SLOVENSKI STANDARD
SIST EN 10256:2001

01-november-2001

Neporušitvene preiskave jeklenih cevi - Kvalificiranje in pristojnost osebja 1. in 2. stopnje za neporušitvene preiskave

Non-destructive testing of steel tubes - Qualification and competence of level 1 and 2 non-destructive testing personnel

Zerstörungsfreie Prüfung von Stahlrohren - Qualifizierung und Kompetenz von Personal der Stufen 1 und 2 für die zerstörungsfreie Prüfung

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Essais non destructifs des tubes en acier - Qualification et compétence du personnel en contrôle non destructif de niveaux 1 et 2

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

Ta slovenski standard je istoveten z: **EN 10256:2000**

ICS:

03.100.30	Vodenje ljudi	Management of human resources
77.040.20	Neporušitveno preskušanje kovin	Non-destructive testing of metals
77.140.75	Jeklene cevi in cevni profili za posebne namene	Steel pipes and tubes for specific use

SIST EN 10256:2001 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN 10256:2001

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

SIST EN 10256:2001

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 10256

April 2000

ICS 23.040.10; 77.040.20

English version

Non-destructive testing of steel tubes - Qualification and competence of level 1 and 2 non-destructive testing personnel

Essais non destructifs des tubes en acier - Qualification et compétence du personnel en contrôle non destructif de niveaux 1 et 2

Zerstörungsfreie Prüfung von Stahlrohren - Qualifizierung und Kompetenz von Personal der Stufen 1 und 2 für die zerstörungsfreie Prüfung

This European Standard was approved by CEN on 29 March 2000.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

© 2000 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

SIST EN 10256:2001

CONTENTS

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

SIST EN 10256:2001

FOREWORD

This European Standard has been prepared by Technical Committee ECISS/TC 29 "Steel tubes and fittings for steel tubes", the secretariat of which is held by UNI.

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 2000, and conflicting national standards shall be withdrawn at the latest by October 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

This draft is based, with modifications, on ISO 11484: Seamless and welded steel tubes for pressure purposes - Qualification and certification of NDT personnel. This draft also takes account of training experience and qualification requirements given in EN 473:1993 “Qualification and certification of NDT Personnel - General principles”, where they apply.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

SIST EN 10256:2001

1 SCOPE

This European Standard establishes a system for qualification by the manufacturer of Level 1 and Level 2 NDT personnel engaged in non-destructive testing (NDT) of seamless and welded steel tubes and associated products, including flat products used in the manufacture of welded tubes, culminating in a declaration of competence by the manufacturer in respect of such personnel.

This standard specifies the pre-requisites training and experience, and qualification requirements for two levels of NDT personnel competence to execute specified tasks in the NDT of seamless and welded steel tubes, including flat products used in the manufacture of welded tubes

This standard permits both manufacturer and manufacturer approved external body training and qualification of Level 1 and Level 2 personnel, as parallel options in the qualification process .

As an alternative to the use of Levels 1, 2 or 3 personnel in the regular employ of the manufacturer, the manufacturer is permitted to engage on a contract basis such personnel from other organisations, provided that they meet the qualification requirements of this Standard.

This European Standard applies to NDT personnel engaged in the NDT of seamless and welded tubes and flat products used in the manufacture of welded tubes, using any one or more of the following NDT methods:

iTeh STANDARD PREVIEW
(standards.iteh.ai)

a) Eddy Current (ET)

b) Flux Leakage (FT)

c) Liquid Penetrant (PT)

d) Magnetic Particle (MT)

e) Radiography (RT)

f) Ultrasonic (UT)

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

Individuals in the test area and having no involvement in the adjustment/set-up of the NDT equipment itself or the recording of test results, are not required to be qualified under the requirements of this standard.

SIST EN 10256:2001

2 NORMATIVE REFERENCES

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of those publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 473:1993 Non-destructive testing - Qualification and certification of NDT personnel - General principles

EN 45020 Glossary of terms for standardisation and related activities.

