



SLOVENSKI STANDARD SIST EN 13142:2004

01-september-2004

DfYnfU Yj Ub^Y`ghUj V`!`DfYg_i yUb^Y`Uglbcgh`_ca dcbYbh#nXY`_cj `nUdfYnfU Yj Ub^Y`ghUbcj Ub^!`NU hYj UbY`]b`bYnU hYj UbY`_UfU_hYf]gh] bY`Uglbcgh]

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

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

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

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004>

Ta slovenski standard je istoveten z: EN 13142:2004

ICS:

91.140.30 Ú!^: !æ^çæ) ã Á|ã æ\ã Ventilation and air-conditioning
•ã c^ { ã

SIST EN 13142:2004

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 13142:2004

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13142

January 2004

ICS 91.140.30

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 in Wohnungen - Gerforderte und frei wählbare Leistungskenngrößen

This European Standard was approved by CEN on 22 October 2003.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 13142:2004](https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004)

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	page
Foreword.....	3
Introduction.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	6
4 Performance characteristics for residential ventilation components/products.....	7
4.1 General.....	7
4.2 Externally mounted air transfer devices.....	7
4.3 Internally mounted air transfer devices.....	8
4.4 Exhaust and supply air terminal devices.....	8
4.5 Range hoods.....	9
4.6 Fans used in residential ventilation systems.....	9
4.7 Cowls and roof outlet terminals.....	10
4.8 Exhaust ventilation system packages used in a single dwelling.....	10
4.9 Mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings.....	11
5 Cleaning and maintenance.....	11
6 Marking, labelling and product information.....	12

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004>

Foreword

This document (EN 13142:2004) 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 July 2004, and conflicting national standards shall be withdrawn at the latest by July 2004.

This standard is one of a series of standard on residential ventilation. It has parallel standard 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.

