

Title	Demonstrate knowledge of high consumption gas appliances and equipment		
Level	4	Credits	8

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 high consumption gas appliances and equipment.</p>
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Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
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Available grade	Achieved
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Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
 Building Act 2004;
 Gas Act 1992;
 Gas (Safety and Measurement) Regulations 2010;
 New Zealand Building Code.

The following standards, which are available at <http://www.standards.govt.nz>:
 AS/NZS 5601.1:2013 *Gas installations – Part 1: General installations*,
 NZS 3604:2011 *Timber-framed buildings*,
 NZS 5262:2003 *Gas appliance safety*.

Any new, amended or replacement referenced standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

- 2 **Definition**
High consumption gas appliances and equipment refers to electronically and/or mechanically controlled gas appliances and equipment generally above 250MJ per hour rated input, and to one-off, or bespoke designs.
- 3 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

4 Range

High consumption gas appliances include but are not limited to – forced draught, induced draught, air blast, nozzle mix, atmospheric pre-aerated, low pressure and high pressure; atmospheric post-aerated.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of high consumption gas appliances and equipment.

Performance criteria

1.1 Identify applications of high consumption gas appliances and equipment.

Range designed for bespoke applications, manufactured high consumption gas appliances, common components.

1.2 Explain the operation of components used in high consumption gas appliances and equipment.

Range safety valves, burners, ignition systems, flue components, pressure control systems, flame failure systems, combustion air supply systems, control systems.

1.3 Explain the sequence of operation of high consumption gas appliances.

1.4 Identify components of high consumption gas appliances using symbols from AS/NZS 5601.1:2013.

Range all valve-train components of a high consumption gas appliance.

1.5 Describe the application of NZS 5262:2003 in relation to high consumption gas appliances.

1.6 Describe the purpose and process of flue gas analysis to establish operational efficiency of high consumption gas appliances.

1.7 Interpret results of flue gas analysis to make adjustments to controls for high consumption gas appliances and their operational efficiency.

Replacement information	This unit standard replaced unit standard 21869.
Planned review date	31 December 2029

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	31 December 2028
Review	2	25 July 2024	N/A

Consent and Moderation Requirements (CMR) reference

0003

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

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.