3 TERMS AND DEFINITIONS

For the purposes of this Standard, the terms and definitions given in EN 45020 together with the following terms and definitions apply.

3.1
qualification

evidence of training, professional knowledge, skill and experience as well as physical fitness to enable NDT personnel to properly perform NDT tasks.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3.2
declaration of competence

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

written statement by the manufacturer (first party) giving an assurance, under his sole responsibility, that a person has attained a specified level of training, experience and knowledge in NDT in accordance with this standard.

3.3
manufacturer

organisation, manufacturing tubes/associates products and flat products used in the manufacture of welded tubes, which employs on a regular basis or engages from an external service company Levels 1, 2 or 3 personnel to execute NDT operations.

3.4
candidate

person seeking qualification.

3.5
manufacturer's qualifying body

manufacturer's department independent of the production department, which either directly or indirectly undertakes the preparation and administration of examinations which lead to the qualification of Levels 1 and 2 personnel and issues the declaration of competence of Level 1 and 2 personnel.

SIST EN 10256:2001

3.6
external qualifying body

body, approved by, but independent of the manufacturer, authorised by the manufacturer to prepare and administer examinations to qualify Levels 1 and 2 personnel.

3.7
NDT method

discipline applying a physical principle in non-destructive testing (e.g. ultrasonic method, eddy current method).

3.8
NDT technique

specific way of utilising an NDT method (e.g. ultrasonic immersion technique, eddy current concentric coil technique).

3.9
set-up

mechanical and/or electronic adjustment of NDT equipment to establish the testing parameters and/or test sensitivity required.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3.10
capability

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

having the ability and/or skill to execute a specific NDT task.

3.11
qualification examination

examination administered by the manufacturer's qualifying body or by a manufacturer approved external qualifying body to demonstrate the general specific and practical knowledge and skill of Level 1 and 2 candidates.

3.12
general examination

written part of the qualification examination concerned with the principles of an NDT method.

3.13
specific examination

written part of the qualification examination concerned with product (steel tubes) knowledge, applicable testing techniques and the knowledge of standards, codes, specifications and acceptance criteria.

SIST EN 10256:2001

3.14

practical examination

part of the qualification examination, administered by the manufacturer, where the candidate has to demonstrate the ability to operate the testing equipment, set-up the test parameters and test sensitivity and to record/analyse the resulting information to the degree required.

3.15

level 1 or level 2 individual

individual qualified to Level 1 or Level 2 in accordance with this European Standard having a valid declaration of competence issued by the manufacturer with enables it after authorising by Level 3 individual to carry out NDT operations in the manufacturer's plant to a specific extent.

3.16

level 3 individual

individual qualified and certified to Level 3 in accordance with EN 473 approved by the manufacturer , authorising the operations to be conducted in the manufacturer's plant and the Level 1 and Level 2 personnel to conduct these operations. A Level 3 individual is included within the examining board of the manufacturer's qualifying body.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4 GENERAL PRINCIPLES

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

4.1 Under the requirements of this European Standard, the manufacturer has sole responsibility for providing a declaration of competence that a person in its employ performing NDT tasks has pre-requisite qualification and has successfully passed qualification examinations, conducted under the aegis of the manufacturer, in one or more of the NDT methods covered by this standard, in respect of one of the two levels of competence (Level 1 or Level 2).

As an alternative to the use of Levels 1 and/or 2 personnel in the regular employ of the manufacturer to carry out the required NDT operations, the manufacturer is permitted to engage on a contract basis such personnel from other organisations e.g. an NDT service company, provided that they meet the qualification requirements of this standard.

In addition, a Level 3 individual either in the regular employ of or engaged by the manufacturer, has the responsibility for administering Level 1 and Level 2 personnel qualification examinations. The Level 3 individual also has the responsibility to authorise the NDT operations to be conducted and the Level 1 and 2 personnel to conduct these operations.

4.2 This standard specifies the pre-requisite qualification requirements in terms of visual acuity, basic education, training and experience which shall be fulfilled by each candidate for eligibility for the qualification examinations. These pre-requisite requirements shall be verified by the manufacturer and endorsed on the declaration of competence.

4.3 The qualification examination for Level 1 and Level 2 personnel shall consist of three parts; a general part, a specific examination and a practical examination

SIST EN 10256:2001

4.4 The general, specific and practical examinations of the qualification examination shall be conducted, at the manufacturer's discretion either by the manufacturer's qualifying body or by the manufacturer authorised/approved external qualifying body.

4.5 The manufacturer's qualifying body shall be constituted by individuals independent of the production departments. These individuals form an independent examining board including at least one Level 3 individual not necessarily in the employ of the manufacturer but nominated by the manufacturer's qualifying body as an examiner for Level 1 and 2 personnel.

Such Level 3 individual shall be responsible for administering Level 1 and Level 2 personnel qualification examinations and its proper conduct.

Manufacturer authorised/approved external qualifying bodies shall also meet these basic requirements of independence and structure/constitution.

4.6 The qualification examination results shall be checked/verified by the examining-board to ensure that the pass-mark requirements have been fulfilled and the manufacturer's qualifying body, on the examining board's recommendation, shall issue a declaration of competence in respect of the individual, with regard to the NDT method and level of competence (Level 1 or 2). The issue of the declaration of competence provides the individual with the authorisation to carry out specified NDT tasks within the manufacturer's production facilities (i.e. authorisation to operate).

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This declaration of competence is thus only valid while the individual is in the employ of or engaged by the manufacturer issuing the declaration of competence.

SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-23422ab203c3/sist-en-10256-2001

4.7 The procedure for examination and qualification up to the issue of a declaration of competence shall be specified in a written procedure.

5 LEVELS OF COMPETENCE

5.1 General

NDT personnel qualified in accordance with this European Standard shall be classified in one of two levels of competence, i.e. Level 1, or Level 2, with respect to specific NDT tasks to be performed.

Both classifications are defined in terms of NDT task content degree of responsibility etc. in accordance with 5.2 and 5.3.

5.2 Level 1 individual

The individual qualified to Level 1 shall be capable of carrying out NDT operations according to written instructions and under the supervision of Level 2 or Level 3 personnel. As appropriate to the testing technique(s) being used, he shall be able:

- to set up the equipment;
- to perform the tests;
- to record and classify the results in terms of written criteria;

SIST EN 10256:2001

– to report on the results in terms of written criteria.

He shall not be responsible for the choice of the test method or technique to be used or for assessing the results.

5.3 Level 2 individual

The individual qualified to Level 2 shall be capable of performing and directing non-destructive testing operations according to established or recognised procedures. As appropriate to the testing technique(s) being used, he shall have the competence:

– to choose the technique for the test method;

– to set and/or to calibrate the equipment;

– to perform and to supervise the test;

– to interpret and evaluate test results according to applicable standards, codes or specifications;

– to define the limitations of application of the testing method/technique (s) for which a Level 2 individual is qualified;

– to adjust the operating parameters of NDT adapted to the problems which are the subject of specifications or procedures;

– to prepare written test instructions;

– to perform and to supervise all Level 1 duties;

– to train or to guide Level 1 personnel;

– to organise and report on NDT results.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 10256:2001
https://standards.iteh.ai/catalog/standards/sist/3cd714a6-293e-4a88-871a-

6 PRE-REQUISITE QUALIFICATIONS

6.1 General

Candidates for Level 1 and Level 2 qualification leading to a declaration of competence by the manufacturer in accordance with this European Standard shall have a combination of visual acuity and the necessary training and experience in the applicable NDT method.

The requirements for eligibility of candidates seeking qualification are given in 6.2.

6.2 Eligibility

The minimum eligibility requirements for Level 1 and Level 2 qualification are as follow.

6 2.1 Visual acuity

The candidate shall provide proof of satisfactory vision as determined by an oculist, optometrist or other medically recognised person in accordance with the following requirements: