

Australian Standard™

Gas laundry dryers



This Australian Standard was prepared by Committee AG-001, Gas Appliances. It was approved on behalf of the Council of Standards Australia on 7 October 2005. This Standard was published on 19 December 2005.

The following are represented on Committee AG-001:

AGA (Network Operators)
AGA Certification Services
Appliance and Component Testing
Australian Liquefied Petroleum Gas Association
CSIRO Energy Technology
Committee AG-001-03
Consumers' Federation of Australia
Energy Retailers Association of Australia
Gas Appliance Manufacturers Association of Australia
Gas Technical Regulators Committee

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Web Shop at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

Australian Standards™ and other products and services developed by Standards Australia are published and distributed under contract by SAI Global, which operates the Standards Web Shop.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to the Chief Executive, Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard™

Gas laundry dryers

Originally published as AG 104—1977.
Previous edition AS 4554/AG 104—2002.
Revised and redesignated AS 4554—2005.

COPYRIGHT

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 7053 3

PREFACE

This Standard was prepared by the Standards Australia Committee AG-001 Gas Appliances to supersede AS 4554/AG 104—2002, *Gas laundry dryers*.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with uniform minimum requirements for the safety, performance and use of domestic outdoor gas barbecues.

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

In its preparation, 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.

AS 5601, *Gas Installations* provides essential requirements and basic standards for gas installations.

The principal differences between this edition and AS 4554/AG 104—2002, are:

- Minor amendment to definition.
- Clause 3.1.2 last paragraph deleted.
- Clause 5.6.1 and M.O.T. amended to include zero clearances where none are specified in AS 5601.
- Clause 5.11.3/4/5/7 and M.O.T 5.11—95 km/h amended to 65 km/h.
- M.O.T. 5.2.2 and Figure—Spillage test rig replaced by dew plate.
- Clause 3.6.23 (now 3.6.2.2.6) amended.
- New Clause 3.6.1.3.
- Clause 5.11.1 amended.
- ‘Z’ gas added to M.O.T. 4.2 and 4.4.
- M.O.T. 4.2/3 amended to include missing step.
- Flame abnormality definition amended.
- Clause 5.9.2 and M.O.T. 5.9.2.

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

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND DEFINITIONS	
1.1 SCOPE	5
1.2 DEFINITIONS	5
SECTION 2 DESIGN AND CONSTRUCTION	
2.1 GENERAL	7
2.2 STRENGTH AND STABILITY	8
2.3 DURABILITY	19
2.4 ELECTRICAL REQUIREMENTS	19
2.5 MATERIALS	20
2.6 INSTALLATION REQUIREMENTS	21
2.7 MAINTENANCE REQUIREMENTS	22
2.8 DESIGN FOR USE	24
2.9 MARKINGS	25
2.10 INSTRUCTIONS	27
SECTION 3 PRELIMINARY TESTS – LINE GASES	
3.1 GENERAL REQUIREMENTS	30
3.2 PREPARATION FOR TESTING	30
3.3 GAS LEAKAGE	31
3.4 GAS CONSUMPTION	31
3.5 GAS PRESSURE REGULATORS	32
3.6 IGNITION AND SAFETY SHUT OFF SYSTEMS	32
SECTION 4 LIMIT GAS TESTS	
4.1 GENERAL	36
4.2 CO/CO ₂ RATIO LIMITS FOR ANY INDEPENDENT BURNER—OVERLOAD ...	36
4.3 FLAME CHARACTERISTICS AT MAXIMUM AND MINIMUM LIMITING CONDITIONS	36
4.4 BURNER IGNITION AT MAXIMUM AND MINIMUM LIMITING CONDITIONS	37
4.5 DELAYED EXTINCTION AT MAXIMUM AND MINIMUM LIMITING CONDITIONS	37
4.6 REIGNITION AT TURNDOWN UNDER DRAUGHT CONDITIONS	37
4.7 NOISE OF EXTINCTION	37
4.8 BURNER STABILITY WHEN CHANGING SETTING	37
4.9 PILOT IGNITION AT MAXIMUM AND MINIMUM LIMITING CONDITIONS..	37
4.10 EFFECT OF OPENING OR CLOSING OF APPLIANCE DOORS AT TURNDOWN CONDITION	38
4.11 UNBURNT GAS RELEASE FROM BURNER SYSTEM	38
4.12 BURNER INTERFERENCE AT IGNITION OR DURING COMBUSTION.....	38
4.13 BURNER REQUIREMENTS WHEN FLUE TERMINAL IS BLOCKED.....	38
SECTION 5 PERFORMANCE REQUIREMENTS	
5.1 NOISE OF OPERATION	39
5.2 FLUE OPERATION	39
5.3 CONDENSATION	39
5.4 COMBUSTION AIR SUPPLY AND CONTROLS	39
5.5 DRYING PERFORMANCE	40

5.6	TEMPERATURE HAZARDS	40
5.7	ADDITIONAL REQUIREMENTS FOR ROTARY LAUNDRY DRYERS	42
5.8	ADDITIONAL REQUIREMENT FOR STATIC LAUNDRY DRYERS	42
5.9	HEAT RESISTANCE.....	43
5.10	STRENGTH AND STABILITY	43
5.11	ROOM SEALED APPLIANCES—FLUE OPERATION	44
5.12	ADDITIONAL REQUIREMENTS FOR APPLIANCES WITHOUT A PERMANENT FLUE.....	44

APPENDICES

A	FIGURES A1 TO A8.....	45
B	METHODS OF TEST.....	51
C	METER VOLUME CORRECTION FACTORS.....	117
D	LIST OF REFERENCED DOCUMENTS	119

STANDARDS AUSTRALIA

Australian Standard **Gas laundry dryers**

SECTION 1 SCOPE AND DEFINITIONS

1.1 SCOPE

These requirements apply to laundry dryers, intended for use with natural gas, town gas, liquefied petroleum gas and tempered liquefied petroleum gas up to a nominal gas consumption of 500 MJ/h.

NOTE: Other statutory and 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 these requirements.

1.2 DEFINITIONS

1.2.1 Appliance flueway

A port or passage conveying flue gases within the appliance.

1.2.2 Appliance flueway terminal

A protective device fitted to the exit of an appliance flueway of a flueless appliance.

1.2.3 Appliance regulator

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

1.2.4 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.

1.2.5 Authority

Means the authority having jurisdiction or such authority as delegated. (Technical Regulator).

1.2.6 Automatic burner

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

1.2.7 Automatic ignition

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

1.2.8 Available gas (Line gas)

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