

**CEN/TC 267/WG 8/MHD « Maintenance of EN 13480 series »**  
**Answers to MHD Questions of 2018**  
**Series EN 13480-1-2-3-4-5-6 and -8:2017**

MHD Question N°	Subjects	MHD answers doc. N°	Subsequent actions	MHD answers to questioners
1-001-2018	References	N 100	-	2018-12-03
1-002-2018	ICS	N 100	-	2018-12-03
2-001-2018	Clause B.3.2	N 100	to CEN/TC 267/WG 2	2018-12-03
3-001-2018	References	N 100	in EN 13480-3:2017/prA1	2018-12-03
3-002-2018	Clause 12.3.1	N 100	in EN 13480-3:2017/prA2	2018-12-03
3-003-2018	Clause 12.3.3	N 100	-	2018-12-03
3-004-2018	Annex A	N 100	in EN 13480-3:2017/prA3	2018-12-03
3-005-2018	German version	N 100	-	2018-12-03
3-006-2018	Corrections	N 100	in EN 13480-3:2017/prA1	2018-12-03
3-007-2018	Clause 5.2.5.2	N 100	in EN 13480-3:2017/prA1	2018-12-03
3-008-2018	Clause 6.6.4 Annex D	N 100	-	2018-12-03
3-009-2018	Clause 8.4.3	N 100	-	2018-12-03
3-010-2018	Clause 5.2.2.1	N 100	-	2018-12-03
4.001-2018	Clause 11.2.2	N 100	to CEN/TC 267/WG 4	2018-12-03
4-002-2018	OJEU	N 100	in EN 13480-4:2017/prA1	2018-12-03
5-001-2018	Clause 9.3.4	N 100	to CEN/TC 267/WG 5	2018-12-03
5-002-2018	Clause 8.1.2	N 100	to CEN/TC 267/WG 5	2018-12-03
5-003-2018	Clause 9.3.3	N 100	-	2018-12-03
8-001-2018	Corrections	N 100	to CEN/TC 267/WG 8/MHD	2018-12-03



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): <b>1-001-2018</b>				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-1	Issue: 2017	Page 6	Subclause 2	National Standard Reference English version	
<b>Subject:</b> Possible errors encountered while translating standards into Swedish					
<b>Type of request:</b>					
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b>					
Company :SIS, Swedish Standards Institute .....			e-mail: pierre.carapentier@sis.se.....		
Name Pierre Carpentier.....			phone: +.....		
Postal address : .....					
.....					
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Consultant			
<b>Question/comment:</b>					
Delete the references to EN 764-2:202 and EN 764-3:2002 and replace by EN 764-1:2015+A1 and EN 764-2:2012					
<u>Proposed answer(s):</u> *					
Delete the references to EN 764-2:202 and EN 764-3:2002 and replace by EN 764-1:2015+A1 and EN 764-2:2012					
May-be to include in EN 13480-1:2017/prA1					
<b>Answer from the MHD</b> (to be filled by MHD):					
Already corrected in the Final draft Amendment EN 13480-1:2017/FprA1 submitted to Formal Vote.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): <b>1-002-2018</b>				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-1	Issue: 2017	Page N/A	Subclause N/A	National Standard Reference SFS-EN 13480-1:2017	
<b>Subject:</b> EN 13480-1:2017 is in a wrong ICS group					
<b>Type of request:</b>		<input type="checkbox"/> Technical clarification	<input checked="" type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company : METSTA..... Name : Ville Saloranta ..... Postal address : Eteläranta 10 00131 Helsinki Finland			e-mail : ville.saloranta@metsta.fi ..... phone : +358505764643 .....		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): standards writing body for SFS			
<b>Question/comment:</b>  Regarding ICS grouping, EN 13480-1:2017 appears to be in 23.040.03 - Pipelines and its parts for external water conveyance systems, whereas other parts are in 23.040.01 - Pipeline components and pipelines in general.  <u>Proposed answer(s):</u> *  For EN 13480-1:2017, change ICS group from 23.040.03 to 23.040.01.					
<b>Answer from the MHD</b> (to be filled by MHD): <b>ICS is managed by ISO, International Classification System for standards. Correct ICS is indicated in the Final Draft amendment EN 13480-1:2017/FprA1.</b>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 2-001-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-2	Issue: 2017	Page B.3.2	Subclause Annex B	National Standard Reference NF EN 13480-2:2017	
<b>Subject:</b> Understanding of B.3.2 of Annex B of EN 13480-2:2017					
<b>Type of request:</b>					
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b> Company : Servive SCI – Groupe ORTEC..... Name : Philippe METRAL..... Postal address : Parc de Pichaury 550, Rue Pierre Berthier - CS 80348 13799 Aix en Provence Cedex 03			e-mail : philippe.metral@ortec.fr ..... phone : +33 (0) 4.42.12.16.42 +33 (0) 6.24.61.26.68 .....		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): standards writing body for SFS			

**Question/comment:**

Could you enlighten us on the understanding of § B.3.2 of Annex B of EN13480-2, Reduced test specimens, namely:

- Table B.3-1 - Charpy V-notch impact flexural fracture energy requirements for reduced dimensions where the base material is less than 10 mm thick

We understand that when we are obliged to produce reduced test specimens on base materials with a thickness of less than 10 mm, we take corrected energy values according to the dimensions of the specimens. (eg for 5x10mm - 14J specimens if 27J requirement on 10x10mm specimens).

The question is: should we also apply in this case a temperature correction equivalent to the dimensions of the specimens (for our example -25°C) according to "Table B.3-2 - Equivalent requirements for the energy of rupture in impact bending when smaller specimens are taken from thicker sections", or this table only applies to base material thicknesses greater than 10mm for which normal test specimens could not have been (10x10mm)?

