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

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

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EUROPEAN STANDARD
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English Version

**Ventilation for buildings - Air terminal devices - Aerodynamic
testing of damper 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

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Foreword

This document (EN 1751:2014) 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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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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 2 000 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 European Standard.

The tests specified above apply to the following:

- f) measurement of leakage past a closed damper or valve;
- g) measurement of casing leakage;
- h) determination of flow rate and pressure requirements;
- i) measurement of torque characteristics (see Annex A);
- j) 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

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*

EN ISO 5167-1, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 1: General principles and requirements (ISO 5167-1)*

EN ISO 5167-2, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 2: Orifice plates (ISO 5167-2)*

EN ISO 5167-3, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 3: Nozzles and Venturi nozzles (ISO 5167-3)*

EN ISO 5167-4, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 4: Venturi tubes (ISO 5167-4)*

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