

Australian/New Zealand Standard™

Gas appliances

Part 0: General requirements



AS/NZS 5263.0:2017

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee AG-001, Gas Appliances. It was approved on behalf of the Council of Standards Australia on 3 March 2017 and by the New Zealand Standards Approval Board on 7 March 2017.

This Standard was published on 24 April 2017.

The following are represented on Committee AG-001:

Association of Accredited Certification Bodies
Australian Gas Association
Consumer Electronics Suppliers Association
Consumers Federation of Australia
Energy Networks Association
Gas Appliance Manufacturers Association of Australia
Gas Association of New Zealand
Gas Energy Australia
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This Standard was issued in draft form for comment as DR AS/NZS 5263.0:2016.

Australian/New Zealand Standard™

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Part 0: General requirements

Originated in Australia as AS 5263.0—2013.
Jointly revised and designated as AS/NZS 5263.0:2017.
Reissued incorporating Amendment No. 1 (September 2020).

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ISBN 978 1 76035 724 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AG-001, Gas Appliances to supersede AS 5263.0—2013.

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If a Standard is referenced in legislation, the legislative instrument or regulation specifies when the Standard or Amendment comes into effect. Regulatory Authorities have indicated 12 months, following the date of publication, as an appropriate transition period for this Amendment. The original Standard, AS/NZS 5263.0:2017 (i.e. prior to amendment), will remain current for a period of 18 months following the date of publication of the amendment to ensure that where applicable both the Type 21 and Type 27 appliance connection meet the requirements of the relevant Standard.

This Standard incorporates Amendment No. 1 (September 2020). 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 the AS/NZS 5263 series of Standards is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with uniform minimum requirements for the safety, performance and use of gas appliances.

This Standard should not be regarded as a design specification or as an instruction manual.

Consideration has been given to—

- (a) continuity of satisfactory operation;
- (b) the prevention of fire hazards, and explosions;
- (c) the prevention of injury to persons or property;
- (d) gas rules and regulations now in force; and
- (e) relevant International Standards.

The AS/NZS 5263 series is intended to supersede the following gas appliance Standards:

AS 4551—2008	<i>Domestic gas cooking appliances</i> (superseded by AS/NZS 5263.1.1:2016)
AS 4552—2008	<i>Gas fired water heaters for hot water supply and/or central heating</i> (superseded by AS/NZS 5263.1.2:2016)
AS 4553—2008	<i>Gas space heating appliances</i> (superseded by AS/NZS 5263.1.3:2016)
AS 4557—2004	<i>Domestic outdoor gas barbecues</i> (superseded by AS/NZS 5263.1.7:2016)
AS 2658—2008	<i>LP Gas—Portable and mobile appliances</i>
AS 4554—2005	<i>Gas laundry dryers</i>
AS 4555/ AG 105—2002	<i>Domestic gas refrigerators</i>
AS 4556—2011	<i>Indirect gas-fired ducted air heaters</i>
AS 4558—2011	<i>Decorative gas log and other fuel effect appliances</i>
AS 4560—2004	<i>Gas pool heaters</i>
AS 4563—2004	<i>Commercial catering gas equipment</i>
AS 4565—2004	<i>Radiant gas heaters for outdoor and non-residential indoor use</i>

AS 4643—2007 *Overhead radiant tube gas heaters*

AS 5262—2011 *LP Gas mobile industrial direct fired air heaters*

AS/NZS 5263.0 contains minimum requirements for safety, performance and use, common to many gas appliances.

An appliance specific part (Part 1.X) of AS/NZS 5263 series, may supplement or modify the corresponding clauses of Part 0. The numbering of clauses in Part 1.X is consistent with the numbering in Part 0 for related requirements.

Thus, for example, the combination of AS/NZS 5263.1.1 and AS/NZS 5263.0 specifies the requirements for domestic gas cooking appliances and supersedes AS 4551—2008.

AS/NZS 5601 series of Standards provides essential requirements, performance based requirements and means of compliance for gas installations. Any reference to ‘AS/NZS 5601’ in the AS/NZS 5263 series of Standards should be considered as reference to the appropriate part of the AS/NZS 5601 series of Standards (i.e. AS/NZS 5601.1 or AS/NZS 5601.2).

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 and footnotes to tables and figures are deemed to be requirements of this Standard.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Gas appliances**Part 0: General requirements**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE AND APPLICATION**1.1.1 Scope**

This Standard specifies general requirements and test methods for appliances and equipment which use gas as a fuel and which are intended for domestic, commercial or light industrial use, to an energy input limit of 1000 MJ/h or any lower limit specified in the appliance-specific Part of the AS/NZS 5263 series of Standards. This Standard provides requirements for appliances for fixed installation, portable and mobile appliances and appliances for use in caravans and boats.

