SLOVENSKI STANDARD
oSIST prEN 15287-2:2021

01-november-2021

Dimniki - Projektiranje, vgradnja in pregled - 2. del: Dimniki in povezovalni dimovodi za ogrevalne naprave v zatesnjenih prostorih

Chimneys - Design, installation and commissioning - Part 2: Chimneys and connecting flue pipes for room sealed combustion appliances

Abgasanlagen - Planung, Montage und Abnahme - Teil 2: Senkrechte Teile von Abgasanlagen und Verbindungsstücke für raumluftunabhängige Verbrennungseinrichtungen

Conduits de fumée - Conception et mise en œuvre - Partie 2 : Conduits de fumée et conduits de raccordement pour appareils à combustion a qui ne dépendent pas de l'air dans la pièce

Ta slovenski standard je istoveten z: **prEN 15287-2**

ICS:

91.060.40	Dimniki, jaški, kanali	Chimneys, shafts, ducts

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EUROPEAN STANDARD

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Will supersede EN 15287-2:2008

English Version

Chimneys - Design, installation and commissioning - Part 2: Chimneys and connecting flue pipes for room sealed combustion appliances

Conduits de fumée - Conception, installation et mise en service - Partie 2 : Conduits de fumée et conduits de raccordement pour appareils de combustion à circuit étanche

Abgasanlagen - Planung, Montage und Abnahme - Teil 2: Senkrechte Teile von Abgasanlagen und Verbindungsstücke für raumluftunabhängige Verbrennungseinrichtungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 166.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 15287-2:2021) has been prepared by Technical Committee CEN/TC 166 "Chimneys", the secretariat of which is held by ASI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15287-2:2008.

This European Standard is part of the series of standards *Chimneys — Design, installation and commissioning*:

— *Part 1: Chimneys and connecting flue pipes for non-room sealed combustion appliances.*
— *Part 2: Chimneys and connecting flue pipes for room sealed and connecting flue pipes appliances.*

Currently the standard series EN 1856, *Chimneys — Requirements for metal chimneys,* is also under revision and if accepted, modifications to the normative text will be have to be made regarding metal chimneys.

In comparison with the previous edition, the following technical modifications have been made:

a) restructuring of the chapters and annexes;

b) harmonization of the text with part 1;

c) updating the content according to EN 1443:2019;

d) adoption of all relevant terms from EN 1443:2019 and prEN 15287-1;

e) adoption of all relevant chapters and annexes from prEN 15287-1;

f) description of the designation and classes of a chimney according to EN 1443:2019;

g) expanding the specifications for accessories;

h) schematic illustrations of examples of installation configurations;

i) recommendations for some minimum distances from combustible material given;

j) scope was extended to include positive pressure chimneys of pressure class "H" and multiserved chimneys of the pressure class "P".

Introduction

CEN/TC 166 started with its programme on standardization of chimneys approximately 30 years ago, with standards for interfaces, for products, for tests and last but not least for design, installation, construction and commissioning matters.

In the last years, first priority in the work program was given to product and test standards.

In the meantime most of the product and test standards were published or are nearly ready for publication. In order to introduce the products in a simple way on the markets of the different Member States, some common rules for design, installation, and commissioning especially with reference to the designation of a chimney were considered helpful.

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

In order not to repeat this work in all material orientated 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 draft two documents, one for chimneys connected to non-room sealed combustion appliances and one for chimneys connected to room sealed combustion appliances.

1 Scope

This document describes the method of specifying the design, installation and labelling criteria for chimney systems, construction of custom-built chimneys, the relining or converting of existing chimneys, connecting flue pipes and air supply pipes for room sealed applications. It also gives information on commissioning of an installed chimney.

This document applies to chimneys which are subject to the following limiting conditions (specified in EN 13084-1):

— the horizontal distance between the building and the outer wall of the chimney system not to exceed 1 m,

— the distance between the supports not to exceed 4 m,

— the distance above the last structural attachment not to exceed 3 m.

This document does not cover:

— chimneys which serve a mixture of fan assisted or forced draught burners or natural draught appliances,

— installations having a configuration of the type C_2.

NOTE Room sealed gas appliances are classified as type C according to EN 1749.

The methods in this part of this document are applicable to chimneys and connecting flue pipes for room sealed combustion appliances. The methods in Part 1 of this document are applicable to chimneys and connecting flue pipes for non-room sealed combustion appliances.

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

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 1443: 2019, *Chimneys – General requirements*

EN 1457-1, *Chimneys — Clay/ceramic flue liners — Part 1: Flue liners operating under dry conditions – Requirements and test methods*

EN 1457-2, *Chimneys — Clay/ceramic flue liners — Part 2: Flue liners operating under wet conditions – 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 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 13084-1, *Free-standing chimneys — Part 1: General requirements*

EN 13084-8 *Free-standing chimneys — Part 8: Design and execution of mast construction with satellite components*

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

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

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

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

EN 14241-1:2013, *Chimneys — Elastomeric seals and elastomeric sealants — Material requirements and test methods – Part 1: Seals in flue liners*

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*

prEN 15287-1:2021, *Chimneys — Design, installation and commissioning of chimneys — Part 1: Chimneys for non-roomsealed combustion appliances*

EN 16497-1, *Chimneys — Concrete system chimneys — Part 1: Non-balanced flue applications*

EN 16497-2, *Chimneys — Concrete system chimneys — Part 2: Balanced flue applications*

EN ISO 13732-1, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces*

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

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

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

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1443:2019 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

NOTE 1 Examples of chimney construction identifying individual component terminology and definitions are given in Figures A.1, A.2 and A.3 in Annex A. Examples of balanced air/flue configurations for room sealed applications are given in Figures A.4 and A.5. The configurations of Figure A.4 and Figure A.5 may be created from converting or relining an existing chimney.

