Australian/New Zealand Standard™

Pressure equipment

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME/1, Pressure Equipment. It was approved on behalf of the Council of Standards Australia on 2 April 2000 and on behalf of the Council of Standards New Zealand on 3 April 2000. It was published on 23 June 2000.

The following interests are represented on Committee ME/1:

Australasian Corrosion Association
Australasian Institute of Engineer Surveyors
Australian Aluminium Council
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Institute of Energy
Australian Institute of Petroleum
Boiler and Pressure Vessel Manufacturers Association of Australia
Bureau of Steel Manufacturers of Australia
Department of Labour, New Zealand
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Institution of Professional Engineers, New Zealand
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New Zealand Petrochemical Users Group
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Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 98082.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/1, Pressure Equipment to supersede AS/NZS 1200:1994, *Pressure equipment*.

The provisions of this edition (2000) of the Standard are not endorsed by any Australian State or Territory Regulatory Authorities. Therefore, this Standard has not achieved consensus from the members of the Joint Committee. However, it is endorsed by the Joint Committee as an 'industry Standard', a decision that does have the consensus of the Joint Committee, including representatives of the Australian Regulatory Bodies.

Consensus means general agreement by all interested parties. Consensus includes an attempt to remove all objections and implies much more than the concept of a simple majority, but not necessarily unanimity. It is consistent with this meaning that a member may be included in the Committee list and yet not be in full agreement with all clauses in this Standard.

Changes to the 1994 edition include the following:

(a) Recognition of the trend to self-regulation and the need for clear guidance to industry.

(b) Closer alignment of Australian and New Zealand requirements.

(c) Increased flexibility in selection of suitable reference Standards in both countries.

(d) Revision of the methods for handling inquiries.

(e) Revision of Appendix E, Definitions.

(f) Incorporation of Appendix J, Safety Recommendations.

(g) Revision of Table 2.1, Standards for pressure equipment used in Australia and New Zealand.

(h) Incorporation of Figure G1, Organization of Standards for pressure equipment used in Australia and New Zealand.

These changes aim to improve flexibility and clarity, and are not expected to have significant effect on safety which would warrant retrospective action for equipment complying with the 1994 edition of this Standard.

AS CB1—1932, the original *SAA Boiler Code*, was first issued in 1931 to provide detailed guidance on the practices to be adopted in the design, manufacture and testing of boilers, unfired pressure vessels and associated equipment, and also to assist in obtaining uniform regulatory requirements throughout Australia.

When the first metricated Standards of the *SAA Boiler Code* were published in 1972, the opportunity was taken to prepare and publish this Standard as a central reference Standard for all Standards forming the *SAA Boiler Code*.

In 1985, major changes were made to extend coverage from the concept stage through to final disposal, and to restructure the Code with 'common or core Standards' to unify similar requirements for different pressure equipment, e.g. welding qualification and non-destructive examination.

In New Zealand, similar changes have been made with the requirements of the Marine Department's Boiler Code being generally replaced by the appropriate use of BSI or ASME Standards.

This new edition continues the above development by using this Standard as the major reference document, and also to provide common requirements for pressure equipment which promote safety and uniformity throughout Australia and New Zealand.

The objective of this Standard, in the light of recent regulatory changes, is to—

(i) clarify overall requirements for pressure equipment used in Australia and New Zealand;

(ii) identify sound economic means of helping to satisfy safety, contract, trade and other relevant laws;

(iii) provide a standard system which recognizes local and international good practices, is mutually acceptable to Australia and New Zealand and is compatible with recognized world Standards; and

(iv) not override regulations or legislation.

Appendix D provides guidance on New Zealand regulatory matters.

It should be noted that AS 3920.1—1993, *Assurance of product quality*, Part 1: *Pressure equipment manufacture*, is currently under revision and is superseded, in part, by AS 4343, *Pressure equipment—Hazard levels*.

Whilst reference to AS 3920.1 is not made in this Standard, reference may be made to it in other pressure equipment Standards until the revision is completed.

Also, in New Zealand, AS 3920.1 will be replaced by the Approved Code of Practice for the Design, Manufacture, Operation, Maintenance and Servicing of Pressure Equipment which will support the Pressure Equipment, Cranes and Passenger Ropeways Regulations.

The Regulatory Authorities of New South Wales (WorkCover New South Wales), Victoria (Victorian WorkCover Authority) and Tasmania (Department of Infrastructure, Energy and Resources), do not endorse the provisions of AS 3920.1—1993.

This Standard is a developing document and as such, will require ongoing amendments and revisions.

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.

Statements expressed in mandatory terms in notes to tables and figures are requirements of this Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard is a 'parent' document for use by the pressure equipment industry in Australia and New Zealand. It covers the design, materials, manufacture, examination, testing, installation, conformity assessment, commissioning, operation, inspection, maintenance, repair, alteration and disposal of pressure equipment (boilers, pressure vessels and pressure piping), but excluding gas cylinders and other equipment as set out in Appendix A.

This Standard specifies detailed requirements for various pressure equipment by direct reference to a range of Australian, New Zealand and other Standards.

This Standard also sets out general administrative and interpretation provisions which apply to the specified Standards.

NOTES:

1 Appendix D contains New Zealand regulatory matters.

2 Appendix F contains a comparison of pressure equipment Standards.

1.2 OBJECTIVE The purpose of this Standard is to provide requirements and guidance expressed in specification form, suitable for use in contracts or other documentation, in order to—

(a) achieve safe, economic and equitable supply and use of this equipment in Australia and New Zealand;

(b) provide various means to assist in complying with basic requirements (see Clause 2.1); and

(c) incorporate the experience and know-how from both countries and world practice.

1.3 APPLICATION This Standard is intended to apply to the pressure equipment specified in Appendix A. However, where appropriate and by agreement between the parties concerned, this Standard and its referenced Standards may also be used for all or part of the pressure equipment in Paragraph A3 or for other equipment or plant under pressure.

Equipment with hazard level E to AS 4343 may be covered by one or more of the following methods:

(a) Standards referenced in this Standard.

(b) Other applicable Standards.

(c) Sound engineering practice which achieves a comparable level of safety.

Users of this Standard are reminded that it has no legal authority in its own right, but may acquire legal standing when—

(i) adopted by a government or other authority having jurisdiction;

(ii) specified in a contract; or

(iii) a manufacturer, supplier or user states that pressure equipment is in accordance with this Standard or referenced Standards.