

Title	Demonstrate knowledge of the components used in heating, ventilating, and air conditioning systems		
Level	3	Credits	8

Purpose	<p>This unit standard is intended primarily for use in the training of personnel in the heating, ventilating, and air conditioning (HVAC) industry and covers principles of HVAC components and their application.</p> <p>People credited with this unit standard are able to demonstrate knowledge of the components used in HVAC systems and seismic restraints on HVAC system components in accordance with NZS 4219.</p>
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Classification	Mechanical Engineering > Heating, Ventilating, and Air Conditioning
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Available grade	Achieved
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Guidance Information

- 1 Unit 26335, *Demonstrate introductory knowledge of heating, ventilating, and air conditioning* is recommended for entry into this unit standard.
- 2 References and legislation
NZS 4219:2009, Seismic performance of engineering systems in buildings.
- 3 Definition
Specifications refer to technical standards, documented operating and maintenance procedures or instructions for the system, installation drawings, schematics, manufacturers' data, installation instructions, installation programme schedules, material schedules, and site instructions.
- 4 Range
Examples of components – cooling towers; air handling units; cooling and heating coils; fans; furnaces; gas, electric, and oil-fired water and steam boilers; pumps; dampers; filters; compressors; condensers; chillers; controllers; sensors; diffusers; evaporators; valves; meters; flues; chimneys; grilles; air drives; fan coil units.
All component diagrams should be supplied.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the components used in typical HVAC systems.

Range a minimum of 13 different components is required.

Performance criteria

- 1.1 The purpose of the components in HVAC systems are described in terms of the input and output parameters in accordance with specifications.
- 1.2 The internal construction and operating principles of the components are described.

Outcome 2

Demonstrate knowledge of seismic restraints on HVAC system components in accordance with NZS 4219.

Performance criteria

- 2.1 The purpose and principles of the seismic restraints for components in HVAC systems are described.
- Range a minimum of three components – ducting and two other components is required.
- 2.2 The different types of seismic restraints available are described.

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	16 July 2010	31 December 2022
Review	2	26 October 2017	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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 Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.