If not, what is the need to speak of lower dimensions in Table B.3-1?

Or we apply the same methodology as the ASME to know, explanation by examples:



$e_s$  : charpy specimen thickness

$e_B$  : material thickness

As a sum up of tables B.3-1 and B.3-2 of NF EN 13480-2 2012, 6 cases are possible :

**Case 1 :  $e_B > 10\text{mm}$  and  $e_s = 10\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 27\text{J}$ , specimen is 10x10,  $T_{TEST} = T_{KV}$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 40\text{J}$ , specimen is 10x10,  $T_{TEST} = T_{KV}$

**Case 2 :  $e_B > 10\text{mm}$  and  $e_s = 7.5\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 20\text{J}$ , specimen is 7.5x10,  $T_{TEST} = T_{KV} - 5$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 30\text{J}$ , specimen is 7.5x10,  $T_{TEST} = T_{KV} - 5$

**Case 3 :  $e_B > 10\text{mm}$  and  $e_s = 5\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 14\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV} - 20$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 20\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV} - 20$

**Case 4 :  $7.5 < e_B < 10\text{mm}$  and  $e_s = 7.5\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 20\text{J}$ , specimen is 7.5x10,  $T_{TEST} = T_{KV}$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 30\text{J}$ , specimen is 7.5x10,  $T_{TEST} = T_{KV}$

**Case 5 :  $7.5 < e_B < 10\text{mm}$  and  $e_s = 5\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 14\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV} - 15$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 20\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV} - 15$

**Case 6 :  $5 < e_B < 7.5\text{mm}$  and  $e_s = 5\text{mm}$**

If the base criterion is 27J for 10x10 KCV specimen, then  $E_{KV} = 14\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV}$

If the base criterion is 40J for 10x10 KCV specimen, then  $E_{KV} = 20\text{J}$ , specimen is 5x10,  $T_{TEST} = T_{KV}$

When  $e_s < 5\text{mm}$ , no charpy test performed.

Proposed answer(s): \*

Thank you in advance for clarifications that you could bring us.



**Answer from the MHD** (to be filled by MHD):

Yes, this table only applies to base material thicknesses greater than 10 mm. Clause B.3.2 will be clarified. New paragraph in B.3.2 "When the base material thickness is below 10mm the temperature reduction in table B.3-2 do not apply.". New work item to be adopted for updating EN 13480-2:2017.

Case 1 :  $e_B > 10\text{mm}$  and  $e_S = 10\text{mm}$  → MHD answer is yes

Case 2 :  $e_B > 10\text{mm}$  and  $e_S = 7.5\text{mm}$  → MHD answer is yes

Case 3 :  $e_B > 10\text{mm}$  and  $e_S = 5\text{mm}$  → MHD answer is yes

Case 4 :  $7.5 < e_B < 10\text{mm}$  and  $e_S = 7.5\text{mm}$  → MHD answer is yes

Case 5 :  $7.5 < e_B < 10\text{mm}$  and  $e_S = 5\text{mm}$  → MHD answer is no  $T_{\text{TEST}} = T_{\text{KV}}$

Case 6 :  $5 < e_B < 7.5\text{mm}$  and  $e_S = 5\text{mm}$  → MHD answer is yes

**To be sent to EN 13480 Maintenance Group secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM  
Standardization Office on behalf of AFNOR  
F 92038 Paris La Défense Cedex – France  
e-mail: [en13480@unm.fr](mailto:en13480@unm.fr)

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-001-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-3		Issue: 2017-06		Page -	
		Subclause -		National Standard Reference English version	
<b>Subject:</b> Normative references					
<b>Type of request:</b>					
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b> Title : Mr Last name : Vrucinic First name : Goran Organization name / company name : TPK Zavod dd Function : senior welding engineer (dipl.ing.,EWE) Address 1 : Slavonska avenija 20 Postal code : 10000 Town : Zagreb Country : CROATIA			e-mail : goran.vrucinic@tpk-zavod.hr ..... phone : .....		
<input type="checkbox"/> Manufacturer		<input type="checkbox"/> User		<input checked="" type="checkbox"/> Other (please specify): senior welding engineer	
<b>Question/comment:</b> Dear Sir, in EN 13480-3, normative references , there is no mentioned / not specified EN 10253-2.  Proposed answer(s): * Should it be ? Thank you , best regards					
<b>Answer from the MHD</b> (to be filled by MHD): EN 10253-2 is not referenced in the normative part of EN 13480-3:2017, this is the reason that it is not included in the list of normative references of Clause 2 (CEN Rules). The alternative is to reference this standard in the Bibliography of EN 13480-3:2017. This modification will be taken within the draft amendment EN 13480-3:2017/prA1 to be submitted to CEN Enquiry.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-002-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017-06	Page §12.3.1	Subclause	National Standard Reference --	
<b>Subject:</b> Corrosion considered for the calculations of flexibility					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input checked="" type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company: DST Computer Services SA (HEXAGON PPM) ..... Name: CORNATON..... Postal address: 81 avenue Louis CASAI – CH-1216 GENEVE SWITZERLAND .....			e-mail: irenee.cornaton@hexagon.com ..... phone: +33 6 13 14 02 32 .....		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): HEXAGON PPM is Editor of piping calculations software CAESAR II and PIPESTRESS			



**Question/comment:**

**The EN13480 code Ed. 2017 requires in §12.3.1:**

***“In the equations ... for stress calculation, for second moment of area, sectional modulus and stress intensification factor, a wall thickness ( $e_{n-C_0}$ ) is used to ensure the design stress criteria are met. If necessary, two calculations with  $e_n$  as well as with ( $e_{n-C_0}$ ) shall be carried out. For the calculation of support loads and reactions (see 12.3.9) the nominal wall thickness shall be considered”.***

1) Possible inconsistency

The corrosion is considered for the section modulus Z in every code that we know of. For the SIFs, it depends on the code: sometimes it is explicitly required to use the nominal geometry (e.g. in CODETI), sometimes it is not specified. In those cases corrosion is only applied on the postprocessing, after the calculation of the mechanical solution based on the nominal geometry.

