

METALLIST TÖÖSTUSTORUSTIK. OSA 4: VALMISTAMINE
JA PAIGALDAMINE

Metallic industrial piping - Part 4: Fabrication and
installation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13480-4:2017 sisaldab Euroopa standardi EN 13480-4:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 13480-4:2017 consists of the English text of the European standard EN 13480-4:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.06.2017.	Date of Availability of the European standard is 28.06.2017.
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ICS 23.040.01

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English Version

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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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of an identical text or by endorsement, at the latest by December 2017, and conflicting national standards shall be withdrawn at the latest by December 2017.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 inter-dependant. 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.

The contact to submit queries can be found at <http://www.unm.fr> (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)*

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)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13480-1:2017 together with the following apply.

3.1 field run piping

piping installed without preplanning by drawings of the piping routing and the support points

Note 1 to entry: Typical dimensions are DN 50 or smaller.

3.2 spool (with or without overlength)

prefabricated assembly of components which forms part of a piping system

3.3 cold forming

forming at ambient temperature, but not below + 5 °C

3.4 hot forming

for ferritic steels, forming at temperatures at or above the maximum permissible temperature for post-weld heat treatment; for austenitic and austenitic-ferritic steels at temperatures above 300 °C

4 Symbols

For the purposes of this Part of this European Standard, the symbols given in EN 13480-1:2017 apply. Additional symbols are defined in appropriate clauses of this Part.

5 General

5.1 Requirements on the manufacturer

The manufacturer shall be responsible for the fabrication and the installation, even if this work will be sub-contracted to other fabricators and/or installers.