AS/NZS 5263.1.2:2020

Australian/New Zealand Standard™

Gas appliances

Part 1.2: Gas fired water heaters for hot water supply and/or central heating

AS/NZS 5263.1.2:2020

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 6 December 2019 and by the New Zealand Standards Approval Board on 18 December 2019.

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The following are represented on Committee AG-001:

Association of Accredited Certification Bodies
Australian Gas Association
Australian Industry Group
Consumer Electronics Suppliers Association
Consumers Federation of Australia
Energy Networks Australia
Gas Appliance Manufacturers Association of Australia
Gas Association of New Zealand
Gas Energy Australia
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Australian/New Zealand Standard™

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Part 1.2: Gas fired water heaters for hot water supply and/or central heating

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Previous and first joint edition AS/NZS 5263.1.2:2016.
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AG-001, Gas Appliances, to supersede AS/NZS 5263.1.2:2016, *Gas appliances — Part 1.2: Gas fired water heaters for hot water supply and/or central heating*.

This Standard provides particular requirements for gas fired water heaters for hot water supply and/or central heating that apply in addition to or in place of the general requirements for gas appliances set out in AS/NZS 5263.0, *Gas appliances, Part 0: General requirements*. The combination of AS/NZS 5263.1.2 (this Standard) and AS/NZS 5263.0 supersedes the combination of AS/NZS 5263.1.2:2016 and AS 5263.0—2013.

This Part 1.2 of AS/NZS 5263 supplements or modifies the corresponding clauses of Part 0. The numbering of clauses in this Part 1.2 is consistent with the numbering in Part 0 for related requirements.

Statements used in this Part 1.2 to explain the relationship of clauses in this Standard to the corresponding clauses in Part 0 are as follows:

(a) "This Clause of AS/NZS 5263.0 applies", in which case the corresponding clause of Part 0 and its subclauses are used without modification.

(b) "This Clause of AS/NZS 5263.0 applies, except as modified below", in which case the corresponding clause of Part 0 and its subclauses are used but with the modifications, as listed in this document.

(c) "Not applicable", in which case the corresponding clause of Part 0 is not used in this context.

Otherwise the text in this Standard replaces the corresponding clause of Part 0.

Any clauses in this Standard that are additional to the requirements of Part 0 are numbered beginning from 101 (except for additional definitions, which begin from 201). Additional appendices in this Part 1.2 are designated with letters starting from AA, and additional clauses in appendices are numbered beginning from 101 (e.g. ZA.101).

Where an appendix or part of an appendix (i.e. clause, figure or table) is cited in this Standard, reference should first be made to Part 0 for the content of the Appendix, which may be modified by this Part 1.2.

This Standard (AS/NZS 5263.1.2), together with the Standard AS/NZS 5263.0 (Part 0), constitute a means of conformance to AS 3645, *Essential requirements for gas equipment*, for gas fired water heaters for hot water supply and/or central heating.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, conformity assessment bodies 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 —

(i) continuity of satisfactory operation;

(ii) the prevention of fire hazards, and explosions;

(iii) the prevention of injury to persons or property;

(iv) gas rules and regulations now in force; and

(v) relevant International Standards.

AS/NZS 5601 series of Standards provides essential requirements and means of conformance for gas installations. Any reference to AS/NZS 5601 in AS/NZS 5263 series 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” are used in Standards 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.

Contents

Australian/New Zealand Standard

Gas appliances

Part 1.2: Gas fired water heaters for hot water supply and/or central heating

Section 1 Scope and general

1.1 Scope and application

1.1.1 Scope

This Standard provides specific requirements and test methods for gas water heaters and central heating boilers, with an energy input not exceeding 500 MJ/h, and includes types intended for the supply of hot water at a maximum temperature of 99 °C for —

(a) sanitary, potable and drinking purposes;

(b) hydronic space heating; and

(c) a combination of Item (a) and Item (b).

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:

(i) The fuel gases are natural gas (as specified in NZS 5442) and general product liquefied petroleum gas (NZLPG) (as specified in NZS 5435).

(ii) The thermal efficiency requirements are informative only, except where they relate to safety.

NOTE Other statutory and regulatory requirements may be applicable to a product that falls within the scope of this Standard. It is the responsibility of the manufacturer, importer or distributor (as appropriate) to ensure that products conform to such requirements.

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

1.1.2 Application

This Standard is complementary to, and is intended to be used in conjunction with, AS/NZS 5263.0. The requirements given herein shall take precedence over corresponding requirements in that Standard.

AS 3645 specifies essential requirements for gas equipment that requires regulatory approval before sale. This Standard, together with AS/NZS 5263.0, is intended to provide a means of demonstrating conformance to AS 3645.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

NOTE Documents for informative purposes are listed in the Bibliography.

AS 1357.1, *Valves primarily for use in heated water systems, Part 1: Protection valves*

AS/NZS 5263.0, *Gas appliances, Part 0: General requirements*

IEC 60730-2-9, *Automatic electrical controls, Part 2-9: Particular requirements for temperature sensing control*

EN 15502-2-1, *Gas-fired central heating boilers, Part 2-1: Specific standard for type C appliances and type B2, B3 and B5 appliances of a nominal heat input not exceeding 1 000 kW*

EN 15502-2-2, *Gas-fired central heating boilers, Part 2-2: Specific standard for type B1 appliances*

ANSI Z21.13, *Gas-fired low pressure steam and hot water boilers*

1.3 Terms and definitions

For the purposes of this Standard the terms and definitions given in AS/NZS 5263.0 and the following apply.

1.3.201
automatic heat exchange water heater
appliance in which water is heated by passing it through a heat exchanger immersed in heated water

1.3.202
central heating boiler
appliance that is designed to heat and supply water at a temperature not exceeding 99 °C for hydronic heating purposes

1.3.203
circulator
water heater in which water passes to a storage tank after heating

Note 1 to entry: In the case of hydronic heating systems the term “circulator” might refer to a pump.

1.3.204
combination appliance
appliance that is designed to perform the functions of both a central heating boiler and a water heater by means of two separate water circuits

Note 1 to entry: Combination appliances are also known as combi boilers.

1.3.205
control thermostat
preset device enabling the water temperature to be maintained automatically, within a given range

1.3.206
drain valve
valve in the bottom of the water vessel, through which the water may be drained from an appliance

1.3.207
expansion relief valve
pressure actuated valve that automatically discharges water at a specified set pressure to prevent the pressure in the system exceeding the maximum working pressure during normal operation

1.3.208
heat output
amount of heat transferred to the water per unit time under specified conditions

Note 1 to entry: Heat output is expressed in kilowatts (kW).

1.3.209
hydronic
relating to a system of heating or cooling that involves the transfer of heat by circulation of a fluid (usually water) in a closed circuit

Note 1 to entry: The closed circuit in a hydronic system may be vented or unvented.