

Australian Standard[®]

**Alloy steel cylinders for compressed
gases—Seamless—0.1 kg to 500 kg**

This Australian Standard was prepared by Committee ME/2, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 1 December 1994 and published on 5 February 1995.

The following interests are represented on Committee ME/2:

A.C.T. Occupational Health and Safety Office
Aluminium Development Council
Australian Assembly of Fire Authorities
Australian Chamber of Commerce and Industry
Australian Gas Association
Australian Liquefied Petroleum Gas Association
Australian Underwater Federation
Bureau of Steel Manufacturers of Australia
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First published as AS B114—1960.
Revised and redesignated AS 2875—1986.
AS B114—1960 made obsolescent.
Second edition AS 2875—1995.

PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee ME/2 on Gas Cylinders to supersede AS 2875—1986. It converts the 1986 edition to a variable property code for chromium-molybdenum steels thus obtaining the benefit of steels with strengths up to those specified in BS 5045.1, *Transportable gas containers, Part 1: Specification for seamless steel gas containers above 0.5 litre water capacity*, while still maintaining the proven safety margins.

As the current steel strengths, given in the 1986 edition (600 MPa yield, 770 MPa ultimate), relate to the advances in steel technology, it is, in effect, obsolete. This Standard should raise the efficiency to 4% greater than BS 5045.1 when using BS 5045.1 steel, but still preserving the current efficiency for a low-strength steel.

This Standard does not compromise safety, as the chemical composition limits of steel B are almost identical to those of BS 5045.1, Type CM. The mechanical requirements of Australian and UK steels are almost identical with regard to the quenching and tempering temperatures, and the bend test requirements. There are minor differences in the elongation test where AS 2875 requires 13% on non-standard geometry, while BS 5045.1 requires 14% on standard geometry.

There are to date many millions of BS 5045.1 Type CM cylinders in service, lending strong evidence that this Standard is safe and acceptable.

As an additional safety factor, limits on the strength of the steels used in this Standard, and known to induce stress cracking, are within those stated in the British, American and ISO Standards.

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.

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