

41145 Operate and maintain equipment of moderate complexity in concrete construction

Kaupae Level	4
Whiwhinga Credit	5
Whāinga Purpose	<p>This skill standard is for people working in or entering the construction trades.</p> <p>People credited with this skill standard have the skills to operate and maintain equipment of moderate complexity in concrete construction.</p> <p>This skill standard aligns with the New Zealand Certificate in Concrete Construction (Building and Infrastructure) (Level 4) [Ref: 4188] 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. Operate equipment used in concrete construction.	a. Checks and reporting requirements are completed in line with manufacturer's instructions.
	b. Equipment is operated safely and efficiently, with required personal protective equipment in line with manufacturer's instructions and industry standards.
	c. Operation is monitored and adjusted to maintain output quality, efficiency, and safety in accordance with plans, specifications, and industry standards.
2. Complete maintenance tasks on equipment used in concrete construction.	a. Routine maintenance checks, inspections, and cleaning are carried out in line with manufacturer's instructions and industry standards.
	b. Basic servicing and minor repairs are completed within the operator's responsibility, in line with manufacturer's instructions.

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

Assessment specifications:

To achieve this standard the candidate must be capable of operating and maintaining equipment of moderate complexity for concrete construction to industry standards.

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.

The operator's responsibility for servicing and repairs includes actions such as lubrication, removing concrete build-up, tightening accessible fittings, and reporting defects. It excludes diagnostic work or mechanical repairs that require a qualified technician.

Evidence for this standard must be demonstrated:

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

Moderate complexity refers to equipment involving a range of tasks and varied site, for example, operating and maintaining mixers, pumps, screeds, compactors, vibrators, saws, and similar concrete-construction equipment where there are multiple components or settings to manage, variable site conditions, or coordination with other trades.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

Checks and inspections

- Safety checks and inspections.
- Set-up and adjustment.
- Health, safety and environmental requirements.

Equipment

- Equipment used in precast concrete construction (e.g. mixers, pumps, screeds, compactors, vibrators, saws).
- Supporting systems (e.g. for placement, compaction, finishing, cleaning, and curing).
- Safe and efficient interaction between equipment, people and work areas.

Operation

- Start-up, operation, monitoring, and shut-down procedures.
- Safe use practices for equipment.
- Monitoring performance and identifying operational issues.
- Communication, coordination and reporting procedures.

Maintenance

- Routine checks, inspections, and cleaning.
- Basic servicing within operator's responsibility.
- Hazard and risk controls.
- Reporting and escalation of faults beyond the operator's responsibility.

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	N/A		
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.