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STANDARD

**I.S. EN 14222:2003**

ICS 27.060.30

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## STAINLESS STEEL SHELL BOILERS

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 14222**

April 2003

ICS 27.060.30

English version

**Stainless steel shell boilers**

Chaudières à tubes de fumée en acier inoxydable

Edelstahl-Großwasserraumkessel

This European Standard was approved by CEN on 21 February 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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## **Foreword**

This document (EN 14222:2003) has been prepared by Technical Committee CEN/TC 269 "Shell and water-tube boilers", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

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) {Pressure Equipment Directive (PED) 97/23/EC [1]}.

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

This European Standard refers to EN 12953: Shell boilers and EN 13445: Unfired pressure vessels.

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## EN 14222:2003 (E)

### 1 Scope

This European Standard specifies requirements for electrically heated shell boilers manufactured from stainless steel specifically dedicated for generating steam for sterilizers and disinfectors.

This European Standard covers only boilers that are heated by immersion heaters and which have a maximum allowable pressure (PS) of 6 bar, a maximum volume (V) of 1 000 litres and a product of PS x V not greater than 3 000 bar x l.

### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 285:1996, *Sterilisation — Steam sterilizers — Large sterilizers*.

EN 12953-1, *Shell boilers — Part 1: General*.

EN 12953-5, *Shell boilers — Part 5: Inspection during construction, documentation and marking of pressure parts of the boiler*.

EN 12953-6, *Shell boilers — Part 6: Requirements for equipment for the boiler*.

EN 12953-8, *Shell boilers — Part 8: Requirements for safeguards against excessive pressure*.

prEN 12953-9:1999, *Shell boilers — Part 9: Requirements for limiting devices and safety circuits of the boiler and accessories*.

EN 13445-2:2002, *Unfired pressure vessels — Part 2: Materials*.

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

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

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

EN 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997)*.

### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12953-1 and EN 12953-6 and the following apply:

#### 3.1

##### **controls**

devices used for maintaining the variable to be controlled (e.g. water level, pressure, temperature) at a specific value (set point)

#### 3.2

##### **limiters**

device that, on reaching a fixed value (e.g. pressure, temperature, flow, water level) is used to interrupt and lock-out the heating energy supply and lock-out requires manual unlocking before restart

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