

41138 Carry out steel reinforcing installation tasks of standard complexity for concrete structures

Kaupae Level	3
Whiwhinga Credit	5
Whāinga Purpose	<p>This skill standard is intended for people working in or entering the construction trades.</p> <p>People credited with this skill standard have the skills to carry out steel reinforcing installation tasks of standard complexity for concrete structures.</p> <p>This skill standard aligns with the New Zealand Certificate in Concrete Construction Skills (Level 3) [Ref: 4189] and may also contribute to other construction and infrastructure qualifications.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Prepare and tie reinforcing steel for installations of standard complexity.	a. Reinforcing steel specifications are interpreted to select the correct steel for cutting, bending, tying and placement.
	b. Reinforcing steel is cut and bent to required shapes and dimensions using safe methods.
	c. Reinforcing is tied and secured using recognised methods to maintain centres and alignment.
2. Position, fix and assemble reinforcing steel for installations of standard complexity.	a. Reinforcing steel is placed and fixed to maintain cover, laps, and orientation in line with reinforcing steel plans and specifications.
	b. Supports are installed to ensure reinforcing is held securely and cover is maintained.
	c. Cages or beams are set out, assembled, and secured to meet specified requirements.
	d. Completed reinforcing work meets reinforcing steel plans and specifications.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

To achieve this standard the candidate must carry out steel reinforcing installation tasks of standard complexity to industry standards under limited supervision.

Industry standards must reflect industry best practice, workplace procedures, and be within acceptable tolerances as defined in New Zealand codes, standards and regulations.

Plans and specifications can include working drawings, plan specifications, manufacturer specifications, installation instructions and demolition and project plans.

Evidence for this standard must be demonstrated:

- to current and relevant Legislation, Standards, and Codes (including safety),
- in an environmentally sustainable manner, and
- with acceptable behaviours.

Definitions:

Acceptable behaviours refer to professional behaviours expected in a construction environment. This includes working safely with others, communicating effectively, following workplace procedures, respecting people, tools, equipment, and materials, and responding appropriately to hazards and changing work conditions.

Concrete structures refer to a range of building and civil infrastructure works, including slabs, walls, beams, columns, foundations, footpaths, retaining structures and other concrete elements.

Cover is the minimum specified distance between the outer surface of the concrete and the nearest surface of the reinforcing steel. It protects the reinforcement from corrosion and contributes to the durability, fire resistance, and structural integrity of the concrete.

Standard complexity refers to routine reinforcing work carried out under defined procedures and supervision. It includes preparing, cutting, bending, tying, placing, fixing, and assembling reinforcing steel for straightforward concrete elements, for example, slabs, beams, columns, walls, and foundations, using familiar tools, equipment and methods.

Under limited supervision refers to candidates carrying out the requirements of this skill standard with basic guidance and indirect supervision from a suitably skilled tradesperson. They are expected to source some information independently from plans, specifications, or relevant New Zealand Standards.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

Plans and specifications

- Reinforcing steel plans and specifications.
- Bar tags, detail sheets and delivery documentation.
- Dimensions, grades, diameters, abbreviations, symbols, codes.
- Industry terminology (e.g., longitudinal, trans bars, stirrups, saddle bars, couplers).
- Cover, laps, spacings, orientation and placement requirements.
- Tolerances and compliance with industry standards.
- Cutting, bending, tying, placement requirements.

Reinforcing steel

- Plain round bars, deformed bars, mesh, coils, grades such as 300E, 500E).
- Use of reinforcing steel in different structural elements (slabs, beams, walls, columns, foundations).

Preparation of reinforcing steel

- Selection of reinforcing steel.
- Cutting and bending (e.g., manual tools, mechanical cutters, bending machines).
- Hazards and risk controls (e.g., sharp edges, powered equipment, PPE).

Tying reinforcing steel

- Ties (e.g. box ties, figure-eight ties, saddle ties).
- Centres and alignment.
- Safe finishing.

Installing reinforcing steel

- Cover, laps, spacings, orientation.
- Securing (wire, clips, tack welds).
- Supports (spacers, chairs, ties).

Assembling reinforcing cages

- Setting out cages or beams.
- Assembly of bars, stirrups, fitments.
- Securing assemblies for stability during concrete placement.
- Visual checks of reinforcing placement and security.
- Reporting issues.

Rauemi | Resources

Programme Guidance information available from info@cstisb.nz.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Construction and Specialist Trades Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Planning and Construction > Concrete > Concrete Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0120

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	26 February 2026	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 32667.		
Rā arotake Planned review date	31 December 2030		

Please contact Construction and Specialist Trades Industry Skills Board at info@cstisb.nz to suggest changes to the content of this skill standard.