Range tank components include – base, internal wall, external wall, roof.

Cut, bend, tie and position reinforcing for the different tank components.

Range may include – steel bars, mesh, chain link wire, wire.

NZQA unit standard 31360 version 2
Page 3 of 3

Place and secure in position any accessories that are cast into the tank.

Range may include – risers, pipes, lifters.

# Performance level guidance

Performance must reflect organisation of all components, equipment and materials required to successfully construct ferro cement tanks in accordance with workplace procedures.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 September 2018	31 December 2025
Review	2	25 August 2022	N/A

Consent and Moderation Requirements (CMR) reference	0048
---	------

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

#### Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council <a href="mailto:qualifications@waihangaararau.nz">qualifications@waihangaararau.nz</a> if you wish to suggest changes to the content of this unit standard.