

Australian/New Zealand Standard™

**Plumbing and drainage**

**Part 4: Heated water services**



## **AS/NZS 3500.4:2015**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WS-014, Plumbing and Drainage. It was approved on behalf of the Council of Standards Australia on 10 November 2015 and on behalf of the Council of Standards New Zealand on 13 August 2015.

This Standard was published on 14 December 2015.

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The following are represented on Committee WS-014:

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*This Standard was issued in draft form for comment as DR AS/NZS 3500.4:2014.*

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# Australian/New Zealand Standard™

## Plumbing and drainage

### Part 4: Heated water services

First published as AS CA51—1968.  
Revised and redesignated as AS 1529—1974.  
AS 2002 first published 1979.  
Third edition 1987.  
AS 1529—1974 and AS 2002—1987 revised, amalgamated and redesignated AS 3500.4—1990.  
Second edition 1994.  
AS 3500.4—1990 jointly revised and redesignated AS/NZS 3500.4.2:1997.  
AS/NZS 3500.4.2:1997 jointly revised and redesignated as AS/NZS 3500.4:2003.  
Second edition 2015.  
Reissued incorporating Amendment No. 1 (September 2017).

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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 3500.4:2003.

*This Standard incorporates Amendment No. 1 (September 2017). 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 solutions to comply with—

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

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)
3500.5	Part 5: Housing installations

The revision includes following changes:

- (i) Clarification of the requirements for the installation of solar water heaters.
- (ii) Meet the ABCB protocol for the development of NCC Referenced Documents.

This revision includes alignment with the requirements of the Plumbing Code of Australia and changes to the velocity requirements for circulatory heated water systems.

Some materials and products used in a heated water service are provided with instructions for installation and use. Whilst not a requirement of this Standard, or acceptable as an alternative to the requirements of this Standard, compliance with these instructions generally ensures that—

- (A) the material or product is fit for the application;
- (B) the performance of the system is not degraded;
- (C) the durability of the material or product is not impaired; and
- (D) 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 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 compliance with 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 4552).

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

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

NOTE: Appendix N 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 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.

###### 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.

##### 1.3 NORMATIVE REFERENCES

The normative documents referenced in this Standard are listed in Appendix A.

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