

Assemble and service moulds, and demould products for precast concrete product manufacture

Level 3

Credits 8

Purpose People credited with this unit standard are able to: prepare to assemble, and assemble moulds for precast concrete product manufacture; prepare to demould, and demould precast concrete products; service moulds for precast concrete product manufacture; and complete work operations.

Subfield Concrete

Domain Precast Concrete

Status Registered

Status date 20 November 2009

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Entry information Open.

Replacement information This unit standard replaced unit standard 12028.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Building and Construction Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0048

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

Special notes

1 Definitions

Specifications refer to documented instructions (oral, written, graphic) and may include any of the following: manufacturer's specifications, recommendations or technical data sheets; material specifications; specifications from a specialist source such as an architect, designer, engineer or a supervisor; site or work specific requirements.

Workplace practice refers to the documented procedures specific to a workplace which set out the standard and required practices of that workplace.

- 2 For the purpose of this unit standard, moulds can be one-sided.
- 3 Assessment against this unit standard must be undertaken on site. *On site* refers to a wide range of building and construction environments within which trade skills are required, and includes concrete production and concrete construction sites.
- 4 Credit for this unit standard indicates compliance with industry practice. *Industry practice* refers to the ability to demonstrate knowledge and skills that reflect the uniformity, finish quality, and material economies currently accepted within industry.
- 5 Legislation relevant to this unit standard includes:
Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995;
NZS 3109:1997 *Concrete construction* and NZS 3114:1987 *Specification for concrete surface finishes*, available from Standards New Zealand (<http://www.standards.co.nz>).

Elements and performance criteria

Element 1

Prepare to assemble moulds for precast concrete product manufacture.

Performance criteria

- 1.1 Requirements for moulds are determined in accordance with job specifications, NZS 3109, and NZS 3114.

Range	dimensional tolerances, finish requirements, sealing, release tapers, concrete pressures, grout losses, form removal, access, plant.
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- 1.2 Mould components are checked against job specifications and any identified faulty components are replaced.
- 1.3 Tools, equipment, and personal protective equipment are identified and selected in accordance with job requirements and workplace practice.

Element 2

Assemble moulds for precast concrete product manufacture.

Performance criteria

- 2.1 Mould assembly sequence is in accordance with workplace practice and job requirements.
- 2.2 Fittings, fixings, and hardware are attached in accordance with job specifications and workplace practice.
- 2.3 Tolerances are in accordance with job specifications and workplace practice.

2.4 Mould surface is treated in accordance with job specifications and manufacturer's specifications.

Range treatment materials – one of: release agents, oil, retarder.

2.5 Assembled mould meets pre-pour checks against workplace quality control requirements.

Element 3

Prepare to demould precast concrete products.

Performance criteria

3.1 Requirements for demoulding product are determined in accordance with job specifications.

Range demoulding sequence, access, plant.

3.2 Tools, equipment, and personal protective equipment are identified and selected in accordance with job requirements and workplace practice.

Element 4

Demould precast concrete products.

Performance criteria

4.1 Demoulding sequence is performed in accordance with workplace practice.

4.2 Product is removed from mould and prepared for storage without damage to product or mould.

Range factors to consider – frames, lifting and handling process, crantage, impact of forces, suction pressure, concrete strength, labelling.

4.3 Mould is cleaned and prepared for reuse or storage in accordance with workplace practice.

Element 5

Service moulds for precast concrete product manufacture.

Performance criteria

5.1 Mould is inspected and overall condition assessed, and requirements for servicing are identified in accordance with workplace practice.

5.2 Mould is serviced to meet manufacturer's specifications and in accordance with workplace practice.

Range cleaning, repair or replacement of parts, corrosion protection.

Element 6

Complete work operations.

Performance criteria

6.1 All operations are safely completed, workplace and equipment are cleaned in accordance with workplace practice and environmental safety requirements, and routine maintenance is carried out in accordance with workplace practice.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.