

Ventilation for buildings - Performance testing and installation checks of residential ventilation systems

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14134:2004 sisaldab Euroopa standardi EN 14134:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14134:2004 consists of the English text of the European standard EN 14134:2004.</p> <p>This document is endorsed on 18.05.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies checks and test methods in order to verify the fitness for purpose of installed ventilation systems in dwellings. It can be applied to commissioning of new systems and performance testing of existing systems.</p>	<p>Scope: This European Standard specifies checks and test methods in order to verify the fitness for purpose of installed ventilation systems in dwellings. It can be applied to commissioning of new systems and performance testing of existing systems.</p>
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ICS 91.140.30

Võtmesõnad: construction, measuring tech, mounting, operating requirements, power ratings, rating tests, ratings, room air conditioning equipment, service installations in buildings, specification (approval), specifications, testing, thermal environment systems, ventilation

ICS 91.140.30

English version

Ventilation for buildings - Performance testing and installation checks of residential ventilation systems

Ventilation des bâtiments - Essai de performances et contrôles d'installation des systèmes de ventilation résidentiels

Lüftung von Gebäuden - Leistungsprüfung und Einbaukontrollen von Lüftungsanlagen von Wohnungen

This European Standard was approved by CEN on 3 November 2003.

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Foreword

This document (EN 14134:2004) has been prepared by Technical Committee CEN/TC 156 "Ventilation for building", 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.

Annexes A, B and C are informative.

This document includes a bibliography.

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.

1 Scope

This European Standard specifies checks and test methods in order to verify the fitness for purpose of installed ventilation systems in dwellings. It can be applied to commissioning of new systems and performance testing of existing systems.

The standard enables the choice between simple test methods, when sufficient, and extensive measurements, when necessary.

The standard applies to mechanical and non-mechanical (natural) ventilation systems comprising any of the following:

- passive stack ventilation ducts;
- air terminal devices (supply, exhaust);
- air transfer devices (externally mounted, internally mounted);
- controls;
- ducts;
- fans;
- filters;
- heat recovery;
- heating/cooling of supply air;
- recirculation air;
- cooker hood;
- cowls;

- dampers;
- sound reduction devices.

The standard is intended to define the procedure by which the system is checked and assessed before handing over (see Figure 1).

This standard does not apply to:

- heating systems and their control;
- refrigerating systems and their control;
- electric power supply systems.

This standard does not include consideration of the airtightness of building envelope is in. The whole dwelling and the individual room ventilation rate can be influenced by air infiltration through the building envelope (see informative annex A).

This standard does not include the effect of the ventilation system on indoor air velocity within the occupied zone although this can have an effect (see informative annex B).

This standard does not included any requirements concerning the installation contract.

This standard give example of a maintenance manual (see informative annex C).

Figure 1 illustrates the different stages of the design, installation and checking of a ventilation system. This standard deals only with items D, E, F, and G below. Items B and C are referred to as "preliminary work" in this standard.

Terms "designer", "installer" and "inspector" are defined by the task defined in Figure 1.

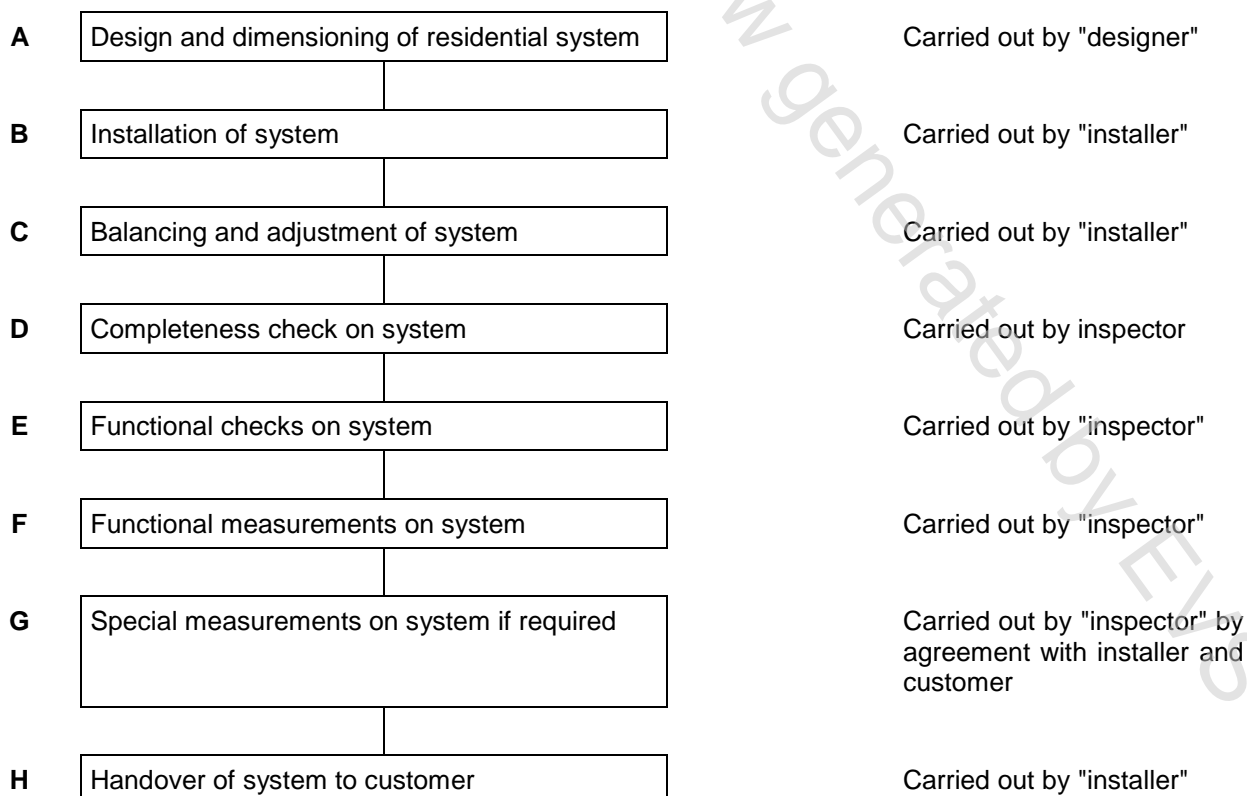


Figure 1 — Schematic illustration of the different stages of the design, installation, checking and handover of a ventilation system

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 these 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 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*.

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

prEN 14788, *Ventilation for buildings – Design and dimensioning of residential ventilation systems*.

EN ISO 3747, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Comparison method for use in situ (ISO 3747:2000)*.

3 Terms and definitions

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

3.1

"run-on" timer

device which ensures that air flow through a ventilation system or an air terminal device (ATD) continues for a specific time period after a user operated control has been turned off

NOTE Commonly used to control exhaust fans which are operated by the room light switch in internal rooms.

3.2

passive stack ventilation duct

ductwork for passive stack ventilation which does not comprise any mechanical pressure increase devices from duct inlet to duct outlet

3.3

obstacles

items which affect the stated function of any component in the ventilation system

4 Test and check procedure

For new residential ventilation systems the following checks shall be carried out in the specified order:

- a) completeness checks;
- b) functional checks;
- c) functional measurements.