SLOVENSKI STANDARD
SIST EN 13445-3:2014/oprA15:2019

01-maj-2019

Neogrevane tlačne posode - 3. del: Konstruiranje - Dopolnilo A15

Unfired pressure vessels - Part 3: Design

Unbefeuerte Druckbehälter - Teil 3: Konstruktion; Deutsche und Englische Fassung EN 13445-3:2014/prA15:2018

Récipients sous pression non soumis à la flamme - Partie 3 : Conception

Ta slovenski standard je istoveten z: **EN 13445-3:2014/prA15**

ICS:

23.020.32 Tlačne posode Pressure vessels

SIST EN 13445-3:2014/oprA15:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Unfired pressure vessels - Part 3: Design

Récipients sous pression non soumis à la flamme - Partie 3 : Conception

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This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 54.

This draft amendment A1, if approved, will modify the European Standard EN 13445-3:2014. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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

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

Ref. No. EN 13445-3:2014/prA1:2019 E

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European foreword

This document (EN 13445-3:2014/prA15:2019) has been prepared by Technical Committee CEN/TC 54 “Unfired pressure vessels”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of EN 13445-3:2014.

1 Modification to 9.4.7

Change the second paragraph by the following:

"9.4.7 Nozzles to shell connections

For welded nozzles the cross sectional area of the nozzle can always be taken in account for reinforcement of the opening, provided weld dimensions are in accordance with the requirements of Annex A.

2 Modification to 11.4.4

Change the first paragraph by the following:

"11.4.4 Flange constructions

A distinction is made between flanges in which the bore of the flange coincides with the bore of the shell and those with a fillet weld at the end of the shell in which the two bores are different (for requirements see Annex A). They are known as smooth bore (see Figure 11.5-1) and stepped bore (see Figure 11.5-2) respectively

3 Modification to Annex A

Change the Annex by the following:

Annex A
(normative)

Design requirements for pressure bearing welds

Weld details may be used if they are described in EN 1708-1 or if they are required due to design reasons. The selection of weld details shall be made in such a way that the testing required by applicable testing group can be performed.

NOTE See also EN 13445-4:2014 and EN 13445-5:2014 for additional requirements on welds.

The tables in this annex specify which type of welds are excluded for design by analysis direct route (DBA-DR), excluded for creep, excluded for fatigue or excluded generally. In addition, the fatigue classes or the references to Tables 18-4 are given.

Table A-1 — Pressure bearing welds - Longitudinal welds in cylinders and cones, welds in spheres and dished ends

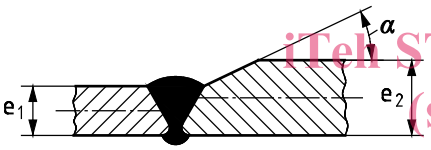
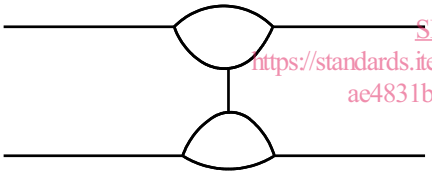
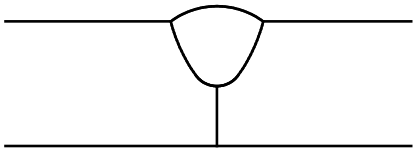
Geometry	Design requirements	Fatigue class	Remarks
	Not allowed for DBA-DR and creep design	Not allowed	
	GENERALLY, NOT ALLOWED		
	GENERALLY, NOT ALLOWED		

Table A-2 — Pressure bearing welds - Circumferential welds in cylinders and cones, connecting weld between dished end and shell

