

This document is a preview generated by EVS

KORSTNAD. TARVIKUD. OSA 3: TÕMBEREGULAATORID,
SEISAKUAJA AVAMISSEADMED JA KOMBINEERITUD
SEKUNDAARÕHU SEADMED. NÕUDED JA
KATSEMEETODID

Chimneys - Accessories - Part 3: Draught regulators,
standstill opening devices and combined secondary air
devices - Requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16475-3:2016 sisaldab Euroopa standardi EN 16475-3:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 16475-3:2016 consists of the English text of the European standard EN 16475-3:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 13.04.2016.	Date of Availability of the European standard is 13.04.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.060.40

Standardite reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 16475-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 91.060.40

English Version

Chimneys - Accessories - Part 3: Draught regulators,
standstill opening devices and combined secondary air
devices - Requirements and test methods

Conduits de fumée - Accessoires - Partie 3: Régulateurs
de tirage, dispositifs d'ouverture pour période d'arrêt
et dispositifs combinés d'air secondaire - Exigences et
méthodes d'essai

Abgasanlagen - Zubehörteile - Teil 3: Selbsttätig
arbeitende, zwangsgesteuerte und kombinierte
Nebenluftvorrichtungen - Anforderungen und
Prüfmethoden

This European Standard was approved by CEN on 27 November 2015.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
European foreword.....	5
Introduction	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 Product characteristics.....	8
4.1 General.....	8
4.2 Dimensions and tolerances	8
4.3 Mechanical resistance and stability.....	8
4.4 Thermal performance	8
4.4.1 Reaction to fire.....	8
4.4.2 Fire resistance (internal to external)	8
4.5 Hygiene, health and environment.....	9
4.5.1 Gas tightness	9
4.5.2 Condensate resistance.....	9
4.5.3 Corrosion resistance	9
4.5.4 Dangerous substances	9
4.6 Additional criteria for chimney operation.....	9
4.6.1 Determination of the draught regulator group.....	9
4.6.2 Adjustability and function of the draught regulator	10
4.6.3 Durability of the standstill opening device.....	11
4.7 Electrical requirements	11
4.7.1 Motor	11
4.7.2 Limit switches.....	11
5 Testing, assessment and sampling methods	11
5.1 Thermal performance	11
5.1.1 General.....	11
5.1.2 Test Assembly.....	12
5.1.3 Test procedure	13
5.1.4 Standstill opening device durability test.....	14
5.2 Gas tightness	14
5.2.1 Test assembly	14
5.2.2 Test Procedure	15
5.2.3 Test results	15
5.3 Additional criteria for chimney operation.....	15
5.3.1 Adjustability of the draught regulator	15
5.3.2 Draught regulator group test.....	16
6 Assessment and verification of constancy of performance (AVCP)	16
6.1 General.....	16
6.2 Type testing.....	16
6.2.1 General.....	16
6.2.2 Test samples, testing and compliance criteria	17
6.2.3 Test reports	18
6.2.4 Shared other party results.....	18

6.2.5	Cascading determination of the product type results	19
6.3	Factory production control (FPC)	20
6.3.1	General	20
6.3.2	Requirements.....	20
6.3.3	Product specific requirements	23
6.3.4	Initial inspection of factory and of FPC.....	23
6.3.5	Continuous surveillance of FPC.....	24
6.3.6	Procedure for modifications.....	24
7	Manufacturer's declaration for type test	24
8	Product information.....	25
8.1	Manufacturer's instructions	25
8.2	Minimum information to be included in the manufacturer's instructions	25
9	Classification and designation	25
9.1	General	25
9.2	Temperature classes and test temperature.....	26
9.3	Corrosion resistance.....	26
9.4	Soot fire resistance and distance to combustible material	26
9.5	Draught regulator groups and whether it is a standstill opening device.....	26
10	Marking, labelling and packaging.....	26
10.1	Draught regulator and standstill opening device	26
10.2	Packaging.....	27
Annex A (normative)	Choice of sizes for type test and sampling	28
A.1	Thermal testing	28
A.2	Gas tightness.....	28
A.3	Condensate resistance	28
A.4	Determination of the group	28
A.5	Adjustability	28
A.6	Durability of standstill opening device.....	28
A.7	Samples	28
A.8	Factory production control system.....	28
A.9	Further type testing	28
Annex B (informative)	Sampling for factory productions control.....	29
B.1	Sampling plans.....	29
B.1.1	General	29
B.1.2	Acceptable quality level (AQL).....	29
B.1.3	The inspection level.....	29
B.1.4	Normal, tightened or reduce inspection	29
B.1.5	Single, double, multiple or sequential sampling.....	29
B.1.6	Batch quantity.....	29
B.2	Inspection levels and procedures.....	29
B.2.1	Incoming material	29

