

KORSTNAD. ÜLDNÕUDED

Chimneys - General requirements

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English Version

## Chimneys - General requirements

Conduits de fumée - Exigences générales

Abgasanlagen - Allgemeine Anforderungen

This European Standard was approved by CEN on 30 December 2018.

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## European foreword

This document (EN 1443:2019) has been prepared by Technical Committee CEN/TC 166 “Chimneys”, the secretariat of which is held by ASI.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1443:2003.

The main changes with respect to the previous edition are:

- a) updated normative references;
- b) revised terms and definitions;
- c) adaption of the changes made in the revision of EN 13216-1 – incorporation of a table with types of test structure;
- d) tables for corrosion resistance classes and pressure classes revised;
- e) new table “Hot gas velocity as a function of test temperature  $T$  and diameter of the test chimney”;
- f) incorporation of examples of DoPs and CE-marking for different chimney components.

A list of standards and draft standards drafted by CEN/TC 166, as well as relevant standards of associated Technical Committees is given in the “Bibliography”.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this document: 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.

## Introduction

The development of combustion appliances which has progressed in the recent years due to the need of saving energy and protecting the environment was paralleled by technical development of chimneys. Therefore, new additional requirements for chimneys are necessary, e.g. operation with positive pressure, operation with the formation of condensate.

Chimneys consist of different components which can be assembled, e.g. either:

- as system chimneys, that are installed using a combination of compatible chimney components, obtained or specified as a kit from one manufacturing source with product responsibility for the whole chimney, or
- as custom-built chimneys, that are installed or built on-site in accordance with a design document or local building regulations, using a combination of compatible chimney components that can be from one or more sources.

This document covers both cases. Annex A lists the relevant performance requirements for system chimneys and custom-built chimneys.

This document specifies a designation scheme for chimneys which considers combinations between combustion appliance and chimney. This scheme takes into account, for example, different climatic conditions, different fuels, and different building parameters.

The ability of a chimney to prevent ignition of adjacent combustible materials and to prevent the spread of fire to adjacent areas within a building is included.

The first edition of this document was dated June 1999. In the meantime the Mandate under the Construction Product Directive (CPD) for chimneys (M/105) was published and some European Standards concerning the test of fire spread were published. Therefore the document has been revised in accordance with the Construction Products Regulation (CPR), and the changes in this version cover the requirements of the new regulation.

## 1 Scope

This document specifies requirements and the basic performance criteria for chimneys, flue liners, connecting flue pipes, components and accessories used to convey the products of combustion from combustion appliances to the outside atmosphere. This document is to be used as a reference for all product standards of CEN/TC 166.

This document specifies sootfire resistant chimneys, flue liners, connecting flue pipes, fittings and accessories for combustion appliances burning solid, liquid and gaseous fuels and non-sootfire resistant chimneys, flue liners, connecting flue pipes, components and accessories for combustion appliances burning liquid and gaseous fuels only. It also specifies sootfire safe accessories for combustion appliances burning solid, liquid and gaseous fuels.

NOTE 1 This means that chimneys, flue liners, connecting flue pipes and components which are non-sootfire resistant and accessories which are non-sootfire resistant or non-sootfire safe are not suitable for combustion appliances burning solid fuel.

This document also identifies minimum requirements for marking, instructions, product information and provides guidance for the assessment and verification of constancy of performance (AVCP).

This document does not apply to structurally independent chimneys and custom-built chimneys consisting of non-CE-marked components.

NOTE 2 This document can be used as a basis for the specifications of products covered by a European Technical Assessment.

NOTE 3 All product standards drafted by Technical Committee CEN/TC 166 are based on the Mandate M/105.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1366-13:—1, *Fire resistance tests for service installations — Part 13: Chimneys*

EN 13216-1, *Chimneys - Test methods for system chimneys — Part 1: General test methods*

EN 13384-1:2015, *Chimneys — Thermal and fluid dynamic calculation methods — Part 1: Chimneys serving one heating appliance*

EN ISO 17225-1:2014, *Solid biofuels - Fuel specifications and classes — Part 1: General requirements (ISO 17225-1:2014)*

EN ISO 17225-2:2014, *Solid biofuels — Fuel specifications and classes — Part 2: Graded wood pellets (ISO 17225-2:2014)*

EN ISO 17225-3:2014, *Solid biofuels — Fuel specifications and classes — Part 3: Graded wood briquettes (ISO 17225-3:2014)*

EN ISO 17225-4:2014, *Solid biofuels — Fuel specifications and classes — Part 4: Graded wood chips (ISO 17225-4:2014)*

EN ISO 17225-5:2014, *Solid biofuels - Fuel specifications and classes - Part 5: Graded firewood (ISO 17225-5:2014)*