EN13480 Ed.2017 requires to consider that the corrosion also applies to the rigidity of the structure (see “second moment of area”), so the mechanical solution is affected.

But in this case, why is the corrosion not considered for the flexibility factors FIFs ? As it is no specified in the code, does it means we should use corroded inertias with non-corroded FIFs ? But then the mechanical solution would result of a calculation mixing corroded and nominal geometry to obtain the values of inertias.

2) Request for clarification

EN13480 Ed.2017 requires to perform two calculations: corroded calculation and nominal calculation.

EN13480 Ed.2017 lists the concerned values : “for second moment of area, sectional modulus and stress intensification factor”.

But why shall we use the nominal value for Z ? Indeed, Z is the single value for which the corrosion is always conservative.

Should the sentence be understood as:

- First calculation with all corroded values: I, Z and SIF (for FIF, we don't know, see point 1)
- Second calculation with nominal values I, FIF, SIF and corroded value Z instead of nominal value.

3) Warning on the possible complexity to interpret the results

We need to generate two mechanical solutions: from corroded rigidity and from nominal rigidity.

Then, we have to calculate the stresses for the two solutions, and to keep the most conservative ones.

We believe that the reports might be confusing:

- Reactions: based on the nominal geometry (“For the calculation of support loads and reactions (see 12.3.9) the nominal wall thickness shall be considered.”).
- Forces / moments : we believe they should be based on the geometry that produced the max stress in order to be interpreted. But then it means that they can change for each element and each equation.
- Displacements / Rotations : which mechanical solution should be displayed ? The one obtained from nominal geometry, the one from the corroded geometry or a mix of both, as for the forces and the moments ?

Proposed answer(s): \*

We are afraid that opting for the calculation of the two different mechanical solutions would leads to difficulties in the interpretation of the results. After all, the corrosion is treated as if it was a uniform phenomena, even though it is known that the corrosion is concentrated at some places. We would then suggest to:

- Use the nominal rigidity for generating one single mechanical solution (usually, the thermal moments are greater with the nominal geometry instead of the corroded geometry)
- Use the corroded Z (always conservative)
- Take the maximal SIF :  $\max(\text{SIF}_{\text{nominal}}, \text{SIF}_{\text{corroded}}) (\geq 1)$

**Answer from the MHD (to be filled by MHD):**

**This issue is covered within the draft amendment EN 13480-3:2017/prA2 to be submitted to CEN Enquiry.**

**To be sent to EN 13480 Maintenance Group secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM  
Standardization Office on behalf of AFNOR  
F 92038 Paris La Défense Cedex – France  
e-mail: [en13480@unm.fr](mailto:en13480@unm.fr)

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): <b>3-003-2018</b>				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017-06	Page 152	Subclause 12.3.3	National Standard Reference SS-EN 13480-3:2017	
<b>Subject:</b> Gravity					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input checked="" type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company :Inspecta Sweden AB..... Name : Pasi Nieminen..... Postal address : P.O.Box 31000..... SE-10425 Stockholm			e-mail :pasi.nieminen@kiwa.com..... phone : +46104793044		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Notified Body			
<b>Question/comment:</b>					
<p>Preface: Piping systems shall be analyzed for occasional or exceptional loads, such as wind loads, snow loads, dynamic loads from opening/closing of valves, etc. The resulting moment from occasional loads or exceptional loads is defined as <math>M_B</math>.</p> <p style="text-align: center;"><math>0,75 i M_B</math></p> <p>The last term of equation 12.3.3-1, <math>\frac{0,75 i M_B}{Z}</math> shall be added to <math>\sigma_1</math> in equation 12.3.2-1 to calculate <math>\sigma_2</math>, the stress due to sustained and occasional loads.</p> <p>Shall <math>M_B</math> include or exclude the weight of the piping system?</p> <p style="padding-left: 40px;">If the weight is not included in the definition of <math>M_B</math>, this means that deformations of the piping system and the moments are not effected by friction or the inability for the applied loads to actually move the pipe. It also means that in-plane bending moments, due to reaction forces or wind loads, are not affected by the weight of the pipe, hence there will always be a vertical translation that is not dependent on the weight of the pipe.</p> <p><b>Proposed answer(s): *</b> Since gravity is always present, gravity shall be included when analyzing the moment <math>M_B</math>.</p>					
<b>Answer from the MHD</b> (to be filled by MHD): <b><math>M_A</math> includes sustained load (weight) and <math>M_B</math> includes occasional loads (like wind without weight).</b>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-004-2018		<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>			
Part: EN 13480-3	Issue: 2017-06	Page Annex A	Subclause National Standard Reference --
<b>Subject:</b> Intermodal superposition during Floor Response Spectrum Analysis			
<b>Type of request:</b>		<input type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction
		<input checked="" type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction
<b>From :</b> Company: DST Computer Services SA (HEXAGON PPM) ..... Name: CORNATON..... Postal address: 81 avenue Louis CASAI – CH-1216 GENEVE SWITZERLAND .....		e-mail: irenee.cornaton@hexagon.com ..... phone: +33 6 13 14 02 32 .....	
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): HEXAGON PPM is Editor of piping calculations software CAESAR II and PIPESTRESS	



**Question/comment:**

**The EN13480 code Ed. 2017 requires in Appendix A (informative) §A.2.1.4:**

**“The total response of the piping (displacements, moments, forces) for each direction should be obtained by combining each peak modal response by the square root of the sum of the squares (SRSS) method”.**

The SRSS method is not permitted when the modelled piping system contains close modes (and it is almost always the case):

- Eurocode 8 EN 1998-1 §4.3.3.3.2 : SRSS only permitted with a 10% space criterion. Otherwise, it is mandatory to use the CQC method.
- RG 1.92 rev.3 october 2012 “Combining modal responses and spatial components in seismic response analysis”.  
§1.1.1 : “If modes with closely spaced frequencies exist, **the SRSS method is not applicable**”.

