

<b>Title</b>	<b>Assemble and service moulds, and demould products for precast concrete product manufacture</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	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.
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<b>Classification</b>	Concrete > Precast Concrete
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<b>Available grade</b>	Achieved
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### Guidance Information

- 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.
- For the purpose of this unit standard, moulds can be one-sided.
- 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.
- 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.
- 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>).

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## Outcomes and performance criteria

### Outcome 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.
- 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.

### Outcome 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.

### Outcome 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.

**Outcome 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, cramage, impact of forces, suction pressure, concrete strength, labelling.

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

**Outcome 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.

**Outcome 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.

<b>Replacement information</b>	This unit standard replaced unit standard 12028.
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**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	20 November 2009	31 December 2024
Review	2	24 November 2022	31 December 2024

<b>Consent and Moderation Requirements (CMR) reference</b>	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.