

Title	Prepare to test, and inspect and test, water supply backflow prevention devices		
Level	4	Credits	4

Purpose	<p>This unit standard is for people who work in the plumbing or water industries.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – prepare to test water supply backflow prevention devices; – inspect and test water supply backflow prevention devices; and – report results of water supply backflow prevention device testing.
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Classification	Plumbing, Gasfitting and Drainlaying > Plumbing
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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;
 New Zealand Building Code (Building Regulations 1992 – Schedule 1);
 Health and Safety at Work Act 2015;
 Local Government Act 2002;
 Water Services Act 2021.

The following standards, which are available at <http://www.standards.govt.nz>:
 AS/NZS 2845.1:2022 *Water Supply – Backflow prevention devices, Part 1: Materials, design and performance requirements*, or alternative relevant ASSE (American Society of Sanitary Engineers) standards,
 AS/NZS 2845.3: 2020 *Field testing and maintenance of testable device*
 AS/NZS 3500.1:2021 *Plumbing and Drainage – Part 1: Water services*.

The following clauses, and any related compliance documents, which are available at <https://www.building.govt.nz/>:
 New Zealand Building Code, Clause G10 Piped Services,
 New Zealand Building Code Clause G12 Water Supplies.

The following codes, available from New Zealand Water <https://www.waternz.org.nz>:
Boundary Backflow Prevention for Drinking Water Suppliers Code of Practice, 2019.
 New Zealand Water and Wastes Association, *NZ Backflow testing standard 2019 - Field testing of backflow prevention devices and verification of air gaps*.

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 Definitions

IANZ refers to International Accreditation New Zealand.

Other services providers – a person or entity who provides building services for a premises.

3 Assessment information

All testing is to be completed in accordance with legislation, regulations, New Zealand industry standards, and manufacturer's instructions.

Outcomes and performance criteria

Outcome 1

Prepare to test water supply backflow prevention devices.

Performance criteria

- 1.1 Identify requirements relating to accessing water supply, and meet requirements prior to testing.

Range may include but is not limited to – permission to enter, notification to other service providers, customer water supply continuity requirements.

- 1.2 Complete documentation for access in accordance with health and safety requirements.

Range may include but is not limited to – toolbox talks, site specific safety plan, job safety analysis, task analysis.

- 1.3 Ensure testing equipment has a current IANZ endorsed pressure calibration certificate.

- 1.4 Prepare testing equipment in accordance with test requirements.

Range includes but is not limited to – test kit, test nipples, appropriate tools, safety equipment.

Outcome 2

Inspect and test water supply backflow prevention devices.

Performance criteria

2.1 Inspect backflow prevention devices to determine integrity.

Range atmospheric vacuum break (AVB), pressure vacuum breaker (PVB), spill proof vacuum breaker (SPVB), reduced pressure zone device (RPZD), reduced pressure detector assembly (RPDA), double check valve (DCV), double check detector assembly (DCDA), dual check valve with atmospheric port (DCAP).

2.2 Test backflow prevention devices to determine integrity.

Range pressure vacuum breaker (PVB), spill proof vacuum breaker (SPVB), double check valve, reduced pressure zone device (RPZD).

2.3 Describe test procedure outcome requirements for backflow prevention devices.

Range atmospheric vacuum breaker (AVB), double check detector assembly (DCDA), hose connection vacuum breaker (HCVB).

2.4 Identify causes of faults and possible means of rectification.

Outcome 3

Report results of water supply backflow prevention device testing.

Performance criteria

3.1 Complete required test reports.

3.2 Describe how reports are submitted.

3.3 Describe how reports and associated documents are filed.

Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 October 2007	31 December 2022
Review	2	23 November 2017	31 December 2028
Review	3	30 May 2024	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 Waihangā Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.