

norm**NEN-EN 14134****Ventilatie van gebouwen -
Prestatiebeproeving en installatiecontrole
van ventilatiesystemen van woningen**

Publicatie uitsluitend voor commentaar

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

juni 2017
ICS 91.140.30

Commentaar vóór 2017-07-17

Zal vervangen NEN-EN 14134:2004

Als Europees normontwerp is gepubliceerd: prEN 14134:2017, IDT

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 14134

May 2017

ICS 91.140.30

Will supersede EN 14134:2004

English Version

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

Ventilation des bâtiments - Mesure de la performance
et vérifications des systèmes de ventilation résidentiels

Lüftung von Gebäuden - Leistungsprüfung und
Einbaukontrollen von Lüftungsanlagen von
Wohnungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 156.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Voorbereidings
Preview

prEN 14134:2017 (E)**European foreword**

This document (prEN 14134:2017) has been prepared by Technical Committee CEN/TC 156 “Ventilation for buildings”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14134:2004.

In comparison to EN 14134:2004 the following changes have been made:

- modification of the title to be in accordance with terms defined in this document;
- modification of the scope to delete identification of responsible people;
- modification of the scope to define the on-site and large scale use of this document;
- modification of the definitions to complete them;
- addition of preliminary requirements for the application of this document;
- modification of methods to delete steps order;
- modification of sampling method to be applicable to all checks and measurement defined in this document;
- modification of sampling method to explain the different levels;
- modification of pre-check and functional check methods to be more exhaustive and more detailed;
- additional pre-check for Ecodesign requirements and product labelling;
- addition of requirements for equipment uncertainties;
- removal of requirement for global measurement uncertainties;
- modification of methods for air flow measurement and for ductwork air leakage measurement to be consistent with existing European standards;
- removal of method for control measurement to be consistent with on-site measurement conditions;
- modification of method for noise measurement;
- replacement of Annex A to give example of checklists;
- replacement of Annex B to give example of test pressures;
- removal of Annex C.

Introduction

The primary purpose of a residential ventilation system is to supply air to and extract air from rooms in a dwelling.

The ventilation system should be designed to achieve the primary purpose whilst minimizing energy use and environmental problems such as noise and thermal discomfort.

The performance requirements of the ventilation system are laid down by the designer in the dwelling specifications.

Voorbereidings
Preview

prEN 14134:2017 (E)**1 Scope**

This European standard specifies checks and measurement 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. It provides choice between simple test methods, when sufficient, and extensive measurements, when necessary.

Considering that this document has been developed for large scale application and considering the practical conditions of field measurements, no correction regarding ambient conditions (temperature and barometric pressure) is applied to functional measurements.

This standard deals with items d, e, f, and g of the following list giving the different stages of the design, installation, checking and measuring of a ventilation system:

- a) design and dimensioning of residential system;
- b) installation of system;
- c) balancing and adjustment of system;
- d) pre-checks on system;
- e) functional checks on system;
- f) functional measurements on system;
- g) special measurements on system if required.

This document applies to mechanical and non-mechanical (natural) ventilation systems comprising any of the following elements:

- passive stack ventilation ducts;
- air terminal devices (supply, extract, intake and 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.

This European standard does not apply to:

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

It does not cover the following points:

- airtightness of the building envelope; the whole dwelling and the individual room ventilation rates can be influenced by air infiltration through the building envelope;
- effect of the ventilation system on indoor air speed within the occupied zone;
- any requirements concerning the installation contract.

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 1507, *Ventilation for buildings - Sheet metal air ducts with rectangular section - Requirements for strength and leakage*

EN 12237, *Ventilation for buildings - Ductwork - Strength and leakage of circular sheet metal ducts*

EN 12792, *Ventilation for buildings - Symbols, terminology and graphical symbols*

EN ISO 3747, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering/survey methods for use in situ in a reverberant environment (ISO 3747)*

EN ISO 10052, *Acoustics - Field measurements of airborne and impact sound insulation and of service equipment sound - Survey method (ISO 10052)*

EN ISO 16032:2004, *Acoustics - Measurement of sound pressure level from service equipment in buildings - Engineering method (ISO 16032:2004)*

3 Terms and definitions

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

3.1 check

observation of the operation of a system or devices, against a specification without resorting to specific measurements

[SOURCE: EN 12792:2003; definition 193]

3.2 pre-check

verification of the documentation of a system or devices intended to be used during the check process

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