

# ILNAS

Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN 16475-3:2016+A1:2018

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

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

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

## National Foreword

This European Standard EN 16475-3:2016+A1:2018 was adopted as Luxembourgish Standard ILNAS-EN 16475-3:2016+A1:2018.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

### THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

**NORME EUROPÉENNE  
EUROPÄISCHE NORM**

December 2018

ICS 91.060.40

Supersedes EN 16475-3:2016

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 Prüfverfahren

This European Standard was approved by CEN on 27 November 2015 and includes Amendment 1 approved by CEN on 27 June 2018.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels**

## Contents

	Page
<b>European foreword.....</b>	<b>5</b>
<b>Introduction .....</b>	<b>6</b>
<b>1 Scope.....</b>	<b>7</b>
<b>2 Normative references.....</b>	<b>7</b>
<b>3 Terms and definitions .....</b>	<b>7</b>
<b>4 Product characteristics.....</b>	<b>8</b>
<b>4.1 General.....</b>	<b>8</b>
<b>4.2 Dimensions and tolerances .....</b>	<b>8</b>
<b>4.3 Mechanical resistance and stability .....</b>	<b>8</b>
<b>4.4 Thermal performance .....</b>	<b>8</b>
<b>4.4.1 Reaction to fire.....</b>	<b>8</b>
<b>4.4.2 Fire resistance (internal to external) .....</b>	<b>8</b>
<b>4.5 Hygiene, health and environment.....</b>	<b>9</b>
<b>4.5.1 Gas tightness .....</b>	<b>9</b>
<b>4.5.2 Condensate resistance.....</b>	<b>9</b>
<b>4.5.3 Corrosion resistance .....</b>	<b>9</b>
<b>4.5.4 Dangerous substances .....</b>	<b>9</b>
<b>4.6 Additional criteria for chimney operation.....</b>	<b>10</b>
<b>4.6.1 Determination of the draught regulator group.....</b>	<b>10</b>
<b>4.6.2 Adjustability and function of the draught regulator .....</b>	<b>11</b>
<b>4.6.3 Durability of the standstill opening device.....</b>	<b>11</b>
<b>4.7 Electrical requirements .....</b>	<b>11</b>
<b>4.7.1 Motor .....</b>	<b>11</b>
<b>4.7.2 Limit switches.....</b>	<b>11</b>
<b>5 Testing, assessment and sampling methods .....</b>	<b>12</b>
<b>5.1 Thermal performance .....</b>	<b>12</b>
<b>5.1.1 General.....</b>	<b>12</b>
<b>5.1.2 Test Assembly.....</b>	<b>13</b>
<b>5.1.3 Test procedure .....</b>	<b>14</b>
<b>5.1.4 Standstill opening device durability test.....</b>	<b>15</b>
<b>5.2 Gas tightness .....</b>	<b>15</b>
<b>5.2.1 Test assembly .....</b>	<b>15</b>
<b>5.2.2 Test Procedure .....</b>	<b>16</b>
<b>5.2.3 Test results .....</b>	<b>16</b>
<b>5.3 Additional criteria for chimney operation.....</b>	<b>16</b>
<b>5.3.1 Adjustability of the draught regulator .....</b>	<b>16</b>
<b>5.3.2 Draught regulator group test.....</b>	<b>17</b>
<b>6 Assessment and verification of constancy of performance (AVCP) .....</b>	<b>17</b>
<b>6.1 General.....</b>	<b>17</b>
<b>6.2 Type testing.....</b>	<b>17</b>
<b>6.2.1 General.....</b>	<b>17</b>
<b>6.2.2 Test samples, testing and compliance criteria .....</b>	<b>18</b>
<b>6.2.3 Test reports .....</b>	<b>19</b>
<b>6.2.4 Shared other party results .....</b>	<b>19</b>

