



This is a free page sample. Access the full version online.
Share your feedback about this standard.
Scan the QR code on your phone or click/ enter the link to take the survey
feedback.standards.org.au/1554.6:2012

AS/NZS 1554.6:2012

AS/NZS 1554.6:2012

Australian/New Zealand Standard™

Structural steel welding

Part 6: Welding stainless steels for structural purposes



AS/NZS 1554.6:2012

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 16 February 2012 and on behalf of the Council of Standards New Zealand on 9 May 2012.

This Standard was published on 31 May 2012.

The following are represented on Committee WD-003:

Australasian Corrosion Association
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
AUSTROADS
Bureau of Steel Manufacturers of Australia
Engineers Australia
New Zealand Heavy Engineering Research Association
New Zealand Non-Destructive Testing Association
Steel Reinforcement Institute of Australia
The University of Sydney
Welding Technology Institute of Australia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

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 or Standards New Zealand at the address shown on the back cover.

AS/NZS 1554.6:2012

Australian/New Zealand Standard™

Structural steel welding

Part 6: Welding stainless steels for structural purposes

Originated as AS/NZS 1554.6:1994.
Second edition 2012.

COPYRIGHT

© Standards Australia Limited/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140

ISBN 978 1 74342 116 1

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WD-003, Welding of Structures, to supersede AS/NZS 1554.6:1994.

The objective of this Standard is to provide rules for the welding of a wide range of stainless steel fabrications (other than pressure vessels and pressure piping), and it applies to statically and dynamically loaded welds.

The objective of this revision is to substantially update the Standard to reflect changes in structural welding since the publication of the original edition in 1994. As this is a major revision, changes from the previous edition are not indicated in this Preface.

This 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 this Standard.

Strength capacity of welds is not covered in this Standard and designers are referred to relevant design codes or specifications for this purpose.

Statements expressed in mandatory terms in notes to tables 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.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 EXCLUSIONS.....	5
1.3 INNOVATION	6
1.4 NORMATIVE REFERENCES	6
1.5 DEFINITIONS.....	6
1.6 WELD CATEGORIES AND SURFACE FINISHES.....	6
1.7 MANAGEMENT OF QUALITY.....	7
1.8 HEAT TREATMENT	7
1.9 SAFETY	8
SECTION 2 MATERIALS OF CONSTRUCTION	
2.1 GENERAL.....	9
2.2 PARENT MATERIAL.....	9
2.3 BACKING MATERIAL	9
2.4 WELDING CONSUMABLES.....	9
SECTION 3 DETAILS OF WELDED CONNECTIONS	
3.1 GENERAL.....	11
3.2 BUTT WELDS	11
3.3 FILLET WELDS	14
3.4 COMPOUND WELDS	16
3.5 SEAL WELDS.....	18
3.6 PLUG WELDS	18
3.7 SLOT WELDS.....	18
3.8 COMBINING STEEL SECTIONS	18
SECTION 4 QUALIFICATION OF PROCEDURES AND PERSONNEL	
4.1 QUALIFICATION OF WELDING PROCEDURE.....	20
4.2 METHOD OF QUALIFICATION OF WELDING PROCEDURE	22
4.3 PREQUALIFIED WELDING PROCEDURES.....	22
4.4 PORTABILITY OF QUALIFIED WELDING PROCEDURES	23
4.5 PREQUALIFIED JOINT PREPARATIONS	23
4.6 QUALIFICATION OF WELDING CONSUMABLES.....	30
4.7 QUALIFICATION OF WELDING PROCEDURE BY TESTING.....	34
4.8 EXTENSION OF QUALIFICATION.....	38
4.9 COMBINATION OF PROCESSES	39
4.10 RECORDS OF TESTS	41
4.11 REQUALIFICATION OF WELDING PROCEDURES	41
4.12 QUALIFICATION OF WELDING PERSONNEL	45
SECTION 5 WORKMANSHIP	
5.1 GENERAL.....	50
5.2 TRANSPORT, STORAGE AND HANDLING	50
5.3 MARKING	50
5.4 CUTTING.....	50
5.5 FABRICATION.....	51
5.6 PREPARATION OF EDGES FOR WELDING.....	51
5.7 ASSEMBLY	51

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-