

Title	Demonstrate knowledge and use of gasfitting tools and testing equipment		
Level	2	Credits	4

Purpose	<p>This unit standard has been designed to be achieved in a gasfitting context.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – select and describe hand tools used for gasfitting projects; – use hand tools for gasfitting projects; – maintain gasfitting hand tools; – select and describe portable power tools used for gasfitting projects; – use portable power tools for work on gasfitting projects; – maintain gasfitting portable power tools; and – demonstrate and explain use of common gasfitting testing equipment.
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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
Health and Safety at Work Act 2015;
Health and Safety at Work Regulations 2016;
and all subsequent amendments and replacements.
- 2 Definitions
Gasfitting environment – any workplace or context where work or activities related to the gasfitting trades sector take place, such as school workshops, training establishments, outdoor areas, and industry placement workplaces.
Gasfitting project – a project undertaken in a gasfitting environment under general supervision, using a range of tools, equipment and materials, and involving standard processes.
Workplace practice – procedures specific to a gasfitting environment, which cover the standard and required practices of that environment.
- 3 Assessment against this unit standard may occur in any gasfitting environment.
- 4 Regarding the performance criteria in Outcome 7, some of these require explanation of, rather than demonstration of, the use of testing equipment. The reason for this is to protect candidates from exposure to risk they may not yet be trained to manage.

Outcomes and performance criteria

Outcome 1

Select and describe hand tools used for gasfitting projects.

Range three different hand tools used for three projects.

Performance criteria

- 1.1 Select hand tools to meet identified job requirements.
- 1.2 Describe use of hand tools in terms of work operations to be completed.
- 1.3 Describe the safe use of each hand tool.
- 1.4 Describe the capabilities and limitations of hand tools in terms of manufacturer instructions for use.

Outcome 2

Use hand tools for gasfitting projects.

Range at least three different hand tools used across three gasfitting projects.

Performance criteria

- 2.1 Use hand tools to undertake work in accordance with job requirements.
- 2.2 Use hand tools in accordance with manufacturer instructions, materials being worked, and work process requirements.
- 2.3 Use hand tools in compliance with workplace health and safety requirements.

Outcome 3

Maintain gasfitting hand tools.

Range at least three different hand tools used across three gasfitting projects.

Performance criteria

- 3.1 Keep hand tools free of rust and dirt, and store and maintain them in accordance with manufacturer instructions and workplace practice.
- 3.2 Report damaged, blunt, or faulty hand tools in accordance with workplace practice.

Outcome 4

Select and describe portable power tools used for gasfitting projects.

Range at least three different portable power tools used across three gasfitting projects.

Performance criteria

- 4.1 Select appropriate portable power tools to meet identified job requirements.
- 4.2 Describe the capabilities and limitations of selected portable power tools in terms of manufacturer instructions for use.
- 4.3 Describe the use of selected portable power tools in terms of work operations to be completed.
- 4.4 Describe the safe use of selected portable power tools in accordance with manufacturer instructions and workplace safety requirements.
- 4.5 Describe methods of safeguarding selected portable power tools in accordance with manufacturer instructions.
- 4.6 Describe items of personal protective equipment required for each portable power tool in terms of work place health and safety requirements.

Outcome 5

Use portable power tools for work on gasfitting projects.

Range three different portable power tools used for gasfitting projects.

Performance criteria

- 5.1 Inspect, set up, and use all electrical cords and connections in accordance with manufacturer instructions, any electrical safety (test/tag) requirements, and workplace practice.
- 5.2 Use portable power tools appropriately to undertake work to meet job requirements.
- 5.3 Use portable power tools and personal protective equipment in accordance with manufacturer instructions for use, materials being worked, and workplace health and safety requirements.

Outcome 6

Maintain gasfitting portable power tools.

Range at least three different portable power tools used for gasfitting projects.

Performance criteria

- 6.1 Demonstrate maintenance procedures in accordance with manufacturer instructions and workplace practice.
- 6.2 Keep portable power tools free of rust and dirt, and store and maintain them in accordance with manufacturer instructions and workplace practice.
- 6.3 Report damaged or faulty portable power tools in accordance with workplace practice.

Outcome 7

Demonstrate and explain use of common gasfitting testing equipment.

Performance criteria

- 7.1 Demonstrate use of water filled manometer.
Range how to read, how to interpret pressure drop.
- 7.2 Demonstrate use of digital manometer.
Range how to read, how to interpret pressure drop, need for re-calibration.
- 7.3 Demonstrate use of flue draft testing manometer.
Range how to read, how to interpret pressure drop, how to interpret pressure rise, need for re-calibration.
- 7.4 Demonstrate use of leak detector solution.
- 7.5 Explain use of electronic gas detector.
Range limitations, need for calibration.
- 7.6 Explain use of flue gas analyser.
Range when is one used, how to interpret simulated readings.
- 7.7 Explain use of carbon monoxide testing equipment.
Range when is one used, how to interpret simulated readings.
- 7.8 Explain use of mercury, digital, and infrared thermometer.
Range when is one used, how to interpret simulated readings.
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Replacement information	This unit standard replaced unit standard 2114 and unit standard 2115.
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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.