NOTE 2 The European scheme for the classification of gas appliances is given in EN 1749.

3.1
fire compartment
part of the building comprising one or more rooms, spaces or storeys constructed to prevent the spread of fire

[SOURCE: prEN 15287-1:2021, definition 3.1]

3.2
combustion appliance
unit generating products of combustion which need to be conveyed to the outside atmosphere

Note 1 to entry: E.g. heating appliances, cooking appliances, motors, CHPs (en: combined heat power).

[SOURCE: EN 1443:2019, definition 3.1]

3.3
room sealed appliance
appliance in which the combustion circuit (air supply, combustion chamber, heat exchanger and evacuation of the products of combustion) is sealed with respect to the room in which the appliance is installed

3.4
flue
passage for conveying the products of combustion to the outside atmosphere

[SOURCE: EN 1443:2019, definition 3.2]

3.5
flue gas
gaseous portion of the products of combustion conveyed in a flue

[SOURCE: EN 1443:2019, definition 3.3]

3.6
products of combustion
products resulting from the combustion of fuel (gaseous, liquid and solid constituents)

[SOURCE: EN 1443:2019, definition 3.4]

3.7
chimney
structure consisting of a wall or walls enclosing a flue or flues conveying the products of combustion into the outside atmosphere

Note 1 to entry: The generic word “chimney”, when used in this document, refers to chimneys used to convey the products of combustion from any combustion appliance to the outside atmosphere, and thus includes all other terms of common use, such as: vents, flues, shafts, exhaust systems, flue ducts, etc.

[SOURCE: EN 1443:2019, definition 3.5]

3.8
chimney system
combination of both a flue duct and an air supply duct for room sealed applications

3.9
balanced flue chimney configuration
configuration where the air entry to the combustion air supply duct is adjacent to the discharge of combustion products from the flue, the inlet and outlet being so positioned that wind effects are substantially balanced

3.10
concentric air/flue configuration
configuration in which the chimney flue is fully surrounded by the air supply duct

Note 1 to entry This includes chimney configurations where the flue duct and air supply duct do not share a common axis.

3.11
separate air/flue configuration

configuration in which the air supply duct and the chimney flue are separate

3.12
chimney stack
construction enclosing more than one flue

[SOURCE: prEN 15287-1:2021, definition 3.7]

3.13
single-wall chimney
chimney with only one wall

[SOURCE: EN 1443:2019, definition 3.17]

3.14
multi-wall chimney
chimney consisting of a flue liner and at least one additional wall

[SOURCE: EN 1443:2019, definition 3.18]

3.15

system chimney

chimney that is 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

[SOURCE: EN 1443:2019, definition 3.19]

3.16

system chimney for room sealed applications

chimney configuration that is installed using a combination of compatible components, obtained or specified from one manufacturing source with product responsibility for the whole chimney system

Note 1 to entry This product is understood to constitute a kit under the Mandate M/105.

3.17

custom-built chimney

chimney that is installed or built on-site using a combination of compatible components that may be from one or different sources

[SOURCE: EN 1443:2019, definition 3.20]

3.18

custom-built chimney for room sealed applications

chimney configuration that is installed or built on-site using a combination of compatible components that may be from one or different sources

3.19

converted chimney

existing chimney for non-room sealed applications changed to a chimney system

3.20

relining

process of renovating or replacing the flue liner of a chimney

[SOURCE: EN 1443:2019, definition 3.21]

3.21

relined chimney

existing chimney where a liner is restored or replaced

Note 1 to entry: The process of inserting a new liner into an existing chimney without a change of the air/flue configuration is also regarded as relining the chimney

3.22

flue duct

duct containing the flue of the chimney system

3.23

air supply duct

duct in a chimney system only for conveying combustion air to a room-sealed appliance

3.24

flue liner

rigid or flexible inner wall of a chimney consisting of components the surface of which is in contact with products of combustion

[SOURCE: EN 1443:2019, definition 3.6]

3.25

flue liner kit

flue liner that is installed using a combination of compatible flue liner components, obtained or specified as a kit from one manufacturing source with product responsibility for the whole flue liner including all its components

Note 1 to entry: A flue liner kit is not considered a system chimney.

[SOURCE: EN 1443:2019, definition 3.7]

3.26

rigid flue liner

straight flue liner that cannot bend without permanent deformation

[SOURCE: prEN 15287-1:2021, definition 3.15]

3.27

flexible flue liner

tube having a single or multi-skin construction that is able to bend in any direction without permanent deformation

[SOURCE: prEN 15287-1:2021, definition 3.16]

3.28

outer wall

external wall of a chimney system, on the outer surface of which the minimum distance to combustible material is referred

[SOURCE: EN 1443:2019, definition 3.22, modified by adding “system” and substituting “from the surface of which the distance to combustible is measured” with “, on the outer surface of which the minimum distance to combustible is referred”]

3.29

enclosure

additional structure, combustible or non-combustible, built around a chimney

Note 1 to entry: An enclosure which is specified as a part of the chimney is considered an “outer wall” of the chimney.

Note 2 to entry: Enclosures can for example give additional safety in case of fire, provide additional heat transfer resistance, prevent accidental human contact, prevent impact damage and can be used for decorative purposes.

[SOURCE: EN 1443:2019, definition 3.23]