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JA KATSEMEETODID

Chimneys - Accessories - Part 4: Flue dampers -
Requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16475-4:2020 sisaldab Euroopa standardi EN 16475-4:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 16475-4:2020 consists of the English text of the European standard EN 16475-4:2020.
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English Version

Chimneys - Accessories - Part 4: Flue dampers - Requirements and test methods

Conduits de fumée - Accessoires - Partie 4 : Clapets de
fumées - Exigences et méthodes d'essai

Abgasanlagen - Zubehörteile - Teil 4: Abgasklappen -
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 24 February 2020.

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European foreword

This document (EN 16475-4:2020) has been prepared by Technical Committee CEN/TC 166 “Chimneys”, the secretariat of which is held by ASI.

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of an identical text or by endorsement, at the latest by October 2020, and conflicting national standards shall be withdrawn at the latest by January 2022.

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 forms a part of the series of standards EN 16475, Chimneys – Accessories, comprising the following parts:

- *Part 1: Silencers — Requirements and test methods;*
- *Part 2: Chimney fans — Requirements and test methods;*
- *Part 3: Draught regulators, standstill opening devices and combined secondary air devices — Requirements and test methods;*
- *Part 4: Flue dampers — Requirements and test methods (this part);*
- *Part 6: Access components — Requirements and test methods;*
- *Part 7: Rain caps — Requirements and test methods.*

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The main purpose of flue dampers is to close or partially close a flue.

Flue dampers can be manually adjusted, sited in connecting flue pipes or chimneys, in order to reduce the burning rate (solid fuel stoves/fireplaces) or to work as a shut-off slide preventing back flow of soot during cleaning of the chimney, or mechanically driven for reducing/closing the flue, in order to reduce the stand-by losses or to prevent the backflow of the flue gas e.g. in case of multi-served chimneys.

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1 Scope

This document specifies the characteristics and test methods for flue dampers that are used as components, carrying flue gas, in order to limit the flow in a chimney or to prevent back flow of soot during cleaning of the chimney or to prevent the backflow of the flue gas e.g. in case of multi-served chimneys.

This document covers only flue dampers incorporated in a housing and installed inside a building.

This document covers only flue dampers with sealings made of elastomeric materials for temperature classes up to T 200 and corrosion class 1 or 2 in accordance with EN 14241-1 or sealing materials for dry applications with a fire reaction class A1 in accordance with EN 13501-1.

This document covers only flue dampers with motor drive, casing and flue damper plate which are interlocked in such a way that they can only be separated by using tools.

This document covers only mechanical flue dampers where any motor is in accordance with EN 60730-2-14 and the cover for electrical components of the flue damper fulfils minimum protection class IP40 according to EN 60529.

This document covers only flue dampers which are designed and installed to ensure that incorrect information about the position of the flue damper flap are absolutely impossible, which are only installed on components that are interlocked to the casing, which are only activated by components that are interlocked to the flue damper flap and where it is ensured that the limit switch opens or the flue damper flap moves to the open position if one of these interlocks fails. This safety target may also be achieved with an equally suitable method (e.g. bracing or welding).

This document covers only flue dampers for biomass boilers $\geq 1\ 000$ kW and industrial applications with limit switches in accordance with EN 61058-1 or EN 50156-1.

This document covers only flue dampers where it is possible to identify the position of the flue damper flap.

This document covers only totally closed, manually driven flue dampers (type 1) which have a facility to adjust the position of the flue damper flap.

This document covers only totally closed, mechanically driven flue dampers (type 2) with only the positions "fully opened" and "fully closed" and where it is not possible to fix the flap in the non-closed position during the flue damper flap stays in closed position while the appliance is not working.

NOTE This applies only to multi-appliance installations with positive pressure conditions.

This document covers only partially closed flue dampers (type 3 to 5) where it is possible to adjust the position of the flue damper flap and where it is ensured that the flue damper flap does not change position by itself.

Flue dampers which are integral parts of system chimney products or other chimney components, e.g. flue liners, connecting flue pipes, are not covered by this document.

This document also specifies the provisions for marking, manufacturers' instruction, product information, Assessment and Verification of Constancy of Performance (AVCP).

This document does not specify issues for electrical parts.

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 1561, *Founding — Grey cast irons*

EN 1563, *Founding — Spheroidal graphite cast irons*

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

EN 1856-2:2009, *Chimneys — Requirements for metal chimneys — Part 2: Metal flue liners and connecting flue pipes*

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

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1443, EN 1856-1 and EN 1856-2 and the following apply.

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

3.1

flue damper

device used to close or partially close the flue, comprising a rotating or sliding flue damper flap, including fastening elements, in a flue damper housing that may be a section of connecting flue pipe or a section of chimney (single or multi wall)

Note 1 to entry: Examples given in Annex D.

3.2

shut-off slide

flue damper type 1

flue damper which is intended to prevent the escape of dust out of the chimney during sweeping the chimney

3.3

internal leakage rate

leakage rate inside the flue caused by the closed flap