SLOVENSKI STANDARD
SIST EN 13480-1:2002

01-november-2002

Kovinski industrijski cevovodi - 1. del: Splošno

Metallic industrial piping - Part 1: General

Metallische industrielle Rohrleitungen - Teil 1: Allgemeines

Tuyauteries industrielles métalliques - Partie 1: Généralités

Ta slovenski standard je istoveten z: **EN 13480-1:2002**

ICS:

77.140.75	Jeklene cevi in cevni profili za posebne namene	Steel pipes and tubes for specific use

SIST EN 13480-1:2002 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13480-1

May 2002

ICS 23.040.01

English version

Metallic industrial piping - Part 1: General

Tuyauteries industrielles métalliques - Partie 1: Généralités

Metallische industrielle Rohrleitungen - Teil 1: Allgemeines

This European Standard was approved by CEN on 23 May 2002.

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 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 Management Centre has the same status as the official versions.

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

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 13480-1:2002 E

Contents

Foreword

This document (EN 13480-1:2002) has been prepared by Technical Committee CEN/TC 267 "Industrial piping and pipelines", 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of an identical text or by endorsement, at the latest by November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

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.

This European Standard EN 13480 for metallic industrial piping consists of seven interdependent and not dissociable Parts which are:

— *Part 1: General;*

— *Part 2: Materials;*

— *Part 3: Design and calculation;*

— *Part 4: Fabrication and installation;*

— *Part 5: Inspection and testing;*

— *Part 6: Additional requirements for buried piping;*

CEN/TR 13480-7, *Guidance on the use of conformity assessment procedures*

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the requirements for industrial piping systems and supports, including safety systems, made of metallic materials (but initially restricted to steel) with a view to ensure safe operation.

This European Standard is applicable to metallic piping above ground, ducted or buried, irrespective of pressure.

This European Standard is not applicable to:

— Pipelines and their accessories;

— Stream waterways such as penstocks, pressure tunnels, pressure shaft for hydro-electric-installations and their related specific accessories;

— Piping for vehicles covered by the EEC type approval procedures as laid down in Directives 70/156/EEC [1], 74/150/EEC [2] and 92/61/EEC [3];

— Items specifically designed for nuclear use, failure of which may cause an emission of radioactivity;

— Well-control equipment used in the petroleum, gas or geothermal exploration and extraction industry and in underground storage which is intended to contain and/or control well pressure, including the piping;

— Piping of blast furnaces including the furnace cooling, hot blast recuperators, dust extractors and blast furnace exhaust gas scrubbers and direct reducing cupolas including the furnace cooling, gas converters and vacuum furnaces and pans for melting, re-melting de-gassing and casting of steel and non ferrous metals;

— Enclosures for high voltage electrical equipment such as switchgear, control gear and transformers;

— Pressurized pipes for the containment of transmission systems such as for electrical power and telephone cables;

— Permanently fixed piping for ships, rockets, aircraft and mobile offshore units;

— Internal piping in medical devices as defined in the Directive 93/142/EEC [4] concerning medical devices;

— Internal piping of boilers and piping integral to pressure vessels.

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 these 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 764-2, *Pressure equipment - Part 2 : Quantities, symbols and units.*

EN 764-3, *Pressure equipment - Part 3 : Definitions and parties involved.*

EN 13480-2, *Metallic industrial piping - Part 2: Materials.*

EN 13480-3, *Metallic industrial piping - Part 3: Design and calculation.*

EN 13480-4, *Metallic industrial piping - Part 4: Fabrication and installation.*

EN 13480-5:2002, *Metallic industrial piping - Part 5: Inspection and testing.*

prEN 13480-6, *Metallic industrial piping - Part 6: Additional requirements for buried piping.*

CEN/TR 13480-7:2002, *Metallic industrial piping – Part 7: Guidance on the use of conformity assessment procedures.*

3 Terms, definitions, symbols and units

3.1 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 764-3 and the following apply.

Specific definitions are given in the relevant Parts of this European Standard.

3.1.1
ambient temperature
temperature of the surrounding atmosphere in the immediate vicinity of the piping system

3.1.2
piping system
piping
pipe or system of pipes for the conveyance of fluids within an industrial site

NOTE 1 A piping system can be regarded as one single system provided it conveys substances having the same properties and it is as a whole designed for the same allowable pressure.

NOTE 2 Interruption by different components such as pumps, machines, vessels etc. does not preclude the integration to one single piping.

3.1.3
fluid
gases, liquids and vapours in pure phase as well as mixtures thereof

NOTE: A fluid may contain a suspension of solids.

3.1.4
manufacturer
person or organization that takes full responsibility for the design and manufacture of the piping system and its conformity to EN 13480

NOTE 1 The manufacturer is responsible for carrying out all relevant production processes and testing as specified in the applicable standards.

NOTE 2 If a manufacturer employs subcontractors or fabricators/installers for certain items he is responsible for their work.

NOTE 3 In the EC Member States a manufacturer or his representative is responsible for the conformance of a piping system he puts on the market, with the essential safety requirements of the PED.

3.1.5
piping fabricator and/or installer
individual or organization that takes responsibility for the fabrication and/or installation of industrial piping complying with the requirements of EN 13480.

NOTE The piping fabricator or the installer may be the manufacturer

3.1.6
designer
individual or organization that takes responsibility for the design of industrial piping complying with the requirements of EN 13480.

NOTE The designer can also be the manufacturer.

3.1.7
piping class
category in which industrial piping is classified

NOTE The category depends on the fluid contained, the maximum allowable pressure *PS* and nominal size *DN* and the physical condition of the fluid.

3.1.8
test
physical activity (destructive or non-destructive) carried out in accordance with a defined procedure which provides an objective assessment of a characteristic of a component or system

NOTE See Figure 3.1-1.

3.1.9
testing
performance of a test or examination and production of a record of results and evaluation of the results compared to the requirements

NOTE See Figure 3.1-1.

3.1.10
examination
assessment carried out to determine or verify the acceptability of a component, system or document

NOTE See Figure 3.1-1.

3.1.11
inspection
activity carried out by persons independent of production to verify that the results of the testing and examinations conform to specific requirements

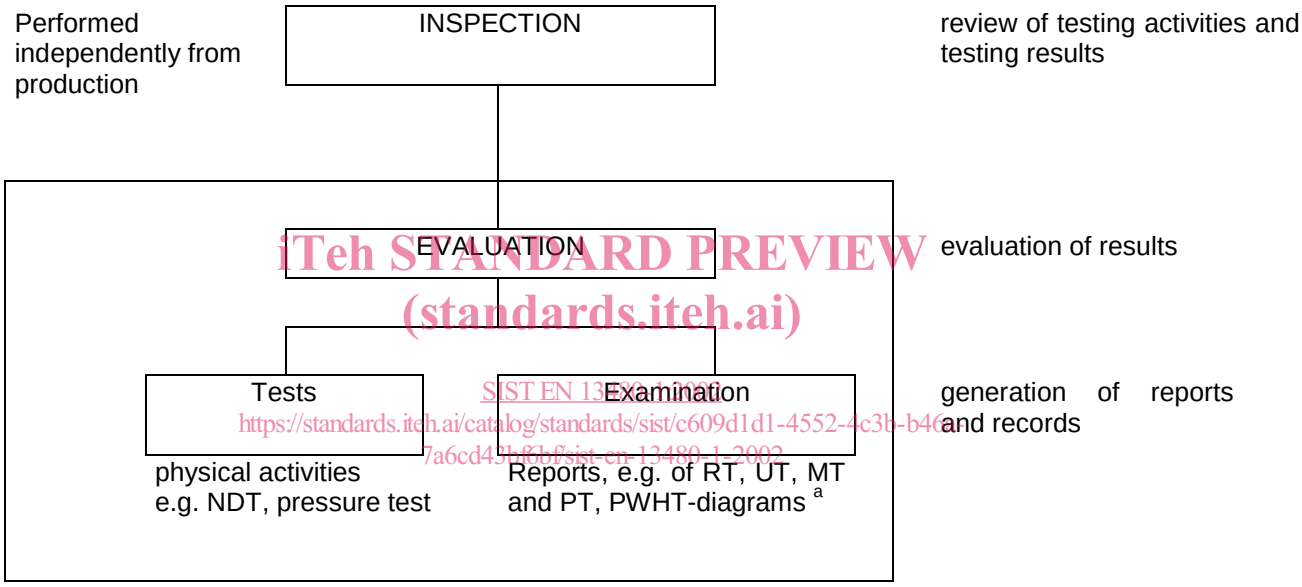
NOTE See Figure 3.1-1.

3.1.12
design validation
Examination of the design documents to verify that the design conforms to EN 13480

3.1.13
imperfection
discontinuity noted during testing and inspection which needs to be evaluated with respect to the acceptance criteria

3.1.14
defect
discontinuity that renders the material integrity unacceptable with respect to the acceptance level

3.1.15
repair
process of rectifying a defect in either base material or weld



[a] See EN 13480-5:2002, clause 4

Figure 3.1-1 — Scheme of inspection and testing activities

3.2 Symbols and units

For the purposes of this European Standard, the symbols and units given Table 3.2.1 and further symbols of EN 764-2 apply.

Additional symbols are given in some of the relevant Parts of this European Standard.