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Metallic industrial piping - Part 4: Fabrication and installation

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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# Metallic industrial piping - Part 4: Fabrication and installation

Tuyauteries industrielles métalliques - Partie 4 : Fabrication et installation

Metallische industrielle Rohrleitungen - Teil 4: Fertigung und Verlegung

This European Standard was approved by CEN on 21 June 2017.

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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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#### **European foreword**

This document (EN 13480-4:2017) 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of an identical text or by endorsement, at the latest by December 2017, and conflicting national standards shall be withdrawn at the latest by December 2017.

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 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 eight 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;
- Part 8: Additional requirements for aluminium and aluminium alloy piping.

Although these Parts may be obtained separately, it should be recognised that the Parts are interdependant. As such the manufacture of metallic industrial piping requires the application of all the relevant Parts in order for the requirements of the Standard to be satisfactorily fulfilled.

This European Standard will be maintained by a Maintenance MHD working group whose scope of working is limited to corrections and interpretations related to EN 13480.

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The contact to submit queries can be found at <a href="http://www.unm.fr">http://www.unm.fr</a> (en13480@unm.fr). A form for submitting questions can be downloaded from the link to the MHD website. After subject experts have agreed an answer, the answer will be communicated to the questioner. Corrected pages will be given specific issue number and issued by CEN according to CEN Rules. Interpretation sheets will be posted on the website of the MHD.

This document supersedes EN 13480-4:2012. This new edition incorporates the Amendments which have been approved previously by CEN members, and the corrected pages up to Issue 4 without any further technical change. Annex Y provides details of significant technical changes between this European Standard and the previous edition.

Amendments to this new edition may be issued from time to time and then used immediately as alternatives to rules contained herein.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### 1 Scope

This Part of this European Standard specifies the requirements for fabrication and installation of piping systems, including supports, designed in accordance with EN 13480-3:2017.

#### 2 Normative references

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

EN 10204:2004, Metallic products — Types of inspection documents

EN 12952-5:2011, Water-tube boilers and auxiliary installations — Part 5: Workmanship and construction of pressure parts of the boiler

EN 13480-1:2017, Metallic industrial piping — Part 1: General

EN 13480-2:2017, Metallic industrial piping — Part 2: Materials

EN 13480-3:2017, Metallic industrial piping — Part 3: Design and calculation

EN 13480-5:2017, Metallic industrial piping — Part 5: Inspection and testing

EN ISO 3834-3:2005, Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements (ISO 3834-3:2005)

EN ISO 4063:2010, Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:2009, Corrected version 2010-03-01)

EN ISO 5817:2007, Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections (ISO 5817:2003, corrected version:2005, including Technical Corrigendum 1:2006)

EN ISO 9606-1:2013, Qualification testing of welders — Fusion welding — Part 1: Steels (ISO 9606-1:2012, including Cor 1:2012)

EN ISO 13920, Welding — General tolerances for welded constructions — Dimensions for lengths and angles — Shape and position (ISO 13920)

EN ISO 14732:2013, Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials (ISO 14732:2013)

EN ISO 15609 (all parts), Specification and qualification of welding procedures for metallic materials — Welding procedure specification

EN ISO 15610:2003, Specification and qualification of welding procedures for metallic materials — Qualification based on tested welding consumables (ISO 15610:2003)

EN ISO 15611:2003, Specification and qualification of welding procedures for metallic materials — Qualification based on previous welding experience (ISO 15611:2003)

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EN ISO 15612:2004, Specification and qualification of welding procedures for metallic materials — Qualification by adoption of a standard welding procedure (ISO 15612:2004)

EN ISO 15613:2004, Specification and qualification of welding procedures for metallic materials — Qualification based on pre-production welding test (ISO 15613:2004)

EN ISO 15614-1:2004, Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1:2004)

EN ISO 17663:2009, Welding — Quality requirements for heat treatment in connection with welding and allied processes (ISO 17663:2009)

CEN ISO/TR 15608, Welding — Guidelines for a metallic materials grouping system (ISO/TR 15608)

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