The problem of the SRSS method becomes very important for twin modes because of the infinity of the possible modes shapes.

**Proposed answer(s):**

- Use the CQC method, with Der Kiureghian ou Rosenblueth correlations between modes.

**Another point**

It can be very interesting to add in Annex A rules about:

- The interlevel combination (algebraic, SRSS, absolute, phase or nophase between levels)
- The order of combinations
- The static correction for rigid modes (one static correction per level and per direction)
- The special rules for hybrid modes (modes with both periodic and rigid response components): Gupta and Lindley-Yow methods.

These points and the choice of modal combination method can affect significantly the results (in some cases, several hundred percent), and the floor response multispectrum analysis is very usual in the nuclear industry.

**Answer from the MHD (to be filled by MHD):**

**This issue is covered within the draft amendment EN 13480-3:2017/prA3 to be submitted to CEN Enquiry.**

**To be sent to EN 13480 Maintenance Group secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM  
Standardization Office on behalf of AFNOR  
F 92038 Paris La Défense Cedex – France  
e-mail: [en13480@unm.fr](mailto:en13480@unm.fr)

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-005-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017-06	Page -	Subclause -	National Standard Reference German version	
<b>Subject:</b> Possible errors encountered while translating standards into Swedish					
<b>Type of request:</b>					
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b> Hitachi Zosen Inova BioMethan GmbH Dipl.-Ing. Holger Bernhard-Mardmöller Team Leader Mechanical Design, Production Planning, Documentation Ludwig-Elsbett-Straße 1 D-27404 Zeven			e-mail : holger.b-mardmoeller@hz-inova.com..... phone : +49 4281 9876 183.....		
<input type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
<b>Question/comment:</b>					
Dear Madame and Sir, in the German version DIN EN13480-3 in the table E.1.1-2 the translation of some words are wrong: Kupplung oder Kupplungsflansch? The diameters in the table are ASME like and not ISO.					
Proposed answer(s): *					
<b>Answer from the MHD</b> (to be filled by MHD):					
This message is forwarded with regards to the information given by the German delegation during the last plenary Meeting of CEN/TC 267 (2017-11-16), see below:					
The German delegation informs CEN/TC 267 Members that the German version of the new Edition EN 13480-3:2017 needs to go through a resubmission for publication because of numerous editorial mistakes and errors of translation. The update German version is currently under preparation by Mr. PEREZ KAISER (DIN) and will be sent out to CCMC when it is completed.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

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## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-006-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017-06	Page -	Subclause -	National Standard Reference English version	
<b>Subject:</b> Possible errors encountered while translating standards into Swedish					
<b>Type of request:</b>					
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b>					
Company :UcoTek AB.....			e-mail :ulf@ucotek.se .....		
Name Ulf Malmström.....			phone : +46707686690.....		
Postal address : 1. Irsdalsvägen, SE 14461 Rönninge Sweden					
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Consultant			
<b>Question/comment:</b>					
See enclosed file					
Proposed answer(s): *					
<b>Answer from the MHD</b> (to be filled by MHD):					
<p style="color: red;">- 4.2.3.4, last dash shall read as follows: "- compatible with the combination of TSmax <b>with</b> the pressure P(<i>t</i>max) where <i>t</i>max is the maximum temperature under normal operating conditions."</p> <p style="color: red;">To be included into draft amendment EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- In 4.3, agreed to switch the order of 3rd and 4th paragraph.</p> <p style="color: red;">To be carried out into draft amendment EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For 5.2.4.2, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For 6.2.1, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For Table 6.2.2-1, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For Table 7.1.1-1, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For Table 7.2.2-1, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For Equation 10.3.2-3, the correction is already included into EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p> <p style="color: red;">- For Q.9, both equations for M are needed to develop the equation for L. For information, foreseen revision of Annex Q is under discussion at the moment (could be developed through a further draft amendment).</p>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.

- **Subclause 4.2.3.4**, last dash

The use of the word *Combination* requires at least two things to combine!

- **Subclause 4.3**

The 3rd and 4th paragraphs seem to be contradictory.

- **Subclause 5.2.4.2**

Paragraph number is repeated twice

- **Subclause 6.2.1**

The clause mentions 3 different methods for pipe bends: 6.2.3.1, 6.2.3.2 and Annex B. Since subclause 6.2.3.2 simply refers to Annex B, there seems to be only two methods?

- **Table 6.2.2-1**

R is used for two different measures

- **Table 7.1.1-1**

$R_i$  is used for two different measures

- **Table 7.2.2-1**

This table in several places uses capital letters where non-capital letters are used in the corresponding equations

- **Equation 10.3.2-3**

This equation seems meaningless, as its present form could simply be replaced by  $t^* = t$

- **Subclause Q.9**

This section contains two different formulas for M ?



