Australian Standard®

Gas space heating appliances



This Australian Standard® was prepared by Committee AG-001, Gas Appliances. It was approved on behalf of the Council of Standards Australia on 13 June 2008. This Standard was published on 30 June 2008.

The following are represented on Committee AG-001:

- Appliance and Component Testing
- Australian Gas Association
- Australian Greenhouse Office, Department of the Environment and Water Resources
- Consumers' Federation of Australia
- Energy Networks Association
- Gas Appliance Manufacturers Association of Australia
- Gas Association of New Zealand
- Gas Technical Regulators Committee
- Gas Utilisation Institute
- LPG Australia
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- Ministry of Economic Development (New Zealand)
- New Zealand Employers and Manufacturers Association

This Standard was issued in draft form for comment as DR 08061.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all 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Standards may also be withdrawn.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 that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

AS 4553—2008 (Incorporating Amendment No. 1)

Australian Standard®

Gas space heating appliances

Originated as AG 103—March 1978. Second edition AG 103—June 1998. Authorized Australian Standard AS 4553/AG 103—2000. Revised and redesignated AS 4553—2008. Reissued incorporating Amendment No. 1 (February 2011).

COPYRIGHT

© Standards Australia Limited

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, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8795 9

AS 4553—2008

PREFACE

This Standard was prepared by the Standards Australia Committee AG-001, Gas Appliances to supersede AS 4553/AG 103—2000, Gas space heating appliances.

This Standard incorporates Amendment No. 1 (February 2011). 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 manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with uniform minimum requirements for the safety, performance and use of gas space heating appliances.

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 provides essential requirements and basic standards for gas installations.

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.

The principal differences between this edition and AS 4553/AG 103—2000, are marked by a line in the margin. These may be a new or revised definition, Clause, Figure or M.O.T. (Method of Test).

The following have been deleted:

Definitions AGA, ALPGA, approved, authority, bypass screw, connector ends, flame blow off, flame lift, interrupter screw, occupied zone, Piezo electric ignition, room sealed appliance type 2, semi-automatic ignition, statutory authority, task efficiency, terminal and under pressure cut-off device.

Clauses: 2.3.7, 2.5.1, 2.5.6 (p), 2.7.4, 3.1.2 (last paragraph), 5.4 (2nd sentence) 5.11.4.

Figures: 1, 2, 5, 7 (replaced by dew plate), 11.

M.O.T: 5.1.2—99 Flue operation—Spillage test, Preparation of apparatus—Method 1, Steps 5 & 6.

5.1.4—95 Determination of CO/CO₂ ratio of combustion products under conditions of flue blockage, downdraught or updraught.

CONTENTS

		Page
SECTIO	ON 1 SCOPE AND GENERAL	
1.1	SCOPE	5
1.2	REFERENCE DOCUMENTS	
1.3	DEFINITIONS	
CECTIC	N. A. DEGICIA AND CONCEDITORION	
2.1	N 2 DESIGN AND CONSTRUCTION GENERAL	10
2.1	MATERIALS	
2.2	ELECTRICAL SYSTEMS	
2.3	INSTALLATION REQUIREMENTS	
2.4	MAINTENANCE REQUIREMENTS	
2.6	PRESSURE REGULATORS	
2.7	GAS CONTROLS AND SAFETY SHUT OFF SYSTEMS	
2.7	COMBUSTION AIR SUPPLY AND CONTROLS	
	IGNITION, PILOTS AND MAIN BURNERS	
2.9	FLUEING REQUIREMENTS	
2.10 2.11	MARKINGS AND LABELS	
2.12	INSTRUCTIONS	33
SECTIO	ON 3 PRELIMINARY TESTS—LINE GASES	
3.1	GENERAL	36
3.2	PREPARATION FOR TESTING	36
3.3	PRIMARY GUARD AND GRILLE	37
3.4	GAS LEAKAGE	38
3.5	GAS CONSUMPTION	38
3.6	GAS PRESSURE REGULATORS	39
3.7	IGNITION AND SAFETY SHUT OFF SYSTEMS	39
SECTIO	N 4 LIMIT GAS TESTS	
4.1	GENERAL	43
4.2	CO/CO ₂ RATIO LIMITS FOR ANY INDEPENDENT SURFACE	13
1.2	COMBUSTION BURNER —UNDERLOAD	43
4.3	CO/CO ₂ RATIO LIMITS FOR ANY INDEPENDENT BURNER—	
1.5	OVERLOAD	
4.4	CO/CO ₂ RATIO LIMITS FOR PERMANENT PILOTS—OVERLOAD	
4.5	FLAME ABNORMALITY	
4.6	BURNER IGNITION AT MAXIMUM AND MINIMUM LIMITING	
1.0	CONDITIONS	44
4.7	DELAYED IGNITION AT MAXIMUM AND MINIMUM LIMITING	1 1
1.7	CONDITIONS	44
4.8	REIGNITION AT TURNDOWN UNDER DRAUGHT CONDITIONS	
4.9	NOISE OF EXTINCTION	
4.10	BURNER STABILITY WHEN CHANGING SETTING	
	PILOT IGNITION AND STABILITY AT MAXIMUM AND MINIMUM	43
7.11	LIMITING CONDITIONS	15
4.12	EFFECT OF OPENING AND CLOSING DOORS AT TURNDOWN	43
4.12	CONDITION	15
/ 12	UNBURNT GAS RELEASE FROM BURNER SYSTEM	
	BURNER INTERFERENCE AT IGNITION OR DURING COMBUSTION	
7.17		🛨 🛈



	This is a free preview.	Purchase the e	entire publication	at the link below:
--	-------------------------	----------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation