

**METALSETE MATERJALIDE KEEVISÕMBLUSTE
PURUSTAV KATSETAMINE. PAINDEKATSE**

**Destructive tests on welds in metallic materials - Bend
tests (ISO 5173:2009 + ISO 5173:2009/Amd 1:2011)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 5173:2010 +A1:2011 sisaldab Euroopa standardi EN ISO 5173:2010 ingliskeelset teksti ja selle muudatuse A1:2011 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 5173:2009(E)+A1:2011 consists of the English text of the European standard EN ISO 5173:2010 and its amendment A1:2011.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 14.04.2010, muudatus A1 01.11.2011.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation. Date of Availability of the European standard is 14.04.2010, for A1 01.11.2011.
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis ära märgitud märgenditega A1 A1 .	The start and finish of text introduced or altered by amendment A1 is indicated in the text by symbols A1 A1 .
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 25.160.40

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English Version

**Destructive tests on welds in metallic materials - Bend tests
(ISO 5173:2009 + ISO 5173:2009/Amd 1:2011)**

Essais destructifs des soudures sur matériaux métalliques -
Essais de pliage (ISO 5173:2009 +
ISO 5173:2009/Amd 1:2011)

Zerstörende Prüfungen von Schweißnähten an metallischen
Werkstoffen - Biegeprüfungen (ISO 5173:2009 +
ISO 5173:2009/Amd 1:2011)

This European Standard was approved by CEN on 18 March 2010. Amendment A1 was approved by CEN on 31 October 2011.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of ISO 5173:2009 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 5173:2010 by Technical Committee CEN/TC 121 "Welding" 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 October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

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Endorsement notice

The text of ISO 5173:2009 has been approved by CEN as a EN ISO 5173:2010 without any modification.

A1 Amendment A1 European foreword

This document (EN ISO 5173:2010/A1:2011) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding" 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 May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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Endorsement notice

The text of ISO 5173:2009/Amd 1:2011 has been approved by CEN as a EN ISO 5173:2010/A1:2011 without any modification. **A1**

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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.

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.

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ISO 5173 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

This third edition cancels and replaces the second edition (ISO 5173:2000) which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 5 via your national standards body, of which a complete listing can be found at www.iso.org.

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Destructive tests on welds in metallic materials — Bend tests

1 Scope

This International Standard specifies a method for making transverse root, face and side bend tests on test specimens taken from butt welds, butt welds with cladding (subdivided into welds in clad plates and clad welds) and cladding without butt welds, in order to assess ductility and/or absence of imperfections on or near the surface of the test specimen. It also gives the dimensions of the test specimen.

In addition, this International Standard specifies a method for making longitudinal root and face bend tests to be used instead of transverse bend tests for heterogeneous assemblies when base materials and/or filler metal have a significant difference in their physical and mechanical properties in relation to bending.

This International Standard applies to metallic materials in all forms of product with welded joints made by any fusion arc welding process.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

transverse face bend test specimen for a butt weld

TFBB

specimen for which the surface in tension is the side that contains the greater width of the weld or the side from which the welding arc was first applied, applicable to transverse butt weld specimens

See Figure 1.

2.2

transverse root bend test specimen for a butt weld

TRBB

specimen for which the surface in tension is the side opposite to that of the face butt weld bend test specimen, applicable to transverse butt weld specimens

See Figure 2.

2.3

transverse side bend test specimen for a butt weld

SBB

specimen for which the surface in tension is a cross-section of the weld

See Figure 3.

2.4

longitudinal face test specimen for a butt weld

root bend test specimen for a butt weld

LFBB

LRBB

specimen whose direction is parallel to butt weld direction, applicable to face and root bend specimens

See Figure 4.2.5