

<b>STN</b>	<b>Nevyhrievané tlakové nádoby Časť 3: Navrhovanie Zmena A8</b>	<b>STN EN 13445-3+A1/A8</b>  69 0010
------------	---	--

Unfired pressure vessels. Part 3: Design

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/19

Obsahuje: EN 13445-3:2014/A8:2019

**128957**

EUROPEAN STANDARD

EN 13445-3:2014/A8

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2019

ICS 23.020.30

English Version

## Unfired pressure vessels - Part 3: Design

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

Unbefeuerte Druckbehälter - Teil 3: Konstruktion

This amendment A8 modifies the European Standard EN 13445-3:2014; it was approved by CEN on 19 November 2018.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

## Contents

Page

European foreword.....	3
<b>1 Modifications to Clause 2, Normative references .....</b>	<b>4</b>
<b>2 Modification to 5.3.1, Actions.....</b>	<b>4</b>
<b>3 Addition of a new Subclause 5.3.2.4, Load combinations .....</b>	<b>4</b>
<b>4 Addition of a new Subclause 6.7, Nominal design stress of anchor bolting .....</b>	<b>8</b>
<b>5 Modifications to 8.4, General.....</b>	<b>8</b>
<b>6 Modification to Subclause 16.4, Local loads on nozzles in spherical shells .....</b>	<b>8</b>
<b>7 Modification to 16.5, Local loads on nozzles in cylindrical shells .....</b>	<b>18</b>
<b>8 Modification to 16.6.6, Bending Limit Stress.....</b>	<b>27</b>
<b>9 Modification to 16.7.2, Specific symbols and abbreviations.....</b>	<b>28</b>
<b>10 Modification to 16.7.4, Applied force .....</b>	<b>29</b>
<b>11 Modification to 16.7.5, Load limits for shell .....</b>	<b>29</b>
<b>12 Modification to 16.8.6.2, Vessel under external pressure .....</b>	<b>29</b>
<b>13 Modification to 16.8.7, Load limit at the saddle (without a reinforcing plate).....</b>	<b>29</b>
<b>14 Modification to 16.12.4.1, Specific symbols and abbreviations.....</b>	<b>29</b>
<b>15 Modification to 16.12.4.3, Check of the skirt in regions with openings.....</b>	<b>29</b>
<b>16 Modification to 16.12.5.1, Specific symbols and abbreviations.....</b>	<b>30</b>
<b>17 Modifications to 16.12.5.2, Anchor bolt and concrete forces .....</b>	<b>30</b>
<b>18 Modification to 16.14, Global loads.....</b>	<b>30</b>
<b>19 Modification to 16.14.2, Specific symbols and abbreviations .....</b>	<b>30</b>
<b>20 Modification to 16.14.8, Compressive stress limits .....</b>	<b>32</b>
<b>21 Modification to 16.14.8.1, Calculation .....</b>	<b>32</b>
<b>22 Modification to 16.14.8.2, Tolerances.....</b>	<b>34</b>
<b>23 Modifications to 16.14.9, Wind and earthquake loads .....</b>	<b>38</b>
<b>24 Modification to Clause 22, Static analysis of tall vertical vessels on skirts .....</b>	<b>39</b>
<b>25 Modification to 0.4.1, General.....</b>	<b>49</b>
<b>26 Modification to 0.4.2, Polynomial coefficients .....</b>	<b>49</b>
<b>27 Modification to 0.4.3, Figures for physical properties of steels .....</b>	<b>50</b>
<b>28 Addition of a new Annex V (informative), Consider a buffer for unknown nozzle loads — Opening design for unknown nozzle loads .....</b>	<b>50</b>

## European foreword

This document (EN 13445-3:2014/A8:2019) has been prepared by Technical Committee CEN/TC 54 “Unfired pressure vessels”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Modifications to Clause 2, Normative references

*Add a footnote number "1" after the reference "EN 1991-1-4:2005" and the corresponding footnote at the bottom of the page:*

"1 EN 1991-1-4:2005 is impacted by the stand-alone amendment EN 1991-1-4:2005/A1:2010 and the corrigendum EN 1991-1-4:2005/AC:2010."

*In the reference to EN 1991-1-6, replace "EN 1991-1-6" with "EN 1991-1-6:2005".*

*Add the following new reference at the appropriate place:*

"EN 12195-1:2010, *Load restraining on road vehicles — Safety — Part 1: Calculation of securing forces*".

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**