

Title	Remove and install a low capacity gas measurement system in a gas network		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to: describe the storage, handling, and transporting of a low capacity gas measurement system (GMS); demonstrate knowledge of documentation, company procedures, hazards and equipment for removing and installing a GMS; remove and install a low capacity GMS; and complete reporting and documentation.
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Classification	Gas Industry > Gas Measurement
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Available grade	Achieved
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Guidance Information

- 1 This unit standard is intended for, but not limited to, workplace assessment. The range statements relate to enterprise specific equipment, procedures, and processes.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, company procedures and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 3 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of the:
 - Health and Safety at Work Act 2015;
 - Health and Safety in Employment (Pipelines) Regulations 1999;
 - Gas Act 1992;
 - Gas (Safety and Measurement) Regulations 2010;
 - Resource Management Act 1991;
 - Hazardous Substances and New Organisms Act 1996;
 - AS/NZS 4645.1:2018 *Gas distribution networks – Network management*;
 - NZS 5259: 2015 *Gas measurement*;
 - GIP001 *Gas Industry Disconnection and Reconnection Protocol*;
 - and any subsequent amendments and replacements.
- 4 References
 - Australian/New Zealand standards (AS/NZS) may be found at www.standards.govt.nz;
 - Gas Industry Protocols (GIP) may be found by contacting the Gas Association of New Zealand www.gasnz.org.nz;
 - New Zealand standards (NZS) may be found at www.standards.govt.nz.

- 5 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 6 Definitions
Company procedures mean the documented methods for performing work activities, and include health and safety, operational, environmental, and quality management requirements. They may refer to legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.
GMS means gas measurement system.
Low capacity gas measurement system includes filtration, pressure control, pressure protection and meters up to and including 25 cubic metres per hour (G16).
Opso refers to over-pressure shut-off.
Upso refers to under-pressure shut-off.

Outcomes and performance criteria

Outcome 1

Describe the storage, handling, and transporting of a low capacity GMS.

Performance criteria

- 1.1 Storage requirements for GMS are described.
- Range packaging, protection, position, orientation, environment, dust caps.
- 1.2 Handling requirements for GMS are described.
- Range visual inspection, meter identification, packaging, protection, position, orientation, seals, dust caps.
- 1.3 Transportation requirements for GMS are described.
- Range packaging, protection, position, orientation, securing, purging seals, dust caps.

Outcome 2

Demonstrate knowledge of documentation, company procedures, hazards and equipment for removing and installing a GMS.

Performance criteria

2.1 Documentation and company procedures for removing and installing a GMS are located and interpreted according to a specified job.

Range may include – company standard, safe work procedure, operating procedure, maintenance procedure, work instruction, equipment operating manual, job hazard analysis, job risk assessment.

2.2 Documentation and instructions for a specified job are confirmed.

Range may include – job card, site location, meter location, consents, meter install change record, customer liaison.

2.3 Potential safety hazards and controls are described.

Range hazards may include – gas escape, other utilities, confined spaces, working at heights, excavations, electrical voltage; controls may include – signage, barriers, personal protective equipment, safe access and egress, continuity bonds; evidence of four hazards and controls are required.

2.4 Components and function of a low capacity GMS are described.

Range GMS kit components – meter, regulator, filter; venting, non-venting, opso, upso; functions – register gas, working pressure, flow, over-pressure protection, lockup.

2.5 Potential faults associated with incorrect application and operation of equipment and the steps to avoid them are described.

Range faults include – gas leakage, over-pressurisation, inadequate pressure, incorrect GMS location; steps include – exclusion zones, prohibited locations, pressure testing, pressure settings, leak detection.

Outcome 3

Remove and install a low capacity GMS.

Performance criteria

3.1 Specifications are applied to the GMS equipment being installed.

Range compliant meter location, point of discharge, condition of fixture point, capacity, pressure setting.

3.2 Safety and environmental hazards are identified and controlled.

Range hazards may include – gas escape, confined spaces, other utilities, working at heights, excavations, electrical voltage; controls may include – signage, barriers, personal protective equipment, safe access and egress, continuity bonds.

3.3 Equipment and materials for removing and installing GMS are prepared, handled and positioned.

Range tools, materials, documentation, personnel, personal protective equipment.

3.4 GMS is isolated and decommissioned.

3.5 GMS is installed.

Range may include – GMS kit, seals, tags, signage, protection barriers.

Outcome 4

Complete reporting and documentation.

Performance criteria

4.1 Meter install-change records are completed and processed, and information is communicated to internal and external parties as required.

Range may include – special conditions, completion notice, additional work.

Replacement information	This unit standard replaced unit standard 12510 and unit standard 23085.
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Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 August 2017	31 December 2023
Review	2	27 May 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.