



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12952-9:2002

ICS 27.040

**WATER-TUBE BOILERS AND AUXILIARY
INSTALLATIONS - PART 9: REQUIREMENTS
FOR FIRING SYSTEMS FOR PULVERISED
SOLID FUELS FOR THE BOILER**

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*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
February 7, 2003*

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12952-9

December 2002

ICS 27.040

English version

**Water-tube boilers and auxiliary installations - Part 9:
Requirements for firing systems for pulverized solid fuels for the
boiler**

Chaudières à tubes d'eau et installations auxiliaires - Partie
9: Exigences pour les équipements de chauffe pour
combustibles pulvérisés de la chaudière

Wasserrohrkessel und Anlagenkomponenten - Teil 9:
Anforderungen an Staubfeuerungsanlagen für den Kessel

This European Standard was approved by CEN on 4 November 2002.

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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.

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Foreword

This document (EN 12952-9:2002) 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.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 97/23/EC [1].

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

The European Standard EN 12952 concerning water-tube boilers and auxiliary installations 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: In-service boiler life expectancy calculations*
- *Part 5: Workmanship and construction of pressure parts of the boiler*
- *Part 6: Inspection during construction; documentation and marking of pressure parts of the boiler*
- *Part 7: Requirements for equipment for the boiler*
- *Part 8: Requirements for firing systems for liquid and gaseous fuels for the boiler*
- *Part 9: Requirements for firing systems for pulverized solid fuels for the boiler*
- *Part 10: Requirements for safeguards against excessive pressure*
- *Part 11: Requirements for limiting devices of the boiler and accessories*
- *Part 12: Requirements for feedwater and boiler water quality*
- *Part 13: Requirements for flue gas cleaning systems*
- *Part 14: Requirements for flue gas DENOX-systems*
- *Part 15: Acceptance tests*
- *Part 16: Requirements for grate and fluidized bed-firing systems for solid fuels for the boiler*

CR 12952-17, *Water-tube boilers and auxiliary installations — Part 17: Guideline for the involvement of an inspection body independent of the manufacturer.*

Although these parts may be obtained separately, it shall be recognized that the parts are interdependent. As such, the design and manufacture of water-tube boilers requires the application of more than one part in order for the requirements of the standard to be satisfactorily fulfilled.

NOTE Parts 4 and 15 are not applicable during the design, construction and installation stages.

Annex A of this European Standard 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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

EN 12952-9:2002 (E)

1 Scope

1.1 Firing systems

This European Standard applies to pulverized fuel firing systems of steam boilers and hot water generators and commences at the filling equipment for the boiler bunkers or for the pulverized fuel storage system and ends at the ash extraction plant. For multifuel firing systems using separate or combined burners, these requirements apply to the pulverized fuel firing part involved. For other fuels or firing systems used in combination, other requirements apply e.g. EN 12952-8.

1.2 Fuels

These requirements cover the use of pulverized fuels originating from coal ranging from low to high volatile matter content. This includes e.g. coke, anthracite, bituminous coal or hard coal, lignite or brown coal, petrol coke and oil shale.

1.3 Operation

Requirements for operational equipment apply for steam boilers and hot water generators with permanent supervision by properly trained persons.

As firing systems using pulverized fuel may be designed either as direct-firing or as indirect-firing systems, operational requirements have to be differentiated. Annex A summarizes the operational requirements for firing systems including the pulverizing system.

1.4 Boundary of pulverizing system

A pulverizing system is bounded by:

- the outlet of the fuel bunkers feeding the mill;
- the outlet of the burners fed from that mill;
- the points at which the hot air or flue gas and tempering air or flue gas leave their main supply ducts including the primary air fan if associated individually with the mill.

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 1127-1, *Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology*.

EN 12952-8, *Water-tube boilers and auxiliary installations — Part 8: Requirements for firing systems for liquid and gaseous fuels for the boiler*.

prEN 50156-1, *Electrical equipment for furnaces and ancillary equipment — Part 1: Requirements for application design and installation*.

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