

AS 1796:2022



# Pressure equipment — Qualification of welders, welding supervisors and welding inspectors



AS 1796:2022

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- Australian Aluminium Council
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- Australian Institute for Non-Destructive Testing
- Australian Institute for the Certification of Inspection Personnel
- Australian Institute of Petroleum
- Better Regulation Division (Fair Trading, SafeWork NSW, TestSafe)
- Bureau of Steel Manufacturers of Australia
- Compressed Air Association of Australasia
- Energy Networks Australia
- Engineers Australia
- Gas Energy Australia
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- Materials Australia
- Office of Industrial Relations, Qld
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# **Pressure equipment — Qualification of welders, welding supervisors and welding inspectors**

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## Preface

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee ME-001, Pressure Equipment, to supersede AS 1796—2001, *Certification of welders and welding supervisors*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard, rather than an Australian/New Zealand Standard.

The objective of this document is to specify the requirements for the qualification of welders, welding supervisors and welding inspectors engaged in welding processes used in the manufacture of pressure equipment, including requirements for the syllabus for the practical and/or theory components of each qualification.

The major changes in this edition are as follows:

- (a) Requirements for a welding inspector qualification, sourced from AS/NZS 4481, have been added as Certificate No. 11.
- (b) Test plate thickness for butt welds has been modified to permit maximization of the range of welder qualification where joint qualification to AS/NZS ISO 9606.1 is sought.
- (c) Minimum requirements for Certificates No. 3 and No. 3E aligned with other qualifications.
- (d) Reference to cellulosic consumables has been removed.
- (e) Weld testing requirements, including minimum test plate width, have been aligned with those of AS/NZS ISO 9606.1, and requirements for free bend tests removed.
- (f) Editorial changes have been made, including the following:
  - (i) Clarification of the meanings of several clauses.
  - (ii) Revision of normative references and addition of Bibliography, which includes informative references and an updated list of further reading, and revision of normative references.
  - (iii) Replacement of references to “certification” consistent with Standards Australia requirements.
  - (iv) Alignment with current Standards Australia style and wording, including removal of roles and responsibilities.
- (g) The syllabi have been moved into the appendices and expanded to account for a clearer content, learning outcomes and assessment criteria.

It is not intended that the publication of this edition will invalidate certificates that were issued in respect of previous editions of this document.

The terms “normative” and “informative” are used in Standards 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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## NOTES



# Australian Standard®

## Pressure equipment — Qualification of welders, welding supervisors and welding inspectors

### Section 1 Scope and general

#### 1.1 Scope

This document sets out the requirements for the qualification of welders, welding supervisors and welding inspectors engaged in welding processes used in the manufacture of pressure equipment, such as boilers, pressure vessels and associated piping, as defined in AS/NZS 1200, as well as other applications requiring a prescribed standard in the theory and practice of welding.

Qualification in welding is related primarily to welding techniques and processes and not to the parent metal of the joint.

The welder qualification comprises the following:

- (a) Preparation of test plates conforming to the requirements of this document.
- (b) Following designated weld procedure(s).
- (c) Qualifying welded test plates conforming to this document, and as appropriate, to AS/NZS ISO 9606.1.

NOTE 1 Unless otherwise specified, welders qualified to this document are required to undertake additional qualification tests as specified in the appropriate application standards (e.g. AS 3992) prior to the commencement of welding.

Requirements for the syllabus for the practical and theory component of the welder qualification are set out in [Section 2](#) and [Appendix A](#).

In addition, this document sets out requirements for the qualification of pressure equipment welding supervisors, which provide for a high degree of knowledge of the theory and practice of welding needed to supervise welders in accordance with AS/NZS 1200.

NOTE 2 The requirements are consistent with the requirements of AS/NZS ISO 14731 for the supervision of welding and welding-related activities on pressure equipment.

Requirements for the syllabus for the theory component of the welding supervisor qualification are set out in [Section 3](#) and [Appendix B](#).

This document also sets out requirements for the qualification of pressure equipment welding inspectors, which build on the knowledge of the theory and practice of welding in the welding supervisor qualification with a specific focus on inspection requirements.

NOTE 3 The syllabus items for welding inspector have been sourced from AS/NZS 4481.

Requirements for the syllabus for the practical and theory component of the welding inspector qualification are set out in [Section 4](#) and [Appendix C](#).

This document may be used when specified for applications to AS/NZS 2885.2.

This document excludes requirements for the qualification of personnel for the welding of non-metallic materials and for the certification of personnel.