
Title:

Classification report of the Fire Resistance of a smoke control damper exposed in accordance with EN 13501-4:2016 "Fire classification of construction products and building elements. Part 4: Classification using data from fire resistance tests on components of smoke control systems".

Tested Sample:

Two multiblade smoke control dampers with reference MSD-EU SMOKE DAMPER.

Dampers are assembled on the surface of a horizontal smoke extraction duct.

File number: 26/32300054-2

Sponsor:

Gerhman Global GmbH
Saturnweg 11
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Report Date:

September 01, 2026

Tested on:

January 08, 2026



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This document includes 6 pages.

1.- INTRODUCTION

This classification report defines the classification reached by a smoke control damper reference MSD-EU SMOKE DAMPER (reference provided by the sponsor) supplied by Gerhman Global GmbH.

2.- DETAILS OF THE CLASSIFIED ELEMENT

2.1.- Type of function

The tested element is defined as a smoke control damper. Its function is to withstand the integrity and smoke leakage criteria given in clause 5 of the EN 13501-4:2016 standard.

2.2. - Description

Test report provides a full description of the tested element. Results indicated in section 5 are referred to this element.

3.- TEST REPORT

This classification report is based on the following test report:

File number: 26/32300054.

Issued with date: September 01, 2026.

Test carried out on: January 08, 2026.

4.- TEST RESULTS

4.1.- Test standard:

EN 1366-10:2022+A1:2024 "Fire resistance tests for service installations. Part 10: Smoke control dampers"

This standard corresponds to the current version on test date. Results obtained in this test are the ones used in this classification report

4.2.- Exposure conditions

Time/temperature curve	Standard EN 1363-1 until reach 600° C and maintained for the rest of the test. $T = 345 \log_{10} (8t + 1) + 20$ (until 600° C)
Exposure direction	One damper inside the furnace and one damper outside the furnace. Damper outside the furnace begins closed and moves to open position within 60 seconds from the furnace ignition. Damper inside the furnace remains closed the entire test.
Pressure	Pressure level 1 (-500 Pa at ambient temperature and -150 Pa during Fire test)
Support conditions	Low density rigid supporting construction made up of aerated concrete bricks of 150 mm thick and density of 500 kg/m ³ (carried out by the Laboratory).

4.3.- RESULT TABLE

Test specimen	34881-1	
Criterion	Result (minute)	Cause
Integrity	-	It is maintained during the entire test, 132 minutes.
Smoke leakage	-	It is maintained during the entire test, 132 minutes.
Cross section reduction	-	M_{actual}/M_{max} relation is above 0.75 during the entire test, 132 minutes.

5.- CLASSIFICATION

In accordance with clause 7.3 of EN 13501-4:2016, the classification of the tested sample is:

Two multi blade smoke control dampers reference MSD-EU SMOKE DAMPER supplied by Gerhman Global GmbH.	E₆₀₀ 120 (V_{ed} i↔o) S500 C₃₀₀ AAsingle
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Dampers are installed in a horizontal duct, which passes through a vertical wall.

Because of the nature of fire resistance testing and the consequent difficulty in quantifying the uncertainty of measurement of fire resistance, it is not possible to provide a stated degree of accuracy of the result.

The decision rule to declare conformance to the specification or standard, is by following a simple binary decision rule. In this case, the upper limit of the probability value of false acceptance or false rejection, according to ILAC G8.

6.- DIRECT FIELD OF APPLICATION (acc. section 10 of EN 1366-10:2022+A1:2024)

This classification obtained is directly applicable to the constructions equal to the model tested when one or more of the following modifications are made:

Feature	Tested sample	Allowed modification
Dimensions	Damper: - 200 mm x 200 mm (height x width) (smallest damper). - 1000 mm x 1000 mm (W x H) (nominal inner size of sample tested to fire). - Tested in a duct with an inner section of 1000 x 250 mm (width x height).	- Valid for damper sizes within 200 x 200 mm and 1000 x 1000 mm dampers (nominal size section). - Identical composition as tested. - They can be installed in duct with dimensions up to 250 mm x 1000 mm (width x height)
Duct mounted smoke control damper mounting positions	Vertically mounted SCD tested in a horizontal duct.	Vertically mounted SCD tested in a horizontal duct, are also valid to be mounted in a vertical duct.
Differential Pressure	Tested pressures: - Ambient T: (-500) Pa - Fire test: -150 Pa	Valid for pressures within: (-500) Pa and 500 Pa.
Temperatures	Single compartment smoke control dampers tested under EN 1363-1 curve until reach 600° C for a classification period of 120 minutes. according to integrity criteria.	Applicable to all temperatures below the temperature tested for the same time period and other application data.
Cycling test	Smoke control damper to be used in dedicated smoke control systems, operated only in the case of emergency. (300 cycles)	The results for smoke control dampers are not applicable to other installations.
Initiation method	Automatic activation (AA)	Smoke control dampers that have been tested for systems automatic activation are not suitable for application in manual systems.

Support frame	Horizontal duct tested acc. EN 1366-9:2008 and composed by galvanised steel of 0.8 mm in thickness and internal section of 1000 mm x 250mm.	Suitable for duct built with materials of the same or higher thickness.
Application to duct constructions other than that tested	Single compartment smoke control dampers may be applied to ducts that have been tested to EN 1366-9.	Single compartment smoke control dampers may be applied to ducts constructed from materials of the same or greater density as those tested. Single compartment smoke control dampers may be applied to ducts of the same material as those tested with the same or a greater thickness. Application may not be made to ducts where there is a change in the surface protection materials of the duct. Paint surface finish of the ducts and/or dampers shall be as the duct and/ or dampers were tested or assessed. Single compartment smoke control dampers tested on the surface of the duct may also be used in line with the single compartment smoke control duct, providing that the smoke control damper is independently provided a with duct support within 100 mm of the centre of the smoke control damper blade axis. The damper should not support the duct or vice versa.
Standard damper open or closed position	The smoke control dampers are closed at the start of the test.	An SCD tested with blade open and then having to close for the tests is applicable to SCDs when set in normal operation, either open or closed. An SCD tested with blade closed and then remaining closed is only applicable to SCDs when set closed in normal operation.

The modifications allowed in the field of direct application are based on data provided by the sponsor. LGAI Technological Center S.A. is not responsible for this documentation and/or information.

The period of validity is the one stated in the product certification system.

This document cannot be considered either a passing or a product certification.

Technical Manager
Fire Resistance Laboratory
LGA Technological Center, S.A.

The results of the tests carried out refer only and exclusively to the samples tested, and in the moment and under the conditions indicated herein.

LGA Technological Center, S. A. is not responsible for the documentation and / or information provided by the petitioner and such information is not covered by accreditation.

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