

<b>STN</b>	<b>Nevyhrievané tlakové nádoby. Časť 8: Dodatočné požiadavky na tlakové nádoby z hliníka a hliníkových zliatin. Zmena A1</b>	<b>STN EN 13445-8/A1</b>
		69 0010

Unfired pressure vessels - Part 8: Additional requirements for pressure vessels of aluminium and aluminium alloys

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. 05/15

Obsahuje: EN 13445-8:2014/A1:2014

**120823**

---

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, odbor SÚTN, 2015  
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy  
rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 13445-8:2014/A1**

December 2014

ICS 23.020.30

English Version

**Unfired pressure vessels - Part 8: Additional requirements for  
pressure vessels of aluminium and aluminium alloys**

Récepteurs sous pression non soumis à la flamme - Partie 8:  
Exigences complémentaires pour les récepteurs sous  
pression en aluminium et alliages d'aluminium

Unbefeuerte Druckbehälter - Teil 8: Zusätzliche  
Anforderungen an Druckbehälter aus Aluminium und  
Aluminiumlegierungen

This amendment A1 modifies the European Standard EN 13445-8:2014; it was approved by CEN on 18 October 2014.

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, 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: Avenue Marnix 17, B-1000 Brussels**

## Contents

	Page
<b>Foreword.....</b>	<b>3</b>
<b>1 Modification to Clause 2 .....</b>	<b>4</b>
<b>2 Modification to subclause 5.1.....</b>	<b>5</b>
<b>3 Modification of subclause 5.2.....</b>	<b>5</b>
<b>4 Modification of subclause 5.3.....</b>	<b>6</b>
<b>5 Modification of subclause 5.4.....</b>	<b>6</b>
<b>6 Modification of subclause 5.5.....</b>	<b>6</b>
<b>7 Modification of subclause 5.6.....</b>	<b>6</b>
<b>8 Modification of subclause 6.2.....</b>	<b>7</b>
<b>9 Modification to subclause 6.3.....</b>	<b>7</b>
<b>10 Modification to subclause 6.5.....</b>	<b>8</b>
<b>11 Modification to subclause 6.6.4.....</b>	<b>8</b>
<b>12 New subclause 6.7 Flat ends .....</b>	<b>8</b>
<b>13 New subclause 6.8 Design by experiment .....</b>	<b>8</b>
<b>14 New subclause 6.9 Port-hole-extruded tubes.....</b>	<b>8</b>
<b>15 New subclause 7.3 Tolerances.....</b>	<b>9</b>
<b>16 Modification to current Sub-Clause 7.3 “Welding procedure specification (WPS)” (to become subclause 7.4) .....</b>	<b>9</b>
<b>17 Modification to current subclause 7.8 “Production test, reference criteria” (to become subclause 7.9) .....</b>	<b>9</b>
<b>18 Modification to current subclause 7.9 “Extent of testing” (to become subclause 7.10) .....</b>	<b>10</b>
<b>19 Modification to current subclause 7.12 “Heat treatment after forming” (to become subclause 7.13) .....</b>	<b>10</b>
<b>20 Modification to current subclause 7.13 “Sampling of formed products” (to become subclause 7.14) .....</b>	<b>11</b>
<b>21 Modification to current subclause 7.14 “Tests” (to become subclause 7.15).....</b>	<b>11</b>
<b>22 Modification to current subclause 7.15 “Post weld heat treatment (PWHT)” (to become subclause 7.16) .....</b>	<b>11</b>
<b>23 Modification to subclause 8.3.....</b>	<b>11</b>
<b>24 Modification to subclause 8.4.....</b>	<b>15</b>
<b>25 Modification to subclause 8.5.....</b>	<b>16</b>
<b>26 New Annex A Allowable design strength values.....</b>	<b>16</b>
<b>27 Update of Annex ZA.....</b>	<b>22</b>
<b>28 Update of bibliography.....</b>	<b>23</b>

## **Foreword**

This document (EN 13445-8:2014/A1:2014) has been prepared by Technical Committee CEN/TC 54 "Unfired pressure vessels", the secretariat of which is held by BSI.

