

Title	Demonstrate knowledge of installing and maintaining gas metering equipment, and interpretation of gas meter data		
Level	4	Credits	3

Purpose	<p>This unit standard is for people who work in the gasfitting industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> – the installation, commissioning, and protection of gas metering equipment, in accordance with relevant legislation, regulations, codes, and standards; – the maintenance of gas metering systems; and – regulatory requirements, and underpinning concepts and principles, as applied to the installation, commissioning, and maintenance of gas metering equipment; and – how to interpret gas meter data.
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Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
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Available grade	Achieved
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Guidance Information

- 1 References

Building Act 2004;
 Gas Act 1992;
 Gas (Safety and Measurement) Regulations 2010;
 Health and Safety at Work Act 2015;
 Plumbers, Gasfitters, and Drainlayers Act 2006;
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 The following standards, which are available at <http://www.standards.govt.nz>:
 AS/NZS 5601.1:2013 *Gas installation*,
 NZS 5258:2003 *Gas distribution networks*,
 NZS 3604:2011 *Timber Framed Buildings*,
 NZS 5807:1980 *Code of practice for industrial identification by colour, wording or other coding*;
 The following clause, and any related compliance documents, which are available at <https://www.building.govt.nz/>:
 New Zealand Building Code Clause G11 Gas as an Energy Source;
 and all subsequent amendments and replacements.
- 2 This unit standard applies to the installation, commissioning, and maintenance of subsidiary gas meters downstream of the point of supply as defined in the Gas (Safety and Measurement) Regulations 2010.

4 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

3 Definitions

Job specifications – instructions (oral, written, graphic) and may include any of the following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.

Maintain may refer to all or any of – repair, upgrade, alter, remove, replace.

Gas metering systems (GMS) – a combination of the meter and any associated valves, filters, regulators, over pressure protection, and connections.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the installation, commissioning, and protection of gas metering systems, in accordance with relevant legislation, regulations, codes, and standards.

Performance criteria

- 1.1 Describe the installation of gas metering systems.
- 1.2 Describe the connection of gas metering systems to connection and termination points.
- 1.3 Explain the testing, purging, and commissioning of gas metering systems.
- 1.4 Describe the requirements for protection of gas metering equipment.
- 1.5 Describe requirements to identify gas metering equipment by label and/or colour in accordance with relevant codes and standards.

Outcome 2

Demonstrate knowledge of the maintenance of gas metering systems.

Performance criteria

- 2.1 Explain the assessment of gas metering system to identify safe and proper operation and suitability for appliance demand in accordance with AS/NZS 5601:2013.
- 2.2 Describe how to identify faults in terms of causes and possible means of rectification.

- 2.3 Explain how to rectify faults in accordance with maintenance requirements and job specifications.

Range must include but is not limited to – replacing meter, using meter bypass.

Outcome 3

Demonstrate knowledge of regulatory requirements, and underpinning concepts and principles, as applied to the installation, commissioning, and maintenance of gas metering equipment.

Performance criteria

- 3.1 Describe applicable sections of legislation, standards, and codes in terms of their application to the installation, testing, purging, commissioning, and maintenance of gas metering systems.

- 3.2 Explain underpinning concepts and principles in terms of their application to the reading and interpretation of gas meter data.

Range correction factors, gas volumes, Charles' law, Boyle's law.

Outcome 4

Demonstrate knowledge of how to interpret gas meter data.

Performance criteria

- 4.1 Explain how to interpret gas meter data.

Range before and after meter readings, applying correction factors for pressure, temperature.

Replacement information	This unit standard replaced unit standard 2132.
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Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	N/A

Consent and Moderation Requirements (CMR) reference	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.