

### SLOVENSKI STANDARD SIST EN ISO 9712:2012

**01-december-2012** 

Nadomešča:

**SIST EN 473:2008** 

Neporušitveno preskušanje - Kvalificiranje in certificiranje osebja za neporušitvene preiskave - Splošna načela (ISO 9712:2012)

Non-destructive testing - Qualification and certification of NDT personnel - General principles (ISO 9712:2012)

Zerstörungsfreie Prüfung Qualifizierung und Zertifizierung von Personal der zerstörungsfreien Prüfung - Allgemeine Grundlagen (ISO 9712:2012)

Essais non destructifs - Qualification <u>set certification du</u> personnel END - Principes généraux (ISO 971212012) ndards.iteh.ai/catalog/standards/sist/61d086ad-5acc-4a58-baec-187e9ea588a4/sist-en-iso-9712-2012

Ta slovenski standard je istoveten z: EN ISO 9712:2012

ICS:

03.100.30 Vodenje ljudi Management of human

resources

19.100 Neporušitveno preskušanje Non-destructive testing

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**EUROPEAN STANDARD** 

**EN ISO 9712** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

June 2012

ICS 03.100.30; 19.100

Supersedes EN 473:2008

#### **English Version**

### Non-destructive testing - Qualification and certification of NDT personnel (ISO 9712:2012)

Essais non destructifs - Qualification et certification du personnel END (ISO 9712:2012)

Zerstörungsfreie Prüfung - Qualifizierung und Zertifizierung von Personal der zerstörungsfreien Prüfung (ISO 9712:2012)

This European Standard was approved by CEN on 2 June 2012.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

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EN ISO 9712:2012 (E)

#### **Foreword**

This document (EN ISO 9712:2012) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 "Non-destructive testing" the secretariat of which is held by AFNOR.

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 December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

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 473:2008.

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.

For relationship with EU Directive, 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, 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.

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187e9ea5 Endorsement notice2

The text of ISO 9712:2012 has been approved by CEN as a EN ISO 9712:2012 without any modification.

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### 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 one means of conforming to Essential Requirements of the New Approach Directive 97/23/EC, *Pressure Equipment Directive*.

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 confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

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

Clause(s)/sub-clause(s) of this European Standard	Essential Requirements (ERs) of Directive 97/23/EC	Qualifying remarks/Notes
7	Annex I, 3.1.3	
8 <b>i</b>	Teh STAnnex (, 3.1.3 RD P	REVIEW
9.4	Annex I, 3.1.3	a ai)
10	Annex I, 3.1.3	1.41)
11	Annex 1, 3,1.3; 0 9712:201	2

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

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# INTERNATIONAL STANDARD

**ISO** 9712

Fourth edition 2012-06-15

### Non-destructive testing — Qualification and certification of NDT personnel

Essais non destructifs — Qualification et certification du personnel END

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Reference number ISO 9712:2012(E)

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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.

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 9712 was prepared by Technical Committee ISO/TC 135, Non-destructive testing, Subcommittee SC 7, Personnel qualification.

This fourth edition cancels and replaces the third edition (ISO 9712:2005), which has been technically revised.

Changes from the third edition include:

- clarification of responsibilities for the certification body, the qualification body, and the examination centre;
- redrafting of the clause "training" for clarification and change in the number of required hours;
- redrafting of the clause "experience" for clarification;

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- introduction of "digital certificates" / catalog/standards/sist/61d086ad-5acc-4a58-baec-
- other minor technical and editorial changes.

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#### Introduction

Since the effectiveness of any application of non-destructive testing (NDT) depends upon the capabilities of the persons who perform or are responsible for the test, a procedure has been developed to provide a means of evaluating and documenting the competence of personnel whose duties require the appropriate theoretical and practical knowledge of the non-destructive tests they perform, specify, supervise, monitor or evaluate. An added incentive stems from the worldwide comparability of a wide range of industrial applications requiring common non-destructive testing approaches.

When certification of NDT personnel is required in product standards, regulations, codes or specifications, it is important to certify the personnel in accordance with this International Standard. When latitude is provided in the criteria within this International Standard, the certification body has the final decision in determining specific requirements.

When there is no requirement in legislation, in standard or in the order for certification of NDT personnel, it is for employers of such personnel to decide how to assure themselves that they are competent to do the work assignments. Thus, they may employ people who are already certified or they may apply their own expertise so as to assure themselves that their employee has the necessary competence. In this last case, prudent employers would no doubt use this International Standard as a reference document.

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### Non-destructive testing — Qualification and certification of NDT personnel

#### 1 Scope

This International Standard specifies requirements for principles for the qualification and certification of personnel who perform industrial non-destructive testing (NDT).

NOTE 1 The term "industrial" implies the exclusion of applications in the field of medicine.

The system specified in this International Standard can also apply to other NDT methods or to new techniques within an established NDT method, provided a comprehensive scheme of certification exists and the method or technique is covered by International, regional or national standards or the new NDT method or technique has been demonstrated to be effective to the satisfaction of the certification body.

NOTE 2 CEN/TR 14748<sup>[5]</sup> can be used as guidance.

The certification covers proficiency in one or more of the following methods:

- a) acoustic emission testing;
- b) eddy current testing; Teh STANDARD PREVIEW
- c) infrared thermographic testing(standards.iteh.ai)
- d) leak testing (hydraulic pressure tests excluded);

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- e) magnetic testingittps://standards.iteh.ai/catalog/standards/sist/61d086ad-5acc-4a58-baec-
  - 187e9ea588a4/sist-en-iso-9712-2012
- f) penetrant testing;
- g) radiographic testing;
- h) strain gauge testing;
- i) ultrasonic testing;
- j) visual testing (direct unaided visual tests and visual tests carried out during the application of another NDT method are excluded).

NOTE 3 This International Standard specifies requirements for what are, in effect, third party conformity assessment schemes. These requirements do not directly apply to conformity assessment by second or first parties, but relevant parts of this International Standard can be referred to in such arrangements.

NOTE 4 Wherever gender specific words such as "his", "her", "he" or "she" appear in this International Standard, the other gender is also applicable.

#### 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/IEC 17024, Conformity assessment — General requirements for bodies operating certification of persons