

This is a preview of "ISO 9606-1:2012". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2012-07-15

Qualification testing of welders — Fusion welding —

Part 1: Steels

Épreuve de qualification des soudeurs — Soudage par fusion

Partie 1: Aciers



Reference number
ISO 9606-1:2012(E)

© ISO 2012

This is a preview of "ISO 9606-1:2012". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 9606-1:2012". Click here to purchase the full version from the ANSI store.

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references.....	1
3 Terms and definitions	2
4 Reference numbers, symbols and abbreviated terms.....	4
4.1 General	4
4.2 Reference numbers of welding processes	4
4.3 Symbols and abbreviated terms	4
5 Essential variables and range of qualification	6
5.1 General	6
5.2 Welding processes.....	7
5.3 Product type.....	8
5.4 Type of weld.....	9
5.5 Filler material grouping.....	9
5.6 Filler material type.....	10
5.7 Dimensions	11
5.8 Welding positions.....	13
5.9 Weld details.....	15
6 Examination and testing	15
6.1 Examination	15
6.2 Test pieces	16
6.3 Welding conditions	18
6.4 Test methods	18
6.5 Test piece and test specimen	19
6.6 Test report.....	23
7 Acceptance requirements for test pieces	23
8 Re-tests.....	24
9 Period of validity.....	24
9.1 Initial qualification	24
9.2 Confirmation of the validity	24
9.3 Revalidation of welder qualification	24
9.4 Revocation of qualification	24
10 Welder's qualification test certificate	25
11 Designation	25
Annex A (informative) Welder's qualification test certificate	27
Annex B (informative) Job knowledge.....	28
Annex C (informative) FW/BW test assembly option	31
Bibliography.....	32

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9606-1 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 11, *Qualification requirements for welding and allied processes personnel*.

This second edition cancels and replaces the first edition (ISO 9606-1:1994), which has been technically revised. It also incorporates the Amendment ISO 9606-1:1994/Amd.1:1998.

ISO 9606 consists of the following parts, under the general title *Qualification testing of welders — Fusion welding*:

- *Part 1: Steels*
- *Part 2: Aluminium and aluminium alloys*
- *Part 3: Copper and copper alloys*
- *Part 4: Nickel and nickel alloys*
- *Part 5: Titanium and titanium alloys, zirconium and zirconium alloys*

Requests for official interpretations of any aspect of this part of ISO 9606 should be directed to the Secretariat of ISO/TC 44/SC 11 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

This is a preview of "ISO 9606-1:2012". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The ability of a welder to follow verbal or written instructions and verification of a person's skills are important factors in ensuring the quality of the welded product.

The testing of a welder's skill in accordance with this International Standard depends on the welding techniques and conditions used, in which uniform rules are complied with and standard test pieces are used.

The principle of this International Standard is that a qualification test qualifies a welder not only for the conditions used in the test, but also for all other conditions which are considered easier to weld in accordance with this International Standard. It is presumed that the welder has received training and/or has industrial practice within the range of qualification.

The qualification test can be used to qualify a welding procedure and a welder provided that all the relevant requirements, e.g. test piece dimensions and testing requirements are satisfied (see ISO 15614-1^[11]).

All new qualifications shall be in accordance with each part of this International Standard from its date of issue.

At the end of its period of validity, existing qualification tests of welders in accordance with the requirement of a national standard may be revalidated according to this International Standard. This is providing that the technical intent of this International Standard is satisfied. It is necessary for the new range of qualification to be interpreted in accordance with the requirements of this International Standard.