



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2009)-3-03		Date: 2015-07-16		
Please fulfil the following				
Part: EN 13445- 3:2009	Issue: 5	Page 24, 157, 628, 680	Subclause 6.1.1, 11.4.3.1, G.4.1.2, GA.4.1.2	National Standard Reference --
Subject: Design stresses for bolt materials				
Type of request: <input type="checkbox"/> Technical clarification <input checked="" type="checkbox"/> Technical comment <input type="checkbox"/> Editorial correction <input type="checkbox"/> Translation correction				
From : Company: Forsmarks Kraftgrupp AB Name: Lennart Savås Postal address: 742 03 Östhammar Sweden			e-mail: 5RV@forsmark.vattenfall.se phone: +46 10 211 52 92	
<input type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
Question/comment: <u>Question:</u> Which design stresses for bolt materials shall be applied when a stress analysis as per Annex C is carried out? The note in §6.1.1 refers to clauses 11 and 12 regarding design stresses for bolting materials. §11.4.3.1 specifies the design stress to be $\min.(R_{p0,2T}/3; R_{m/20}/4)$, for austenitic bolts $R_m/4$. According to the alternative design rules for flanges in Annex G, §G.4.1.2 and §GA.4.1.2, the design stress for bolts shall be determined as for shells in clause 6. For steels other than austenitic, this means $\min.(R_{p0,2T}/1,5; R_{m/20}/2,4)$ which is much higher than the limit in §11.4.3.1. If a detailed stress analysis as per Annex C of a bolted connection is carried out, where effects due to non-linear gasket properties, bolt tightening, external loads etc. have been considered, is it then permissible to adopt the higher design stresses for bolt materials as specified in Annex G, §G.4.1.2 and §GA.4.1.2? Proposed answer(s)/correction(s)*:				
Answer from the MHD (to be filled by MHD): Answer from CEN/TC 54/WG 53 during its May 2015 meeting: YES, provided the stress analysis is aimed to determine the actual bolt loads considering the effective (non-linear) gasket characteristics, the tightening device and the relevant tolerances, and that the tightening of the flanged assembly is made with the specified bolt load.				
To be sent to EN 13445 Maintenance Help Desk secretariat: EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE e-mail: en13445@unm.fr				

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-01-01		Date: 2015-03-24		
Please fulfil the following				
Part: EN 13445-1	Issue: 2014	Page 4	Subclause 1	National Standard Reference --
Subject: Limit of application of EN 13445 series				
Type of request:				
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From :				
Company: Alstom Power		e-mail: szymon.matuszewski@power.alstom.com ..		
Name: Matuszewski Szymon.....		phone: +27767929166, +48665290438		
Postal address:				
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
Question/comment:				
Introduction of EN 13445-1 states:				
<i>NOTE In EN 13445 the term pressure vessel includes the welded attachments up to and including the nozzle flanges, screwed or welded connections, or the edge to be welded at the first circumferential weld at connecting piping or other elements.</i>				
I got clarification from our Authorized Inspector on the case of a beveled pipe coming from an ASME pressure vessel. Generally speaking, if the prepared pipe stub from the vessel is going to be welded in the field it is going to be welded to other piping and thus, the weld would fall under the ASME B31.X code. If however the piping stub is going to be welded to a flange or another mechanical connection the weld falls under ASME Sec VIII.				
Does the EN 13445 introduction quoted above means the same? If I have EN13345 vessel and connecting EN13480 pipe to be welded in to the nozzle, how do I treat this weld?				
Proposed answer(s): *				
EN 13480 rules apply.				
Proposed answer from the MHD (to be filled by MHD):				
Right, EN 13445 applies to pressure vessels as defined in part 1: " housing and its direct attachments up to the coupling point connecting it to other equipment, designed and built to contain fluids under pressure". Welding or bolting to piping is not included. Piping standard applies as EN 13480.				
To be sent to EN 13445 Maintenance Help Desk secretariat:		EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-2-01				Date: 2015-03-16	
Please fulfil the following					
Part:	Issue:	Page	Subclause	National Standard Reference	
EN13445-3 and -2	2014	15 11	6.4.5 4.2.1.2	--	
Subject:					
Type of request:					
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
From :					
Company: Johnson Controls Denmark Aps. Name: Ole Langgaard Postal address: Christian X's Vej 201 8270 Højebjerg; Denmark			e-mail: ole.langgaard@jci.com phone: +45 87 36 72 97		
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other please specify :			
Question/comment:					
<p>More detailed descriptions of when, what and how to test for lamellar tearing and/or probability for internal damage from increased through thickness stress are requested. As an example: Weld detail N 2 in Annex A indicates a risk of lamellar tearing: What is to be tested? (Nozzle, shell?) When (made of plate/pipe material, certain thicknesses?) How (Always 100% RT/UT? Always tension test? For thickness above xx?)</p> <p>(Especially if EN 13445 is to be applied for orders outside EU with less experienced design reviewers, some discussions can be avoided.)</p>					
Proposed answer(s)/correction(s)*:					
<p>Other details require other answers. Example for detail N 2: Lamellar tearing / internal damage only applicable to nozzle material. And only for nozzles made of plate material. Testing is then to be 100% UT of this material, where welded upon and 3 times the plate thickness away from the welded area.</p>					
Answer from the MHD (to be filled by MHD):					
As indicated in the NOTE under 4.2.1.2 of EN13445-2, and the MHD believes that sufficient guidance is in EN 1011-2.					
To be sent to EN 13445 Maintenance Help Desk secretariat:					
EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE			e-mail: en13445@unm.fr		

