

Trummelkatlad. Osa 7: Nõuded vedel- ja gaasiküttega katla küttesüsteemidele

Shell boilers - Part 7 : Requirements for firing
systems for liquid and gaseous fuels for the boilers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12953-7:2002 sisaldab Euroopa standardi EN 12953-7:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.10.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12953-7:2002 consists of the English text of the European standard EN 12953-7:2002.</p> <p>This document is endorsed on 18.10.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This Part of this European Standard specifies requirements for firing systems for oil and gaseous fuels applicable to shell boilers, as defined in EN 12953-1, irrespective of the degree of supervision. For multifuel firing systems using separate or combined burners, these requirements apply to the oil and/or gas firing part involved.</p>	<p>Scope:</p> <p>This Part of this European Standard specifies requirements for firing systems for oil and gaseous fuels applicable to shell boilers, as defined in EN 12953-1, irrespective of the degree of supervision. For multifuel firing systems using separate or combined burners, these requirements apply to the oil and/or gas firing part involved.</p>
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ICS 27.060.30, 27.100

Võtmesõnad: aer, boilers, calorifiers, definition, definitions, equipment, firing plants, fuel supply, gaseous fuels, heat exchangers, large waterspace boiler, liquid fuels, operating instructions, specification (approval), specifications, steam boilers, steam generators, vessels

ICS 27.060.30; 27.100

English version

Shell boilers - Part 7 : Requirements for firing systems for liquid and gaseous fuels for the boilers

Chaudières à tubes de fumée - Partie 7 : Exigences pour les équipements de chauffe pour combustibles gazeux et liquides de la chaudière

Großwasserraumkessel - Teil 7 : Anforderungen an Feuerungsanlagen für flüssige und gasförmige Brennstoffe für den Kessel

This European Standard was approved by CEN on 15 May 2002.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 12953-7:2002) 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 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 standard.

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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

The European Standard EN 12953 concerning shell boilers consists of the following Parts:

- *Part 1: General.*
- *Part 2: Materials for pressure parts of boilers and accessories.*
- *Part 3: Design and calculation for pressure parts.*
- *Part 4: Workmanship and construction of pressure parts of the boiler.*
- *Part 5: Inspection during construction, documentation and marking of pressure parts of the boiler.*
- *Part 6: Requirements for equipment for the boiler.*
- *Part 7: Requirements for firing systems for liquid and gaseous fuels for the boiler.*
- *Part 8: Requirements for safeguards against excessive pressure.*
- *Part 9: Requirements for limiting devices of the boiler and accessories.*
- *Part 10: Requirements for boiler feedwater and boiler water quality.*
- *Part 11: Acceptance tests.*
- *Part 12: Requirements for firing systems for solid fuels for the boiler.*
- *Part 13: Operating instructions.*

CR 12953-14: Guidelines for the involvement of an inspection body independent of the manufacturer.

Although these Parts can be obtained separately, it should be recognized that the Parts are inter-dependent. As such, the design and manufacture of shell boilers requires the application of more than one Part in order for the requirements of the standard to be satisfactorily fulfilled.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Part of this European Standard specifies requirements for firing systems for oil and gaseous fuels applicable to shell boilers, as defined in EN 12953-1, irrespective of the degree of supervision. For multifuel firing systems using separate or combined burners, these requirements apply to the oil and/or gas firing part involved.

This Part of this European Standard specifies the improved safety measures required when several fuels are burnt simultaneously.

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 267, *Forced draught oil burners - Definitions, requirements, testing, marking.*

EN 676, *Automatic forced draught burners for gaseous fuels.*

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

3 Terms and definitions

For the purposes of this Part of this European Standard, the following terms and definitions apply.

3.1

liquid fuels

light fuel oils, and heavy fuel oils which need preheating for proper atomisation

3.2

gaseous fuels

standardized quality differentiated mainly by their relative density

3.2.1

light gases

with relative density below 1,3 e.g. natural gas, coke-oven gas, blast-furnace gas

NOTE Natural gas in accordance with ISO 6976.

3.2.2

heavy gases

with relative densities exceeding 1,3 e.g. liquefied petroleum gases, the main components of which are propane and butane

3.3

burners

devices for the introduction of fuel and air into a combustion chamber at required velocities, turbulence and local fuel concentration to establish and maintain proper ignition and stable combustion of the fuel

3.4

burner management system

performs a predetermined sequence of actions and always operates in conjunction with a flame monitor that reacts to signals from control and safety devices, gives control commands, controls the start-up sequence, supervises the burner operation, and causes controlled shutdown and lockout