<b>6.2.5 Cascading determination of the product type results .....</b>	<b>20</b>
<b>6.3 Factory production control (FPC) .....</b>	<b>21</b>
<b>6.3.1 General .....</b>	<b>21</b>
<b>6.3.2 Requirements .....</b>	<b>21</b>
<b>6.3.3 Product specific requirements .....</b>	<b>24</b>
<b>6.3.4 Initial inspection of factory and of FPC .....</b>	<b>24</b>
<b>6.3.5 Continuous surveillance of FPC .....</b>	<b>25</b>
<b>6.3.6 Procedure for modifications .....</b>	<b>25</b>
<b>7 Manufacturer's declaration for type test .....</b>	<b>25</b>
<b>8 Product information .....</b>	<b>26</b>
<b>8.1 Manufacturer's instructions .....</b>	<b>26</b>
<b>8.2 Minimum information to be included in the manufacturer's instructions .....</b>	<b>26</b>
<b>9 Classification and designation .....</b>	<b>26</b>
<b>9.1 General .....</b>	<b>26</b>
<b>9.2 Temperature classes and test temperature .....</b>	<b>27</b>
<b>9.3 Corrosion resistance .....</b>	<b>27</b>
<b>9.4 Soot fire resistance and distance to combustible material .....</b>	<b>27</b>
<b>9.5 Draught regulator groups and whether it is a standstill opening device .....</b>	<b>27</b>
<b>10 Marking, labelling and packaging .....</b>	<b>27</b>
<b>10.1 Draught regulator and standstill opening device .....</b>	<b>27</b>
<b>10.2 Packaging .....</b>	<b>28</b>
<b>Annex A (normative) Choice of sizes for type test and sampling .....</b>	<b>29</b>
<b>A.1 Thermal testing .....</b>	<b>29</b>
<b>A.2 Gas tightness .....</b>	<b>29</b>
<b>A.3 Condensate resistance .....</b>	<b>29</b>
<b>A.4 Determination of the group .....</b>	<b>29</b>
<b>A.5 Adjustability .....</b>	<b>29</b>
<b>A.6 Durability of standstill opening device .....</b>	<b>29</b>
<b>A.7 Samples .....</b>	<b>29</b>
<b>A.8 Factory production control system .....</b>	<b>29</b>
<b>A.9 Further type testing .....</b>	<b>29</b>
<b>Annex B (informative) Sampling for factory productions control .....</b>	<b>30</b>
<b>B.1 Sampling plans .....</b>	<b>30</b>
<b>B.1.1 General .....</b>	<b>30</b>
<b>B.1.2 Acceptable quality level (AQL) .....</b>	<b>30</b>
<b>B.1.3 The inspection level .....</b>	<b>30</b>
<b>B.1.4 Normal, tightened or reduce inspection .....</b>	<b>30</b>
<b>B.1.5 Single, double, multiple or sequential sampling .....</b>	<b>30</b>
<b>B.1.6 Batch quantity .....</b>	<b>30</b>
<b>B.2 Inspection levels and procedures .....</b>	<b>30</b>
<b>B.2.1 Incoming material .....</b>	<b>30</b>

<b>B.2.2 In-process inspection .....</b>	<b>31</b>
<b>B.2.3 Finished goods checks .....</b>	<b>31</b>
<b>Annex C (normative) Factory production control.....</b>	<b>32</b>
<b>C.1 Introduction .....</b>	<b>32</b>
<b>C.2 Materials, including coatings .....</b>	<b>32</b>
<b>C.3 Seals and sealants .....</b>	<b>32</b>
<b>C.4 Manufacturing checks .....</b>	<b>32</b>
<b>C.4.1 Dimensions.....</b>	<b>32</b>
<b>C.4.2 Other checks .....</b>	<b>32</b>
<b>Annex D (informative) Recommended range of application.....</b>	<b>33</b>
<b>D.1 Tables for the selection of the draught regulator group Height against diameter .....</b>	<b>33</b>
<b>Annex E (informative) Examples of products .....</b>	<b>35</b>
<b>E.1 Without standstill opening device .....</b>	<b>35</b>
<b>Annex ZA (informative) Relationship of this European Standard with Regulation (EU) No.305/2011 .....</b>	<b>37</b>
<b>ZA.1 Scope and relevant characteristics.....</b>	<b>37</b>
<b>ZA.2 System of Assessment and Verification of Constancy of Performance (AVCP) .....</b>	<b>38</b>
<b>ZA.3 Assignment of AVCP tasks.....</b>	<b>38</b>
<b>Bibliography.....</b>	<b>41</b>

## European foreword

This document (EN 16475-3:2016+A1:2018) 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 June 2019, and conflicting national standards shall be withdrawn at the latest by June 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 includes Amendment 1 approved by CEN on 27 June 2018.

This document supersedes ~~EN 16475-3:2016~~.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ~~A<sub>1</sub>~~ A<sub>1</sub>.

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.