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-3-01		Date: 2015-07-16		
Please fulfil the following				
Part:	Issue:	Page	Subclause	National Standard Reference
EN13445-3 and -2	2014	15 11	6.4.5 4.2.1.2	--
Subject:				
Type of request:				
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From :				
Company: Johnson Controls Denmark Aps. Name: Ole Langgaard Postal address: Christian X's Vej 201 8270 Hoejbjerg; Denmark			e-mail: ole.langgaard@jci.com phone: +45 87 36 72 97 date: 17 th Sep. 2014	
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other	please specify :	
Question/comment:				
<p>More detailed descriptions of when, what and how to test for lamellar tearing and/or probability for internal damage from increased through thickness stress are requested. As an example: Weld detail N 2 in Annex A indicates a risk of lamellar tearing: What is to be tested? (Nozzle, shell?) When (made of plate/pipe material, certain thicknesses?) How (Always 100% RT/UT? Always tension test? For thickness above xx?)</p> <p>(Especially if EN 13445 is to be applied for orders outside EU with less experienced design reviewers, some discussions can be avoided.)</p>				
Proposed answer(s)/correction(s)*:				
<p>Other details require other answers. Example for detail N 2: Lamellar tearing / internal damage only applicable to nozzle material. And only for nozzles made of plate material. Testing is then to be 100% UT of this material, where welded upon and 3 times the plate thickness away from the welded area.</p>				
Answer from the MHD (to be filled by MHD):				
<p>Answer from CEN/TC 54/WG 53 during its May 2015 meeting:</p> <p>Prescriptions on this matter are contained in part 2, par. 4.2.1.2. However more details will be given in the future revised version of Annex A.</p>				
To be sent to EN 13445 Maintenance Help Desk secretariat:				
EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE			e-mail: en13445@unm.fr	

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-3-03		Date: 2015-07-16		
Please fulfil the following				
Part: EN 13445-3	Issue: 2014	Page 810	Subclause Table R-1	National Standard Reference --
Subject: Reverse hR				
Type of request:				
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From : Company: -- Name: Guy BAYLAC Postal address: 114 Avenue Félix Faure F-75015 PARIS France			e-mail: guy_baylac@orange.fr phone: +33 1 45 54 93 34	
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Convenor of CEN/TC 54/WG 59 CREEP		
Question/comment: In Table R-1, TTP models, the first equation is wrong Proposed answer(s)/correction(s)*: All the terms in $\log(\sigma)^n$ should be corrected in $(\log \sigma)^n$. They should have been better written $n \cdot \log(\sigma)$.				
Answer from the MHD (to be filled by MHD): Answer from CEN/TC 54/WG 53 during its May 2015 meeting: This table is now being revised in SG Design Criteria to be published as an amendment.				
To be sent to EN 13445 Maintenance Help Desk secretariat:				
EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE			e-mail: en13445@unm.fr	