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): <b>3-007-2018</b>				<b>Date:</b> 2018-04-09	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017	Page 28	Subclause 5.2.5.2	National Standard Reference --	
<b>Subject:</b> Additional safety factor for the steels with no specific control					
<b>Type of request:</b>					
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b>					
Company: Fortum Power and Heat Oy .....			e-mail: eero-matti.halme@fortum.com .....		
Name: Eero-Matti Halme .....			phone: +358401948550 .....		
Postal address: POB 100, FI-00048 FORTUM, Finland					
<input checked="" type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
<b>Question/comment:</b>					
<p>The first paragraph can be interpreted in two ways. Either the additional safety factor of 1.2 shall not be used for austenitic steels at all or the design stress of the austenitic steels shall be evaluated according to the formulas given in chapter 5.2.1.1 and additional safety factor of 1.2 shall be used. The first interpretation leads to the situation where there are different safety factors if the material is carbon steel or austenitic steel. The latter interpretation leads to the extra safety margin for the austenitic steels.</p> <p><b>Proposed answer(s): *</b></p> <p>The reference to the chapter 5.2.1.1 is incorrect. The design stress of the austenitic steel parts shall be evaluated using rules of chapter 5.2.2 and the same safety factor of 1.2 shall be used for austenitic steels as well.</p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
<p>Clause 5.2.5.1 will be modified as follows: "Steels with no specific control are those not possessing a test report 2.2, 3.1 or 3.2 in accordance with EN 10204, and shall only be used if permitted in the technical specification."</p> <p>Clause 5.2.5.2 will be modified as follows: "The design stress given in 5.2.1.1 and in 5.2.2.1 shall be divided by an additional safety factor which shall not be less than 1,2."</p> <p>These modifications will be taken within the draft amendment EN 13480-3:2017/prA1 to be submitted to CEN Enquiry</p>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.





## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-008-2018		<b>Date:</b> 16/08/2018		
<b>Please fulfil the following</b>				
Part: EN 13480-3	Issue: 2017	Page 48 210	Subclause §6.6.4 Annex D	National Standard Reference -- --
<b>Subject:</b> Limitation and impact of real bolt tightening load in bolted flange calculation.				
<b>Type of request:</b>				
<input checked="" type="checkbox"/> Technical clarification				
<input type="checkbox"/> Editorial correction				
<input type="checkbox"/> Technical comment				
<input type="checkbox"/> Translation correction				
<b>From :</b> Company: EDF Name: Mr. HUBERT Postal address: Direction Expertise Technique - Bâtiment Cytalium – 1 avenue de l'Europe – CS 30451 MONTEVRAIN – 77771 MARNE LA VALLEE Cedex 04				e-mail: nicolas.hubert@edf.fr phone: +33 178 370 656
<input type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
<b>Question/comment:</b>				
<p>This case concerns narrow face flange. According to §6.6.4, "the design shall be done by applying [...] the algorithm shown in the Taylor-Forge method (Annex D)". In application of the rules for bolted flange calculation in annex D, two different conditions apply: the assembly condition and the operating condition.</p> <p>For assembly condition, the minimum required bolt load is <math>W_A</math>. This force is function of the gasket dimensions and gasket seating characteristic <math>y</math>. For operating condition, the minimum required bolt load is <math>W_{op}</math>. This force is function of the gasket dimensions, the gasket factor <math>m</math> and also the pressure in the equipment.</p> <p>For assembly condition, the bolt design uses <math>W_A</math> and the flange design uses <math>W</math>, which is an average between <math>W_A</math>, <math>W_{OP}</math> and the maximum bolt load. For operating condition, the bolt design uses <math>W_{OP}</math> and the flange design uses <math>H_G</math> and <math>H</math>, which correspond to <math>W_{OP}</math>.</p> <p>Consequently, the real bolt load generated during the tightening never impact the bolted flange calculation. To determine this preload, the only requirement we can find is the note 3 in §6.6.4 : " The bolt torque should be specified by the designer". Without any other specification, recommendation, limitation or calculation formulas, a non-controlled tightening or an infinite tightening seems to be permitted by the application of the rules of EN 13480-3.</p>				
<b>Question 1 :</b> How does EN 13480-3 annex D take into account the real tightening load in the mechanical dimensioning of the bolted flange?				
<b>Question 2 :</b> In accordance with EN 13480-3, is there a specific procedure for switching from the calculation of the bolted flange to the calculation of the real tightening load, especially in term of stress limitation?				



Proposed answer(s): \*

**Answer 1 :** The analysis of real tightening load is not required in EN 13480-3 annex D and mustn't be realised. It is not necessary to replace  $W_{OP}$  and  $W_A$  by the real tightening load value.

**Answer 2 :** Once the calculation done according to the rules of annex D, the real tightening load must be limited by only considering the bolt.

According to EN 13480-3 formula D.5-9, the bolt limit is the minimum between  $f_{B,A}$  and  $f_B$  (the bolt nominal design stresses). According to EN 13480-3 §6.6.4, "guidance [...] are given in EN 1591-1". According to EN 1591-1 §8.2, the bolt load ratio is limited by using  $f_B$  (the bolt nominal design stress).

This requirements can be interpreted in two ways :

- The real tightening load is determined to produce a nominal stress in bolt equal to the bolt nominal design stress. This interpretation doesn't take into account the tightening uncertainty due to the tool (torque for example). No more verification is necessary.
- The real tightening load is determined to produce a maximal stress in bolt equal to the bolt nominal design stress, by using the tightening uncertainty due to the tool. Then, a verification is required in order to ensure that the minimal real tightening load is superior to  $W_{OP}$  and  $W_A$ .

In some other codes, the real tightening load is taking account directly in the bolted flange calculation (RCC-M or EN 1591-1 for seating condition or when a preload is known) or is limited (ASME III et ASME VIII).

Please clarify.

See ASME PCC-1 edition 2010.

**Answer from the MHD** (to be filled by MHD):

Annex D does not specify any additional limitations on the applied tightening load.

