

Ventilation for buildings - Fire dampers

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Ventilation for buildings - Fire dampers

Ventilation dans les bâtiments - Clapets coupe-feu

Lüftung von Gebäuden - Brandschutzklappen

This European Standard was approved by CEN on 27 February 2010.

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Foreword

This document (EN 15650:2010) 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of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

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.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This standard contains the basic performance and requirements for fire dampers.

A fire damper is used to prevent fire and reduce smoke spreading from one fire compartment to another through the air ductwork system which may penetrate fire separating walls and floors. Annex A gives descriptions of typical fire dampers.

Where the words separating element are used in this standard, they should be taken to mean e.g. a wall, a floor, a ceiling or any other barrier that is designed to maintain compartmentation. This covers any type of construction (e.g. block and mortar, concrete, board or mineral wool).

In the case of fire or elevated temperatures, the dampers should close automatically by means contained within their own construction (a thermal activation element). As an addition, fire dampers may be closed by an external input.

Particular reference should be made to EN 1366-2, which defines the furnace testing associated with these products and EN 13501-3, which provides details on their fire resistance classification. Consideration of any caution notices within any fire testing standards (e.g. health and safety) should be considered before undertaking any fire testing.

In addition, the aerodynamic performance of fire dampers should be tested to EN 1751, if such information is to be presented by a manufacturer.

The areas for which products supplied to this standard are considered applicable include, but are not limited to:

- a) commercial premises;
- b) shopping and retail centres;
- c) hospitals;
- d) multi-residential buildings.

1 Scope

This European Standard applies to fire dampers that are to be used in conjunction with fire separating elements to maintain fire compartments. This standard specifies requirements and gives reference to the test methods defined for fire dampers, which are intended to be installed in Heating, Ventilating and Air Conditioning (HVAC) installations in buildings. All fire dampers close automatically in response to raised temperatures indicating fire. Details are given for the provision of evaluation of conformity and marking of fire dampers.

To avoid duplication reference is made to a variety of other standards. To this end it is advised to read this standard in conjunction with EN 1366-2 and EN 1363-1 for details of the fire resistance testing and EN 13501-3 for classification.

Fire dampers meeting requirements of this standard may be considered suitable for both ducted and unducted applications.

This standard has not considered in detail the detrimental and/or corrosive effects that may be caused by chemical processes present in the atmosphere, which are drawn through the system intentionally or inadvertently and therefore does not apply to fire dampers used in such applications. An indication of salt spray corrosion may be determined using the method described in Annex B.

2 Normative references

The following referenced documents are indispensable for the application 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 1366-2:1999, *Fire resistance tests for service installations — Part 2: Fire dampers*

EN 1751, *Ventilation for buildings — Air terminal devices — Aerodynamic testing of dampers and valves*

EN 13501-3:2005, *Fire classification of construction products and building elements — Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers*

EN 60068-2-52:1996, *Environmental testing — Part 2: Tests — Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52:1996)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 5135, *Acoustics — Determination of sound power levels of noise from air-terminal devices, air-terminal units, dampers and valves by measurement in a reverberation room (ISO 5135:1997)*

EN ISO 13943:2000, *Fire safety — Vocabulary (ISO 13943:2000)*

ISO 10294-4:2001, *Fire resistance tests — Fire dampers for air distribution systems — Part 4: Test of thermal release mechanism*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in EN ISO 13943:2000 and the following apply.