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

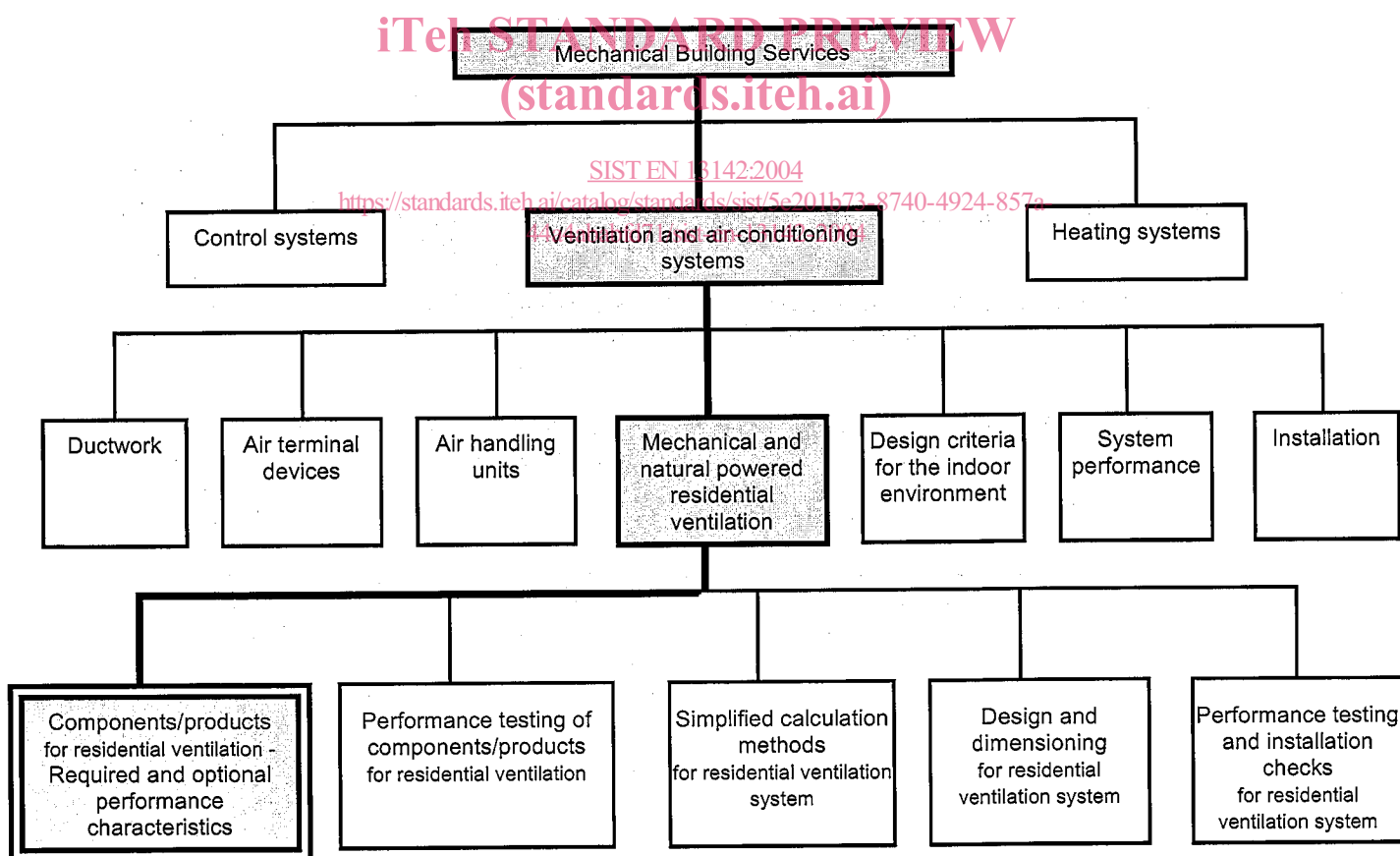


Figure 1 - Position of EN 13142 in the field of the mechanical building services

EN 13142:2004 (E)

Introduction

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

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 13142:2004

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ababfd71/sist-en-13142-2004>

1 Scope

This European Standard specifies 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 and sound in the occupied zone.

It defines those performance characteristics (mandatory or optional) which shall be measured and presented according to relevant test methods. Distinction between mandatory and optional requirement is left to each national regulations.

This standard applies to the following components/products:

- externally and internally mounted air transfer devices;
- exhaust and supply air terminal devices;
- range hoods;
- fans;
- cowls and roof outlet terminal devices;
- residential exhaust ventilation system packages used in a single dwelling;
- mechanical supply and exhaust unit.

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

This 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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of the publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 292-2, *Safety of machinery – Basic concepts, general principles for design – Part 2: technical principles and specifications.*

ENV 12097, *Ventilation for buildings – Ductwork – Requirements for ductwork components to facilitate maintenance of ductwork systems.*

EN 12792, *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 13142:2004 (E)

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

prEN 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, *Ventilation for buildings – Performance testing of components/products for residential ventilation – Part 7: Performance testing of a mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings.*

EN 60335-2-31, *Safety of household and similar electrical appliances – Part 2: Particular requirements for range hoods (IEC 60335-2-31:1995).*

EN 60335-2-80, *Household and similar electrical appliances – Safety - Part 2-80: Particular requirements for fans (IEC 60335-2-8:2002).*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12792 together with the following definitions apply.

3.1 externally mounted air transfer device (standards.iteh.ai)
device designed to allow the passage of air through the building envelope with the minimum ingress of rain, snow, foreign bodies, etc.

3.2 internally mounted air transfer device
device designed to allow the passage of air between two internal spaces

3.3 exhaust air terminal device
device through which air leaves the treated space

3.4 supply air terminal device
device through which air enters the treated space

3.5 range hood (cooker hood)
device intended to collect contaminated air from above a cooking appliance and either discharge it into the room or remove it from the room. It may incorporate one or more of the following components:

- filter (essential when the contaminated air is discharged into the room);
- fan;
- fire damper;
- non return flow damper

3.6 cowl
air terminal device, with or without moving components, which is intended to use the wind to create negative pressures above the roof in order to avoid reverse flow in the duct

3.7

fan assisted cowl

assisted cowl where the optionally device is a fan

3.8

roof outlet

air terminal device used for mechanical ventilation systems. Roof outlet terminals are not primarily intended to use the wind to create negative pressures above the roof

3.9

ventilation system package (for a single dwelling)

combination of compatible components which are tested, delivered and installed as specified by the manufacturer, to complete a residential ventilation system when sold as a single product. It may exclude minor parts such as tapes, sealants and screws

4 Performance characteristics for residential ventilation components/products

4.1 General

It is essential that the results of product performance tests reflect the performance which will be achieved by the product in service. A product shall therefore be tested as a complete assembly with all necessary components which affect performance.

Accessories are sometimes available for a product as an option. Where accessories could affect performance, the product shall be tested both with and without those accessories.

If any insect screen, filter or similar device is intended to be fitted in the product, then it shall be in position when the product is tested.

SIST EN 13142:2004

<https://standards.iteh.ai/catalog/standards/sist/5e201b73-8740-4924-857a-44a4ab6d71/sist-en-13142-2004>

4.2 Externally mounted air transfer devices

4.2.1 Aerodynamic characteristics

The aerodynamic characteristics (pressure/flow rate curve) shall be measured and the results presented in accordance with EN 13141-1.

4.2.2 Equivalent area

The equivalent area shall be calculated and stated in accordance with EN 13141-1.

4.2.3 Free area

The free area shall be calculated according to EN 13141-1 with the product in the fully open position and installed according to the manufacturer's instruction.

4.2.4 Controls

The manufacturer shall state which type of control is incorporated; e.g. manual control or automatic control according to pressure difference.

For manual control the pressure/flow rate curve, equivalent area and free area when fully closed shall be stated under the same test conditions as for the fully open results. If the device is not closeable then this shall be stated.

NOTE Automatic control by humidity, occupancy or other stimuli is possible, but there is no agreed test method for products with these types of control.