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**Kovinski industrijski cevovodi - 3. del: Konstruiranje in izračun - Dopolnilo A4**

Metallic industrial piping - Part 3: Design and calculation

Metallische industrielle Rohrleitungen - Teil 3: Konstruktion und Berechnung

Tuyauteries industrielles métalliques - Partie 3: Conception et calcul

**Ta slovenski standard je istoveten z: EN 13480-3:2017/A4:2021**[SIST EN 13480-3:2018/A4:2021](https://standards.iteh.ai/catalog/standards/sist/3492e3af-f7d4-4c49-bacc-55f0ff91df9d/sist-en-13480-3-2018-a4-2021)<https://standards.iteh.ai/catalog/standards/sist/3492e3af-f7d4-4c49-bacc-55f0ff91df9d/sist-en-13480-3-2018-a4-2021>**ICS:**

23.040.10	Železne in jeklene cevi	Iron and steel pipes
77.140.75	Jeklene cevi in cevni profili za posebne namene	Steel pipes and tubes for specific use

**SIST EN 13480-3:2018/A4:2021****en,fr,de**

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EUROPEAN STANDARD

EN 13480-3:2017/A4

NORME EUROPÉENNE

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## Metallic industrial piping - Part 3: Design and calculation

Tuyauteries industrielles métalliques - Partie 3:  
Conception et calcul

Metallische industrielle Rohrleitungen - Teil 3:  
Konstruktion und Berechnung

This amendment A4 modifies the European Standard EN 13480-3:2017; it was approved by CEN on 25 July 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This amendment 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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## Contents

European foreword.....	3
1 Modifications to Clause 2, <i>Normative references</i> .....	4
2 Modifications to 13.11, <i>Manufacturing of pipe supports</i> .....	4
3 Modifications to Annex N, <i>Documentation of supports</i> .....	5

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## European foreword

This document (EN 13480-3:2017/A4:2021) 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 March 2022, and conflicting national standards shall be withdrawn at the latest by March 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of EN 13480-3:2017.

This document includes the text of the amendment itself. The amended/corrected pages of EN 13480-3:2017 will be published in the new Edition 2022 of the European Standard.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 13480-3:2017/A4:2021 (E)****1 Modifications to Clause 2, Normative references**

*In Clause 2, the following normative reference shall be added:*

EN 1090-1:2009+A1:2011, *Execution of steel structures and aluminium structures - Part 1: Requirements for conformity assessment of structural components*

EN 1090-2:2018, *Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures*

EN 1990:2002, *Eurocode - Basis of structural design*

EN 1991 (all parts), *Eurocode 1: Actions on structures*

**2 Modifications to 13.11, Manufacturing of pipe supports**

*The heading of 13.11 shall read as follows:*

**13.11 Design and manufacture of pipe supports.**

*After 13.11.10, add a new subclause 13.11.11 as follows:*

**13.11.11 Alternative rules for design and manufacture of pipe supports**

Rigid pipe supports, which are not integrally attached to the pipe, such as:

- Intermediate (secondary) steel;
- Guide / Slide supports;
- Rigid hangers;
- Anchor supports (also partly fixed anchors);
- Axial stops.

can be also designed and calculated in accordance with the Eurocode (see EN 1990:2002, Sections 1 and 2, EN 1991 series and EN 1993-1-1, EN 1993-1-3 to EN 1993-1-11) in temperature ranges of time-independent nominal design stress. The design temperatures for the different support components and design details are defined in 13.11.2 and 13.11.3.

Elastic calculation methods shall be used as referred in 4.1. The “plastic global analysis” (according to EN 1993-1-1:2005, 5.4.3) shall not be used.

For the design of pipe supports according to Eurocode, it is recommended to calculate the support loading (normally generated by means of the flexibility analysis of the piping - see 12.2.10) additional to the loading conditions:

- Normal operating load;
- Occasional operating load;
- Faulted condition load (if applicable);

also as

- permanent actions (G);
- variable actions (Q);
- (if applicable) accidental actions (A);

as defined in EN 1990:2002.

Dynamic loadings from rigid struts or shock arrestors (shock absorbers) may be considered as equivalent static loads for the design of intermediate (secondary) steel.

Manufacturing process shall conform to EN 1090-2:2018. If not otherwise specified, execution class EXC2 shall be applied.

NOTE Annex J is not applicable for supports designed with the alternative route according to Eurocode.

### 3 Modifications to Annex N, *Documentation of supports*

*Replace the existing Annex N with the following:*

#### **Annex N** (normative)

#### **Documentation of supports** (standards.iteh.ai)

The support manufacturer shall make available to the purchaser the documentation necessary to confirm that the supports conform to the requirements of Clause 13.

The extent of this documentation shall depend upon:

- the class of the support,
- standard of design and execution used

as given in Table N.1, Table N.2 or as amended by agreement between the parties involved.

If the design and execution of pipe supports follows the Eurocode, then documentation shall be in accordance with EN 1090-2:2018 and Table N.2. The pipe support manufacturer shall certify the compliance with EN 1090-2:2018.

Conformity assessment and CE-marking according to EN 1090-1:2009+A1:2011 are not required.