

Australian Standard™

Valves for compressed gas cylinders

**Part 3: Outlet connections for medical
gases (including pin-indexed yoke
connections)**

This Australian Standard was prepared by Committee ME-002, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 17 March 2004 and published on 30 April 2004.

The following are represented on Committee ME-002:

Air Conditioning and Refrigeration Wholesalers Association
Australasian Institute of Engineer Surveyors
Australian Chamber of Commerce and Industry
Australian Liquefied Petroleum Gas Association Ltd
Certification Bodies (Australia)
Department for Administrative and Information Services, S.A.
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This Standard was issued in draft form for comment as DR 03225.

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Valves for compressed gas cylinders

Part 3: Outlet connections for medical gases (including pin-indexed yoke connections)

Originated as AS CB4 Supplement 1—1955.
Previous edition AS 2472—1996.
Revised and redesignated as AS 2473.3—2004.

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

ISBN 0 7337 5892 4

PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-002, Gas Cylinders to supersede AS 2472—1996, *Valves for medical gas cylinders (including pin-indexed outlet)*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide manufacturers of medical equipment, the medical gases industry and medical facilities with specifications for outlet connections for gas cylinders containing medical gases.

Dimensions for pin-indexed yoke connection in AS 2472—1996 and its earlier versions were taken from the metric range of BS 1319:1976, *Specification for medical gas cylinders, valves and yoke connections* (later replaced by EN 850), which in turn aligned closely with ISO 407, *Small medical gas cylinders—Pin-index yoke-type valve connections*. Both Standards were derived from earlier versions of CGA V-1:2002, *Compressed gas cylinder valve outlet and inlet connections*. However, all these Standards differ in minor but noticeable ways in the dimensions of the connections. Although connections made to each Standard are believed to be functionally interchangeable, users should be aware of the existence of differences.

This Standard maintains the general structure and much of the content of ISO 407, however, some changes have been made and considerable material has been added to accommodate existing Australian practice. However, cylinder valves complying with ISO 407 are functionally interchangeable with yoke connections made to this Standard and vice-versa. The figure numbers for the yoke outlet connections in this Standard are those in ISO 407 and users should be aware that they differ from those in AS 2472—1996.

Appendix A summarizes the correspondence between clauses in this Standard and ISO 407.

The titles of this Standard and ISO 407 both refer to outlet connections only, yet a number of associated requirements pertaining to other features of the valve itself are specified in both documents. The Committee intends to release other parts of AS 2473 dealing with valve specification, type testing and other features. A new Part 2 will supersede AS 2473—1996, which will be withdrawn. This Standard will be amended at that time.

It is important to note that users of existing equipment with connection to AS 2472—1996, Figure 14 will be required to change to the corresponding applicable connection from this Standard.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard
Valves for compressed gas cylinders**Part 3: Outlet connections for medical gases (including pin-indexed yoke connections)****1 SCOPE**

This Standard specifies the outlet connections for gas cylinders containing medical gases. Additionally, it specifies certain related design and manufacturing features of the valve. It includes the following:

- (a) Outlet connections to be used with nominated medical gases.
- (b) Basic dimensions for pin-indexed yoke connections.
- (c) Design of the pin-indexed yoke.
- (d) Dimensions and positions of the holes and pins for the valve and yoke.
- (e) Requirements for cylinder valves to be fitted to medical gas cylinders, including working pressures and certain design and manufacturing features.

WARNING: THE CONTENTS OF A GAS CYLINDER ARE IDENTIFIED PRIMARILY BY MARKING AND LABELLING ON THE CYLINDER. CYLINDER COLOURS ARE USED AS A SECONDARY MEANS OF IDENTIFICATION. LABELS AND MARKINGS ON A GAS CYLINDER SHOULD ALWAYS BE CONSULTED PRIOR TO USE.

NOTE: Correspondence between the provisions of ISO 407 and this Standard is provided in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
2030	The verification, filling, inspection, testing and maintenance of cylinders for storage and transport of compressed gases
2030.1	Part 1: Cylinders for compressed gases other than acetylene
2473	Valves for compressed gas cylinders (threaded outlet)
4484	Industrial, medical and refrigerant compressed gas cylinder identification
ISO	
407	Small medical gas cylinders—Pin-index yoke-type valve connections
10286	Gas cylinders—Terminology
CGA V-1	Standard for compressed gas cylinder valve outlet and inlet connections

NOTE: Additional related documents are listed in Appendix B.

3 DEFINITIONS

For the purposes of this Standard, the definitions in AS 2030.1 and those below apply.

3.1 Breathing gas

Gas used in a breathing apparatus to aid breathing. For example, air and nitrogen/oxygen mixtures.