

AS/NZS 3500.1:2021



Australian/New Zealand Standard™

Plumbing and drainage

Part 1: Water services



AS/NZS 3500.1:2021

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- Australian Building Codes Board
- Australian Industry Group
- Australian Stainless Steel Development Association
- Backflow Prevention Association of Australia
- Engineers Australia
- Hydraulic Consultants Association Australasia
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- Master Plumbers, Gasfitters and Drainlayers New Zealand
- Ministry of Business, Innovation and Employment (NZ)
- Plastics Industry Pipe Association of Australia
- Plastics New Zealand
- Plumbers, Gasfitters and Drainlayers Board (NZ)
- Plumbing Distributors Association of New Zealand
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- The Institute of Plumbing Australia
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Part 1: Water services

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Preface

This Standard was prepared by the joint Standards Australia/Standards New Zealand Committee WS-014, Plumbing and Drainage, to supersede AS/NZS 3500.1:2018.

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) Conformance to individual product standards has been removed. All products used in plumbing and drainage systems in Australia need to comply with the PCA and, in New Zealand, the NZBC, see [Appendix B](#) for further information. Removal of specific product standard conformance requirements avoids inconsistencies and contradictions between this document and the PCA and NZBC.
- (ii) Definitions have been relocated to AS/NZS 3500.0. This was done for consistency across the series.
- (iii) A number of the backflow prevention provisions, which were considered matters of public policy, have been elevated to PCA Part B5 Cross Connection Control. To remove duplication between PCA 2019 and AS/NZS 3500.1, the provisions relating to cross-connection hazards and the corresponding hazard rating have been removed. This also avoids inconsistencies between the cross-connection hazards and the corresponding hazard rating in this document and in NZBC Acceptable Solution G12/AS1. Consequently, [Appendix F](#) has been deleted, and all remaining backflow provisions have been consolidated in [Section 4](#).
- (iv) Jointing requirements for plastics pipes have been clarified and expanded to allow different methods.
- (v) Changes to the requirements for the marking of pipes in commercial buildings to assist in the better identification of pipework and avoid cross connections.
- (vi) Changes to the requirements for the installation of water services located in metal-framed walls to bring the provisions in line with those of the National Association of Steel-framed Housing.
- (vii) [Clause 5.4](#) relating to bushfire zones has been removed in anticipation of requirements relating to bushfire prone areas being elevated to the PCA.
- (viii) [Section 12](#) relating to special connections for specific fixtures has been removed. With backflow requirements being moved to the PCA, listing these few examples would be inappropriate. The WaterMark specifications for the product would identify what backflow devices were required.

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.

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.

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 for non-drinking water from a point of connection to the points of discharge. It applies to new installations as well as alterations, additions and repairs to existing installations.

Illustrations used in this Standard are diagrammatic only and have been chosen without prejudice.

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).

Where alternative Australian or New Zealand Standards are referenced (e.g. AS 1345) 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.

Where alternative New Zealand Standards are referenced (e.g. NZS 5807), the New Zealand Standard shall be used for New Zealand.

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

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

AS 4809, *Copper pipe and fittings — Installation and commissioning*

AS/NZS 2032, *Installation of PVC pipe systems*

AS/NZS 2033, *Installation of polyethylene pipe systems*

AS/NZS 2648.1, *Underground marking tape, Part 1: Non-detectable tape*