

AS/NZS ISO 3834.6:2024
ISO 3834-6:2024



Australian/New Zealand Standard™

Quality requirements for fusion welding of metallic materials

Part 6: Guidelines on implementing the AS/NZS ISO 3834 series



AS/NZS ISO 3834.6:2024

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- Australian Industry Group
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- Australian Steel Association
- Australian Steel Institute
- Australian Welding Institute
- Better Regulation Division (Fair Trading, SafeWork NSW, TestSafe)
- Bureau of Steel Manufacturers of Australia
- Energy Networks Australia
- Engineers Australia
- Materials Australia
- National Association of Testing Authorities Australia
- New Zealand Heavy Engineering Research Association
- New Zealand Non-Destructive Testing Association
- Steel Reinforcement Institute of Australia
- The Australasian Corrosion Association Incorporated
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WD-003 Welding of Structures, to supersede AS/NZS ISO 3834.6:2019, *Quality requirements for fusion welding of metallic materials, Part 6: Guidelines on implementing AS/NZS ISO 3834 series Standards*.

The objective of this document is to provide guidelines for the implementation of requirements given in the other parts of the AS/NZS ISO 3834 series. It is intended to help users select the appropriate part of the AS/NZS ISO 3834 series. It is expected that users will already be familiar with the AS/NZS ISO 3834 series as a whole.

This document does not provide additional requirements to those in AS/NZS ISO 3834.1 to AS/NZS ISO 3834.5.

This document is identical with, and has been reproduced from, ISO 3834-6:2024, *Quality requirements for fusion welding of metallic materials — Part 6: Guidelines on implementing the ISO 3834 series*.

As this document has been reproduced from an international document, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 10, *Quality management in the field of welding*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This document cancels and replaces ISO/TR 3834-6:2007, which has been technically revised.

The main changes are as follows:

- document changed from a Technical Report to an International Standard;
- references to IIW and IAB removed;
- [Clause 11](#) updated to address visual testing of welds;
- text aligned with ISO 14731.

A list of all parts in the ISO 3834 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: <https://committee.iso.org/sites/tc44/home/interpretation.html>.

Introduction

Welding is a special process in that it is not always possible to verify the final result by testing. The quality of the weld is manufactured into the product, not inspected. This means that welding normally requires continuous control or that specific procedures be followed, or both. The ISO 3834 series deals with quality requirements in welding and has been prepared in order to identify those controls and procedures.

The ISO 3834 series is not a quality system standard intended to take the place of ISO 9001, but a useful, additional tool for use when ISO 9001 is applied by manufacturers, in which case the meeting of its requirements needs to be recorded in certificates or documentation. However, the ISO 3834 series can be used independently of ISO 9001.

The ISO 3834 series is intended for the fusion welding of metallic materials, and its application is independent of the products manufactured. However, its principles and many of its detailed requirements are also relevant for other welding and welding-related processes.

One of the aims of the ISO 3834 series is to specify requirements in the field of welding so that contracting parties or regulators do not have to do this themselves. A reference to a particular part of the ISO 3834 series should be sufficient to demonstrate the capabilities of the manufacturer to control welding activities for the type of work being done. This concept also applies to committees responsible for drafting product standards.

The ISO 3834 series does not in itself require external assessment or certification. However, assessments by customers and certification by independent bodies are growing trends in commercial relations and the series can serve as a basis for these purposes, as well as for the demonstration of performance by those manufacturers implementing it.

Other International Standards covering resistance welding and thermal spraying include the ISO 14554 series and ISO 14922, respectively.

NOTES

Australian/New Zealand Standard

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Part 6: Guidelines on implementing the AS/NZS ISO 3834 series

1 Scope

This document gives guidelines for the implementation of requirements given in the other parts of the ISO 3834 series. It is intended to help users select the appropriate part of the ISO 3834 series. It is expected that users will already be familiar with the ISO 3834 series as a whole.

This document does not provide additional requirements to those in ISO 3834-1 to ISO 3834-5.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Abbreviated terms

For the purposes of this document, the following abbreviated terms apply.

NDT	non-destructive testing
PWHT	post-weld heat treatment
pWPS	preliminary welding procedure specification
WI	work instruction
WPQR	welding procedure qualification record
WPS	welding procedure specification

5 Using the ISO 3834 series

5.1 General

ISO 3834-1 provides criteria for the selection and use of the ISO 3834 series. The following subclauses identify different ways that the manufacturer can select or be required to adopt a part of ISO 3834.

5.2 Product standards

Where product standards require control of fusion welding, the ISO 3834 series should be used to organize those welding activities.