

<b>STN P</b>	<b>Vetrание budov Korekcia prietoku vzduchu s ohľadom na podmienky okolitého prostredia</b>	<b>STN P CEN/TS 17153</b>  12 8023
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Ventilation for buildings - Correction of air flow rate according to ambient conditions

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/19

Táto predbežná STN je určená na overenie. Pripomienky zasielajte ÚNMS SR najneskôr do júla 2020.

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TECHNICAL SPECIFICATION

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English Version

## Ventilation for buildings - Correction of air flow rate according to ambient conditions

Ventilation des bâtiments - Correction du débit d'air en  
fonction des conditions ambiantesLüftung von Gebäuden - Korrektur des Luftstroms  
entsprechend der Umgebungsbedingungen

This Technical Specification (CEN/TS) was approved by CEN on 6 December 2017 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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**CEN/TS 17153:2018 (E)**

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## **European foreword**

This document (CEN/TS 17153:2018) has been prepared by Technical Committee CEN/TC 156 “Ventilation for buildings”, the secretariat of which is held by BSI.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: 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.

**CEN/TS 17153:2018 (E)****Introduction**

The formula to correct the air flow rate depending on ambient conditions that is stated in some standards published by CEN/TC 156 is not correct. This document gives a correct formula and the way it has been obtained. CEN/TC 156 working groups are invited to use the content of this document in their standards. Those working groups can use the correct formula only or more depending on the level of explanation needed for the understanding of their standards.

## 1 Scope

This document gives guidelines to correct the measured air flow rate when measuring conditions are different from standard conditions.

It applies to a power-law formula giving the air flow rate as a function of a pressure difference with an air flow rate coefficient,  $C$ , varying with temperature and pressure.

This document applies to:

- passive elements of air distribution systems with a cross-section area that does not depend on pressure;
- volume flow rate (and not mass flow rate).

This document is applicable to (but not limited to):

- EN 1507, *Ventilation for buildings — Sheet metal air ducts with rectangular section — Requirements for strength and leakage*;
- EN 1751, *Ventilation for buildings — Air terminal devices — Aerodynamic testing of damper and valves*;
- EN 12237, *Ventilation for buildings — Ductwork — Strength and leakage of circular sheet metal ducts*;
- 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 13141-9, *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 15727, *Ventilation for buildings — Ducts and ductwork components, leakage classification and testing*.

This document does not apply to:

- fans;
- air terminal devices with automatically controlled openings (variable openings).

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**