

Equipment for commercial kitchens - Components for ventilation in commercial kitchens - Part 3: Kitchen ventilation ceilings; design and safety requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16282-3:2016+A1:2021 sisaldab Euroopa standardi EN 16282-3:2016+A1:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 16282-3:2016+A1:2021 consists of the English text of the European standard EN 16282-3:2016+A1:2021.
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 and Accreditation.
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English Version

Equipment for commercial kitchens - Components for  
ventilation in commercial kitchens - Part 3: Kitchen  
ventilation ceilings; design and safety requirements

Équipement pour cuisines professionnelles - Éléments  
de ventilation pour cuisines professionnelles - Partie 3  
: Plafonds ventilés de cuisine ; Conception et exigences  
de sécurité

Einrichtung in gewerblichen Küchen - Elemente zur  
Be- und Entlüftung - Teil 3: Küchenlüftungsdecken;  
Konstruktions- und Sicherheitsanforderungen

This European Standard was approved by CEN on 22 July 2016 and includes Amendment 1 approved by CEN on 30 December 2020.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 2 June 2020.

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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.

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

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## European foreword

This document (EN 16282-3:2016+A1:2021) has been prepared by Technical Committee CEN/TC 156 “Ventilation for buildings”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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 30 December 2020.

This document supersedes EN 16282-3:2016.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

The activities of CEN/TC 156/WG 14 cover the calculation of the air volume and the design and testing of major components of ventilation equipment for commercial kitchens.

The structure of the standard series is as follows:

EN 16282, *Equipment for commercial kitchens – Components for ventilation in commercial kitchens*

- *Part 1: General requirements including calculation method*
- *Part 2: Kitchen ventilation hoods; design and safety requirements*
- *Part 3: Kitchen ventilation ceilings; design and safety requirements*
- *Part 4: Air inlets and outlets; design and safety requirements*
- *Part 5: Air duct; design and dimensioning*
- *Part 6: Aerosol separators; design and safety requirements*
- *Part 7: Installation and use of fixed fire suppression systems*
- *Part 8: Installations for treatment of cooking fumes; requirements and testing*

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.

## 1 Scope

This European Standard specifies requirements for the design, construction and operation of kitchen ventilation ceilings, including technical safety, ergonomic and hygienic features.

This European Standard is applicable to ventilation systems in commercial kitchens, associated areas and other installations processing foodstuffs intended for commercial use. Kitchens and associated areas are special rooms in which meals are prepared, where tableware and equipment is washed, cleaned and food is stored.

This European Standard is applicable to kitchen ventilation ceilings except those used in domestic kitchens.

A method of verification of each requirement is also specified.

Unless otherwise specified, the requirements of this standard need to be checked by way of inspection and/or measurement.

**NOTE** Please note the possible existence of additional or alternative local national regulations on installation, appliance requirements and inspection, maintenance and operation.

## 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 573-3, *Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 3: Chemical composition and form of products*

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

EN 12464-1:2011, *Light and lighting - Lighting of work places - Part 1: Indoor work places*

EN 16282-6 <sup>A1</sup>, *Equipment for commercial kitchens - Components for ventilation of commercial kitchens - Part 6: Aerosol separators; design and safety requirements*

EN 50310, *Telecommunications bonding networks for buildings and other structures* <sup>A1</sup>

EN 50274, *Low-voltage switchgear and controlgear assemblies - Protection against electric shock - Protection against unintentional direct contact with hazardous live parts*

EN 50525-2 (all parts), *Electric cables Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U)*

EN 60204-1, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN ISO 3274, *Geometrical product specifications (GPS) - Surface texture: Profile method - Nominal characteristics of contact (stylus) instruments (ISO 3274)*

EN ISO 4287, *Geometrical product specifications (GPS) - Surface texture: Profile method - Terms, definitions and surface texture parameters (ISO 4287)*

EN ISO 4288, *Geometrical product specifications (GPS) - Surface texture: Profile method - Rules and procedures for the assessment of surface texture (ISO 4288)*

EN ISO 13565-1, *Geometrical product specifications (GPS) - Surface texture: Profile method; surfaces having stratified functional properties - Part 1: Filtering and general measurement conditions (ISO 13565-1)*

EN ISO 13565-2, *Geometrical product specifications (GPS) - Surface texture: Profile method; surfaces having stratified functional properties - Part 2: Height characterization using the linear material ratio curve (ISO 13565-2)*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **kitchen ventilation ceiling**

ventilation system that incorporates the air inlets, air outlets, separators, light fittings and additional hoods which can be integrated

#### 3.2

##### **kitchen**

part of a building where cooking processes are carried out, their connecting floors and distribution corridors, ancillary rooms such as food stores, cold rooms, food preparation areas and appliances are being cleaned

#### 3.3

##### **air inlet**

final mechanical element for supplying air into kitchen

#### 3.4

##### **air outlet**

ceiling installation element without aerosol separation function for flush installation with added air collection box and air duct connecting branches or for direct installation into existing extract air ducts

#### 3.5

##### **ceiling panel**

fixed or removable elements of a ceiling installed horizontally, vertically or at any angle on a sub-construction

#### 3.6

##### **aerosol**

separated grease/oil/water mixture

#### 3.7

##### **collection channel**

channel system for collection of separated parts from the extract air and for controlled removal of liquid components and of cleaning fluid

#### 3.8

##### **discharge device**

device used to remove aerosol and cleaning fluid at the lowest point of the channel system using drain cocks, stoppers, drawers (pots) or water-removal lines connected firmly with the channel system