**To be sent to EN 13480 Maintenance Group secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM  
Standardization Office on behalf of AFNOR  
F 92038 Paris La Défense Cedex – France  
e-mail: [en13480@unm.fr](mailto:en13480@unm.fr)

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-009-2018				<b>Date:</b> 20/09/2018	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017	Page 81	Subclause 8.4.3	National Standard Reference --	
<b>Subject:</b>					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company: TD WILLIAMSON ..... Name: Yves Lenaerts / David Stordeur ..... Postal address: 6, Rue du Travail 1400 Nivelles, Belgium			e-mail: Yves.Lenaerts@tdwilliamson.com David.Stordeur@tdwilliamson.com ..... phone: Yves: +32 475 95 30 65 David: +32 485 443929 .....		
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
<p><b>Concern:</b> Reinforced Openings with increased wall thickness as per EN13480-3 chap. 8.4.3</p> <p><b>Question:</b> If the "area compensation" condition (8.4.3-3) is satisfied, can the length of reinforced wall thickness along the branch be smaller than the calculated value (<math>l_b</math>) as per equation 8.4.3-1 ?</p> <p><i>Example: A Hot tap Tee 24 IN X 16 IN is designed with a shell thickness (<math>e_{as}</math>) of 25 mm and a branch thickness (<math>e_{ab}</math>) of 15 mm. calculation is OK at 80 bar design pressure. If we manufacture the same Tee but with a branch thickness of 20 mm instead of 15 mm for raw material availability reason the design does no longer pass the calculation. In this case TDW can't increase further the branch length for dimensional constrain reasons.</i></p> <p><b>Potential Solution:</b> The minimum extension of reinforced thickness of the branch should be calculated on the basis of the minimum required thickness to withstand pressure (<math>e</math>) and verify the area compensation condition (8.4.3-3) rather than the analysis thickness (<math>e_a</math>) value as defined in paragraph 4.3-1 or 4.3-2.</p> <p><i>In other words the additional thickness (<math>\epsilon</math>) resulting from the selection of the ordered thickness should not be considered in the calculation.</i></p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
<p>The answer to your question is the following: See both sentences from Clause 8.4.3 in the current EN 13480-3:2017 "b and ls, given by equations 8.4.3-1 and 8.4.1-2 are maximum lengths for reinforcement calculation." "If the design shows a shorter length as given by equations 8.4.1-2 and 8.4.3-1, this shall be considered by the reinforcement calculation." Remark: The proposed potential solution is not applicable.</p>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 3-010-2018				<b>Date:</b> 10.10.2018	
<b>Please fulfil the following</b>					
Part: EN 13480-3	Issue: 2017	Page 27	Subclause 5.2.2.1	National Standard Reference --	
<b>Subject:</b> Elongation for allowable stress in austenitic steel and compliance with PED					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b>					
Company: Kiwa Teknologisk Institutt Sertifisering.....			e-mail: Esteban.Rodriguez@kiwa.com .....		
Name: Esteban Rodriguez.....			phone: +47 93858670 .....		
Postal address: Kabelgaten 2, 0581 Oslo .....					
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): NoBo			
<b>Question/comment:</b>					
<p>When using austenitic steel, PED states that it is allowed to use a reduced safety factor of 5/6 when the elongation exceeds 35%. That means when the elongation is higher than 35%.</p> <p>EN 13480 states that it is allowed to use this reduced safety factor (1/1,2) when the elongation is equal or higher than 35%.</p> <p>There seems to be a difference here, which has significance given the fact that 35% is quite a common value for defining elongation.</p> <p>In 13480-3, please confirm whether the elongation shall be higher than 35% (as stated in PED), or whether it shall be equal or higher than 35%, in order to use the reduced safety factor?</p> <p><u>Proposed answer(s):</u></p> <p>In order to comply with EN 13480, which is harmonized with PED, the elongation shall be at least (i.e. equal or higher) than 35%.</p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
Yes, your answer is correct and this is also right for 30 %.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 4-001-2018				<b>Date:</b> 2018-02-14	
<b>Please fulfil the following</b>					
Part: EN 13480-4	Issue : 2017-06	Page 36/37	Subclause 11.2.2/3	National Standard Reference DIN EN 13480-4:2017-12	
<b>Subject:</b> CE-Kennzeichnung von verlegten Rohrleitungen (CE-Marking of installed piping)					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company: Evonik Technology and Infrastructure GmbH Name: Peter Doo ..... Postal address: Untere Kanalstrasse 3, D-79618 Rheinfelden, Germany .....			e-mail: peter.doo@evonik.com..... phone : +49 7623 917799 .....		
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
<b>Question/comment:</b>					
<p>In section 11.2.2 it is required to identify each manufactured pipe with the name and address of the manufacturer, the year of manufacture and where relevant the number of the notified body. The technical standard already concedes that the additional information defined in 11.2.3 can be documented separately, if through a clear marking of the pipe, an unambiguous link between the pipe and the documentation is established.</p> <p>Guideline 9/8 further supports this position by allowing a centrally positioned CE marking for piping systems.</p> <p>However as it is often difficult in existing chemical plants, consisting of complex physically dispersed piping systems, to link a centrally positioned CE marking to more than a single pipe this would result in each pipe being marked with the information required in 11.2.2. As this is impractical, the change below is suggested.</p> <p><b>Proposed answer(s): *</b></p> <p>A unique number permanently attached to the pipe provides a clear, unambiguous link to the required documentation and the manufacturer. The documentation contains all the information required by the standard (11.2.2 points 1 to 3 and 11.2.3 points a to g) and completely defines the limits of the relevant pipe. Through this measure, it is no longer necessary to mark the pipe directly and individually with the information required in 11.2.2. This information together with the technical data required in 11.2.3 would be available in the documentation for the pipe.</p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
Agreed in principle, and there will be a proposal for clarification in the working group CEN/TC 267/WG 4. Action to be carried out for EN 13480-4:2017.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 4-002-2018					<b>Date:</b>
<b>Please fulfil the following</b>					
Part: EN 13480-4	Issue: 2017	Page	Subclause	National Standard Reference --	
<b>Subject:</b>					
<b>Type of request:</b>					
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b>					
Company: Institut za varilstvo d.o.o., (Welding Institute), Slovenia			e-mail: uros.zupanc@i-var.si		
Name: Uros Zupanc.....			phone: +00 386 41 312 038		
Postal address: SI-1000 Ljubljana, Slovenia .....					
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): No.Bo. 2042			

