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AS/NZS 1554.4:2014
(Incorporating Amendment No. 1)

AS/NZS 1554.4:2014

Australian/New Zealand Standard™

Structural steel welding

**Part 4: Welding of high strength
quenched and tempered steels**



AS/NZS 1554.4:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WD-003, Welding of Structures. It was approved on behalf of the Council of Standards Australia on 24 September 2014 and on behalf of the Council of Standards New Zealand on 12 September 2014.
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Australasian Corrosion Association
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
Austroads
Bureau of Steel Manufacturers of Australia
Energy Networks Association
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Part 4: Welding of high strength quenched and tempered steels

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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 1554.4:2010.

This Standard incorporates Amendment No. 1 (September 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide rules for the welding of a wide range of steel constructions, using high strength quenched and tempered steel parent material.

The objective of this revision is to update the Standard and bring it in line with the latest edition of AS/NZS 1554.1, *Structural steel welding*, Part 1: *Welding of steel structures*.

This edition incorporates the following major changes to the 2010 edition:

(a) *Revision of the following Clauses:*

1.1, 2.3.1, 2.3.3, 3.1.2 (new), 3.1.3, 4.1.1 (Note 2), 4.1.4, 4.2(b), 4.3.2 (new clause), 4.5.5.1, 4.6.1.1 (new sub clause), 4.7.1, 4.7.7, 4.12.1, 4.12.2.3, 5.1.1 (new note), 5.2.2, 7.2(a) (new), 6.2.2, 6.3.3, 6.4.3 (new), 6.7 (Note 2), 6.8 (new note), 7.2 (new), 7.4, F2.2, F4.

(b) *Revision of the following Tables:*

4.1.3, 4.5.5.1 (Title and Note 2, 4.5.5.4 (Title), 4.6.1(A), 4.6.1(B), 4.6.2, 4.7.1 (Notes 1 and 3 revised), Table 4.11(A) Item (u) deleted, 4.11(D) (new), 4.12.2(B) (Note 1), 5.3.4, 6.2, E4 (items renumbered and revised).

(c) *Revision of the following Figures:*

5.2.2 (new), 6.2(a) and (b).

The Standard requires that weld preparations, welding consumables and welding procedures be qualified before commencement of welding. Prequalified joint preparations, welding consumables and welding procedures are also given in the Standard.

The Standard, in catering for structures subject to fatigue conditions as well as statically loaded structures, provides three categories of welds with three differing levels of weld quality assurance associated with the different types of service to which the welds are subjected. The intention is that the designer should select the category suited to the severity of the service and nominate this on the drawings. Where a structure contains more than one category, this nomination of appropriate categories will ensure that appropriate levels of supervision and inspection will be applied to the relevant parts of the structure.

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

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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