



**NSAI**  
Standards

Irish Standard  
I.S. EN 13141-1:2019

# Ventilation for buildings - Performance testing of components/products for residential ventilation - Part 1: Externally and internally mounted air transfer devices

**I.S. EN 13141-1:2019**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 13141-1:2019 is the adopted Irish version of the European Document EN 13141-1:2019, Ventilation for buildings - Performance testing of components/products for residential ventilation - Part 1: Externally and internally mounted air transfer devices

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**EUROPEAN STANDARD**

**EN 13141-1**

**NORME EUROPÉENNE**

**EUROPÄISCHE NORM**

January 2019

ICS 91.140.30

Supersedes EN 13141-1:2004

English Version

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

Ventilation des bâtiments - Essais de performance des  
composants/produits pour la ventilation des  
logements - Partie 1 : Dispositifs de transfert d'air  
montés en extérieur et en intérieur

Lüftung von Gebäuden - Leistungsprüfungen von  
Bauteilen/Produkten für die Lüftung von Wohnungen -  
Teil 1: Außenwand- und Überströmluftdurchlässe

This European Standard was approved by CEN on 26 November 2018.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 13141-1:2019) 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 2019, and conflicting national standards shall be withdrawn at the latest by July 2019.

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.

A list of all parts in the EN 13141 series, published under the general title "*Ventilation for buildings — Performance testing of components/products for residential ventilation*" can be found on the CEN website.

This document supersedes EN 13141-1:2004.

In addition to a number of editorial revisions, the following main changes have been made with respect to EN 13141-1:2004:

- terms, definitions, symbols and units have been updated;
- in 5.1.2.1, the test installation has been completed;
- in 5.1.2.2, uncertainty of measurement has been amended and brackets removed;
- in 5.1.3, the test procedure has been updated;
- in 5.1.4, analysis of results has been updated;
- in 5.1.5, a dimensioned drawing of the air transfer device, opening and position on the board in the test is now required in the test report;
- in 5.5.3, one minor update to the zone test heights has been made;
- in Clause 6, performance of testing sound insulation requirement to conduct test in the board configuration as indicated in 5.1.2.1 has been added;
- Annex B (informative) showing typical examples has been added.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## EN 13141-1:2019 (E)

## Introduction

The position of this document in the field of standards for the mechanical building services is shown in Figure 1.

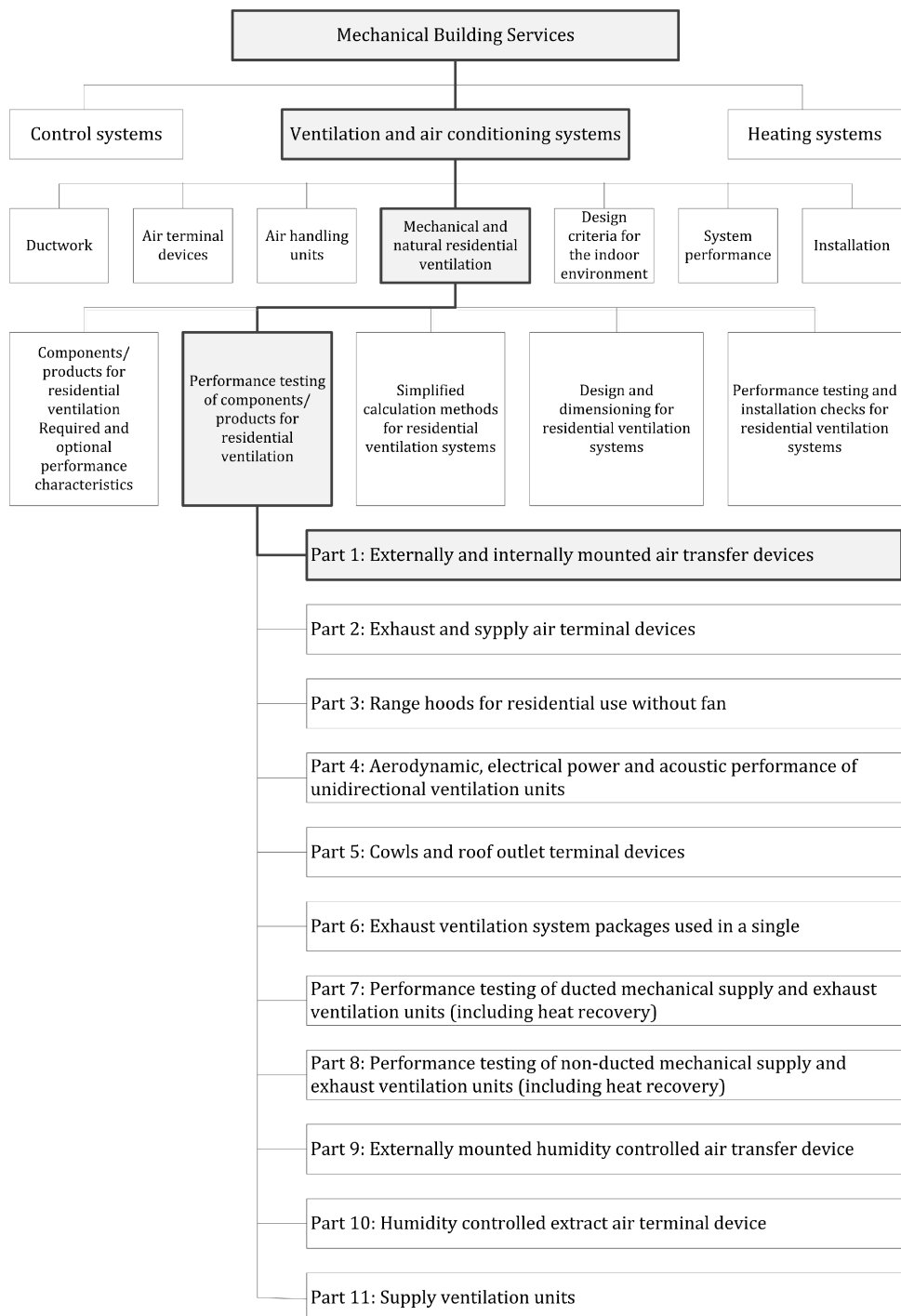


Figure 1 — Position of EN 13141-1 in the field of the mechanical building services



## 1 Scope

This document specifies laboratory methods for testing externally and internally mounted air transfer devices operating under pressure differences.

This document applies to air transfer devices of the following types:

- air transfer devices with fixed opening(s);
- air transfer devices with manually adjustable opening(s);
- air transfer devices with pressure difference controlled opening(s);
- window openings specifically designed to act as an air transfer device.

This document describes tests intended to characterize the following:

- flow rate/pressure;
- equivalent area
- reverse flow ability;
- air tightness when closed;
- free area;
- air diffusion in the occupied zone;
- sound insulation;
- water tightness.

This document does not apply to evaluation of:

- air filtration;
- condensation risk;
- noise production.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1027, *Windows and doors — Water tightness — Test method*

EN 12238, *Ventilation for buildings — Air terminal devices — Aerodynamic testing and rating for mixed flow application*

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

EN 13182, *Ventilation for buildings — Instrumentation requirements for air velocity measurements in ventilated spaces*

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