This Amendment to the European Standard EN 13445-8:2014 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] 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 97/23/EC.

For relationship with EU Directive 97/23/EC, see informative Annex ZA, which is an integral part of this document.

This document includes the text of the amendment itself. The corrected pages of EN 13445-8 will be published in July 2015 as Issue 2 of the standard.

This document was submitted to the Formal Vote with the reference EN 13445-8:2009/FprA1.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Modification to Clause 2

Replace normative references with the following:

EN 485-2:2013, *Aluminium and aluminium alloys — Sheet, strip and plate — Part 2: Mechanical properties*

EN 573-3:2013, *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 3: Chemical composition and form of products*

EN 586-2:1994, *Aluminium and aluminium alloys — Forgings — Part 2: Mechanical properties and additional property requirements*

EN 754-2:2013, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 2: Mechanical properties*

EN 755 (all parts), *Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles*

EN 764-5:2002, *Pressure Equipment — Part 5: Compliance and Inspection Documentation of Materials*

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

EN 12392:2000, *Aluminium and aluminium alloys — Wrought products — Special requirements for products intended for the production of pressure equipment*

EN 13445-1:2009, *Unfired pressure vessels — Part 1: General*

EN 13445-2:2009, *Unfired pressure vessels — Part 2: Materials*

EN 13445-3:2009, *Unfired pressure vessels — Part 3: Design*

EN 13445-4:2009, *Unfired pressure vessels — Part 4: Fabrication*

EN 13445-5:2009, *Unfired pressure vessels — Part 5: Inspection and testing*

EN ISO 3452-1:2013, *Non-destructive testing — Penetrant testing — Part 1: General principles (ISO 3452-1:2013)*

EN ISO 3834-2:2005, *Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements (ISO 3834-2:2005)*

EN ISO 3834-3:2005, *Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements (ISO 3834-3:2005)*

EN ISO 4063:2010, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:2009, Corrected version 2010-03-01)*

EN ISO 6520-1:2007, *Welding and allied processes — Classification of geometric imperfections in metallic materials — Part 1: Fusion welding (ISO 6520-1:2007)*

EN ISO 9606-2:2004, *Qualification test of welders — Fusion welding — Part 2: Aluminium and aluminium alloys (ISO 9606-2:2004)*

EN ISO 10042:2005, *Welding — Arc-welded joints in aluminium and its alloys — Quality levels for imperfections (ISO 10042:2005)*

EN ISO 11666:2010, *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels (ISO 11666:2010)*

EN ISO 15614-2:2005, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 2: Arc welding of aluminium and its alloys (ISO 15614-2:2005)*

EN ISO 16826:2014, *Non-destructive testing — Ultrasonic testing — Examination for discontinuities perpendicular to the surface (ISO 16826:2012)*

EN ISO 17635:2010, *Non-destructive testing of welds — General rules for metallic materials (ISO 17635:2010)*

EN ISO 17636-1:2013, *Non-destructive testing of welds — Radiographic testing — Part 1: X- and gamma-ray techniques with film (ISO 17636-1:2013)*

EN ISO 17636-2:2013, *Non-destructive testing of welds — Radiographic testing — Part 2: X- and gamma-ray techniques with digital detectors (ISO 17636-2:2013)*

EN ISO 17637:2011, *Non-destructive testing of welds — Visual testing of fusion-welded joints (ISO 17637:2003)*

EN ISO 17640:2010, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment (ISO 17640:2010)*

EN ISO 23277:2009, *Non-destructive testing of welds — Penetrant testing of welds — Acceptance levels (ISO 23277:2006)*

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

ISO 857-1:1998, *Welding and allied processes — Vocabulary — Part 1: Metal welding processes*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN