

AS/NZS 3500.1:2025



Australian/New Zealand Standard™

Plumbing and drainage

Part 1: Water services



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AS/NZS 3500.1:2025

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- Association of Hydraulic Services Consultants Australia
- Association of Hydraulic Services Consultants Australia (New Zealand)
- Australian Building Codes Board
- Australian Gas Association
- Australian Industry Group
- Australian Stainless Steel Development Association
- Australian Steel Institute
- Backflow Prevention Association of Australia
- Chartered Institution of Building Services Engineers ANZ
- Engineers Australia
- Hydraulic Consultants Association Australasia
- International Copper Association Australia
- Master Plumbers Australia and New Zealand
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- Ministry of Business, Innovation and Employment (MBIE)
- Plastics Industry Pipe Association of Australia
- Plastics New Zealand
- Plumbers, Gasfitters and Drainlayers Board
- Plumbing Distributors Association of New Zealand
- Plumbing Products Industry Group
- The Institute of Plumbing Australia
- Water New Zealand
- Water Services Association of Australia

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Plumbing and drainage

Part 1: Water services

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How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

- (a) "should" means that something is recommended.
- (b) "may" means that something is permitted.
- (c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

- (i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.
- (ii) The Scope states what the Standard is about, what it covers and what it does not cover.
- (iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.
- (iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

- (1) A normative appendix sets additional requirements that need to be conformed to.
- (2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply
- (3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS-014, Plumbing and Drainage, to supersede AS/NZS 3500.1:2021.

The objective of this document is to provide installers with deemed to satisfy solutions to comply with —

- (a) the National Construction Code (NCC) Volume Three, Plumbing Code of Australia (PCA); and
- (b) the New Zealand Building Code (NZBC), Clause G12 Water Supplies.

A list of all parts in the AS/NZS 3500 series for plumbing and drainage can be found in the Standards Australia and Standards New Zealand online catalogues.

The major changes in this revision are as follows:

- (i) New requirements specifying the use of certain classes of flexible hose assemblies in cold water applications, see [Clause 2.3](#).
- (ii) New requirements for the selection of polyethylene pipes installed in the northern Australian regions identified in [Appendix I](#), see [Clause 2.5.3](#).
- (iii) Minor changes to the backflow prevention provisions for atmospheric vacuum breakers, see [Clauses 4.4](#) and [4.6](#).
- (iv) New requirements for the connection of miscellaneous devices and appliances to the drinking water supply, see [Clause 5.20](#).
- (v) New requirement for an isolating valve to be installed immediately before each flexible hose assembly that is connected to a mixer valve, tap outlet or cistern, see [Clause 5.4.2](#).
- (vi) Updated requirements for rainwater tanks and rainwater supply systems in New Zealand, see [Section 16](#).

Notes or footnotes to tables or figures that are expressed in mandatory terms are deemed to be requirements of this document.

Notes to clauses in this document are informative only and do not include requirements.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

This document includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by “C” preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the document.

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NOTES

Australian/New Zealand Standard

Plumbing and drainage

Part 1: Water services

Section 1 Scope and general

1.1 Scope

This document specifies requirements for the design, installation and commissioning of cold water services from a point of connection to the points of discharge and non-drinking water services from a point of connection to the points of discharge.

This document applies to new installations as well as alterations, additions and repairs to existing installations.

NOTE 1 Refer to AS/NZS 3500.4 for requirements for heated water services.

NOTE 2 See [Figure 14.2](#) for typical installation of a property service and water service.

1.2 Application

1.2.1 Australia

This document shall be read in conjunction with the National Construction Code (NCC), primarily Volume Three, the Plumbing Code of Australia (PCA).

If alternative Australian or New Zealand Standards are referenced, the Australian Standard shall be used for Australia.

1.2.2 New Zealand

This document shall be read in conjunction with the New Zealand Building Code. This document may be used to demonstrate compliance with the New Zealand Building Code, Clause G12 Water Supplies.

If alternative New Zealand Standards are referenced, the New Zealand Standard shall be used for New Zealand only.

1.3 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1345, *Identification of the contents of pipes, conduits and ducts*

AS 1397, *Continuous hot-dip metallic coated steel sheet and strip — Coatings of zinc and zinc alloyed with aluminium and magnesium*

AS 1432, *Copper tubes for plumbing, gasfitting and drainage applications*

AS 2419.1, *Fire hydrant installations, Part 1: System design, installation and commissioning*

AS 2845.2, *Water supply — Backflow prevention devices, Part 2: Registered air gaps and registered break tanks*

AS 3688, *Water supply and gas systems — Metallic fittings and end connectors*