

SVENSK STANDARD

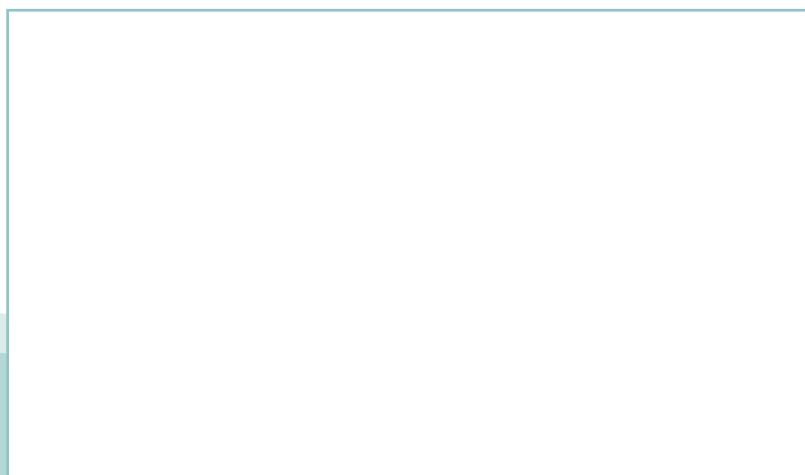
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**Tryckkärl (ej eldberörda) –
Del 5: Kontroll och provning**

**Unfired pressure vessels –
Part 5: Inspection and testing**



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Denna standard ersätter SS-EN 13445-5:2014+C4:2017 utgåva 1.

The European Standard EN 13445-5:2014 Issue 5 (2018-07) has the status of a Swedish Standard. This document contains the official version of EN 13445-5:2014 Issue 5 (2018-07).

This standard supersedes the Swedish Standard SS-EN 13445-5:2014+C4:2017 edition 1.

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EUROPEAN STANDARD

EN 13445-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2014

ICS 23.020.30

Supersedes EN 13445-5:2009

English Version

Unfired pressure vessels - Part 5: Inspection and testingRécipients sous pression non soumis à la flamme - Partie 5:
Inspection et contrôle

Unbefeuerte Druckbehälter - Teil 5: Inspektion und Prüfung

This European Standard was approved by CEN on 19 August 2014.

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Contents

Page

Foreword.....	5
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 Performance of inspection and testing	9
4.1 General.....	9
4.2 Inspection	9
4.3 Non-destructive testing (NDT).....	9
5 Technical documentation	10
5.1 General.....	10
5.2 Information to be contained in the technical documentation	10
5.2.1 General.....	10
5.2.2 General description of the pressure vessel.....	10
5.2.3 Design and construction drawings.....	10
5.2.4 Descriptions and explanations necessary for an understanding of the drawings and diagrams and the operation of the pressure vessel	11
5.2.5 Results of design calculations and examinations carried out.....	11
5.2.6 Test reports	12
5.2.7 Technical/manufacturing schedule.....	12
5.3 Design review.....	13
5.3.1 General.....	13
5.3.2 Design review.....	13
6 Inspection and testing during fabrication	14
6.1 General.....	14
6.2 Manufacturing procedures and construction drawings	14
6.3 Material traceability	14
6.3.1 General.....	14
6.3.2 Special Conditions - Material marking	14
6.4 Preparation for manufacturing processes	14
6.4.1 General.....	14
6.4.2 Joint preparation testing.....	15
6.4.3 Inspection of vessel supports	15
6.4.4 Inspection associated with forming.....	15
6.4.5 Testing of areas subject to significant through thickness tensile stress.....	15
6.5 Welding	15
6.5.1 General.....	15
6.5.2 Verification of welder and welding operator qualification and procedures qualification	16
6.5.3 Inspection of repairs	16
6.6 Non-destructive testing of welded joints	16
6.6.1 Extent of non-destructive testing.....	16
6.6.2 Determination of extent of non-destructive testing	19
6.6.3 Performing non-destructive testing.....	27
6.6.4 Description and acceptance level of imperfections	28
6.6.5 Stage of performance.....	28
6.6.6 Procedure for non-destructive retesting	28
6.6.7 Non-destructive testing documentation.....	28
6.7 Destructive testing.....	29
6.7.1 Extent of destructive testing	29
6.7.2 Schedule for destructive testing	29
6.7.3 Verification of destructive tests	29
6.7.4 Records.....	29
6.8 Heat-treatment.....	29

