



SLOVENSKI STANDARD
SIST EN 13480-3:2018/oprA4:2020
01-maj-2020

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/prA4

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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/oprA4:2020 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

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EN 13480-3:2017
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April 2020

ICS 23.040.01

English Version

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 draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 267.

This draft amendment A4, if approved, will modify the European Standard EN 13480-3:2017. If this draft becomes an amendment, 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.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 13480-3:2017/prA4:2020) has been prepared by Technical Committee CEN/TC 267 “Industrial piping and pipelines”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

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 document includes the text of the amendment itself. The amended/corrected pages of EN 13480-3:2017 will be published as Issue 3 of the European Standard.

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EN 13480-3:2017/prA4:2020 (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.

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

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.

Table N.1 — Documentation of supports

	Documents	Support class		
		S1	S2	S3
Material	Springs – Inspection certificate 3.1 (EN 10204:2004)	-	Y	Y
	Springs – Test report 2.2 (EN 10204:2004)	Y	-	-
	Welding materials – Test report 2.2 (EN 10204:2004)	Y	Y	Y
	Flat products, long products, pipes, steel forgings			
	– Inspection certificate 3.1 (EN 10204:2004), if $t > 300$ °C	Y	Y	Y
	– Test report 2.2 (EN 10204:2004), if $t \leq 300$ °C	-	Y	Y
	– Declaration of compliance with the order 2.1 (EN 10204:2004), if $t \leq 300$ °C	Y	-	-
Joining components (screws, nuts, studs, etc)				
– Inspection certificate 3.1 (EN 10204:2004), if $t > 300$ °C	a	a	Y	

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	– Identification marking, if $t \leq 300 \text{ }^\circ\text{C}$	a	a	a
	Small parts (washers, cotter pin, split pins, pins etc.) ^b	-	-	-
Design	Drawing, schedule or other means (e.g. catalogues) of providing the type, and identification of each support	X	X	X
	Drawing of each support ^c	-	X	X
	Proof of mechanical strength by analysis, testing or reference to a type-tested standard design	-	Y	Y
Fabrication	Welder approval records in accordance with EN 13480-4:2017	-	Y	Y
	Welding procedure approval reports in accordance with EN 13480-4:2017	-	Y	Y
Inspection	Report on production testing in accordance with EN 13480-3:2017, Annex I	-	X	X
Maintenance	Maintenance instructions, if needed	X	X	X
Certification	Manufacturers certificate of compliance with EN 13480-3:2017, Clause 13.	X	X	X
<p>X = Documents to be supplied. (standards.iteh.ai)</p> <p>Y = Documents to be available for review.</p>				
<p>^a Identification marking on the joining components. SIST EN 13480-3:2018/oprA4:2020</p> <p>^b Documentation not necessary. https://standards.iteh.ai/catalog/standards/sist/3492e3af-f7d4-4c49-bacc-55f0f91df9d/sist-en-13480-3-2018-opra4-2020</p> <p>^c For type-tested standard pipe supports, design information from catalogues or manufacturers standards are sufficient.</p>				

Table N.2 — Documentation of pipe supports fabricated according to EN 1090-2:2018

	Documents	Support class		
		S1	S2	S3
Material	Flat products, long products, pipes, steel forgings			
	– Inspection certificate 3.1 (EN 10204:2004), if $t > 300 \text{ }^\circ\text{C}$	Y	Y	Y
	Joining components (screws, nuts, studs, etc.)			
	– Inspection certificate 3.1 (EN 10204:2004), if $t > 300 \text{ }^\circ\text{C}$	a	a	Y
Design	Drawing, schedule or other means (e.g. catalogues) of providing the type, and identification of each support	X	X	X
	Drawing of each support		X	X
Maintenance	Maintenance instructions, if needed	X	X	X
Certification	Manufacturers certificate of compliance with EN 1090-2:2018.	X	X	X