

Australian/New Zealand Standard™

**Plumbing and drainage**

**Part 4: Heated water services**



## **AS/NZS 3500.4:2018**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WS-014-04, Plumbing and Drainage. It was approved on behalf of the Council of Standards Australia on 14 June 2018 and by the New Zealand Standards Approval Board on 2 May 2018.

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The following are represented on Committee WS-014-04:

Association of Hydraulic Services Consultants Australia  
Australian Building Codes Board  
Australian Industry Group  
Australian Stainless Steel Development Association  
International Copper Association of Australia  
Master Plumbers Australia  
Master Plumbers, Gasfitters and Drainlayers New Zealand  
Plastics Industry Pipe Association of Australia  
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Plumbing Products Industry Group  
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# Australian/New Zealand Standard™

## Plumbing and drainage

### Part 4: Heated 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 3500.4:2015.

*This Standard incorporates Amendment No. 1 (June 2018). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

The objective of this Standard is to provide 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 (Clause G12 Water Supplies).

A1

Amendment No. 1 includes an option for installation of solar collectors, which is reliant on certificates issued by a third party (the Clean Energy Regulator). The use of third party certificates has been **specifically** approved by Standards Australia and the Australian Building Codes Board **for this Standard**.

This Standard is part of a series of Standards for plumbing and drainage, as follows:

### AS/NZS

- 3500 Plumbing and drainage
- 3500.0 Part 0: Glossary of terms
- 3500.1 Part 1: Water services
- 3500.2 Part 2: Sanitary plumbing and drainage
- 3500.3 Part 3: Stormwater drainage
- 3500.4 Part 4: Heated water services (this Standard)

The objective of this revision is to update requirements relating to plastics pipes in direct sunlight, circulatory heated water, thermostatically controlled taps and clarification for jointing methods. Some materials and products used in a heated water service are provided with instructions for installation and use. While not a requirement of this Standard, or acceptable as an alternative to the requirements of this Standard, conformance with these instructions generally ensures that—

- (i) the material or product is fit for the application;
- (ii) the performance of the system is not degraded;
- (iii) the durability of the material or product is not impaired; and
- (iv) the manufacturer's warranty remains valid.

### PROVISION FOR REVISION

This Standard necessarily deals with existing conditions, but is not intended to discourage innovation or to exclude materials, equipment and methods that may be developed in the future. Revisions will be made from time to time in view of such developments and amendments to this edition will be made only when absolutely necessary.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard.

Notes used in this Standard are of an advisory nature only and are used to give explanation or guidance to the user on recommended considerations or technical procedures, or to provide an informative cross-reference to other documents or publications. Notes to clauses in this Standard do not form a mandatory part for conformance to this Standard.

*This Standard includes 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 Standard.*

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**STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND****Australian/New Zealand Standard  
Plumbing and drainage****Part 4: Heated water services****SECTION 1 SCOPE AND GENERAL****1.1 SCOPE**

This Standard sets out requirements for the design, installation and commissioning of heated water services using drinking water or rainwater or a combination thereof. It includes aspects of the installation from, and including, the valve(s) on the cold water inlet to any cold water storage tank or water heater and the downstream fixtures and fittings. It applies to new installations as well as alterations, additions and repairs to existing installations.

This Standard applies to the installation of the following types of water heaters:

- (a) Storage water heaters with a rated delivery or capacity of up to 700 L per heater.
- (b) Heat exchange water heaters.

NOTE: Electric heat exchange water heaters are defined in AS 1361. Other fuel sources are covered in the applicable Standards, e.g. AS/NZS 2712, AS/NZS 5263.1.2.

- (c) Instantaneous (continuous flow) water heaters.

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

NOTE: Appendix M provides guidelines for the operation and maintenance of heated water services.

**1.2 APPLICATION****1.2.1 Australia**

This Standard shall be read in conjunction with the relevant mandatory requirements for heated water services under the National Construction Code (NCC), Volume Three, Plumbing Code of Australia (PCA) in Australia.

Where alternative Australian or New Zealand Standards are referenced (e.g. AS 1345), the Australian Standard shall be used for Australia only.

**1.2.2 New Zealand**

This Standard shall be read in conjunction with the New Zealand Building Code in New Zealand. This Standard may be used for compliance with the New Zealand Building Code, Paragraph G12, Water Supplies.

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

**1.3 NORMATIVE REFERENCES**

The following are the normative documents referenced in this Standard.

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