

<b>Title</b>	<b>Cut and drill concrete for precast concrete manufacture</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	People credited with this unit standard are able to: undertake routine maintenance of cutting and drilling equipment for precast concrete product manufacture, set up for cutting and drilling concrete in a precast concrete manufacturing yard, cut concrete in a precast concrete manufacturing yard, drill concrete in a precast concrete manufacturing yard, 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

#### 1 Definitions

*Specifications* refers 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 Credit for this unit standard indicates compliance with industry practice. *Industry practice* refers to the ability to demonstrate knowledge and skills that reflect the productivity, uniformity, finish quality and material economies currently accepted within industry.

#### 3 Legislation and publications relevant to this unit standard include: Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995; Resource Management Act 1991; NZS 3109:1997 *Concrete construction*, available from Standards New Zealand (<http://www.standards.co.nz>).

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### Outcomes and performance criteria

#### Outcome 1

Undertake routine maintenance of cutting and drilling equipment for precast concrete product manufacture.

**Performance criteria**

- 1.1 Equipment and attachments are checked prior to use in accordance with manufacturer's operational guidelines.
- Range blades, drill bits, leads, hoses, fuel, oil, water, connections.
- 1.2 Equipment and attachments are serviced routinely in accordance with manufacturer's operational guidelines.
- 1.3 Equipment and attachments are cleaned and serviced at the conclusion of each operation and at the end of the day in accordance with workplace practice.
- 1.4 Breakdowns are dealt with in accordance with workplace practice.

**Outcome 2**

Set up for cutting and drilling concrete in a precast concrete manufacturing yard.

**Performance criteria**

- 2.1 Locations for cutting and drilling concrete are marked out and checked in accordance with workplace practice.
- 2.2 Information on the location of existing reinforcing is obtained in accordance with workplace practice.
- 2.3 Blade and drill bits are selected and fitted in accordance with manufacturer's instructions and workplace practice.
- Range depth, width, diameter, wet or dry, type of diamond segment (eg hard, soft).
- 2.4 The equipment is set up and guards and safety equipment checked and confirmed as in place in accordance with manufacturer's instructions and workplace practice.
- 2.5 Workplace is checked for adequate ventilation.

**Outcome 3**

Cut concrete in a precast concrete manufacturing yard.

**Performance criteria**

- 3.1 The concrete is cut where marked in accordance with job specifications and to avoid existing reinforcing where required.
- 3.2 Off cuts are supported and debris is removed in accordance with workplace practice.
- 3.3 Waste water and waste concrete are disposed of in accordance with legislation.

**Outcome 4**

Drill concrete in a precast concrete manufacturing yard.

**Performance criteria**

- 4.1 Concrete is drilled in accordance with job specifications and to avoid existing reinforcing where required.
- 4.2 Off cuts and debris are removed in accordance with workplace practice.

**Outcome 5**

Complete work operations.

**Performance criteria**

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

**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 August 2010	31 December 2023
Review	2	28 October 2021	31 December 2023

**Consent and Moderation Requirements (CMR) reference**

0048

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