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VENTILATSIOONISEADMED JA -KOMPONENDID.  
KOHUSTUSLIKUD JA VALIKULISED  
TUNNUSPARAMEETRID**

**Ventilation for buildings - Components/products for  
residential ventilation - Required and optional  
performance characteristics**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 13142:2013 sisaldab Euroopa standardi EN 13142:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 13142:2013 consists of the English text of the European standard EN 13142:2013.
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English Version

## Ventilation for buildings - Components/products for residential ventilation - Required and optional performance characteristics

Ventilation des bâtiments - Composants/produits pour la ventilation des logements - Caractéristiques de performances exigées et optionnelles

Lüftung von Gebäuden - Bauteile/Produkte für die Lüftung von Wohnungen - Geforderte und frei wählbare Leistungskenngrößen

This European Standard was approved by CEN on 22 December 2012.

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## Foreword

This document (EN 13142:2013) 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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 supersedes EN 13142:2004.

In comparison to EN 13142:2004 the following changes have been made:

- references to EN 13141-1 to 10 has been updated;
- reference to humidity controlled air transfer devices (EN 13141-9 and EN 13141-10) has been added;
- un-ducted mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for a single room (EN 13141-8) added in 4.10;
- creation of new classification and codification system for mechanical supply and exhaust ventilation units (EN 13141-7 and EN 1341-8), described in 4.9 and 4.10 and in Annex A;
- declaration of filters and materials used in the units has been added in 7.3;
- an example for a possible national annex has been added in Annex C.

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, 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

A combination of components and/or products is required to provide ventilation. These components/products interact to achieve a renewal of the air in a dwelling.

There are many possible arrangements of balanced ventilation units with heat exchanger intended for a single family dwelling (EN 13141-7) or a single room (EN 13141-8). Additionally all kinds of units might have a heat exchanger, a heat pump or both.

It is important to consider each product not only individually but also as part of the whole system: for example from the outdoor canopy of an externally mounted air transfer device to the roof outlet terminal at the end of an exhaust duct. To enable good design it is essential that certain performance characteristics for each product are available in a simple and comparable form.

This European Standard defines also a classification for balanced ventilation units which may be used for the determination of minimum and optional product characteristic in national building regulations and standards.

The structure of this document is based on the type of products that are given in Table 1.

**Table 1 — List of the type of products**

Product	Declaration	Classification	Codification
Externally mounted air transfer devices	X	—	—
Internally mounted air transfer devices	X	—	—
Exhaust and supply air terminal devices	X	—	—
Range hoods	X	—	—
Fans in residential ventilation systems	X	—	—
Cowls and roof outlet terminals	X	—	—
Exhaust ventilation system packages	X	—	—
Mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings	X	X	X
Un-ducted mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for a single room	X	X	X

This European Standard (EN 13142:2013) is one of a series of standard on residential ventilation. It is referring to the performance testing of the components/products for residential ventilation.

The position of this standard in the field of the mechanical building services is shown in Figure 1.

