Keevitajate kvalifitseerimise katse. Sulakeevitus. Osa 1: Terased

Qualification testing of welders - Fusion welding - Part ,201.

O COLICIA GORDANIA GORD 1: Steels (ISO 9606-1:2012 including Cor 1:2012)



#### EESTI STANDARDI EESSÕNA

See Eesti standard EVS-EN ISO 9606-1:2013 sisaldab Euroopa standardi EN ISO 9606-1:2013 ingliskeelset teksti.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.10.2013.

Standard on kättesaadav Eesti Standardikeskusest.

#### NATIONAL FOREWORD

This Estonian standard EVS-EN ISO 9606-1:2013 consists of the English text of the European standard EN ISO 9606-1:2013.

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 16.10.2013.

The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 03.100.30, 25.160.10

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### **EUROPEAN STANDARD**

### **EN ISO 9606-1**

## NORME EUROPÉENNE

## **EUROPÄISCHE NORM**

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ICS 03.100.30; 25.160.10

Supersedes EN 287-1:2011

#### **English Version**

## Qualification testing of welders - Fusion welding - Part 1: Steels (ISO 9606-1:2012 including Cor 1:2012)

Épreuve de qualification des soudeurs - Soudage par fusion - Partie 1: Aciers (ISO 9606-1:2012, Cor 1:2012 et Cor 2:2013 inclus)

Prüfung von Schweißern - Schmelzschweißen - Teil 1: Stähle (ISO 9606-1:2012 + Cor 1:2012)

This European Standard was approved by CEN on 8 August 2013.

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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.

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

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#### **Foreword**

The text of ISO 9606-1:2012 including Cor 1:2012 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 9606-1:2013 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 April 2014, and conflicting national standards shall be withdrawn at the latest by October 2015.

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

This document supersedes EN 287-1:2011.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 9606-1:2012 including Cor 1:2012 has been approved by CEN as EN ISO 9606-1:2013 without any modification.

## Annex ZA (informative)

## Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 97/23/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 97/23/EC

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 97/23/EC	Qualifying remarks/Notes
Clauses 5, 6, 7, 8, 9, 10, 11	Annex I, 3.1.2	Permanant joining

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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#### 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<sup>[11]</sup>).

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 ath.
ts of t. 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.

## Qualification testing of welders — Fusion welding —

# Part 1: Steels

### 1 Scope

This part of ISO 9606 specifies the requirements for qualification testing of welders for fusion welding of steels.

It provides a set of technical rules for a systematic qualification test of the welder, and enables such qualifications to be uniformly accepted independently of the type of product, location and examiner or examining body.

When qualifying welders, the emphasis is placed on the welder's ability manually to manipulate the electrode, welding torch or welding blowpipe, thereby producing a weld of acceptable quality.

The welding processes referred to in this part of ISO 9606 include those fusion-welding processes which are designated as manual or partly mechanized welding. It does not cover fully mechanized and automated welding processes.

NOTE For such processes, see ISO 14732<sup>[10]</sup>.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 857-1, Welding and allied processes — Vocabulary — Part 1: Metal welding processes

ISO 3834-2, Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements

ISO 3834-3, Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements

ISO 4063, Welding and allied processes — Nomenclature of processes and reference numbers

ISO 5173, Destructive tests on welds in metallic materials — Bend tests

ISO 5817, Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections

ISO 6947, Welding and allied processes — Welding positions

ISO 9017, Destructive tests on welds in metallic materials — Fracture test

ISO/TR 15608, Welding — Guidelines for a metallic material grouping system

ISO 15609-1, Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding

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