7	Subcontracted items	29
7.1	General.....	29
7.2	Subcontracted welding related activities.....	30
7.3	Subcontracted non-destructive testing activities	30
7.3.1	Use of contract NDT personnel at the premises of the vessel manufacturer	30
7.3.2	Subcontracting of NDT at a subcontractors premises	30
8	Miscellaneous tests	30
9	Calibration	31
9.1	General.....	31
9.2	Calibration procedure	31
9.2.1	General.....	31
9.2.2	Calibration	31
9.2.3	Frequency.....	32
9.3	Identification	32
9.4	Registration.....	32
10	Final assessment.....	33
10.1	General.....	33
10.2	Extent of final assessment	33
10.2.1	Visual and dimensional inspection.....	33
10.2.2	Review of documentation	34
10.2.3	Proof test	34
10.2.4	Post pressure test inspection	43
10.2.5	Inspection of safety accessories.	44
11	Marking and declaration of compliance with the standard.	44
11.1	General.....	44
11.2	Marking method	44
11.2.1	General.....	44
11.2.2	Direct stamping.....	44
11.2.3	Nameplate.....	44
11.3	Marking units	45
11.4	Marking contents	45
11.5	Declaration of compliance with the standard	46
12	Documents	46
12.1	Type of documents.....	46
12.2	Control and access of documents	47
12.3	Retention of documents.....	47
Annex A	(normative) Inspection and testing of serially produced pressure vessels	48
A.1	Introduction.....	48
A.2	Limitations for vessels permitted to be classified as serially produced	48
A.3	Limitations for model	48
A.4	Prototype test.....	49
A.5	Model acceptance	49
A.6	Quality or manufacturing plan	49
A.7	Inspection, non-destructive testing and pressure testing	50
A.7.1	Introduction.....	50
A.7.2	General NDT procedure for serially produced pressure vessels	50
A.7.3	Pressure test for serially produced pressure vessels.....	50
A.8	Marking	50
A.9	Documentation / Certification.....	50
Annex B	(normative) Detailed dimensional requirements for pressure vessels	51
Annex C	(normative) Access and inspection openings, closing mechanisms and special locking elements	53
C.1	General.....	53
C.2	Types and dimensions of access and inspection openings.....	53
C.2.1	Sightholes	53
C.2.2	Handholes	53
C.2.3	Headholes.....	53
C.2.4	Manholes	54

**EN 13445-5:2014 (E)
Issue 5 (2018-07)**

C.2.5	Rescue holes	54
C.3	Types, location and minimum number of access and inspection openings	54
C.4	Alternative requirements for sightholes openings on small vessels	56
C.5	Closing mechanisms and special locking elements	56
C.5.1	Purpose	56
C.5.2	Definitions	56
C.5.3	Materials of construction, design	56
C.5.4	Screw clamps	57
C.5.5	Hinged bolts	58
C.5.6	Yoke-type closures	58
C.5.7	Quick opening and closing devices	59
Annex D (informative)	Leak Testing	65
D.1	General	65
D.2	Leak testing personnel	65
Annex E (informative)	Acoustic emission	66
E.1	General	66
E.2	Useful standards	66
E.3	Acoustic emission personnel	66
E.4	Additional requirements	66
Annex F (normative)	Inspection and testing of pressure vessels or parts subject to creep	68
F.1	General	68
F.2	Extent of inspection and testing	68
F.3	Performance of NDT and acceptance criteria	70
F.4	Documents	70
Annex G (normative)	Inspection and testing of pressure vessels subject to cyclic loads	71
G.1	General	71
G.2	Extent of inspection and testing	71
G.3	Performance and acceptance criteria	71
G.4	Technical documentation, additional requirements	72
Annex H (informative)	Declaration of compliance with this standard	73
Annex I (informative)	Specific tests during construction to assist in-service inspection	75
I.1	General	75
I.2	Metallographic investigation	75
I.3	Hardness measurements	75
I.4	Dimensional measurements	76
Annex Y (informative)	History of EN 13445-5	77
Y.1	Differences between EN 13445-5:2009 and EN 13445-5:2014	77
Y.2	List of corrected pages of Issue 2 (2015-07)	77
Y.3	List of corrected pages of Issue 3 (2016-07)	77
Y.4	List of corrected pages of Issue 4 (2017-07)	77
Y.5	List of corrected pages of Issue 5 (2018-07)	77
Annex ZA (informative)	Relationship between this European Standard and the essential requirements of Directive 2014/68/EU aimed to be covered	78
Bibliography	79

Foreword

This document (EN 13445-5:2014) 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 December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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(s).