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-3-04		Date: 2015-03-16		
Please fulfil the following				
Part: EN 13445-3	Issue: 1	Page 70 - 71	Subclause 8.5.3.8.2	National Standard Reference --
Subject:				
Type of request:				
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From :				
Company: DCNS Ingénierie - CSE/CSN/CA		e-mail: stephane.olivier@dcnsgroup.com		
Name: OLIVIER Stéphane		phone: +33 2 33 95 58 96		
Postal address: BP 440 50104 CHERBOURG- OCTEVILLE Cedex				
France				
<input type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
Question/comment:				
<p>We are currently designing vessels for sub seas application. Main load is the external pressure. To reinforce our vessels, we use "T" or flat stiffeners.</p> <p>For the stiffener tripping verification, we apply § 8.5.3.8 and specifically § 8.5.3.8.2 for flat stiffeners. For that calculation, we use Tables 8.5-4 and 8.5-5.</p> <p>We wonder if we can use this method when the d/R ratio (absciss of the table) is over 0.2 and if yes, what is the value to be used.</p> <p>Example 1: for internal stiffeners (Table 8.5-4) d/R = 0.3 and Ncyl = 3 : shall we extrapolate the given value for 0.2 (of 0.334)?</p> <p>Example 2: for external stiffeners (Table 8.5-5) d/R = 0.16 et le Ncyl = 5 : shall we use the value of 1.14?</p>				
Proposed answer(s)/correction(s)*:				
Answer from the MHD (to be filled by MHD):				
In this case, extrapolation should not be performed.				
To be sent to EN 13445 Maintenance Help Desk secretariat:				
EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE			e-mail: en13445@unm.fr	

