AS 4840—2001

Reconfirmed 2016

Australian Standard™

Low pressure regulators for use in industrial compressed gas reticulation systems

Standards Australia

This Australian Standard was prepared by Committee ME-002, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 29 September 2000 and published on 31 January 2001.

The following interests are represented on Committee ME-002:

A.C.T. WorkCover

Air Conditioning and Refrigeration Wholesalers Association

Australasian Institute of Engineer Surveyors

Australian Association of Certification Bodies

Australian Chamber of Commerce and Industry

Australian Gas Association

Australian Liquefied Petroleum Gas Association

Boiler and Pressure Vessel Manufacturers Association of Australia

Bureau of Steel Manufacturers of Australia

Department for Administration and Information Services, S.A.

Department of Defence (Australia)

Department of Employment Training and Industrial Relations, Qld

Department of Mines and Energy, Qld

FPA Australia

Institute of Materials Engineering Australasia Limited

Institution of Engineers, Australia

Victorian WorkCover Authority

Welding Technology Institute of Australia

WorkCover New South Wales

Keeping Standards up-to-date

Standards are living documents which 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 Standards may also be withdrawn.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 which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site 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 Australian Standard*, has a full listing of revisions and amendments published each month.

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.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

This Standard was issued in draft form for comment as DR 99521.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4840—2001

Low pressure regulators for use in industrial compressed gas reticulation systems

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:

Australasian Fire and Emergency Service Authorities Council
Australia New Zealand Industrial Gas Association
Australian Chamber of Commerce and Industry
Engineers Australia
Environmental Protection Authority New Zealand
Fire Protection Association Australia
Gas Energy Australia
Gas Technical Regulators Committee
International Accreditation New Zealand
National Association of Testing Authorities Australia
SafeWork NSW
The Australian Gas Association
Welding Technology Institute of Australia
Worksafe New Zealand
WorkSafe Victoria

NOTES

Australian Standard™

Low pressure regulators for use in industrial compressed gas reticulation systems

First published as AS 4840—2001.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 3642 4

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/2, Gas Cylinders to standardize the requirements of low pressure regulators for use with industrial gas reticulation systems that are operating at pressures up to 2100 kPa.

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

This Standard intends to eliminate the dangers of cross connection that may occur when high and low pressure regulators are used. AS 4267, *Pressure regulators for use with industrial compressed gas cylinders* caters for high pressure regulators, however, there is the danger that, because low pressure inlet connection sizes have not been covered by this Standard, these low pressure regulators may be inadvertently put into a high pressure reticulation system. This Standard, by specifying low pressure inlet connection details, will eliminate this problem for the compressed gas industry.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

Acknowledgment is given to the Compressed Gas Association (CGA) of the United States of America in using their details in Figures 1 and 2 from the CGA E-1 series of connections.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard

Low pressure regulators for use in industrial compressed gas reticulation systems

1 SCOPE

This Standard specifies the requirements of low pressure regulators for use with industrial gas pipelines up to 2100 kPa. Pressure regulators for use with medical gas pipelines, together with fixed delivery pressure LPG regulators for domestic and recreational purposes are not covered by this Standard. Recommendations for regulators for use in beverage dispensing pipelines have been included for users in that industry.

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

4267 Pressure regulators for use with industrial compressed gas cylinders

4289 Oxygen and acetylene gas reticulation systems

4484 Industrial, medical and refrigerant compressed gas cylinder identification

CGA

E-1 Standard connections for regulator outlets, torches and fitted hose for welding and cutting equipment

G-4.1 Cleaning equipment for oxygen service

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 4267 and those below apply.

3.1 Compressed gas pipeline regulator

A regulator intended for connection only to regulated pressure pipelines, fitted with inlet connections as specified in this Standard and used for reducing a nearly constant relatively low inlet pressure to an outlet pressure (to be as constant as possible) in connection with the flow rate which may be changed.

3.2 Maximum working pressure (MWP)

The maximum pressure at which a regulator is allowed to operate continuously and for which it has been designed. See AS 4289 for oxygen and acetylene pipeline pressures.

3.3 Pressure regulator

A device used for reducing the pressure of a gas from a variable inlet pressure to an outlet pressure that relates to the rate of flow of that gas.

3.4 Rated inlet pressure (p_1)

The maximum pipeline pressure specified for the intended gas.