FIRELAB

TITLE	:	Performance Testing and Classification of Smoke and Heat Control Systems in terms of **EN 12101 – 2**: Specification for natural smoke and heat exhaust systems
QUERIES	:	Bessie Noakes bessie@firelab.co.za

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1. INTRODUCTION

Smoke and Heat Control Systems, EN 12101 – 2: Specification for natural smoke and heat exhaust ventilators requires that these systems operate fully and reliably whenever called upon to do so during their installed life and to perform positive in a fire emergency.

The tests to be conducted will be in accordance to the test methods and requirements of the standard for natural smoke and heat exhaust ventilators that are intended to be installed as a component of a natural smoke and heat exhaust system.

The tests to be conducted in accordance with **EN 12102 – 2,** are as follows:

- Reliability test
- Opening test under load
- Test method for heat exposure
- Aerodynamic free area (not included)
- Factory inspection

2. SCOPE OF THE TESTING AND CLASSIFICATION

The tests will be conducted on the representative test specimens supplied to **FIRELAB** to determine the operating reliability ambient and elevated temperature exposure of the respective systems.

The operating reliability tests will be conducted with the equipment supplied by the client. The test specimen will be fitted on a test rig at our laboratory and will be fitted or linked to the load and monitoring equipment provided.

The heat exposure test will be conducted on our Large-scale horizontal furnace which will be modified to fit the supplied ventilator specimen. During the test the operation of the ventilator will also be tested. We would also require a control panel should the ventilator operate electronically (motorized) to enable us to do the correct setting and control. Both the mechanical and electro-mechanical systems need to be tested.

Selection of the test specimen:

- A test on the widest and a test on the longest ventilator (both achieving the objective of the test) may be considered as representative of all ventilators in a particular range.
- Should the ventilator to be tested being the longest and widest, only one test will be required.
- The ventilator with the most critical material and most critical parts shall be selected for testing.

Technical information required:

We require complete technical drawings and data sheets for the respective test specimens as this will be included in the report.

Delivery of test specimens:

Prior to the delivery of any test specimen please contact our laboratory with regard to the size of the specimen to be tested to ensure that the correct preparations are made in advance and any other details necessary for the conduction of the test protocol.

Please deliver all samples to **FIRELAB** at Building 28, CSIR Pretoria Campus, Meiring Naudé Road, Brummeria, 0184. Alternative delivery arrangements can be made with Adri at the laboratory. Samples are to be clearly marked and identified.

Report:

A report will be compiled and this will include the results, the interpretation of the results, recommendations and any other relevant observations.

3. DURATION AND SCHEDULE

The tests are conducted as specimens are received (first in first out). Should there be no test line-up, a test report will be available within 4 weeks (20 working days) from testing the specimens, provided all required information have been received to complete the test report.

4. TERMS AND CONDITIONS

Samples should be delivered to **FIRELAB**, Building 28, CSIR Pretoria Campus, Meiring Naudé Road, **BRUMMERIA**, Pretoria, South Africa, 0184.

FIRELAB would require a purchase order and all the relevant test specimen information prior to commencement of testing.

The order will serve as an acceptance of this proposal.

You will be invoiced upon completion of the project and once payment has been received, the report will be released.