

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 13480-4:2012 sisaldab Euroopa standardi EN 13480-4:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 13480-4:2012 consists of the English text of the European standard EN 13480-4:2012.
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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

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Contents

Page

Foreword.....	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Symbols	7
5 General.....	7
5.1 Requirements on the manufacturer	7
5.2 Requirements on fabricators and installers of piping and supports	8
5.3 Requirements for fabrication and installation	8
5.4 Classification of piping	8
5.5 Material grouping.....	9
5.6 Tolerances	9
6 Cutting and bevelling	9
6.1 General.....	9
6.2 Transfer of marking for pressure parts	9
7 Bending and other forming.....	9
7.1 General.....	9
7.2 Heat treatment after cold forming	12
7.2.1 Flat products	12
7.2.2 Pipes	12
7.3 Heat treatment after hot forming.....	14
7.3.1 Material groups 1, 3, 4, 5 and 6.....	14
7.3.2 Material groups 8.1 and 8.2.....	14
7.3.3 Heat treatment after hot forming for material group 10.....	16
7.3.4 Heat treatment after hot forming for clad materials.....	16
7.4 Tolerances	16
7.4.1 Out-of-roundness of bends under internal pressure equal to, or greater than, the external pressure.....	16
7.4.2 Out-of-roundness of bends under external pressure and vacuum	17
7.4.3 Waves at bends.....	17
7.4.4 Start-up bulge of induction bends	18
7.5 Surface finish	19
8 Installation of piping.....	19
8.1 Fixing and alignment.....	19
8.2 Field run piping	20
8.3 Flanged or similar mechanical connections	21
8.3.1 Flange connections	21
8.3.2 Threaded connections	22
8.3.3 Couplings and compression fittings	22
8.4 Protection of ends of piping components	22
9 Welding	22
9.1 Welding personnel.....	22
9.2 Welding procedure specifications	22
9.3 Welding processes	23
9.3.1 Verification of suitability	23
9.3.2 Application	23
9.4 Filler metals and auxiliary materials	23
9.5 Climatic conditions.....	24
9.6 Cleaning before and after welding	24
9.7 Weld joint preparation	24
9.8 Edge protection.....	24
9.9 Assembly for welding.....	24

9.10	Earthing	25
9.11	Execution of welded joints	25
9.11.1	Preheating	25
9.11.2	Striking marks.....	25
9.11.3	Fillet-weld connections.....	25
9.11.4	Dissimilar joints.....	26
9.12	Backing rings	26
9.13	Attachments	26
9.13.1	General	26
9.13.2	Temporary attachments.....	26
9.13.3	Permanent attachments.....	26
9.14	Post-weld heat treatment.....	27
9.14.1	General	27
9.14.2	Equipment	30
9.14.3	Temperature measurements	30
9.14.4	Controlling thickness.....	30
9.14.5	Rate of heating.....	32
9.14.6	Local heat treatment	32
9.14.7	Insulation.....	33
9.15	Weld identification.....	33
10	Adjustment and repair	33
10.1	General	33
10.2	Adjustment.....	33
10.2.1	General	33
10.2.2	Adjustments by means of heat	33
10.2.3	Adjustment by welding	34
10.2.4	Adjustment by local forging.....	34
10.3	Weld repair	34
11	Marking and documentation	34
11.1	Marking of spools and components for installation.....	34
11.2	Marking of installed piping.....	34
11.2.1	General	34
11.2.2	Marking.....	35
11.3	Final documentation package.....	35
12	Additional requirements	36
12.1	Cleaning	36
12.2	Temporary preservation	36
12.3	External corrosion protection.....	36
12.4	Thermal and acoustic insulation	36
12.5	Connections for static electricity.....	36
Annex A	(informative) Contamination and surface quality of stainless steel	38
Annex B	(normative) Dimensional tolerances for fabricated spools	41
Annex Y	(informative) History of EN 13480-4	43
Annex ZA	(informative) Relationship between this European Standard and the Essential Requirements of EU Pressure Equipment Directive (97/23/EC)	44
Bibliography		45

Foreword

This document (EN 13480-4:2012) 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 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 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 interdependent. 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://portailgroupe.afnor.fr/public/espacenormalisation/CENTC267WG8/index.htm>. 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 13480-4:2002. This new edition incorporates the Amendments/the corrigenda which have been approved previously by CEN members, and the corrected pages up to Issue 17 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. It is intended to deliver a new Issue of EN 13480:2012 each year, consolidating these Amendments and including other identified corrections.

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.

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 13480-3:2012.

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 287-1:2004+A2:2006, *Qualification test of welders — Fusion welding — Part 1: Steels*

EN 1418:1997, *Welding personnel — Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials*

EN 10088-1:2005, *Stainless steels — Part 1: List of stainless steels*

EN 10204:2004, *Metallic materials — Types of inspection documents*

EN 13480-1:2012, *Metallic industrial piping — Part 1: General*

EN 13480-3:2012, *Metallic industrial piping — Part 3: Design and calculation*

EN 13480-5:2012, *Metallic industrial piping — Part 5: Inspection and testing*

EN ISO 4063:2010, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:2009)*

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)*

EN ISO 13920:1996, *Welding — General tolerances for welded constructions — Dimensions for lengths and angles; shape and position (ISO 13920:1996)*

EN ISO 15609-1:2004, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding (ISO 15609-1:2004)*

EN ISO 15609-2:2001+A1:2003, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 2: Gas welding (ISO 15609-2:2001)*

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 procedure for metallic materials — Qualification based on pre-production welding test (ISO 15613:2004)*

EN ISO 15614-1:2004+A1:2008, *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+AMD 1:2008)*

CEN ISO/TR 15608:2005, *Welding — Guidelines for a metallic material grouping system (ISO/TR 15608:2005)*

3 Terms and definitions

For the purposes of this Part of this European Standard, the terms and definitions given in EN 13480-1:2012 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 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

3.3.1

cold forming for ferritic steels

forming at temperatures 20 °C to 30 °C below the maximum permissible temperature for post-weld heat treatment in accordance with Table 9.14.1-1

3.3.2

cold forming for austenitic steels

forming at temperatures below 300 °C

3.4

hot forming

for ferritic steels, forming at temperatures at or above the maximum permissible temperature for post-weld heat treatment in accordance with Table 9.14.1-1

4 Symbols

For the purposes of this Part of this European Standard, the symbols given in EN 13480-1:2012 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.