Chimneys - Design, installation and commissioning of chimneys - Part 1: Chimneys for non-roomsealed heating appliances

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15287-1:2007 sisaldab Euroopa standardi EN 15287-1:2007 ingliskeelset teksti. Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 15287-1:2007 consists of the English text of the European standard EN 15287-1:2007. This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard describes the method of specifying the design, installation criteria for system chimneys, construction of custom built chimneys, and the relining of existing chimneys. It also gives information on commissioning of chimneys. This European Standard also deals with connecting flue pipes. This European Standard does not apply to freestanding chimneys covered by EN 13084-1. This European Standard excludes chimneys designated H (high positive pressure chimneys) and chimneys for room-sealed heating appliances. For the purpose of this European Standard the term "installation" includes construction.	**Scope:** This European Standard describes the method of specifying the design, installation criteria for system chimneys, construction of custom built chimneys, and the relining of existing chimneys. It also gives information on commissioning of chimneys. This European Standard also deals with connecting flue pipes. This European Standard does not apply to freestanding chimneys covered by EN 13084-1. This European Standard excludes chimneys designated H (high positive pressure chimneys) and chimneys for room-sealed heating appliances. For the purpose of this European Standard the term "installation" includes construction.

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Chimneys - Design, installation and commissioning of chimneys - Part 1: Chimneys for non-roomsealed heating appliances

Conduits de fumée - Conception et mise en œvre des conduits de fumée - Partie 1: Conduits de fumée pour appareils qui dépendent de l'air dans la pièce

Abgasanlagen - Planung, Montage und Abnahme von Abgasanlagen - Teil 1: Abgasanlagen für raumluftabhängige Feuerstätten

This European Standard was approved by CEN on 28 July 2007.

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Foreword

This document (EN 15287-1:2007) has been prepared by Technical Committee CEN/TC 166 “Chimneys”, the secretariat of which is held by UNI.

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 March 2008, and conflicting national standards shall be withdrawn at the latest by March 2008.

This document supersedes EN 12391-1:2003.

This document is one of a series of specifications as listed below:

Chimneys — Design, installation and commissioning of chimneys — Part 1: Chimneys for non-roomsealed heating appliances.

Chimneys — Design, installation and commissioning of chimneys — Part 2: Chimneys for roomsealed heating appliances.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

CEN/TC 166 started with its programme on standardization of chimneys approximately 15 years ago, with standards for interfaces, for products, for test and last but not least for design, installation, construction and commissioning matters.

For the work program in the last years first priority had been given to product and test standards.

In the meantime most of the product and test standards are published or nearly ready to be published. In order to introduce the products, which are tested and certified in accordance with the relevant European Standards, in an easy way on the markets of the different countries, some common rules for design, installation, and commissioning especially with reference to the designation of a chimney are helpful.

Firstly CEN/TC 166/SC 2 started the work on execution standards for metal chimneys. The first standard had been already published as EN 12391-1 in 2003.

In order not to repeat this work in all material oriented WGs and SCs, CEN/TC 166 decided in 2002 to give the task to WG 1 to develop a material independent design, installation and commissioning standard.

CEN/TC 166/WG 1 started the work in 2003 and decided first to write two documents, one for chimneys connected to non-roomsealed heating appliances and one for chimneys connected to room-sealed heating appliances. Working on the documents there where two strong positions, one for a Technical Specification (TS) and one for a European Standard (EN).

Following the proposal of CEN/TC 166/WG 1, CEN/TC 166 decided to launch a vote on the question which of the two positions should apply. The CEN/TC 166 members had been in favour of creating European Standards (EN).

1 Scope

This European Standard describes the method of specifying the design, installation criteria for system chimneys, construction of custom built chimneys, and the relining of existing chimneys. It also gives information on commissioning of chimneys.

This European Standard also deals with connecting flue pipes.

This European Standard does not apply to freestanding chimneys covered by EN 13084-1.

This European Standard excludes chimneys designated H (high positive pressure chimneys) and chimneys for room-sealed heating appliances.

For the purpose of this European Standard the term "installation" includes construction.

2 Normative references

The following referenced documents are indispensable for the application 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 1443:2003, *Chimneys — General requirements*

EN 1457, *Chimneys — Clay/ceramic flue liners — Requirements and test methods*

EN 1806, *Chimneys — Clay/ceramic flue blocks for single wall chimneys — Requirements and test methods*

EN 1856-1, *Chimneys — Requirements for metal chimneys — Part 1: System chimney products*

EN 1856-2, *Chimneys — Requirements for metal chimneys — Part 2: Metal liners and connecting flue pipes*

EN 1857, *Chimneys — Components — Concrete flue liners*

EN 1858, *Chimneys — Components — Concrete flue blocks*

EN 12446, *Chimneys — Components — Concrete outer wall elements*

EN 13063-1, *Chimneys — System chimneys with clay/ceramic flue liners — Part 1: Requirements and test methods for sootfire resistance*

EN 13063-2, *Chimneys — System chimneys with clay/ceramic flue liners — Part 2: Requirements and test methods under wet conditions*

EN 13063-3, *Chimneys — System chimneys with clay/ceramic flue liners — Part 3: Requirements and test methods for air flue system chimneys*

EN 13069, *Chimneys — Clay/ceramic outer walls for system chimneys — Requirements and test methods*

EN 13084 (all parts), *Free-standing chimneys*

EN 13384-1:2002, *Chimneys — Thermal and fluid dynamic calculation methods — Part 1: Chimneys serving one appliance*

EN 13384-2, *Chimneys — Thermal and fluid dynamic calculation methods — Part 2: Chimneys serving more than one heating appliance*

EN 13502, *Chimneys — Requirements and test methods for clay/ceramic flue terminals*

EN 14297, *Chimneys — Freeze-thaw resistance test method for chimney products*

EN 14471, *Chimneys — System chimneys with plastic flue liners — Requirements and test methods*

EN 14989-1, *Chimneys — Requirements and test methods for metal chimneys and material independent air supply ducts for roomsealed heating applications — Part 1: Vertical air/flue terminals for C6-type appliances*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1443:2003 together with the following apply.

NOTE Examples of chimney construction identifying individual component terminology and definitions are given in Figures 1, 2 and 3.

3.1
access component
component installed in the chimney or in the connecting flue pipe to provide access to the flue for the purpose of inspection or cleaning

3.2
back ventilation
ventilation in the space between flue liner and the outer wall of the chimney or an enclosure to evacuate the products of combustion which can escape from the flue liner in positive pressure multi-wall systems

3.3
centralising spacer
component to centralise the liner

3.4
chimney adapter
component which connects a chimney to a connecting flue pipe or an heating appliance

3.5
condensate drain
component to facilitate the disposal of condensate

3.6
damper
device used to close or partially close the flue

3.7
draught regulator
balanced hinged flap in a flue opening to allow airflow into the chimney to control draught at the boiler outlet

3.8
elbow
chimney fitting which provides a change of direction of the flue

3.9
explosion relief
device that protects the chimney against overpressure arising from deflagration or explosion in the flue

3.10
fire compartment
part of the building being isolated to provide resistance to fire