AS 2030.1:2026

Australian STANDARD®

STANDARDS Australia

Gas cylinders

Part 1: General requirements for pressure receptacles



AS 2030.1:2026

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- Australasian Fire and Emergency Service Authorities Council
- Australasian Institute of Dangerous Goods Consultants
- Australia New Zealand Industrial Gas Association
- Australian Chamber of Commerce and Industry
- Australian Gas Association
- Australian Refrigeration Council
- Engineers Australia
- Fire Protection Association of Australia
- Gas Energy Australia
- Gas Technical Regulators Committee
- Materials Australia
- National Transport Commission
- SafeWork NSW Agency
- SafeWork SA
- Victorian WorkCover Authority (WorkSafe Victoria)
- Weld Australia

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- International Accreditation New Zealand
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Australian Standard®

Gas cylinders

Part 1: General requirements for pressure receptacles

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How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Australian members of Joint Australia/New Zealand Standards Committee ME-002, Gas Cylinders, to supersede AS 2030.1:2009.

The objective of this document is to specify requirements for the design, verification and manufacture of all cylinders, pressure drums, tubes and closed cryogenic receptacles for the storage and transport of compressed, dissolved and liquefied gases.

A list of all parts in the AS 2030 series can be found in the Standards Australia online catalogue.

The major changes in this edition are as follows:

(a) Adoption of terms and definitions to harmonize with the Australian Code for the Transportation of Dangerous Goods by Road and Rail (ADG Code), that uses definitions from the UN Model Regulations on the Transportation of Dangerous Goods.

Specifically —

(i) the term “pressure receptacle” is used as a collective term that includes cylinders, bundles of cylinders, pressure drums, tubes and closed cryogenic receptacles; and

NOTE 1 The term “pressure receptacle” also includes metal hydride storage systems and salvage pressure receptacles that are not in the scope of this document.

(ii) unlike previous editions of this document, the terms “gas cylinder” and “welded gas cylinder” are not used as either generic or collective terms.

NOTE 2 When reading an Australian Standard published prior to this document, take care to understand if the terms “gas cylinder” or “welded gas cylinder” are being used as either a generic or collective term.

(b) Water capacity is expressed in litres (L) instead of kilograms.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a document, whereas an “informative” appendix is only for information and guidance.

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Introduction

This revision of AS 2030.1 continues a tradition of more than 90 years, since the original release of AS CB4—1931, of setting out technical requirements for the design, type testing, verification, manufacturing, inspection, documentation and filling of gas pressure receptacles.

This document reflects the considerable body of experience accumulated over the years by the compressed gas industry and codified by the Australian members of Standards Australia Committee ME-002, Gas Cylinders. Together with its many subordinate standards, AS 2030.1 has specified and documented a voluntary technical working model for gas pressure receptacles in Australia.

Over the later part of this period, the global development and adoption of ISO standards and the regulatory environment for gas pressure receptacles has evolved considerably. As has the relationship between regulations and this document. The most significant regulations are the *National Standard for Plant* [NOHSC:1010(1994)], the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (ADG Code), and the local regulations which implement these in the various states and territories. As these regulations have evolved so has this document.

These regulations and codes may refer to AS 2030.1 for technical specifications and details. Despite these references, AS 2030.1 remains a technical standard limited to setting out specifications, test methods and in general providing a technical model for gas pressure receptacle requirements.

The regulations and codes specify requirements which may be covered partially or not at all in AS 2030.1. Conversely, not all the AS 2030.1 requirements may lead to action by the regulatory authorities. This applies particularly to the requirements for the manufacture and manufacturing inspection of gas pressure receptacles outside Australia.

Hence, users of AS 2030.1 should be fully aware that implementation of this document's specifications and guidelines is totally outside its jurisdiction, and they need to refer to the relevant regulations and codes to determine their responsibilities and obligations.

It cannot be emphasized too strongly that conformance to this document may not necessarily fulfil all legal obligations.

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Gas cylinders

Part 1: General requirements for pressure receptacles

1 Scope

This document specifies requirements for the design, verification and manufacture of all gas cylinders, pressure drums, tubes and closed cryogenic receptacles for the storage and transport of compressed, dissolved and liquefied gases.

NOTE 1 AS 2030.2 sets out additional requirements for compressed, dissolved acetylene cylinders.

NOTE 2 Designation AS 2030.3 is currently not in use.

NOTE 3 AS 2030.4 sets out additional requirements for closed cryogenic receptacles (formerly called insulated welded cylinders).

NOTE 4 AS 2030.5 sets out additional requirements for the filling, inspection and testing of refillable gas cylinders (with the exception of cylinders for dissolved acetylene), pressure drums and tubes.

This document does not apply to the following:

(a) Metal hydride storage systems or salvage pressure receptacles.

(b) Cylinders forming part of aircraft equipment and used solely in aircraft other than as a reference made in a direction pursuant to the Civil Aviation Regulations.

(c) Aerosol containers and gas cartridges.

(d) Non-refillable cylinders.

NOTE 5 For non-refillable cylinders, refer to ISO 11118.

(e) Tanks or vessels manufactured in accordance with Pressure Vessel Standards (e.g. AS 1210, ASME).

The requirements for cylinders in fire extinguisher systems and fire extinguishers, apply only where suitable requirements are not given in another Australian Standard.

NOTE 6 While this document is written for application to gas pressure receptacles, some of its requirements are referenced by standards related to pressure vessels (e.g. automotive fuel vessels for LP Gas).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 2030.2, *The verification, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases, Part 2: Cylinders for dissolved acetylene*

AS 2030.4, *The verification, filling, inspection, testing and maintenance of cylinders for storage and transport of compressed gases, Part 4: Welded cylinders—Insulated*

AS 2030.5, *Gas cylinders, Part 5: Filling, inspection and testing of refillable cylinders*

AS 2337.1, *Gas cylinder test stations, Part 1: General requirements, inspections, and tests—Gas cylinders*

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