B.2.2 In-process inspection	30
B.2.3 Finished goods checks	30
Annex C (normative) Factory production control.....	31
C.1 Introduction	31
C.2 Materials, including coatings	31
C.3 Seals and sealants	31
C.4 Manufacturing checks	31
C.4.1 Dimensions.....	31
C.4.2 Other checks	31
Annex D (informative) Recommended range of application.....	32
D.1 Tables for the selection of the draught regulator group Height against diameter	32
Annex E (informative) Examples of products	34
E.1 Without standstill opening device	34
Annex ZA (informative) Relationship of this European Standard with Regulation (EU) No.305/2011	36
ZA.1 Scope and relevant characteristics.....	36
ZA.2 System of Assessment and Verification of Constancy of Performance (AVCP)	37
ZA.3 Assignment of AVCP tasks.....	37
Bibliography.....	40

European foreword

This document (EN 16475-3:2016) 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 2016, and conflicting national standards shall be withdrawn at the latest by January 2018.

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

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(s).

For relationship with EU Regulation, see informative Annex ZA, which is an integral part of this document.

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, 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This standard forms a part of the series of standards for chimney accessories:

- *Part 1: Silencers*
- *Part 2: Chimney fans*
- *Part 3: Draught regulators, standstill opening devices and combined secondary air devices (this part)*
- *Part 4: Flue dampers*
- *Part 5: Explosion/implosion relief devices*
- *Part 6: Access components*
- *Part 7: Rain caps*

Independent draught regulators are for the purpose of reducing negative pressure that is too large in the chimney, which can result through the use of commercially available cross-section dimensions, despite being designed e.g. according to EN 13384-1:2015, *Calculation method for chimneys serving single appliance*. They serve to increase the flue gas speed and the ventilation of the chimney, for the purpose of drying out (see explanations).

Standstill opening devices interlocked with the combustion system are exclusively for the purpose of ventilating the chimney during standby.

1 Scope

This European Standard specifies the requirements and test methods for draught regulators, standstill opening devices and combined secondary air devices that are used as components, carrying flue gases, in order to limit the draught in chimneys and provide secondary air to the chimney.

Draught regulators, standstill opening devices and combined secondary air devices for positive pressure chimneys are not covered by this standard.

It also specifies the requirements for marking, manufacturers' instruction, product information and attestation and verification of constancy of performance (AVCP).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1443, *Chimneys — General requirements*

EN 10088-1, *Stainless steels — Part 1: List of stainless steels*

EN 10346, *Continuously hot-dip coated steel flat products for cold forming — Technical delivery conditions*

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

EN 60730-2-14, *Automatic electrical controls for household and similar use — Part 2-14: Particular requirements for electric actuators (IEC 60730-2-14)*

EN 61058-1, *Switches for appliances — Part 1: General requirements (IEC 61058-1)*

3 Terms and definitions

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

3.1

draught regulator

device with a hinged flap in a flue opening to allow entry of secondary air into the flue to regulate the draught

3.2

standstill opening device

device which is opened motorised to allow air to enter the flue during the standstill period of the heating appliance

3.3

combined secondary air device

combination of a draught regulator and standstill opening device