

Australian Standard[®]

**National Plumbing and Drainage
Code**

Part 4: Hot water supply systems

This Australian Standard was prepared by Committee WS/14, National Plumbing and Drainage Code. It was approved on behalf of the Council of Standards Australia on 25 July 1994 and published on 19 September 1994.

The following interests are represented on Committee WS/14:

Association of Hydraulic Services Consultants Australia
AUSTAP
Australian Plumbing and Mechanical Contractors Association
Brisbane City Council
Department of Environment and Planning, Tas.
Department of Housing Local Government Planning, Qld
Department of Lands, Housing and Local Government, N.T.
Electricity Supply Association of Australia
Engineering and Water Supply Department, S.A.
Gas Appliance Manufacturers Association of Australia
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PREFACE

This Standard was prepared by the Joint Australia/New Zealand Standards Committee WS/14 on Hot Water Systems to supersede AS 3500.4—1990.

Noise levels have not been included as progress on a unified method of analysis has not been agreed upon and requires further research.

The primary purpose of this Standard is to provide a uniformity of installation practices throughout Australia and to enable the co-ordination of requirements of the various statutory bodies responsible for the installation of water heaters and hot water reticulation. Account has been taken of current regulations stipulated by water, gas and electricity supply authorities and local government bodies in Australia.

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.

This Standard includes various industrial and editorial revisions according to Standards Australia requirements.

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FOREWORD

The principal requirement of an installation for the supply of hot water is that water at the required temperature and in sufficient quantity is available at the draw-off points with the minimum of delay.

Full collaboration is essential at the planning stage between the architect or owner, the builder, supply undertakings or fuel suppliers, manufacturers, contractors and statutory authorities.

Local information should be obtained regarding energy supply and condition of the water supply, e.g. the scale-forming and corrosive properties of the water.

The location of the water heater should be such as to provide adequate space for both installation and maintenance, and the unit should be suitably sited taking into account the need to keep hot water piping as short as practicable in relation to frequently used draw-off points, and for planned pipe runs, fuelling and fuel storage requirements.

Attention is drawn to the relevant statutory requirements with respect to—

- (a) the qualifications of persons permitted by law to do plumbing and drainage work;
- (b) the administrative procedures to be followed by persons performing plumbing and drainage work; and
- (c) the authorization of certain materials, products, fixtures, fittings and other components for connection to public water supply or sewerage systems.

STANDARDS AUSTRALIA

Australian Standard

National Plumbing and Drainage Code

Part 4: Hot water supply systems

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out the requirements for the installation of piping and apparatus for single and multiple domestic-type water heaters, from and including the isolating valve on the cold water inlet and the reticulation of hot water.

This Standard applies to the installation of the following types of water heaters which comply with Clause 4.2.1 or Clause 5.3.1:

- (a) Electric storage water heaters with a rated delivery of up to 630 L per heater.
- (b) Other types of storage water heaters with a capacity of up to 700 L per heater.
- (c) Solar water heaters with a capacity of up to 700 L per heater.
- (d) Heat exchange water heaters in accordance with AS 1361.
- (e) Instantaneous water heaters.
- (f) Other water heaters authorized by the relevant regulatory authority.

NOTE: The reference to AS 1361 in Item (d) is made to positively identify the particular type of heat exchange water heater to which this Standard applies.

This Standard applies to hot water systems using potable water only and does not apply to space heating or swimming pool heating.

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

1.2 APPLICATION

1.2.1 General This Standard applies to both new installations and alterations or additions to existing installations.

The Standard shall be read in conjunction with the regulations and any special requirements of the relevant statutory authority.

1.2.2 New materials and methods Alternative materials or methods may be used if proven to be equal to or better than those specifically referred to herein.

1.2.3 Unusual installations Certain installations or portions of installation which are unusual due to particular circumstances or methods, may not be covered in detail by this Standard.

Details of such installations shall be submitted to the relevant Authority who, having regard to all the circumstances, may authorize the installation.

1.3 REFERENCED DOCUMENTS The documents referred to in this Standard are listed in the appendices, as follows:

- (a) *Appendix A—'Materials and products'*.
- (b) *Appendix B—'Installation'*.