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

This European Standard consists of the following Parts:

- Part 1: *General.*
- Part 2: *Materials.*
- Part 3: *Design.*
- Part 4: *Fabrication.*
- Part 5: *Inspection and testing.*
- Part 6: *Requirements for the design and fabrication of pressure vessels and pressure parts constructed from spheroidal graphite cast iron.*
- CR 13445-7, *Unfired pressure vessels* — Part 7: *Guidance on the use of conformity assessment procedures.*
- Part 8: *Additional requirements for pressure vessels of aluminium and aluminium alloys.*
- CEN/TR 13445-9, *Unfired pressure vessels* — Part 9: *Conformance of EN 13445 series to ISO 16528.*
- Part 10: *Additional requirements for pressure vessels of nickel and nickel alloys.*

Although these Parts may be obtained separately, it should be recognised that the Parts are inter-dependant. As such the manufacture of unfired pressure vessels requires the application of all the relevant Parts in order for the requirements of the Standard to be satisfactorily fulfilled.

Corrections to the standard interpretations where several options seem possible are conducted through the Migration Help Desk (MHD). Information related to the Help Desk can be found at <http://www.unm.fr> (en13445@unm.fr). A form for submitting questions can be downloaded from the link to the MHD website. After subject experts have agreed an answer, the answer will be communicated to the questioner. Corrected pages will be given specific issue number and issued by CEN according to CEN Rules. Interpretation sheets will be posted on the website of the MHD.

This document supersedes EN 13445-5:2009. This new edition incorporates the Amendments which have been approved previously by CEN members, and the corrected pages up to Issue 5 without any further technical change. Annex Y provides details of significant technical changes between this European Standard and the previous edition.

EN 13445-5:2014 (E)
Issue 5 (2018-07)

Amendments to this new edition may be issued from time to time and then used immediately as alternatives to rules contained herein. It is intended to deliver a new Issue of EN 13445:2014 each year, consolidating these Amendments and including other identified corrections. Issue 5 (2018-07) includes the corrected pages listed in Annex Y.

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 Scope

This Part of this European Standard specifies the inspection and testing of individual and serially produced pressure vessels made of steels in accordance with EN 13445-2:2014.

Special provisions for cyclic operation are given in Annex G of this Part.

Special provisions for vessels or vessel parts working in the creep range are given in Annex F and Annex I of this Part.

NOTE The responsibilities of parties involved in the conformity assessment procedures are given in Directive 97/23/EC. Guidance on this can be found in CR 13445-7.

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.

CEN/TR 764-6:2012, *Pressure equipment — Part 6: Structure and content of operating instructions*

EN 1779:1999, EN 1779:1999/A1:2003, *Non-destructive testing — Leak testing — Criteria for method and technique selection*

EN 13445-1:2014, *Unfired pressure vessels — Part 1: General*

EN 13445-2:2014, *Unfired pressure vessels — Part 2: Materials*

EN 13445-3:2014, *Unfired pressure vessels — Part 3: Design*

EN 13445-4:2014, *Unfired pressure vessels — Part 4: Fabrication*

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

EN ISO 4136:2012, *Destructive tests on welds in metallic materials — Transverse tensile test* (ISO 4136:2012)

EN ISO 5817:2014, *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections* (ISO 5817:2014)

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 9712:2012, *Non-destructive testing — Qualification and certification of NDT personnel* (ISO 9712:2012)

EN ISO 14732:2013, *Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials* (ISO 14732:2013)

EN ISO 17635:2016, *Non-destructive testing of welds — General rules for metallic materials* (ISO 17635:2016)