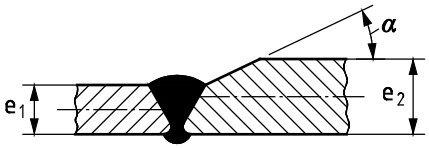
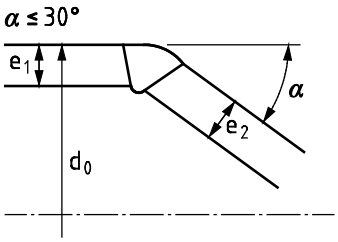
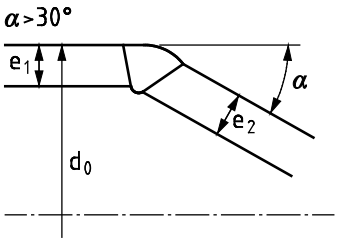
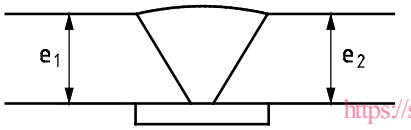
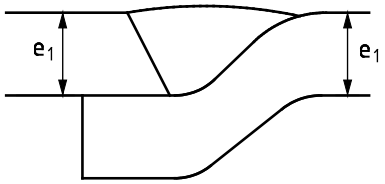
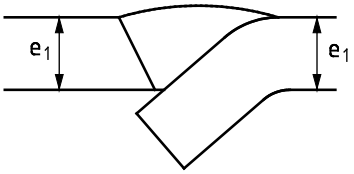
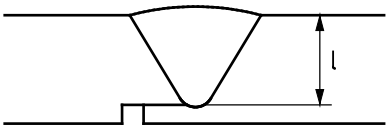
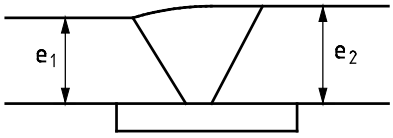
Geometry	Design requirements	Fatigue class	Remarks
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.3	
	--	see Table 18–4 details n° 1.4	
	--	see Table 18–4 details n° 1.4	
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.6	See §5.7.4.2
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.7	See §5.7.4.1
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.7	See §5.7.4.1
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.6	See §5.7.4.2
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.6	See §5.7.4.2

Table A-2 — Pressure bearing welds - Circumferential welds in cylinders and cones, connecting weld between dished end and shell (continued)

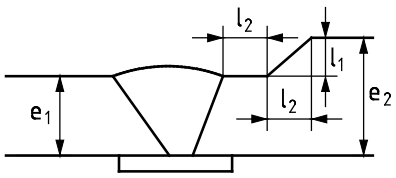
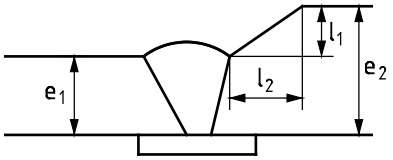
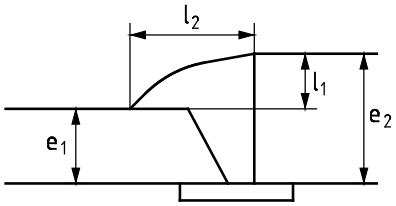
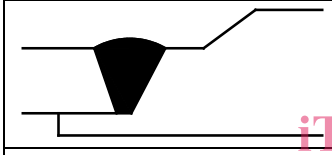
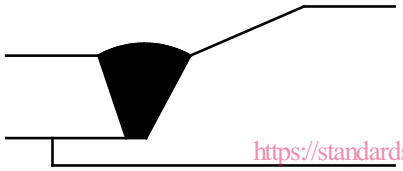
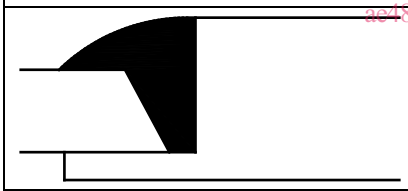
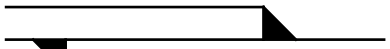
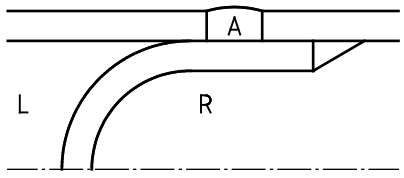
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.6	See §5.7.4.2
	Not allowed for DBA-DR and creep design	Not allowed	
	GENERALLY, NOT ALLOWED		
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 1.6	See §5.7.4.2
	Not allowed for DBA-DR and creep design	Not allowed	
	GENERALLY, NOT ALLOWED		
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible

Table A-2 — Pressure bearing welds - Circumferential welds in cylinders and cones, connecting weld between dished end and shell (continued)

