

AS 5601 — 2002
AG 601 — 2002

(Reprinted incorporating minor
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Gas installations



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This Standard was prepared by the Gas Installation Standards Committee (AG/6) of The Australian Gas Association. As an accredited Standards Development Organisation, The Australian Gas Association develops and publishes Australian Standards. The Standard was approved on behalf of the Gas Technical Standards Council on 21 February 2002, and published in March 2002.

The Australian Gas Association has published this Standard in co-operation with:
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This Standard was issued in draft form for comment as DR 01324 CP.

AS 5601 – 2002
AG 601 – 2002

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corrections November 2002)

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First published in revised format AG 601 – January 1992
Previous Edition AS 5601 / AG 601 – 2000

PUBLISHED BY:

The Australian Gas Association
Technical Office
2 Park Way
Braeside VIC 3195

ISBN 0 85852 286 1

PREFACE

The Gas Installation Standards Committee (AG/6) has prepared this Standard. It is a revision of the 2000 edition and incorporates both technical and editorial amendments.

The Standard will be subject to periodic review and suggestions for improvement are welcomed. These should be forwarded to

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The intention of this Standard is to provide essential requirements and basic standards for adoption by the Australian gas industry and to promote uniform standards of gas installation.

This Standard is not to be regarded as being either 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:

- where adopted by a Government or other authority having jurisdiction over relevant installations.
- 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. Such variations are identified in the page margin adjacent to the particular Clause. Appendix L sets out the detail of these variations or additions under the appropriate Clause number.

Where the Standard has acquired legal standing, its requirements are mandatory (variations/exceptions being indicated as described above). Matters of an advisory or explanatory nature are indicated in the following manners:

- the word NOTE(S) followed by a statement(s)
- by the inclusion of them in an informative appendix.

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.

Terms or words that are indicated by italics in the text are defined terms or words. However, defined terms or words in the Preface or in headings or figures are not italicised. Section 1 contains the definitions of such terms or words as they apply to the Standard. Referenced Standards are also italicised throughout.

Clause renumbering has been carried out as necessary.

In this edition, significant changes have been made to the pipe sizing tables.

The tables for Town Gas and PE/AL composite pipe have been deleted.

Tables have been included for:

- corrugated stainless steel pipe for use with NG and LPG

- a pressure drop of 0.75 kPa (to cater for the introduction of a NG metering pressure of 2.75 kPa).
- a pressure drop of 10 kPa (to cater for polyethylene pipe operating on LP Gas).

The method and details behind the calculations for the tables in previous editions could not be fully ascertained.

The table additions were developed using the Mueller formula for low-pressure systems under 7 kPa. For medium-pressure systems between 13 and 104 kPa the Fritzsche formula was used. Allowance was made in the new tables for a number of pipe fittings, consistent with the previous edition of the Standard.

Checks were run using empirical gas flow formulas that are established in the gas industry and good correlation of results was achieved. Accordingly, it was decided not to re-calculate the existing tables. However, some anomalies were detected in them and these were corrected.

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SECTION 1 SCOPE, APPLICATION AND DEFINITIONS

1.1 SCOPE

This Standard sets out requirements for *consumer piping*, flueing, ventilation and *appliance* installations which are associated with the use or intended use of fuel gases such as *Town Gas*, *Natural Gas*, *Liquefied Petroleum Gas* in the vapour phase, *Tempered Liquefied Petroleum Gas*, *Simulated Natural Gas* or any similar substance.

The requirements cover piping systems from the outlet of:

- (a) the *consumer billing meter* installation
- (b) the first *regulator* on a fixed *gas installation* where an *LP Gas* container is installed on the same site or,
- (c) the first *regulator* on site (if no *meter* is installed) where *LP Gas* is reticulated from storage off the site;

to the inlet of the *appliance*.

This Standard does not apply to portable or *mobile appliances* (such as barbecues) which are designed for external use only and are connected directly, or by *hose assembly*, to a *LP Gas cylinder*.

Requirements for installations for *caravans* and marine craft including location of storage *cylinders*, piping systems and *appliances* are also provided in this Standard.

NOTES:

- 1 The location of *consumer billing meters* is determined by the *network operator*; however, some guidelines for the locating of these *meters* are detailed in Appendix A.
- 2 The terms pipe, piping, tube and tubing are used throughout this Standard. They are to be considered to have the same meaning.

Unless specifically covered in this Standard, where *consumer piping* is to operate at a *pressure* exceeding 200 kPa, consult with the *technical regulator*.

Appliances provided for in this Standard include those *certified* under an Australian Gas Association scheme (i.e. 'general *certification*' and 'individual *certification*' [Second Tier]), and those otherwise acceptable to the *technical regulator*

The *appliance* installation requirements cover location, ventilation, combustion air, flueing and commissioning of the *appliance*.

1.2 APPLICATION OF THIS STANDARD

The requirements of this Standard are to be used in conjunction with, but do not take precedence over, any statutory regulations which may apply in any area. The *technical regulator* may determine the extent of application of this Standard.

Where no requirement is given, good practice is to apply. In any matter of uncertainty the *technical regulator* is to be consulted.

This Standard applies to installations commenced after its publication date. It shall not apply to existing installations.

NOTE: "Commenced", for the purpose of this Clause, means the point at which site or equipment construction has begun.