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-3-05		Date: 2015-05-26		
Please fulfil the following				
Part: EN 13445-3	Issue: 2014	Page 862	Subclause T.6.3.2	National Standard Reference --
Subject:				
Type of request:		<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction	
		<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction	
From : Company: Ostfalia HaW Name: Prof. Dr. S. Lippardt Postal address: Salzdahlumer Str. 46 - 38302 Wolfenbüttel		e-mail: s.lippardt@ostfalia.de phone: 00495331-93944680		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): University of Applied Sciences		
Question/comment: I have a question for understanding the section T.6.3.2 test factor in the DIN EN 13445-3 (page 862). I can't read the formula for the test factor "F". Should it be $F = 10 \text{ epx} (K * \sigma)$? Have I read the formula right? Which value is to be inserted here for sigma?				
Answer from the MHD (to be filled by MHD): The formula is $F = 10^{K\sigma}$ σ given in Table T.3-1				
To be sent to EN 13445 Maintenance Help Desk secretariat:		EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-03-07				Date: 2015-10-17	
Please fulfil the following					
Part: EN 13445-3	Issue: 2014	Page 344	Subclause 16.4	National Standard Reference --	
Subject:					
Type of request:					
<input type="checkbox"/> Technical clarification		<input checked="" type="checkbox"/> Editorial correction			
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
From :					
Company: Newmed s.r.l.			e-mail: abenassi@midmark.com		
Name: Andrea Benassi			phone: +390522875166		
Postal address:					
<input checked="" type="checkbox"/> Manufacturer		<input type="checkbox"/> User		<input type="checkbox"/> Other (please specify):	
Question/comment:					
The description of Figure 16.4-3 states correctly:					
"Stress factor in sphere for internal pressure (flush nozzle)", but the sketch shows a protruding nozzle.					
<u>Proposed answer(s):</u> *					
Changing the sketch with a protruding nozzle.					
Answer from the MHD (to be filled by MHD):					
Proposed seems inconsistent with the question. Figure 16.4-3 show a flush nozzle (issue 3 2016) in French and German version but English version need to be modified.					
To be sent to EN 13445 Maintenance Help Desk secretariat:			EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-4-01				Date: 2015-09-03	
<i>Please fulfil the following</i>					
Part: EN 13445-4	Issue: 2014	Page 21	Subclause 7.4	National Standard Reference BS EN 13445-4:2014	
Subject: Welder qualifications and welding operator qualifications					
Type of request:					
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
From :			e-mail: philbygate.bmq@btinternet.com phone: +44 1332 552233		
Company: Bygate Manufacturing & Quality Solutions Ltd					
Name: Mr Philip J Bygate					
Postal address: Meadowview Cottage , 27 Church Road Quarndon Derbyshire DE225JB . UK					
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Chairman CEN/TC 54			
Question/comment:					
With the planned withdrawal of EN 287-1:2011 by October 2015, after the publication of EN ISO 9606-1:2013 how should welders and welding operators be qualified??					
How should welder qualifications and welding operator qualifications be prolonged and reapproved??					
Proposed answer(s):					
The following text has been agreed by CEN/TC 54/WG 54 for inclusion in a revision of EN 13445-4, based on previous discussions between the chairmen of CEN/TC 54 ,CEN/TC 267 & CEN/TC 269 --					
Welders and welding operators shall be qualified to EN ISO 9606-1:2013 or EN ISO 14732:2013. An up-to-date list of welders and welding operators together with records of their qualification test shall be maintained by the manufacturer.					
The confirmation of validity (every 6 months) and re-validation shall be carried out in accordance with EN ISO 9606-1:2013					
Previous qualifications according to EN 287-1:2011 or EN 1418:1998 remain valid and maybe pro longed in accordance with EN 287-1:2011 or EN 1418:1998. For welders, a new qualification test certificate may be prepared using the testing conditions shown on existing qualification test certificates but applying the range as specified in accordance with EN ISO-9606-1: 2013. The new alignment document shall indicate that re-validation is based on the requirements of EN ISO 9606-1:2013 paragraph 9.3(b).					
For the application of the standard under the PD for pressure equipment of categories II , III, and IV the re-validation in accordance with 9.3 c) of EN ISO 9606-1 :2013 or in accordance with 5.3 c) of EN ISO 14732 :2013 is permitted provided that the notified body or recognised third-party organisations perform the re-validation. Verification of the quality program in accordance with EN ISO 3834-2 or EN ISO 3834-3 does not require any certification.					
NOTE. Any welders not in the employee of the manufacturer may be used provided they are under the full technical control of the manufacturer and work to the manufacturers requirements.					
Answer from the MHD: During its last meeting in October 2014, CEN TC 54 (in charge of EN 13445) discussed that problem of referencing EN ISO 9606-1. The text proposed by CEN/TC 54, CEN/TC 267 & CEN/TC 269 Chairmen and secretaries was also reviewed. CEN/TC 54 had no opposition to that text and an amendment is under ballot for to be integrated in EN 13445-4 asap.					
EN 13445 MHD agrees with the content of that text.					
To be sent to EN 13445 Maintenance Help Desk secretariat:			EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-5-01		Date: 2015-03-25		
Please fulfil the following				
Part: EN 13445-5	Issue: 2014	Page 77	Subclause Annex Y	National Standard Reference --
Subject:				
Type of request:		<input type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction	
		<input type="checkbox"/> Technical comment	<input checked="" type="checkbox"/> Translation correction	
From : Company: Inspecta Tarkastus Oy Name: Juha Purje Postal address: PO Box 7, FI-00441 Helsinki, Finland		e-mail: juha.purje@inspecta.com phone: 00358505251180		
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Notified Body no 0424		
Question/comment: The abbreviation CND (contrôles non destructifs) in the original French version has not been translated into English and German versions. The reader of the English or German version can not understand what the sentences "increase in the range of CND" or "die Erhöhung des CND-Bereichs" mean.				
Proposed answer(s)/correction(s)*: The abbreviation CND shall be corrected as NDT in English version and ZfP in German version.				
Answer from the MHD (to be filled by MHD): Accepted Issue 2, July 2015, to be corrected accordingly.				
To be sent to EN 13445 Maintenance Help Desk secretariat: EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex - FRANCE		e-mail: en13445@unm.fr		

