

**Tehnoseadmete tulepüsivuse katsed.
Osa 2: Tuletõkke klapid**

Fire resistance tests for service installations - Part 2:
Fire dampers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1366-2:2001 sisaldab Euroopa standardi EN 1366-2:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1366-2:2001 consists of the English text of the European standard EN 1366-2:1999.</p> <p>This document is endorsed on 18.05.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: Selles EVS-EN 1366 osas sätestatakse tuletõkketarinditesse paigaldatavate tuletõkkeklappide tulepüsivuse katsetamise kord nende mõjutamisel standardtulekahjuga. Katsetamisel uuritakse tuletõkkeklapi vastupidavust kuumusele ja võimet takistada põlemisgaaside liikumist. Standardit kasutatakse koos standardiga EVS-EN 1363-1.</p>	<p>Scope:</p>
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ICS 13.220.50

Võtmesõnad: buildings, fire cut off systems, fire resistance, fire tests, leaktightness

ICS 13.220.50

English version

Fire resistance tests for service installations

Part 2: Fire dampers

Essais de résistance au feu des installations techniques – Partie 2: Clapets résistant au feu Feuerwiderstandsprüfungen für Installationen – Teil 2: Brandschutzklappen

This European Standard was approved by CEN on 1999-02-18.

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.

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CEN

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

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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 127 "Fire safety in 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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

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.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the Construction Products Directive.

EN 1366 'Fire resistance tests for service installations' consists of the following

Part 1: Ducts

Part 2: Fire dampers

Part 3: Penetration seals (in course of preparation)

Part 4: Linear joint seals (in course of preparation)

Part 5: Service ducts and shafts (in course of preparation)

Part 6: Raised floors (in course of preparation)

Part 7: Closures for conveyors and trackbound transportation systems (in course of preparation)

Part 8: Smoke extraction ducts (in course of preparation)

Part 9: Single compartment smoke extraction ducts (in course of preparation)

Part 10: Smoke control dampers (in course of preparation)

Introduction

The purpose of the test is to evaluate the ability of a fire damper to prevent fire and smoke spreading from one fire compartment to another through the air ductwork system which may penetrate fire separating walls and floors.

The fire damper is attached (directly or remotely via a section of ducting), to a fire separating element in a manner representative of practice. Tests are performed starting with the fire damper in the open position to expose the thermal release mechanism of the fire damper to furnace conditions.

Temperature and integrity measurements are carried out in various parts of the test construction during the test. The impermeability of the fire damper system is measured by direct flow measurements whilst maintaining a constant pressure differential across the closed fire damper of 300 Pa. The tightness of the fire damper in the closed position is also be measured at ambient temperature.

Caution

The attention of all persons concerned with managing and carrying out this fire resistance test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Mechanical and operational hazards may also arise during the construction of the test elements or structures, their testing and disposal of test residues.

An assessment of all potential hazards and risks to health shall be made and safety precautions shall be identified and provided. Written safety instructions shall be issued. Appropriate training shall be given to relevant personnel. Laboratory personnel shall ensure that they follow written safety instructions at all times.

1 Scope

This Part of EN 1366 specifies a method for determining the fire resistance of fire dampers installed in fire separating elements designed to withstand heat and the passage of smoke and gases at high temperature. The Standard is used in conjunction with EN 1363-1.

The method is primarily intended for tests of mechanical devices. It is not suitable for testing fire dampers in suspended ceilings without modification.

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, 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.

prEN 520	Gypsum plasterboards - Specification - Test method (ISO 6308:1980 modified)
EN 1363-1	Fire resistance tests Part 1: General requirements
EN 1363-2	Fire resistance tests Part 2: Alternative and additional procedures
prEN ISO 13943	Fire safety - Vocabulary (ISO/DIS 13943:1998)
EN ISO 5167-1	Measurement of fluid flow by means of orifice plates, nozzles and venturi tubes inserted in circular cross-section conduits running full (ISO 5167-1:1991)
ISO 5221	Air distribution and air diffusion - Rules to methods of measuring air flow rate in an air handling duct

3 Definitions

For the purposes of this Part of EN 1366, the definitions given in EN 1363-1 and prEN ISO 13943, together with the following, apply:

3.1 fire damper: A mobile closure within a duct which is designed to prevent the passage of fire.

3.2 insulated fire damper: A fire damper which satisfies both the integrity and insulation criteria for the anticipated fire resistance period.

3.3 uninsulated fire damper: A fire damper which satisfies the integrity criteria for the anticipated fire resistance period, but which provides not more than 5 mins insulation.

3.4 fire damper actuating mechanism: A mechanism, integral or directly associated with the fire damper which, when initiated by the fire damper release device, causes the movable component of the damper to change from the "open" to the "closed" position.

3.5 thermal release mechanism: A thermally actuated device designed to respond to a rise in temperature of the surrounding air and release the fire damper blade(s) at a predetermined temperature. It can interface with mechanical, electrical, electronic, or pneumatically operated mechanisms which are positioned integrally or remotely from the device.

3.6 test specimen: The fire damper, connecting frame and (if applicable) the perimeter penetration sealing system.