



**NSAI**  
Standards

Irish Standard  
I.S. EN 15776:2011

Unfired pressure vessels - Requirements for the design and fabrication of pressure vessels and pressure parts constructed from cast iron with an elongation after fracture equal or less than 15 %

## I.S. EN 15776:2011

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English Version

**Unfired pressure vessels - Requirements for the design and  
fabrication of pressure vessels and pressure parts constructed  
from cast iron with an elongation after fracture equal or less than  
15 %**

Réceptifs sous pression non soumis à la flamme -  
Exigences pour la conception et la fabrication des  
réceptifs sous pression et des parties sous pression  
moulés en fonte à allongement après rupture inférieur ou  
égal à 15 %

Unbefeuerte Druckbehälter - Anforderungen an die  
Konstruktion und Herstellung von Druckbehältern und  
Druckbehälterteilen aus Gusseisen mit einer Bruchdehnung  
von 15 % oder weniger

This European Standard was approved by CEN on 1 January 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a 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 European Standard 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.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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<b>Contents</b>	<b>Page</b>
<b>Foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms, definitions, units and symbols</b> .....	<b>6</b>
<b>4 Materials, limitations and service conditions</b> .....	<b>10</b>
<b>5 Design requirements</b> .....	<b>13</b>
<b>6 Founding, material and casting testing</b> .....	<b>27</b>
<b>7 Final assessment</b> .....	<b>30</b>
<b>8 Pressure vessels assembled of a combination of parts in different materials</b> .....	<b>30</b>
<b>9 Marking and documentation</b> .....	<b>30</b>
<b>Annex A (normative) Technical data for design calculations</b> .....	<b>32</b>
<b>Annex B (informative) Recommendations for in-service validation and inspection</b> .....	<b>35</b>
<b>Annex C (informative) Examples of fatigue design curves</b> .....	<b>36</b>
<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC</b> .....	<b>39</b>
<b>Bibliography</b> .....	<b>40</b>

## **Foreword**

This document (EN 15776:2011) 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 August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

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For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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## **Introduction**

For pressure equipment, special precautions are required when using grey cast iron grades or spheroidal graphite cast iron grades with an elongation after fracture equal to or less than 15 % to attain the same safety level as when using spheroidal graphite cast iron grades with an elongation after fracture higher than 15 %. Service restrictions and limitations are given in Clause 4.

Attention is drawn to the references to EN 13445-6 for design and fabrication according to specific grades of material standards EN 1563 and EN 13835 which are found in some clauses of this standard, EN 15776. Requirements for the design, material, manufacturing and testing of pressure vessels and pressure vessel parts made from ferritic or austenitic spheroidal graphite cast iron grades with an elongation after fracture higher than 15 % are given in EN 13445-6.

Cast iron with elongation after fracture equal or less than 15 % may only be used for pressure equipment when operational and technical advantages are dictating its use instead of the cast iron grades given in EN 13445-6 with elongation after fracture higher than 15 %.

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