For Australia, the fuel gases are natural gas (as described by AS 4564), town gas, liquefied petroleum gas (LP Gas, as described by AS 4670), simulated natural gas (SNG) and tempered liquefied petroleum gas (TLP).

For New Zealand—

- (a) The fuel gases are natural gas (as specified in NZS 5442) and general product liquefied petroleum gas (NZLPG, as specified in NZS 5435).
- (b) Thermal efficiency requirements are informative only, except where they relate to safety.

Appliance-specific Parts of the AS/NZS 5263 series contain clauses that add to, delete, or modify the corresponding clauses in this Standard to provide the relevant requirements for each type of appliance.

Test methods are set out in Appendices ZA, ZB and ZC (see Clause 1.4).

NOTE: Other statutory or regulatory requirements may be applicable to the product(s) that fall within the scope of this Standard. It is the manufacturer's, importer's or distributor's responsibility (as appropriate) to ensure that products comply with such requirements.

1.1.2 Application

This Standard (Part 0), together with other Standards in the proposed AS/NZS 5263 series specific to appliance types (Part 1.X), constitute a means of compliance with AS 3645 for each appliance type.

This Standard may be applied, as far as is reasonable, to appliances not mentioned in any appliance-specific AS/NZS 5263 series Standards, and to gas appliances designed on new principles or technologies.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1375	Industrial fuel-fired appliances
1722	Pipe threads of Whitworth form
1722.2	Part 2: Fastening pipe threads
2030	Gas cylinders
2030.1	Part 1: General requirements
2700	Colour standards for general purposes
3645	Essential requirements for gas equipment
3688	Water supply—Metallic fittings and end connectors
4564	Specification for general purpose natural gas
4567	Twin wall metal flues—Gas appliances
4617	Manual shut off gas valves
4620	Thermoelectric flame safeguards
4625	Electronic flame safeguards and flame detectors
4627	Quick-connect devices for gas
4629	Automatic shut off valves and vent valves
4631	Limited flexibility connectors for gas
4670	Commercial propane and commercial butane for heating purposes

AS ISO

7	Pipe threads where pressure-tight joints are made on the threads
7.1	Part 1: Dimensions, tolerances and designation

AS/NZS

1869	Hose and hose assemblies for liquefied petroleum gases (LP Gas), natural gas and town gas
2208	Safety glazing materials in buildings
5263*	Gas appliances (series)
5601*	Gas installations (series)

ISO

6976	Natural gas—Calculation of calorific values, density, relative density and Wobbe indices from composition
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IEC

Guide 117	Electrotechnical equipment—Temperatures of touchable hot surfaces
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EN

298	Automatic burner control systems for burners and appliances burning gaseous or liquid fuels
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NZS

5435	Specification for liquefied petroleum gas (LPG)
5442	Specification for reticulated natural gas

* See Preface for information on this series.

BS
3193 Specification for thermally toughened glass panels for use in domestic appliances

1.3 DEFINITIONS

1.3.1 Ambient temperature

The temperature of the air surrounding the appliance, as measured by a dry bulb thermometer or equivalent.

1.3.2 Appliance regulator

A device fitted to an appliance to control the gas pressure or gas volume delivered to that appliance.

1.3.3 Atmospheric burner

A burner system where all the air for combustion is introduced by the inspirating effect of a gas injector and/or by the natural draught in the combustion chamber without mechanical assistance.

1.3.4 Attended appliance

An appliance that is monitored by the user while it is in operation.

1.3.5 Authority

The authority having statutory or legal control (e.g. a Technical Regulator).

1.3.6 Automatic burner

A burner system that on starting, follows a self-acting sequence that may be manually or automatically initiated, to provide gas and ignition to the burner without any intermediate manual operation.

1.3.7 Automatic flue damper device

A device, in the outlet of the primary flue of an individual automatically operated gas appliance, which is designed to automatically open the flue outlet during appliance operation and to automatically close off or restrict the flue outlet when the appliance is in the standby condition.

1.3.8 Automatic ignition

The lighting of gas at a burner without a manual operation whenever gas flows from the burner.

1.3.9 Automatic shut off valve

A valve that operates automatically to shut off the gas supply to an appliance.

1.3.10 Available gas (or line gas)

Readily available gas with similar characteristics to the reference test gas.

1.3.11 Balanced flue appliance

A room sealed appliance that has combustion air ducted from, and combustion products ducted to, a common terminal assembly located externally.

1.3.12 Bleed line

A small diameter pipe or tube that conveys gas to a safe place from a diaphragm valve.