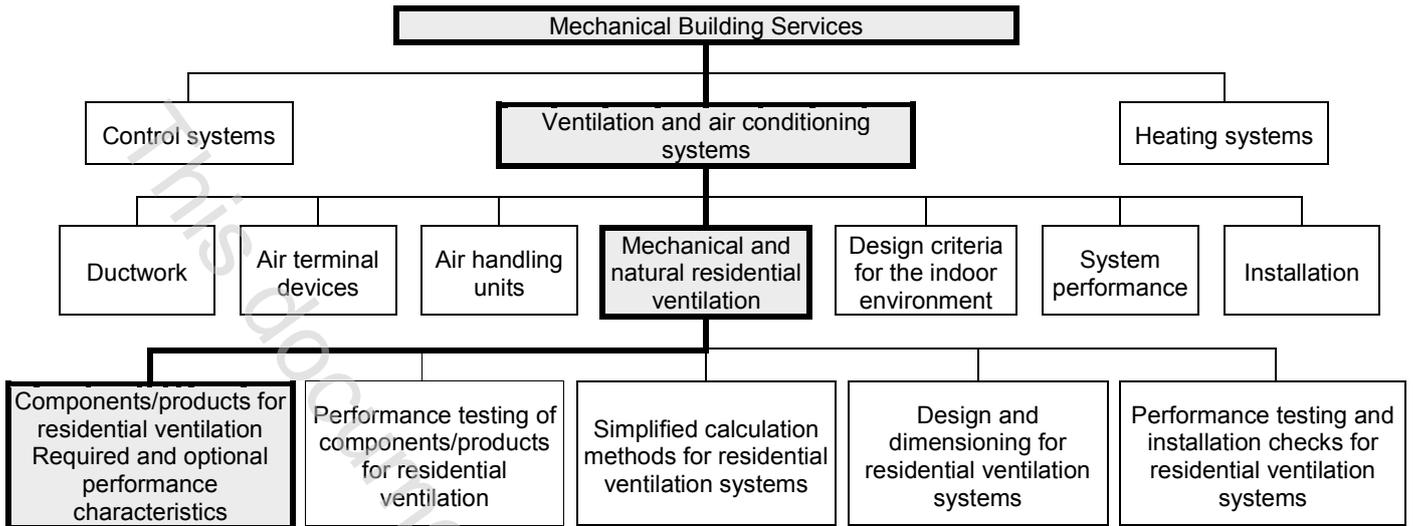


Figure 1 — Position of EN 13142 in the field of the mechanical building services

## 1 Scope

This European Standard specifies and classifies the component/product performance characteristics which may be necessary for the design and dimensioning of residential ventilation systems to provide the predetermined comfort conditions of temperature, air velocity, humidity, hygiene and sound in the occupied zone.

It defines those performance characteristics (mandatory or optional) which shall be determined, measured and presented according to relevant test methods. It provides a classification scheme which leads to a full definition of product properties based on test methods described in various EN Standards and gives an overview of the Test Standards. Distinction between mandatory and optional requirement is left to each national regulations.

The codification part in Annex A and the classification part in Clause 4 apply to the following products:

- mechanical supply and exhaust ventilation units for single dwellings according to EN 13141-7;
- un-ducted mechanical supply and exhaust ventilation units for a single room according to EN 13141-8.

This European Standard does not apply to other products such as filters, fire dampers, ducts, control devices and sound attenuators, which may also be incorporated in residential ventilation.

This European Standard does not cover requirements raised by European Directives, for example: low voltage directive, EMC directive and other requirements such as corrosion, resistance and snow penetration.

## 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 779, *Particulate air filters for general ventilation — Determination of the filtration performance*

EN 12097, *Ventilation for buildings — Ductwork — Requirements for ductwork components to facilitate maintenance of ductwork systems*

EN 12792:2003, *Ventilation for buildings — Symbols, terminology and graphical symbols*

EN 13141-1, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 1: Externally and internally mounted air transfer devices*

EN 13141-2, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 2: Exhaust and supply air terminal devices*

EN 13141-3, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 3: Range hoods for residential use*

EN 13141-4, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 4: Fans used in residential ventilation systems*

EN 13141-5, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 5: Cowls and roof outlet terminal devices*

EN 13141-6, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 6: Exhaust ventilation system packages used in a single dwelling*

EN 13141-7:2010, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 7: Performance testing of mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings*

EN 13141-8, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 8: Performance testing of un-ducted mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for a single room*

EN 13141-9, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 9: Externally mounted humidity controlled air transfer device*

EN 13141-10, *Ventilation for buildings — Performance testing of components/products for residential ventilation — Part 10: Humidity controlled extract air terminal device*

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

EN 60355-2-31, *Household and similar electrical appliances — Safety — Part 2-31: Particular requirements for range hoods and other cooking fume extractors*

EN ISO 10140-1, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 1: Application rules for specific products (ISO 10140-1)*

EN ISO 10140-2, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation (ISO 10140-2)*

EN ISO 10140-3, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 3: Measurement of impact sound insulation (ISO 10140-3)*

EN ISO 10140-5, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 5: Requirements for test facilities and equipment (ISO 10140-5)*

### **3 Terms, definitions and abbreviated terms**

#### **3.1 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 12792:2003 and the following apply.

##### **3.1.1**

##### **externally mounted air transfer device**

device designed to allow the passage of air through the building envelope with the minimum ingress of rain, snow, foreign bodies, etc.

[SOURCE: EN 12792:2003, definition 144]

##### **3.1.2**

##### **internally mounted air transfer device**

device designed to allow the passage of air between two internal spaces

[SOURCE: EN 12792:2003, definition 232]

##### **3.1.3**

##### **exhaust air terminal device**

device through which air leaves the treated space

##### **3.1.4**

##### **supply air terminal device**

device through which air enters the treated space

Note 1 to entry: Adapted from EN 12792:2003, definition 349.