

Australian/New Zealand Standard™

Gas installations

Part 1: General installations



AS/NZS 5601.1:2013

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee AG-006, Gas Installations. It was approved on behalf of the Council of Standards Australia on 12 August 2013 and on behalf of the Council of Standards New Zealand on 13 August 2013.

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The following are represented on Committee AG-006:

Association of Accredited Certification Bodies
Association of Hydraulic Services Consultants Australia
Australian Building Codes Board
Department of Employment, Economic Development and Innovation, Qld
Energy Networks Association
Gas Appliance Manufacturers Association of Australia
Gas Association of New Zealand
Gas Technical Regulators Committee
Gas Utilisation Institute
LPG Association of New Zealand
LPG Australia
Master Plumbers & Mechanical Services Association of Australia
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Ministry of Business, Innovation and Employment, New Zealand
Plumbing Industry Commission
The Australian Gas Association

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This Standard was issued in draft form for comment as DR AS/NZS 5601.1.

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Gas installations

Part 1: General installations

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PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee AG-006, Gas Installations, to supersede AS/NZS 5601.1:2010.

This Standard incorporates Amendment No. 1 (August 2015) and Amendment No. 2 (May 2016). 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 essential requirements and deemed-to-comply solutions, and to promote uniform standards of gas installation.

This Standard is not to be regarded as a design specification or an instruction manual for untrained persons.

This Standard has no legal standing in its own right, but may acquire legal standing in either of the following circumstances:

- (a) Where adopted by a government or other authority having jurisdiction over relevant installations.
- (b) Where adopted as part of an installation specification.

Regulatory bodies (Technical Regulators) may adopt this Standard. The Standard accommodates some variation of requirements among the regulatory jurisdictions. [Appendix N](#) sets out the detail of these variations.

New Zealand instituted legislative changes in 1992 which removed the responsibility for inspection and certification of gas installations from the gas suppliers and instituted a regime of gas certification by a person authorized under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Where the Standard has acquired legal standing, its requirements in Australia are mandatory (variations/exceptions being indicated as described above).

For New Zealand, it is intended that only the performance requirements ([Section 2](#)) will be mandatory.

Matters of an advisory or explanatory nature are indicated in the following manners:

- (i) The word 'NOTE(S)' followed by a statement(s).
- (ii) By the inclusion of them in an informative appendix.
- (iii) By the inclusion of them in examples or Caution note.

Terms or words that are indicated by italics in the body of the text are defined terms or words. This indication of italics does not apply to the text in the Preface, headings or figures. [Section 1](#) contains the definitions of such terms or words as they apply to the Standard.

All the Australian and New Zealand Technical Regulators agree that this Standard should provide for particular appliances and components to be certified. It was also agreed that this Standard include a statement that this requirement would not apply retrospectively.

[Section 2](#) of this Standard details the various aspects of a gas installation that contribute to its safety, stating performance criteria for compliance with legislative requirements for safety of gas installations. [Sections 3 to 6](#) provide more detailed information as a means of compliance with the performance criteria.

The means of compliance in [Sections 3 to 6](#) are not the only means of compliance with the performance criteria in [Section 2](#).

Major changes from AS/NZS 5601.1:2010 include the following:

- (A) Exclusion of 1st family gases (e.g., TLP—tempered liquefied petroleum, see Tables 1.1 and 5.1).
- (B) Temperature limitations for press fit end connectors (see Table 4.1).
- (C) New means of compliance for ventilation of flued appliances, including new normative appendix for combustion products spillage testing (see Clause 6.4.5 and [Appendix R](#)).
- (D) Adoption by Australia of Table C1, which was previously for New Zealand only.
- (E) Revised [Appendix F](#) for pipe sizing in relation to increased flow capacities where supply and equipment pressure permits.
- (F) Revised [Appendix G](#) for the method in calculating breather vent orifice sizes.
- (G) New informative [Appendix O](#) for gas appliance commissioning.
- (H) New informative [Appendix P](#) for symbols used in gas control system diagrams.
- (I) New informative [Appendix Q](#) comprising a gas installation checklist.
- (J) New normative [Appendix R](#) for spillage testing of combustion products.

Notes to the text contain information and guidance. They are not an integral part of the Standard.

Statements expressed in mandatory terms in Notes to the Tables and/or Figures are deemed to be requirements of this Standard.

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.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard contains the mandatory requirements and means of compliance for the design, installation and commissioning of *gas installations* that are associated with the use or intended use of fuel *gases* such as *natural gas*, *LP Gas*, or *biogas*.

1.2 APPLICATION

The user of this Standard is expected to be familiar with the properties and characteristics of those fuel *gases* and the principles of combustion, ventilation and flueing applicable to the safe installation and operation of *gas appliances*.

For New Zealand, these requirements cover *gas* installations downstream of the point of supply (as defined in the Gas (Safety and Measurement) Regulations 2010).

For Australia, these requirements cover *gas* installations downstream of the outlet of—

- (a) the *consumer billing meter* installation;
- (b) the first regulator on a fixed *gas* installation where an *LP Gas tank* or *cylinder(s)* is installed on site; or
- (c) the first regulator on site (if no meter is installed) where *LP Gas* is reticulated from offsite storage.

Where the term ‘installation’ is used it is deemed to include the pipework, *appliances*, *flues*, air ducts, ventilation and other ancillary items.

[Section 2](#) of this Standard contains the performance requirements for the design, installation, and commissioning of *gas installations*, including those operating at pressures exceeding 200 kPa. It includes, in [Clause 2.6.4](#), some specific limitations as the performance requirements cannot be reliably met if those prohibitions are breached.

[Sections 3](#) to [6](#) of this Standard contain a means of compliance for installations designed to operate with a *gas* supply *pressure* not exceeding 200 kPa.

In Australia, approval for any variation to the requirements of [Sections 3](#) to [6](#) or the normative appendices might need to be obtained from the appropriate *Technical Regulator*. [Appendix N](#) also contains special requirements for Australian jurisdictions.

In New Zealand, the *Technical Regulator* does not provide approvals for variations to the means of compliance in [Sections 3](#) to [6](#). References to approval by the *Technical Regulator* are not applicable to New Zealand. The installation certifier is responsible for ensuring that the installation, including any variations, meets the requirements in [Section 2](#).

Where a Standard is cited as part of a means of compliance or in an Appendix, any Standard with equivalent performance requirements may be used as an alternative means of compliance in New Zealand.