**Question/comment:**

Is there an easy answer to our question: why is EN 13480-4:2017 not harmonised to PED 2014/68/EU? all other parts are (-1 / -2/ - 3/-5) harmonised as quoted to

17.11.2017 EN Official Journal of the European Union C 389/15

(1)	(2)	(3)	(4)	(5)
CEN	EN 13480-1:2017 Metallic industrial piping — Part 1: General	This is the first publication	EN 13480-1:2012 Note 2.1	15.12.2017
CEN	EN 13480-2:2017 Metallic industrial piping — Part 2: Materials	This is the first publication	EN 13480-2:2012 Note 2.1	15.12.2017
CEN	EN 13480-3:2017 Metallic industrial piping — Part 3: Design and calculation	This is the first publication	EN 13480-3:2012 Note 2.1	15.12.2017
CEN	EN 13480-4:2012 Metallic industrial piping — Part 4: Fabrication and installation	12.8.2016		
	EN 13480-4:2012/A1:2013	12.8.2016	Note 3	
	EN 13480-4:2012/A2:2015	12.8.2016	Note 3	
CEN	EN 13480-5:2017 Metallic industrial piping — Part 5: Inspection and testing	This is the first publication	EN 13480-5:2012 Note 2.1	15.12.2017
CEN	EN 13480-6:2017 Metallic industrial piping — Part 6: Additional requirements for buried piping	This is the first publication	EN 13480-6:2012 Note 2.1	15.12.2017
CEN	EN 13480-8:2017 Metallic industrial piping — Part 8: Additional requirements for aluminium and aluminium alloy piping	This is the first publication	EN 13480-8:2012 Note 2.1	15.12.2017

Proposed answer(s): \*

/

**Answer from the MHD (to be filled by MHD):**

See attached answer from CEN/TC 267/WG 8/MHD Secretariat

**To be sent to EN 13480 Maintenance Group secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM  
Standardization Office on behalf of AFNOR  
F 92038 Paris La Défense Cedex – France  
e-mail: [en13480@unm.fr](mailto:en13480@unm.fr)

\* Please note that question with proposed answers will be dealt with as priority.

## en13480

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**De:** en13480  
**Envoyé:** vendredi 23 novembre 2018 10:59  
**À:** uros.zupanc@i-var.si  
**Cc:** a.dirienzo@snct.org  
**Objet:** CEN/TC 267/WG 8/MHD: Question regarding EN 13480-4:2017 from Institut za varilstvo d.o.o. - (Welding Institute) - Slovenia  
**Pièces jointes:** EN13480MHD\_Welding Institute Slovenia.pdf; CEN Enquiry\_EN\_13480-4\_2017\_A1\_(E)\_stf.pdf; CEN Enquiry\_EN\_13480-4\_2017\_A1\_dn.pdf

Dear Mr. ZUPANC,

Please be informed that the European working group CEN/TC 267/WG 8/MHD in charge of the maintenance of EN 13480 series held its last meeting this week in Paris.

Your question has been studied by the experts.

EN 13480-4:2017 is not yet PED harmonized to the list in OJEU because of the issue related to clause 9.1.1 concerning "Welding personnel" (qualification of welders) and the missing reference to EN ISO 9606-1:2017.

Following a demand from the PED CEN Consultant and from the European Commission, this has been corrected through an Amendment EN 13480-4:2017/prA1 which is at the moment submitted to CEN Enquiry at CEN level until 2018-12-27 (see attached files).

CEN Members are invited to vote on this Amendment through their National Standardization Body (your is the Slovenian Institute for Standardization - [www.sist.si](http://www.sist.si) - [sist@sist.si](mailto:sist@sist.si))

Please find below emails of the direct contact from SIST on subjects related to CEN/TC 267 "Industrial piping and pipelines – EN 13480 series":

- [tomaz.uran@alge.si](mailto:tomaz.uran@alge.si)
- [neva.razem-lucovnik@sist.si](mailto:neva.razem-lucovnik@sist.si)

In this Amendment, please have a look on clause 9.1.1, which has been revised and on the ZA Annex, which has been updated.

To be informed about the next stages concerning the development of this Amendment, please contact SIST.

The future publication of this Amendment should allow Part -4 to be harmonised.

