

Australian Standard[®]

**Domestic solid fuel burning
appliances—Installation**

This Australian Standard was prepared by Committee CS/62, Solid Fuel Burning Appliances. It was approved on behalf of the Council of Standards Australia on 13 November 1989 and published on 19 January 1990.

The following interests are represented on Committee CS/62:

AEC Advisory Committee on Air Quality
Australian Assembly of Fire Authorities
Australian Chamber of Manufactures
Australian Consumers Association
Australian Federation of Consumer Organizations
Australian Fire Protection Association
Australian Mineral Development Laboratories
Australian Retailers Association
Australian Uniform Building Regulations Coordinating Council
Building Surveyors Institute of New South Wales
Confederation of Australian Industry
Consumer Affairs, New South Wales
Consumer Affairs, Tasmania
Department of Mines and Energy, South Australia
Department of Public and Consumer Affairs, South Australia
Fireplace Industry Association of Australia
Insurance Council of Australia Ltd
Manufacturers of Solid Fuel Heating Appliances
Metal Trades Industry Association of Australia
Ministry of Consumer Affairs, Victoria
Office of Business and Consumer Affairs, New South Wales
University of Tasmania

Additional interests participating in preparation of Standard:

New Zealand manufacturers of solid fuel burning appliances

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appliances—Installation**

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PREFACE

This Standard was prepared by the Standards Australia Committee on Solid fuel burning appliances in response to requests from consumers, local government and testing agencies for revised specifications in the areas of clearances, hearth materials, and installation instructions.

The major changes from the last edition are as follows:

- (a) The non-tested installation clearances have been reviewed and the following changes made:
 - (i) An additional clearance factor is included for use when calculating the distance to a heat sensitive surface from a flue pipe with a single, flue mounted heat shield.
 - (ii) an increase has been made in the clearance factor for flue pipes fitted with single and double unperforated casings.
 - (iii) A new requirement is included such that, where existing clearances from the flue pipe to heat sensitive surfaces are to be maintained, the ventilation gap area in single unperforated flue casings to be increased.
 - (iv) An increase has been made in the minimum clearance between outer flue casings and heat sensitive surfaces.
- (b) Where ceiling/wall/roof penetration clearances may become reduced due to detritus build up between building materials and the flue pipe (particularly where these are out of sight and unable to be routinely inspected), this edition requires that appropriate guards be installed as a preventive measure.
- (c) Following some concern about the corrosion of metal hearth components, this edition requires that, where metal is used, it be corrosion resistant.
- (d) Section 5 has been expanded to include an advisory requirement for the provision of appliance and flue installation instructions for the benefit both of the installer and the consumer.

The supply of installation instructions is made advisory, but where they are supplied, their contents are required to comply with this Standard. In this way, the Regulatory Authority will retain the option of indicating that the supply of instructions is necessary when approval applications are made.

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STANDARDS AUSTRALIA

Australian Standard

Domestic solid fuel burning appliances - Installation

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies requirements for the installation of domestic solid fuel burning appliances which can be fully assembled prior to being transported to the installation site. It does not cover the installation of appliances which must be assembled *in situ*, or appliances with electrically-driven fuel stoker systems.

1.2 APPLICATION. This Standard is applicable to the installation of domestic solid fuel burning appliances, excluding warm air distribution ducting, in the following categories:

- (a) Space heaters.
- (b) Cooking appliances.
- (c) Water-heating appliances.
- (d) Central-heating furnaces.
- (e) Any combination of the appliance categories shown in (a) to (d) above.

Results of a test on one sample or prototype appliance or accessory shall be applicable to all other appliances or accessories of the same construction.

1.3 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS

1529 Code of practice for installation of household type hot water supply systems

2285 Guarding of domestic heating appliances for protection against fire and burn injury

2286 Secondary guards for domestic heating appliances

3000 SAA Wiring Rules

3100 Approval and test specification—Definitions and general requirements for electrical materials and equipment

ASTM

C 411 Test method for hot-surface performance of high-temperature thermal insulation

C 518 Test method for steady-state heat flux measurements and thermal transmission properties by means of the heat flow meter

D 1037 Method for evaluating the properties of wood-base fiber and particle panel materials

1.4 DEFINITIONS. For the purpose of this Standard, the following definitions apply:

1.4.1 Approved—approved by the appropriate Regulatory Authority.

1.4.2 Chimney—a construction of concrete or masonry, which incorporates a flue.

1.4.3 Clearance—the shortest distance between specific parts, surfaces, or objects.

1.4.4 Firebox—that part of the appliance in which combustion may take place.

1.4.5 Fireplace insert appliance—an appliance designed to be installed within a concrete or masonry fireplace.

1.4.6 Flue—a passage for conveying products of combustion from within an appliance to outside atmosphere.

1.4.7 Flue guard—a device for preventing accidental contact with a flue pipe.

1.4.8 Flue pipe—a pipe which incorporates a flue or part of a flue.

1.4.9 Flue-pipe casing—one or more layers of pipe which surround a flue pipe.

1.4.10 Free-standing appliance—an appliance designed to be installed as a solid fuel burning appliance in all areas except in a concrete or masonry fireplace or recessed into a building structure or fitting.

1.4.11 Fuel chamber—that part of the appliance which is intended to contain the fuel.

1.4.12 Hearth—a construction intended to protect heat-sensitive floors or floor surfaces from heat generated by the appliance, spilt ash, or embers.

1.4.13 Heat-sensitive material—a material that does not comply with the requirements for heat-resistant material.

1.4.14 Heat shield—a device which forms a barrier which limits the radiant or convective heat transfer.

1.4.15 Installer—the person or organization that contracts or agrees, whether or not incidental to the supply of equipment, to carry out an installation or to modify an existing installation.

1.4.16 Regulatory Authority—the Authority having statutory control in respect of any work carried out in connection or association with a domestic solid fuel burning appliance installation in a particular locality.

1.4.17 Shall—the word ‘shall’ is to be understood as mandatory.

1.4.18 Should—the word ‘should’ is to be understood as non-mandatory, advisory or recommended.

1.4.19 Thermal resistance—for a particular material: the temperature difference divided by the density of heat flow rate. (Unit and symbol: square metre kelvin per watt ($\text{m}^2\cdot\text{K}/\text{W}$). Quantity symbol: R .)

NOTE: Although the term ‘thermal resistance’ and the symbol R are widely used in Australian industry, the International Organization for Standardization uses the names ‘thermal insulation’ and ‘coefficient of thermal insulation’ and the symbol M for this quantity.



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