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-5-02				Date: 2015-03-25			
Please fulfil the following							
Part: EN 13445-5	Issue: 2014	Page	Subclause 6.6.1.2.4 / Table 6.6.1-1	National Standard Reference --			
Subject:							
Type of request:							
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction					
<input type="checkbox"/> Technical comment		<input checked="" type="checkbox"/> Translation correction					
From :			e-mail:				
Company: Austrian Standards Institute			phone:				
Name:							
Postal address:							
<input type="checkbox"/> Manufacturer		<input type="checkbox"/> User		<input checked="" type="checkbox"/> Other (please specify):			
Question/comment:							
Please clarify the following differences between the E- and G-Version of this document:							
E-Version: 6.6.1.2.4 / Table 6.6.1-1 / page 19							
Maximum thickness for which specific materials are permitted	Unlimited ^t	Unlimited ^t	30 mm for groups 9.1, 9.2	50 mm for groups 1.1, 8.1	30 mm for groups 9.2, 9.1	50 mm for groups 1.1, 8.1	16 mm for groups 1.1, 8.1
G-Version: 6.6.1.2.4 / Tabelle 6.6.1-1 / Seite 19							
Maximale zulässige Werkstoffdicke in der betreffenden Prüfgruppe	Unbegrenzt ^f	Unbegrenzt ^f	30 mm für 9.1, 9.2 16 mm für 9.3, 8.2 ⁱ , 10	50 mm für 1.1., 8.1 35 mm für 1.2	30 mm für 9.2, 9.1	50 mm für 1.1, 8.1	12 mm für 1.1, 8.1
Answer from the MHD (to be filled by MHD):							
This value has been modified via an Amendment: EN 13445-5:2009/A4:2013. It is also 16 mm in the French version.							
German version, Issue 2, July 2015, to be corrected accordingly.							
EN 13445 Maintenance Help Desk secretariat:				c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex e-mail: en13445@unm.fr			

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-5-03 Date: 2015-03-25				
Please fulfil the following				
Part: EN 13445-5	Issue: 2014	Page	Subclause 10.2.3.3.1 / Table 10.2.3.3.1-1	National Standard Reference --
Subject:				
Type of request:				
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input checked="" type="checkbox"/> Translation correction		
From : Company: Austrian Standards Institute Name: Postal address:			e-mail: phone:	
<input type="checkbox"/> Manufacturer <input type="checkbox"/> User <input checked="" type="checkbox"/> Other (please specify):				
Question/comment:				
Please clarify the following differences between the E- and G-Version of this document:				
E-Version: 10.2.3.3.1 / Table 10.2.3.3.1-1 / page 37				
$5 < e \leq 7 \text{ mm}$	1,8	$c \geq 1 \text{ mm}$	$h < \frac{1}{4} \cdot e_{\min}$ $e_{\dots} < 50\% \text{ of allowed value}$	
	2,0	$c < 1 \text{ mm}$		
G-Version: 10.2.3.3.1 / Tabelle 10.2.3.3.1-1 / Seite 37				
$5 < e \leq 7 \text{ mm}$	1,8	$c \geq 1 \text{ mm}$	$h < \frac{1}{4} \cdot e_{\min}$ $e_w < 50 \% \text{ des zulässigen Wertes nach}$ Tabelle 6.6.3-1	
	2,0	$c \geq 1 \text{ mm}$		
Comment from the MHD (to be filled by MHD):				
<p>This difference exists since several years, already existing in Edition 2002 issue 31.</p> <p>WG 55 answer: German and French versions are written the same way. Factor f_k should be higher when the corrosion allowance is higher. The use of different factors depending on the corrosion allowance seems controversial. This could be simplified.</p> <p>Conclusion: to be considered by WG 55 in the next amendment.</p>				
EN 13445 Maintenance Help Desk secretariat:			c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex e-mail: en13445@unm.fr	

