Ventilation for buildings - Air terminal devices - Aerodynamic testing of dampers and valves

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1751:2001 sisaldab Euroopa standardi EN 1751:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1751:2001 consists of the English text of the European standard EN 1751:1998. This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard specifies methods for the testing and rating of dampers and valves used in air distribution systems with pressure differences up to 2000 Pa. The tests incorporated in this European Standard are: a) leakage past a closed damper or valve (for classification see annex C); b) casing leakage (for classification see annex C); c) flow rate/pressure requirement characteristics; d) torque:(see annex A); e) thermal transmittance: (see annex B). The acoustic testing of dampers and valves is not included in this standard.	**Scope:** This European Standard specifies methods for the testing and rating of dampers and valves used in air distribution systems with pressure differences up to 2000 Pa. The tests incorporated in this European Standard are: a) leakage past a closed damper or valve (for classification see annex C); b) casing leakage (for classification see annex C); c) flow rate/pressure requirement characteristics; d) torque:(see annex A); e) thermal transmittance: (see annex B). The acoustic testing of dampers and valves is not included in this standard.

ICS 91.140.30

Võtmesõnad: accuracy, air diffusion, air distribution, air performance tests, air terminal devices, buildings, dampers, flow measurements, leak tests, measuring instruments, pressure measurements, pressure tests, ventilation

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1751

October 1998

ICS 91.140.30

Descriptors: Ventilation, air terminal devices, dampers, valves, testing.

English version

Ventilation for buildings

Air terminal devices

Aerodynamic testing of dampers and valves

Ventilation des bâtiments – Bouches d'air – Essais aérodynamiques des registres et clapets

Lüftung von Gebäuden – Geräte des Luftverteilungssystems – Aerodynamische Prüfungen von Drossel- und Absperrelementen

This European Standard was approved by CEN on 1998-10-02.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1751 : 1998 E

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Foreword

This European Standard 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 April 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

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

1 Scope

This European Standard specifies methods for the testing and rating of dampers and valves used in air distribution systems with pressure differences up to 2000 Pa.

The tests incorporated in this European Standard are:

a) leakage past a closed damper or valve (for classification see annex C);

b) casing leakage (for classification see annex C);

c) flow rate/pressure requirement characteristics;

d) torque: (see annex A);

e) thermal transmittance: (see annex B).

The acoustic testing of dampers and valves is not included in this standard.

The tests specified above apply to the following:

a) measurement of leakage past a closed damper or valve;

b) measurement of casing leakage;

c) determination of flow rate and pressure requirements;

d) measurement of torque characteristics (see annex A);

e) measurement of thermal transfer characteristics to determine insulation properties (see annex B).

NOTE: Certain aspects of the dynamic performance of dampers or valves are dependent upon the air distribution system to which they are connected and are, therefore, difficult to measure in isolation. Such considerations have led to the omission of these aspects of the dynamic performance measurements from this European Standard. Also, in common with other air distribution components, the results from tests carried out in accordance with this European Standard may not be directly applicable if the damper or valve is situated in an area of non-uniform flow.

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 the 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.

CR 12792	Ventilation for buildings - Symbols and terminology
ISO 5221	Air distribution and air diffusion - Rules to methods of measuring air flow rate in an air handling duct
ISO 7244	Air distribution and air diffusion - Aerodynamic testing of dampers and valves

3 Definitions and symbols

For the purposes of this standard, the definitions given in CR 12792 apply.

3.1 Symbols

The symbols used in this standard are given in table 1.