AS 4267—1995
Reconfirmed 2016

Australian Standard®

Pressure regulators for use with industrial compressed gas cylinders

This Australian Standard was prepared by Committee ME/2, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 11 November 1994 and published on 5 February 1995.

The following interests are represented on Committee ME/2:

A.C.T. Occupational Health and Safety Office
Aluminium Development Council
Australian Assembly of Fire Authorities
Australian Chamber of Commerce and Industry
Australian Gas Association
Australian Liquefied Petroleum Gas Association
Australian Underwater Federation
Bureau of Steel Manufacturers of Australia
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This Standard was issued in draft form for comment as DR 93293.

STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 4267—1995
Pressure regulators for use with industrial compressed gas cylinders

RECONFIRMATION NOTICE

Technical Committee ME-002 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 21 July 2016.

The following are represented on Technical Committee ME-002:

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Australia New Zealand Industrial Gas Association
Australian Chamber of Commerce and Industry
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Gas Energy Australia
Gas Technical Regulators Committee
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SafeWork NSW
The Australian Gas Association
Welding Technology Institute of Australia
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WorkSafe Victoria

NOTES

Australian Standard®

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First published as AS 4267—1995

Incorporating:
Amdt 1—1995
Amdt 2—1998

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 9513 2

PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee on Gas Cylinders ME/2 to standardise the requirements of pressure regulators for use with industrial compressed gas cylinders.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

This first edition of the Standard does not cover the range of gaugeless regulators or regulators with pressure indicators. However, these items may be covered in future editions.

Also, this Standard does not incorporate within the regulator design a relief device. The inclusion would rely on industry input once regulators to this Standard have been in the marketplace for a number of years.

Finally, this Standard includes the 'bomb' or 'promoted ignition' type test as an informative appendix. This may change in a future edition of this Standard to a normative appendix should the demand from industry arise.

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.

CONTENTS

Page

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Australian Standard

Pressure regulators for use with industrial compressed gas cylinders

1 SCOPE This Standard specifies the requirements of pressure regulators for use with industrial compressed gas cylinders.

The mechanisms of pressure regulating valves and regulators for use with medical gas cylinders, together with fixed delivery pressure L.P.G. regulators for domestic and recreational pruposes are not covered by this Standard.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1349 Bourdon tube pressure and vacuum gauges

2473 Valves for compressed gas cylinders (threaded outlet)

2700 Colour standards for general purposes

ISO
2503 Pressure regulators for gas cylinders used in welding, cutting and allied processes

3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2473 and those below apply.

3.1 Compressed gas regulator—a regulator fitted with inlet fittings complying with AS 2473 and used for reducing a generally variable inlet pressure to an outlet pressure (to be constant as possible) in connection with the flow rate which may be changed.

3.2 Fill pressure—the pressure to which a cylinder is filled with permanent gas, measured when the contents are at an equilibrial temperature of 15°C.

3.3 Flashback arrestor—a device which quenches a flame front (flashback or decomposition).

3.4 Flow rating inlet pressure (p_3)—the inlet pressure at which the maximum flow rating is obtained.

3.5 Maximum outlet pressure (p_2)—the rated maximum outlet pressure the regulator will deliver.

3.6 Maximum working pressure (MWP) of a compressed gas regulator—the maximum pressure at which a regulator is allowed to operate continuously. It is equal to 1.2 times the highest fill pressure of the cylinder to which the regulator is connected.

NOTE: The factor 1.2 takes into account the increase in pressure of the contents of a cylinder when subjected to ambient temperatures higher than the 15°C reference condition. It corresponds approximately to an equilibrial temperature of 50°C of the cylinder contents.

3.7 Nominal inlet pressure (p_1)—the nominal working pressure for which the regulator is designed. It corresponds to the maximum filling pressure, at 15°C, of gas cylinders fitted with the respective valve outlet connection.

3.8 Stabilised outlet pressure (p_4)—the constant outlet pressure of the regulator after flow ceases.