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EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-5-04 Date: 2015-03-25				
Please fulfil the following				
Part: EN 13445-5	Issue: 2014 V2	Page 16-31	Subclause 6.6 Table 6.6.2-1	National Standard Reference --
Subject:				
Type of request: <input checked="" type="checkbox"/> Technical clarification <input type="checkbox"/> Editorial correction <input type="checkbox"/> Technical comment <input type="checkbox"/> Translation correction				
From : Company: CRYOSTAR Name: Sébastien KREBS Postal address: 2 rue de l'industrie ZI BP 48 68220 HESINGUE			e-mail: sebastien.krebs@cryostar.com phone: +33389704316	
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
Question/comment: <p>Following my previous question ref (2009) 5-04 concerning the replacement of NDT volumetric testing by surface testing at which it has been responded:</p> <p>"RT is possible and should be performed; the issue can be reconsidered during the mid-term project, where a complete check of NDT specifications will be performed"</p> <p>What if because of construction and part assembly volumetric testing (RT or UT) is not possible on a full penetration butt weld? If there is no way after assembly/welding to access both side of the weld (I can submit a drawing if necessary illustrate). Could the weld be inspected/tested by another way then volumetric testing?</p> <p>In our case the "shell" design would still made of austenitic steel (material group 8.1) and thickness ≤ 3 mm.</p>				
Proposed answer(s): If because of construction/assembly, no access is left to allow NDT volumetric testing (RT or UT) to be performed (in-between type shell for example), weld could be tested by surface testing (MT or PT) instead.				
Answer from the MHD (to be filled by MHD): Volumetric testing is preferred (only RT in this case) and cannot be systematically replaced by surface tests. More details are required to find a solution: please send a drawing of your application and confirm if the welding are in line with the Annex A of part 3.				
To be sent to EN 13445 Maintenance Help Desk secretariat:			EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr	

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-05-07				Date: 201X-07-09	
Please fulfil the following					
Part: EN 13445-5	Issue: 2014	Page 21	Subclause 6.6.2.3.4	National Standard Reference --	
Subject:					
Type of request:					
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction			
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction			
From :					
Company: Linde Engineering Name: Andreas Kittel Postal address: C.von Linde Strasse 6-14 D-82049 Pullach			e-mail: andreas.kittel@linde-le.com phone: +49 89 7445 3942		
<input checked="" type="checkbox"/> Manufacturer	<input checked="" type="checkbox"/> User	<input type="checkbox"/> Other (please specify):			
Question/comment:					
Clause 6.6.2.3.4 refers to "Supporting Structures".					
How are "supporting structures" defined?					
Proposed answer(s): *					
Supporting Structures are defined as " load-bearing parts designed and manufactured to provide mechanical resistance and stability and/or fire resistance of the pressure vessel (such as skirts, saddles, supporting legs).					
Answer from the MHD (to be filled by MHD):					
Agreed as follows: " load-bearing parts designed and manufactured to provide stability (considering also mechanical strengthening and/or fire resistance) to the pressure vessel (such as skirts, saddles, supporting legs).					
Answer to be published and to be considered for the next amendment of EN 13445-5.					
To be sent to EN 13445 Maintenance Help Desk secretariat:			EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-05-08		Date: 2015-07-09		
Please fulfil the following				
Part: EN 13445-5	Issue: 2014	Page 29	Subclause 6.6.5	National Standard Reference --
Subject:				
Type of request:				
<input checked="" type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From : Company: IDESA Name: Víctor J. Martínez Postal address: Parque Científico Tecnológico, Edificio Félix Herreros, C/ Profesor Potter, 105, 33203, Spain		e-mail: victor.martinez@idesa.net phone: +34 985 17 57 05		
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):		
Question/comment: For a pressure vessel made of P355NH steel grade according to EN 10028-3 (group 1.2) clad (for corrosion resistance purpose only) with X2CrNi19-11 grade according to EN 10028-7 (group 8.1), is it acceptable to perform NDT only before PWHT as this base material is considered not sensitive to PWHT cracking? Proposed answer(s): * Yes				
Answer from the MHD (to be filled by MHD): Question to be sent to WG 54 then to be validated by WG 52				
To be sent to EN 13445 Maintenance Help Desk secretariat:		EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr		

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



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-05-09 Date: 2015-07-09

Please fulfil the following

Part: EN 13445-5	Issue: 2014	Page 20	Subclause 6.6.2.5.b	National Standard Reference --
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Subject:

Type of request:	<input checked="" type="checkbox"/> Technical clarification	<input type="checkbox"/> Editorial correction	
	<input type="checkbox"/> Technical comment	<input type="checkbox"/> Translation correction	

From: Company: Martin Larsson i Pålssboda AB Name: Jan Jansson Postal address: Södra Bangatan 6-12, 69731	e-mail: jan.jansson@martinlarsson.com phone: +46 705344130.....
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<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input type="checkbox"/> Other (please specify):
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Question/comment:

We are a manufacturing company that works with the EN 13445. We have repeatedly lifting an issue with some notified bodies here in Sweden without reply. they can't derive their interpretations. Our question is what are the criteria to grouped the nozzles in accordance with EN 13445-5, 6.6.2.5 b).

Must the nozzles composed of one dimension with the same thickness and the same material and welded with the same WPS?

Or can we do the same subdivision of the grouping as Table 6.6.2-1.

Suppose we make a vessel in the material group 1.2 and test group 3b. The vessel has 5 nozzles with 1 circumferential seam at eash (ie 5 pc circ. joints) with diameter \varnothing 168.3 and wall thickness = 4.5.

The vessel also has 5 pcs nozzles with 1 circumferential seam at eash (ie 5 pc circ. joints) with diameter \varnothing 60.3 and wall thickness = 2.9.

Is it following test enough?

10 pc circumferential seams gives 1 pc 100% circumferential seam and
10 pc nozzle to vessel seams gives 1 pc of circumferential seam 100% MT or PT.

Where can we read about this? We look forward to your response.

Proposed answer(s): *

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

Must the nozzles composed of one dimension with the same thickness and the same material and welded with the same WPS?

No, they only have to be of the same type (see 6.6.2.5 b "shall be grouped for each type of weld").

Suppose we make a vessel in the material group 1.2 and testing group 3b. The vessel has 5 nozzles with 1 circumferential seam at eash (ie 5 pc circ. joints) with diameter \varnothing 168,3 and wall thickness = 4,5, can be grouped under type 3a of Table 6.6.2-1 (RT or UT 5 % and MT or PT 10 %).

The vessel also has 5 pcs nozzles with 1 circumferential seam at eash (ie 5 pc circ. joints) with diameter \varnothing 60.3 and wall thickness = 2,9, can be grouped under type 4 of Table 6.6.2-1 (RT or UT 0% and MT or PT 5 %).

As groups are considered as composed of 10 pc, 10 % of 10 pc gives 1 pc checked at 100%.

For the 5 pcs nozzles with 1 circumferential seam at eash with diameter \varnothing 60,3, no RT/UT required and 1 pc has to be checked at 100% with MT or PT.

Answer to be sent to MHD

To be sent to: EN 13445 Maintenance Help Desk secretariat c/o UNM
Standardization Office on behalf of AFNOR -- F 92038 Paris La Défense Cedex -- e-mail: en13445@unm.fr



EN 13445 "Unfired pressure vessels" Maintenance Help Desk (MHD) Question form

Request reference number (to be filled by MHD): (2014)-07-01		Date: 2015-07-09		
Please fulfil the following				
Part: CEN/CR 13445-7	Issue: 2002	Page	Subclause	National Standard Reference --
Subject: Limit of application of EN 13445 series				
Type of request:				
<input type="checkbox"/> Technical clarification		<input type="checkbox"/> Editorial correction		
<input checked="" type="checkbox"/> Technical comment		<input type="checkbox"/> Translation correction		
From :				
Company: Zeton BV			e-mail: hubert.velten@zeton.nl.....	
Name: Hubert Velten			phone: +31 (0)53 428 4108	
Postal address: Marssteden 206, 7547 TD, Enschede				
<input checked="" type="checkbox"/> Manufacturer	<input type="checkbox"/> User	<input checked="" type="checkbox"/> Other (please specify): Engineering company which subcontracts fabrication		
Question/comment:				
<p>NPR-CR 13345-7:2002 makes reference to other parts of EN 13445, e.g. on page 16, the 3rd column refers to EN 13445:2002, or issue 1. This reference is found in all tables in annex C. Currently most people work with issue 3 as this is the active issues (other issues have been withdrawn if I'm not mistaken).</p> <p>Therefore, these parts in EN 13445-7 don't align and references made from part 7 to other parts of the EN 13445 series are only correct if one works with the withdrawn issue 1 of the EN 13445 series (e.g. EN 13345-3).</p> <p>How should this inconsistency be dealt with?</p> <p>Proposed answer(s): * Either update EN 13445-7 to align with current edition of other parts of the EN 13445 series, or publish an amendment such that correct references can be made and EN 13445 can be used.</p>				
Proposed answer from the MHD (to be filled by MHD):				
Revision to be done after TC 54 agreement. CEN consultant also asked for this document to be updated.				
To be sent to EN 13445 Maintenance Help Desk secretariat:			EN 13445 MHD secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13445@unm.fr	

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