

Australian Standard[®]

Cylinders for dissolved acetylene



This Australian Standard® was prepared by Committee ME-002, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 4 September 2006. This Standard was published on 27 September 2006.

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- Air Conditioning and Refrigeration Wholesalers Association
 - Australasian Institute of Engineer Surveyors
 - Australian Chamber of Commerce and Industry
 - The Australian Gas Association
 - Australian Liquefied Petroleum Gas Association
 - Certification Bodies (Australia)
 - Department for Administrative and Information Services, S.A.
 - Fire Protection Association of Australia
 - Institute of Materials Engineering Australasia
 - Pressure Equipment Associated Incorporated
 - Victorian WorkCover Authority
 - Welding Technology Institute of Australia
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This Standard was issued in draft form for comment as DR 06249.

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 public comment period.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2527—2006

Cylinders for dissolved acetylene

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 May 2017.

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NOTES

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Originated as AS B189—1962.
Previous edition AS 2527—1997.
Third edition 2006.

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Published by Standards Australia, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 7751 1

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 2527—1997, *Cylinders for dissolved acetylene*. After consultation with stakeholders from both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this revision is to align the shell specifications with current world practice, allowing a range of seamless steel and welded steel shells made to ISO and other recognized international Standards.

Cylinder design details are provided by reference to Australian and acceptable international Standards that give details of materials, design and manufacturing test regimes.

This Standard also sets out requirements for the porous filler and the solvent together with the cylinder markings.

This Standard allows seamless-steel cylinders as well as welded steel cylinders as suitable shells for acetylene gas use. Obsolete cylinder standards listed as shell specifications in the previous edition have been deleted.

This Standard takes into account ISO 3807, *Dissolved acetylene cylinders—Basic requirements*; the main deviation from that Standard being the inclusion of the simulated external fire test.

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.

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STANDARDS AUSTRALIA

Australian Standard

Cylinders for dissolved acetylene

1 SCOPE

This Standard specifies the basic requirements for steel cylinders of 5 kg to 160 kg water capacity intended for the storage and transport of dissolved acetylene. Requirements for the porous filler, the solvent, and the cylinder marking are also specified.

NOTE: AS 2030.2 specifies requirements for the filling, inspection and maintenance of cylinders for compressed acetylene dissolved in a solvent.

2 REFERENCED DOCUMENTS

A list with the titles of the documents referred to in this Standard is given in Appendix A.

3 DEFINITIONS

For the purposes of this Standard, the definitions in AS 2030.1 and the following definitions apply:

3.1 Cylinder manufacturer

The organization that produced the completed, but not necessarily charged, acetylene cylinder.

3.2 Dissolved acetylene cylinder

A cylinder and a valve, with safety devices, containing a porous filler, and a solvent for the storage of dissolved acetylene.

3.3 Maximum acetylene charge

The mass of acetylene nominated by the acetylene cylinder manufacturer as being that which may be charged into the cylinder exclusive of the mass of dissolved acetylene to saturate the solvent at atmospheric pressure and at 15°C.

3.4 Tare mass

The combined mass of the cylinder, the valve, well packing, safety devices, the porous filler, the solvent, the dissolved acetylene sufficient to saturate the solvent at atmospheric pressure and at 15°C, and any valve protection features that are permanently attached directly to the cylinder.

4 CYLINDER SHELL

4.1 Shell specification

The cylinder shell shall be of steel, and shall be manufactured in accordance with one of the following Standards, but the cylinder markings shall be in accordance with this Standard:

- (a) AS 2469.
- (b) AS 2470.
- (c) AS 2875.
- (d) ISO 4706.