

Australian Standard<sup>®</sup>

**Medical gas systems—Installation and  
testing of non-flammable medical gas  
pipeline systems**



This Australian Standard® was prepared by Committee HE-017, Medical Gas Systems. It was approved on behalf of the Council of Standards Australia on 13 January 2011. This Standard was published on 8 February 2011.

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The following are represented on Committee HE-017:

- Australian Chamber of Commerce and Industry
  - Australian Industry Group
  - Australian Society of Anaesthetists
  - Australian and New Zealand College of Anaesthetists
  - Master Plumbers and Mechanical Contractors Association of New South Wales
  - Therapeutic Goods Administration
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This Standard was issued in draft form for comment as DR AS 2896.

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.

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AS 2896—2011

Australian Standard<sup>®</sup>

# **Medical gas systems—Installation and testing of non-flammable medical gas pipeline systems**

Originated as part of AS CZ9—1963.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee HE-017, Medical Gas Systems, to supersede AS 2896—1998. 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.

It should be noted that for installation of a pipeline, a high quality of workmanship and experience is essential. For medical gases that are not referenced in Clause 1.2, special pipeline designs may be required, and these are not covered by this Standard. For certain situations, e.g. hyperbaric conditions, special design and performance criteria for pipelines may be required.

Requirements in this Standard may be used as a guide for piping systems for other non-flammable medical gases and anaesthetic gas scavenging systems but variations in the requirements may be necessary.

The Sleeve Indexing System (SIS) for gas specific connections for terminal units previously in the Standard is now covered by AS 2902—2005, including connections for surgical tool gas along with other gases. The new surgical tool gas connection is recommended as it contains a thread, and reduces the risk of ‘hose whip’. The use of adaptors with ‘quick connect/disconnect’ (Schrader) fittings does not comply with this Standard.

In the preparation of this Standard, cognizance was taken of ISO 7396:2007 *Medical gas pipeline systems—Part 1: Pipeline systems for compressed medical gases and vacuum*.

The differences between ISO 7396 and this Standard are as follows:

- (a) Testing procedures in this edition are more in keeping with Australian industry practice.
- (b) Performance criteria vary substantially.
- (c) Copper pipe specifications differ.
- (d) Medical participation in commissioning is required by AS 2896.

All medical oxygen cylinder valve outlets will be yoke type connections after 2011. Flexible cylinder leads will be replaced as part of this program. See AS 2473.3—2007 for details.

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

	<i>Page</i>
FOREWORD.....	5
 SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE .....	6
1.2 APPLICATION .....	6
1.3 REFERENCED DOCUMENTS .....	7
1.4 DEFINITIONS .....	7
 SECTION 2 SOURCE OF SUPPLY	
2.1 GENERAL .....	11
2.2 SOURCE OF SUPPLY .....	11
2.3 PROVISION IN CASE OF FAILURE OF SUPPLY .....	11
2.4 CYLINDER SUPPLY SYSTEM .....	12
2.5 PRESSURE REGULATORS .....	16
2.6 DESIGN OF GAS CONTROL SYSTEMS .....	16
2.7 PRESSURE RELIEF VALVES .....	17
2.8 CRYOGENIC SYSTEMS .....	17
2.9 MEDICAL AIR SYSTEM .....	18
2.10 MEDICAL SUCTION SYSTEMS .....	29
2.11 AIR FOR SURGICAL TOOLS .....	34
2.12 LOCATIONS OF SOURCES OF GAS SUPPLY .....	36
2.13 ENCLOSURES FOR CYLINDER SUPPLY SYSTEMS .....	36
 SECTION 3 GENERAL REQUIREMENTS	
3.1 ALARM SYSTEMS .....	39
3.2 MATERIALS .....	43
3.3 REQUIREMENTS FOR PIPELINES .....	44
3.4 PIPELINE SHUT-OFF VALVES .....	45
3.5 TERMINAL UNITS AND CONNECTORS .....	46
3.6 IDENTIFICATION OF PIPELINES .....	50
3.7 PRESSURE GAUGES .....	51
 SECTION 4 INSTALLATION REQUIREMENTS FOR PIPELINES	
4.1 GENERAL .....	54
4.2 ELECTRICAL SEGREGATION .....	54
4.3 PROTECTION OF PIPELINES .....	54
4.4 MEDICAL GAS RISERS .....	56
4.5 RISERS AND DROPPERS TO TERMINAL UNITS .....	56
4.6 SLEEVES .....	56
4.7 CONTACT WITH CORROSIVE MATERIALS .....	56
4.8 ROUTING .....	56
4.9 CUTTING INTO AN EXISTING SYSTEM .....	56
4.10 INTERCONNECTION .....	56
4.11 PIPELINE SUPPORTS .....	56
4.12 COPPER PIPELINE JOINTS .....	57
4.13 CONNECTION TO EXISTING SYSTEMS .....	58
4.14 FIXED SECONDARY EQUIPMENT .....	58

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