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Interested committees:

Title: Draft BS EN 13480-9 Metallic industrial piping. Part 9: Additional requirements for nickel and nickel alloys piping.

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- iii) requires additional national guidance or information

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Metallic industrial piping - Part 9: Additional requirements for nickel and nickel alloys piping

Tuyauteries industrielles métalliques - Partie 9 :
Exigences complémentaires relatives aux tuyauteries
en nickel et alliages de nickel

Metallische industrielle Rohrleitungen - Teil 9:
Zusatzanforderungen an Rohrleitungen aus Nickel und
Nickellegierungen

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

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard 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.

CEN members are the national standards bodies of 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 United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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 (prEN 13480-9:2018) 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 European Standard EN 13480, *Metallic industrial piping*, consists of nine 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;*
- *Part 7: Guidance on the use of conformity assessment procedures [CEN/TR];*
- *Part 8: Additional requirements for aluminium and aluminium alloy piping;*
- *Part 9: Additional requirements for nickel and nickel alloys piping.*

Although these parts may be obtained separately, 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 European 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 the EN 13480 series.

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.

1 Scope

This document specifies requirements for metallic industrial piping and their parts made of nickel and nickel alloys (see 3.1) in addition to the general requirements for metallic industrial piping under EN 13480-1:2017, EN 13480-2:2017, EN 13480-3:2017, EN 13480-4:2017 and EN 13480-5:2017.

NOTE Cast materials are not included in this version. Details regarding cast materials will be subject to an amendment to or a revision of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 764-5:2014, *Pressure equipment – Part 5: Inspection documentation of metallic materials and compliance with the material specification*

EN 10204:2004, *Metallic products - Types of inspection documents*

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 13480-4:2017, *Metallic industrial piping – Part 4: Fabrication and installation*

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

EN 13445-3:2014, *Unfired pressure vessels – Part 3: Design*

EN ISO 9606-4:1999, *Approval testing of welders - Fusion welding – Part 4: Nickel and nickel alloys (ISO 9606-4:1999)*

CEN ISO/TR 15608:2013, *Welding - Guidelines for a metallic materials grouping system (ISO/TR 15608:2013)*

3 Terms and definitions

For the purposes of this document, the terms, definitions, symbols and units given in EN 13480-1:2017, EN 13480-2:2017, EN 13480-3:2017, EN 13480-4:2017 and EN 13480-5:2017 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

nickel alloys

alloys which contain a minimum of 30 % nickel and contain more nickel than iron

4 General requirements

The general requirements of EN 13480-1:2017 shall apply.

5 Materials

5.1 General

The general requirements of EN 13480-2:2017 shall apply with the following additions/exclusions in 5.2-5.5.

NOTE There are presently no European Standards specifically for nickel or nickel alloys for pressure purposes.

This document is therefore limited to:

- 1) Harmonized standards as listed in Table A.2;
- 2) Nickel and nickel alloys having EMAs as listed in Table A.3;

These commonly used materials are suitable for, and may be employed in, the design and manufacture of piping according to this document.

- 3) Materials for which the manufacturer produces a Particular Materials Appraisal (PMA).

These may be used only when they meet the requirements in Subclauses 5.1 to 5.5 of this document.

5.2 Material grouping system

EN 13480-2:2017, Annex A is not applicable to metallic industrial piping of nickel and nickel alloys and is replaced by Annex A of this document.

The grouping system for nickel and its alloys as given in CEN/ISO TR 15608:2013 is shown in Table A.1 of this document.

Only material having a minimum elongation after fracture greater than 25 % shall be used for construction of metallic industrial piping.

Materials which have mechanical properties enhanced by precipitation hardening are excluded from this document, unless they are to be used for bolting applications.

5.3 Material documentation

Materials for pressure bearing parts compliant with the requirements of this document shall be accompanied by inspection documentation in accordance with EN 10204:2004.

The type of inspection document shall be in accordance with EN 764-5:2014 and include a declaration of compliance to the material specification.

5.4 Prevention of brittle fracture

There are no general requirements for nickel and nickel alloys at temperatures down to -196°C . However, the specific requirements of individual EMAs/PMAs shall be taken into account.

5.5 Lamellar tearing

Failure by lamellar tearing is not normally a defect of nickel and nickel alloys.

6 Design

6.1 General

All the design methods included in EN 13480-3:2017 shall apply, with the following amendments, given in 6.2 – 6.5.