STN	Zváranie a príbuzné procesy Polohy zvárania (ISO 6947: 2019)	STN EN ISO 6947
		05 0024

Welding and allied processes - Welding positions (ISO 6947:2019)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/20

Obsahuje: EN ISO 6947:2019, ISO 6947:2019

Oznámením tejto normy sa ruší STN EN ISO 6947 (05 0024) z novembra 2011

STN EN ISO 6947: 2020

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN ISO 6947** 

October 2019

ICS 25.160.40

Supersedes EN ISO 6947:2011

**English Version** 

### Welding and allied processes - Welding positions (ISO 6947:2019)

Soudage et techniques connexes - Positions de soudage (ISO 6947:2019)

Schweißen und verwandte Prozesse - Schweißpositionen (ISO 6947:2019)

This European Standard was approved by CEN on 14 October 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### EN ISO 6947:2019 (E)

Contents	Page
_	_
European foreword	3

#### **European foreword**

This document (EN ISO 6947:2019) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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

This document supersedes EN ISO 6947:2011.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 6947:2019 has been approved by CEN as EN ISO 6947:2019 without any modification.

# INTERNATIONAL STANDARD

ISO 6947

Fourth edition 2019-10

## Welding and allied processes — Welding positions

 $Soudage\ et\ techniques\ connexes\ --\ Positions\ de\ soudage$ 



ISO 6947:2019(E)



#### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Fax: +41 22 749 09 47 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Cont	tents	Page
Forew	ord	iv
Introd	luction	
1	Scope	1
2	Normative references	1
3	Terms and definitions	
4	Welding positions 4.1 Main welding positions 4.2 Welding positions and allowable deviations for testing 4.3 Welding positions and ranges in production	5
5	Designation	6
Annex	A (informative) Limits of the slope of a weld axis and the rotation of the weld face about the weld axis for welding positions in production welds	8
	B (informative) Comparison of this document and US designation systems for welding positions	
Biblio	graphy	19

#### **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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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 <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 7, *Representation and terms*.

This fourth edition cancels and replaces the third edition (ISO 6947:2011), which has been technically revised. The main changes compared to the previous edition are as follows:

- Figure 1 and Figure 2 have been revised;
- the concept of a special test position which is not covered by defined test positions has been introduced;
- editorial corrections/improvements have been made.

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 <a href="www.iso.org/members.html">www.iso.org/members.html</a>. Official interpretations of TC 44 documents, where they exist, are available from this page: <a href="https://committee.iso.org/sites/tc44/home/interpretation.html">https://committee.iso.org/sites/tc44/home/interpretation.html</a>.

#### Introduction

This document specifies positions for standard discrete test piece orientation, e.g. PA, PB, H-L045, that have been included in this document since the third edition (ISO 6947:2011).

Since the third edition was published, positions for production welding are also defined. These positions are flat, horizontal, vertical, and overhead. Unlike discrete testing positions, these positions are contiguous.

Welding position are not dependent on the geometrical arrangement of the joint, e.g. butt or fillet joint, or that of the semi-finished product. Welds of all types and in all directions are covered.

The direction of welding (i.e. upwards or downwards) can also contribute to defining welding positions.

The main positions have been given symbols which can easily be used for designation purposes; these symbols were not derived from any particular language.

The concept of a special test position, not covered by the existing and well-defined positions, has been included so that testing can be carried out in positions that do not meet the standard requirements.

The relationship between testing positions and production welding positions is specified elsewhere, e.g. in the ISO 9606 series or ISO 15614 series.

#### Welding and allied processes — Welding positions

#### 1 Scope

This document defines welding positions for testing and production, for butt and fillet welds, in all product forms.

<u>Annex A</u> gives examples of the limits of the slope of a weld axis and the rotation of the weld face about the weld axis for welding positions in production welds.

Annex B gives a comparison of this document and US designation systems for welding positions.

#### 2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

R

<