Best regards,

Patrick AMESLON  
Secretariat of CEN/TC 267/WG 8/MHD "Maintenance of EN 13480 series"  
UNM  
Standardization Office on behalf of AFNOR  
CS30080  
F 92038 Paris La Défense Cedex 19 France  
Email : [p.ameslon@unm.fr](mailto:p.ameslon@unm.fr)  
Tel : +33 (0)1 47 17 67 64  
<http://www.unm.fr/>





## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 5-001-2018				<b>Date:</b> 04/09/2018	
<b>Please fulfil the following</b>					
Part: EN 13480-5	Issue: 2017	Page 30	Subclause §9.3.4	National Standard Reference NF EN 13480-5 V3	
<b>Subject:</b> Application of sub clause 9.3.4					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b>					
Company:..... ORANO			e-mail: maxime.barbey@areva.com.....		
Name: ..... BARBEY			phone: + 2 33 02 88 76 .....		
Postal address: ..... La Hague			06.32.84.24.64		
<input type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
<p><b>Question/comment:</b> The first sentence says “ In cases where a hydrostatic or pneumatic pressure test of individual welds (connection welds) would be detrimental or impracticable they shall be substituted by an appropriate non destructive test (100% RT or UR and 100 % PT or MT)</p> <p>Can the manufacturer decide to extend this sub clause to a collection of pipes of category 0 and still ensure compliance to the EN 13480?</p> <p><b>Proposed answer(s):</b> In compliance with regulation, pipes of category 0 do not always require hydrostatic pressure test. Thereby, the manufacturer can adapt the provisions of the §9.3.4 instead of the hydrostatic pressure test of the sub clause 9.3.1.</p> <p>The adaptations which have been made, and which are still under the responsibility of the manufacturer, do not call into question the compliance with the standard EN 13480 in so far as the others provisions of the standard are respected.</p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
This case is not covered in the current in EN 13480-5:2017. This topic will be sent to the European working group CEN/TC 267/WG 5 for discussion.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 5-002-2018				<b>Date:</b> 08.10.2018	
<b>Please fulfil the following</b>					
Part: EN 13480-5	Issue: 2017	Page 14	Subclause 8.1.2	National Standard Reference --	
<b>Subject:</b> NDT by sample inspection					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company: Kiwa Teknologisk Institutt Sertifisering..... Name: Esteban Rodriguez..... Postal address: Kabelgaten 2, 0581 Oslo .....			e-mail: Esteban.Rodriguez@kiwa.com ..... phone: +47 93858670 .....		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): NoBo			
<b>Question/comment:</b>					
<p>Could you please confirm that, in the case of 8.1.2 <i>Examination of weld quality by sample inspection</i>, and table 8.2.1; the percentages refer to complete welds from a number of welds , and not to a percentage of length from total weld length?</p> <p>Could you also please confirm that the percentages are applied to each batch of welds individually, and not to the total quantity of welds as a whole?</p> <p><u>Proposed answer(s):</u> *</p> <p>The percentages in examination by sample inspection, and table 8.2.1, refer to a percentage of full, complete welds (NDT over the entire length of the weld). They give a number of welds to be tested over their entire length. The percentages are not a percentage based on welded length that give an amount of millimetres (mm) to be tested.</p> <p>The percentages in examination by sample inspection, and table 8.2.1, are applied to each individual batch of welds, where a batch is defined as established in section 8.1.2.</p>					
<b>Answer from the MHD</b> (to be filled by MHD):					
<p>Your answer is correct for the time being in the current EN 13480-5:2017. With regards to Table 9.3.3-1, footnote a), further review by the European working group CEN/TC 267/WG 5 will be carried out.</p>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 5-003-2018				<b>Date:</b> 2018-11-15	
<b>Please fulfil the following</b>					
Part: EN 13480-5	Issue: 2017	Page 23 to 25	Subclause 9.3.3	National Standard Reference DIN EN 13480-5:2017	
<b>Subject:</b> Pneumatic test in EN 13480-5:2017					
<b>Type of request:</b>		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction		
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction		
<b>From :</b> Company:.....VDMA - Process Plant and Equipment Name: .....Frank Wohnsland Postal address:Lyoner Strasse 18 – D-60528 - Frankfurt			e-mail: frank.wohnsland@vdma.org..... phone: +49 69 6603-1399 .....		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Mechanical Engineering Industry Association			
<b>Question/comment:</b> EN 13480-5 Clause 9.3.3 requires a hazard analysis when pneumatic pressure testing has to be performed. When carrying out this hazard analysis for piping installations in buildings (such as laboratories or machinery houses) or for piping installations on production sites with other equipment and production facilities in the vicinity (such as piping on pipe racks in a refinery or chemical plant), is it reasonable to reduce the test pressure as specified in EN 13480-5, clause 9.3.3 f)? <b>Proposed answer(s): *</b> Yes. EN 13480-5 clause 9.3.3 f) specifies a reduction of test pressure for pneumatic pressure testing if safety precautions like testing in a bunker, a water basin or another safe area is not possible.					
<b>Answer from the MHD</b> (to be filled by MHD): <b>Your answer is correct.</b>					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.



## EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

<b>Request reference number</b> (to be filled by MHD): 8-001-2018				<b>Date:</b> 2018-01-26	
<b>Please fulfil the following</b>					
Part: EN 13480-8		Issue: 2017-06		Page -	
		Subclause -		National Standard Reference English version	
<b>Subject:</b> Possible errors encountered while translating standards into Swedish					
<b>Type of request:</b>					
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
<b>From :</b> Company :UcoTek AB..... Name Ulf Malmström..... Postal address : 1. Irsdalsvägen, SE 14461 Rönninge Sweden			e-mail :ulf@ucotek.se ..... phone : +46707686690 .....		
<input type="checkbox"/> Manufacturer		<input type="checkbox"/> User		<input checked="" type="checkbox"/> Other (please specify): Consultant	
<b>Question/comment:</b>  See enclosed file  Proposed answer(s): *					
<b>Answer from the MHD</b> (to be filled by MHD): Subclause B.5.1.1: - Definition of Group III should be DN ≥ 400, Agreed correction to be carried out. Table C.4, note b): - Agreed, "shell" to be changed to "shall", correction to be carried out.					
<b>To be sent to EN 13480 Maintenance Group secretariat:</b>			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: <a href="mailto:en13480@unm.fr">en13480@unm.fr</a>		

\* Please note that question with proposed answers will be dealt with as priority.