

Australian/New Zealand Standard™

Plumbing and drainage

Part 4: Heated water services



AS/NZS 3500.4:2003

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WS-014, National Plumbing and Drainage. It was approved on behalf of the Council of Standards Australia on 19 August 2003 and on behalf of the Council of Standards New Zealand on 22 August 2003.

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The following are represented on Committee WS-014:

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- Association of Hydraulic Services Consultants Australia
- Australian Building Codes Board
- Australian Industry Group
- Brisbane Water
- Building Industry Authority NZ
- Building Officials Institute of New Zealand
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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, National Plumbing and Drainage Code, to supersede AS/NZS 3500.4.2:1997.

This Standard incorporates Amendment No. 1 (November 2005) and Amendment No. 2 (December 2010). 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 installers with solutions to comply with—

- (a) the Plumbing Code of Australia (PCA), and
- (b) the New Zealand Building Code (Clause G12 Water Supplies).

This revision of this Standard has been developed to complement the Plumbing Code of Australia and incorporates amendments and additions arising from industry requirements and the energy efficiency provisions.

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: Domestic installations

This revision includes following changes:

- (a) Alignment with the requirements of the Plumbing Code of Australia.
- (b) A revision of the materials used in plumbing.
- (c) Incorporation of Amendment 1 on energy efficiency.
- (d) Energy region maps for each state of Australia.
- (e) PL/1 rulings 2002 numbers 1 to 35.

A2 | This Standard is to be read in conjunction with the Plumbing Code of Australia (PCA) in Australia and the NZ Building Code in New Zealand.

A1 | The energy efficiency requirements contained in this edition are, in small part, Australia's response to concerns and responsibilities to global warming. It is one step in the commitment towards greenhouse gas reduction for Australia in response to the Kyoto Agreement.

Where alternative Australian or New Zealand standards are referenced (e.g., AS 1345 or NZS 5807 as appropriate) the Australian Standard shall be used for Australia and the New Zealand Standard shall be used for New Zealand.

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.

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.

A2

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

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

A2 | This Standard sets out the 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 (see Clause 5.2.1 or Clause 6.3.1):

- (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, and other fuel sources are covered in the applicable standards e.g., AS/NZS 2712, AS 4552.

- A2 | (c) Instantaneous (continuous flow) water heaters.
- (d) All authorized water heaters.

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

1.2 APPLICATION

1.2.1 Plumbing Code of Australia reference

A1 | This Standard is referenced in Plumbing Code of Australia.

1.2.2 Building Code of Australia

This Standard may be used as a means of demonstrating compliance with the Requirement of Clause J7.2 of Volume One and Part F3.12.5 of Housing provisions of the Building Code of Australia.

This Standard will be referenced in the Building Code of Australia by way of BCA 2006 to be adopted on 1 May 2006.

1.2.3 New Zealand Building Code reference

This Standard may be used for compliance with the New Zealand Building Code, Clause G12, Water Supplies.

1.3 NORMATIVE REFERENCES

A2 | The normative documents referenced in this Standard are listed in Appendix A.

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