

BS EN 764-4:2014



BSI Standards Publication

## Pressure equipment

Part 4: Establishment of technical delivery conditions for metallic materials

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**National foreword**

This British Standard is the UK implementation of EN 764-4:2014. It supersedes BS EN 764-4:2002 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PVE/1, Pressure Vessels.

A list of organizations represented on this committee can be obtained on request to its secretary.

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## Pressure equipment - Part 4: Establishment of technical delivery conditions for metallic materials

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## Contents

Page

Foreword.....	4
<b>1</b> <b>Scope</b> .....	<b>5</b>
<b>2</b> <b>Normative references</b> .....	<b>5</b>
<b>3</b> <b>Terms and definitions, symbols and abbreviations</b> .....	<b>6</b>
3.1 <b>Terms and definitions</b> .....	6
3.2 <b>Symbols and abbreviations</b> .....	6
<b>4</b> <b>Types of technical delivery conditions</b> .....	<b>8</b>
4.1 <b>Harmonized European Standards for material for pressure equipment</b> .....	8
4.2 <b>European Approvals for Materials for pressure equipment (EAMs)</b> .....	8
4.3 <b>Particular Material Appraisals for pressure equipment (PMAs)</b> .....	8
<b>5</b> <b>Content of technical delivery conditions for materials for pressure equipment</b> .....	<b>9</b>
5.1 <b>General</b> .....	9
5.2 <b>Requirements</b> .....	9
5.3 <b>Testing and inspection</b> .....	11
5.4 <b>Marking</b> .....	12
<b>Annex A (normative) Procedures for the establishment of European Approvals for pressure equipment Materials (EAM)</b> .....	<b>13</b>
A.1 <b>General</b> .....	13
A.2 <b>European Approvals for Materials</b> .....	13
A.3 <b>Requirements for the establishment of an EAM</b> .....	13
A.4 <b>Title scheme and structure of an EAM</b> .....	14
<b>Annex B (normative) Appraisal schedule for ferritic and martensitic steels</b> .....	<b>16</b>
B.1 <b>General</b> .....	16
B.2 <b>Test procedures</b> .....	16
B.3 <b>Required testing</b> .....	17
B.4 <b>Subsequent testing</b> .....	21
B.5 <b>Collective tests</b> .....	22
<b>Annex C (normative) Appraisal schedule for austenitic and austenitic-ferritic steels</b> .....	<b>24</b>
C.1 <b>General</b> .....	24
C.2 <b>Test procedures</b> .....	24
C.3 <b>Basic testing</b> .....	25
C.4 <b>Sampling</b> .....	27
C.5 <b>Extent of testing</b> .....	27
<b>Annex D (normative) Appraisal schedule for cast steels</b> .....	<b>28</b>
D.1 <b>General</b> .....	28
D.2 <b>Test procedures</b> .....	28
D.3 <b>Basic testing</b> .....	29
D.4 <b>Sampling</b> .....	31
D.5 <b>Extent of testing</b> .....	31
<b>Annex E (normative) Test programme for welded specimen after stress relief procedure</b> .....	<b>33</b>
E.1 <b>Test programme</b> .....	33
E.2 <b>Position of specimen</b> .....	33
<b>Annex F (informative) Example for Particular Material Appraisal (PMA) for steel</b> .....	<b>35</b>
<b>Annex G (informative) History of EN 764-4</b> .....	<b>38</b>

<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC on Pressure Equipment .....</b>	<b>39</b>
<b>Bibliography .....</b>	<b>40</b>

## Foreword

This document (EN 764-4:2014) 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 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 supersedes EN 764-4:2002.

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.

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

Regarding the most significant technical changes that have been implemented in this new edition of EN 764-4, see Annex G.

EN 764, *Pressure equipment*, consists of the following parts:

- *Part 1: Terminology - Pressure, temperature, volume, nominal size;*
- *Part 2: Quantities, symbols and units;*
- *Part 3: Definition of parties involved;*
- *Part 4: Establishment of technical delivery conditions for metallic materials* (the present document);
- *Part 5: Inspection documentation of metallic materials and compliance with the material specification;*
- *Part 6: Structure and content of operating instructions* [Technical Report CEN/TR 764-6];
- *Part 7: Safety systems for unfired pressure equipment;*
- *Part 8: Proof test* [Technical Specification prCEN/TS 764-8, currently under development].

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 Scope

This European Standard specifies the requirements, under the regime of the EU Directive 97/23/EC on Pressure Equipment (PED), for the establishment of the technical delivery conditions in the form of:

- harmonized European Standards for material;
- European Approval for Materials (EAM);
- Particular Material Appraisal (PMA)

for metallic materials for pressure equipment in all product forms. Welding consumables are not covered by this standard.

This European Standard was developed predominantly on the basis of steel, nickel and nickel-based materials. However, application to other materials is not restricted but should consider specific aspects relevant to the material concerned.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 764-1:2004, *Pressure equipment - Part 1: Terminology - Pressure, temperature, volume, nominal size*

EN 764-2:2012, *Pressure equipment - Part 2: Quantities, symbols and units*

EN 10028 (all parts), *Flat products made of steels for pressure purposes*

EN 10164, *Steel products with improved deformation properties perpendicular to the surface of the product - Technical delivery conditions*

EN 10204, *Metallic products - Types of inspection documents*

EN 10213, *Steel castings for pressure purposes*

EN 10216 (all parts), *Seamless steel tubes for pressure purposes - Technical delivery conditions*

EN 10217 (all parts), *Welded steel tubes for pressure purposes - Technical delivery conditions*

EN 10222 (all parts), *Steel forgings for pressure purposes*

EN 10272, *Stainless steel bars for pressure purposes*

EN 10273, *Hot rolled weldable steel bars for pressure purposes with specified elevated temperature properties*

EN 10314, *Method for the derivation of minimum values of proof strength of steel at elevated temperatures*

EN ISO 148-1, *Metallic materials - Charpy pendulum impact test - Part 1: Test method (ISO 148-1)*

EN ISO 204, *Metallic materials - Uniaxial creep testing in tension - Method of test (ISO 204)*

EN ISO 6892-1:2009, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*