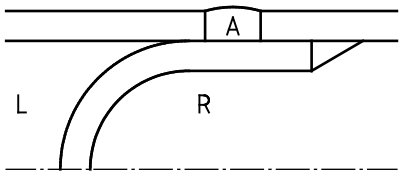
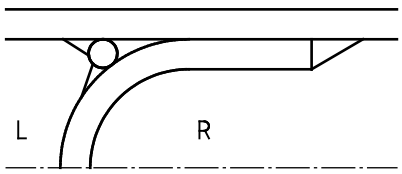
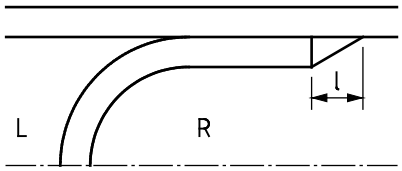
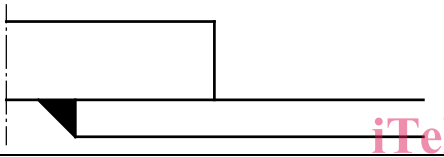
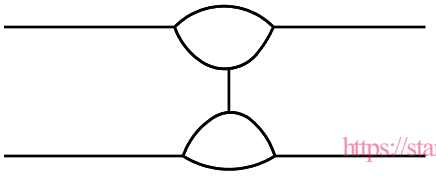
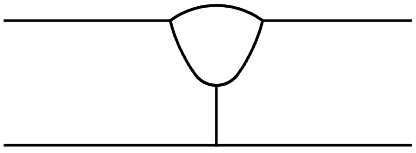
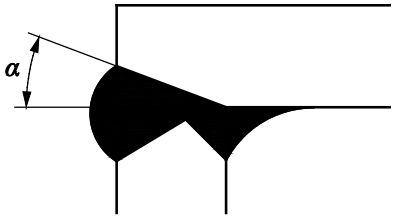
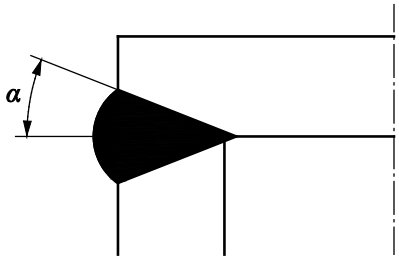
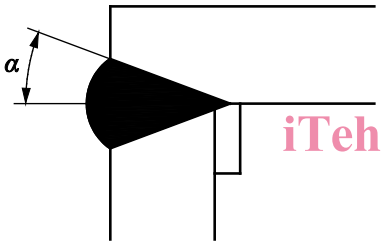
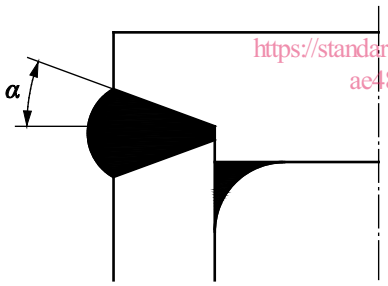
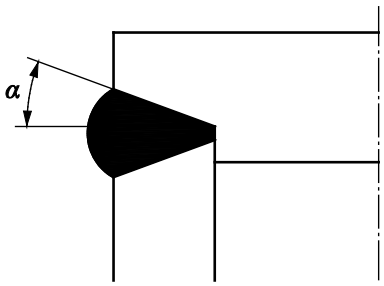
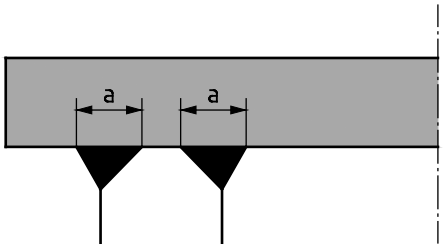
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible
	GENERALLY, NOT ALLOWED		
	GENERALLY, NOT ALLOWED		
	GENERALLY, NOT ALLOWED		

Table A-3 — Pressure bearing welds - Flats ends

Geometry	Design requirements	Fatigue class	Remarks
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 2.1 a	Lamellar tearing susceptibility possible if α < 15°
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 2.1 c	Lamellar tearing susceptibility possible if α < 15°
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible if α < 15°
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 2.1 a or b	Lamellar tearing susceptibility possible if α < 15°
	Not allowed for DBA-DR and creep design	Not allowed	Lamellar tearing susceptibility possible if α < 15°
	Not allowed for DBA-DR and creep design	see Table 18–4 details n° 2.1 b	Lamellar tearing susceptibility possible