



(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC

(3) EC-Type Examination Certificate nr. **LOM 08ATEX7038 X**

(4) Equipment or protection system      Flameless devices for vent panels  
Types Flamecatch FC \*\*\*\_\*\*\* \*\*

(5) Manufacturer                              ADIX Ingeniería S.L.

(6) Address                                      C/ Mata, 23  
13001 CIUDAD REAL  
SPAIN

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.  
The examination and test results are recorded in confidential report nr. **LOM 06.359 PP**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
- Document                                      **CEN TC 305 WG3 SG10 (2008-03)**

(10) If the sign X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:



Carlos Fernández Ramón  
DIRECTOR OF THE LABORATORY



Getafe, June 10<sup>th</sup>, 2008  
(translated 2013-06-10)

Angel Vega Remesal  
ATEX area responsible

This Certificate is a translation from the original in Spanish. The LOM liability applies only on the Spanish text

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# LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **SCHEDULE**

(A2) EC-Type Examination Certificate nr. **LOM 08ATEX7038 X**

(A3) Description of equipment or protective system

The flameless venting devices consist of a stainless steel or carbon steel frames and stainless steel meshes: mesh of 1 mm, 50 mm light mesh, mesh of less than 500 microns, and knit-mesh.

These devices are designed to work with vent panels from the same manufacturer, types BRP, BRS and BRD whose activation pressures are between 2 kPa and 50 kPa (0.02 to 0.5 bar). The maximum reduced pressure allowed by the device is 50 kPa with a maximum surface temperature of 275 °C.

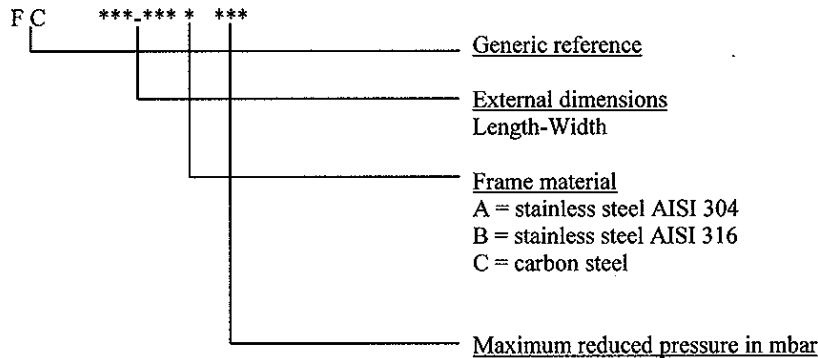
The effective venting area is 70% of the effective area of associated vent panel. The safety distance is 1.5 m.

These flame arresters are not suitable for fibrous materials or substances that can melt, as sugar or resins

Working conditions:

- Working temperature: -20° C to 70 °C
- Maximum admissible Pred: 0.5 bar
- Kst max. < 200 bar·m·s<sup>-1</sup>
- Pmax: 10 bar

Type codification



(A4) Test report nr. **LOM 06.359 PP**

(A5) Special conditions for safe use

- It is mandatory to use the break sensors in panels
- The vent panel marking should be visible once placed the flameless device
- Flameless devices may not be used with fibrous substances, or substances that can melt, like sugar or resins
- Periodic maintenance should be performed in order to remove dust deposits both internally and externally.

(A6) Individual tests

None



# LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **SCHEDULE**

(A2) EC-Type Examination Certificate nr. **LOM 08ATEX7038 X**

(A7) Essential Health and Safety Requirements

Explosion safe requirements are covered by application of the standards indicated in page 1/3 of this certificate..

The evolution of the referenced document into a harmonized standard may require the review of tests and verifications as well as marking and any other conditions that ensure compliance with the essential requirements of health and safety as indicate in Directive 94/9/EC.

(A8) Descriptive documents

		<u>Rev.</u>	<u>Date</u>
- Technical dossier nr. :	Doc1152	-	2008-05-08
- Drawings nr.:	Doc1151	-	2008-05-08
	Doc1059	1	2008-05-08





Los certificados del LOM son emitidos con firma digital para asegurar la autenticidad del firmante. Es posible comprobar su validez pulsando sobre la firma LOM certificates are issued with digital signature to ensure the authenticity of the signer. It is possible to check its validity clicking on the signature

(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC

(3) Supplement nr. **1** to EC-Type Examination Certificate number **LOM 08ATEX7038 X**

(4) Equipment or Protection System Flameless devices for vent panels  
Types Flamecatch FC \*\*\*x\*\*\* \*\*

(5) Manufacturer ADIX Ingeniería S.L.

(6) Address Avda. Cerro del Águila 9, oficina 6  
28703 San Sebastián de los Reyes  
SPAIN

(7) Test report nr.: **LOM 13.543 XP**

(8) Variations included in this certificate

- a) Update of the assessment base on the standard EN 16009:2011
- b) To extend the application for melting materials and materials with  $K_{max} < 250$  bar/s
- c) The range is extended to new variants, with dimensions from 200 mm to 1000mm, maximum 1000x1000mm
- d) Change in type nomenclature

FC \*\*\*x\*\*\* \*\*

Generic reference

External dimensions

Length x width, from 200mm to 1000mm  
Defined by the associated vent panel

Frame material

- A = stainless steel AISI 304, or equivalent
- B = stainless steel AISI 316, or equivalent
- C = carbon steels DD11, or equivalent
- D = aluminium AW 5083, or equivalent

Maximum reduced pressure in mBar

(9) Changes in marking



D EN 16009

This supplement must be an inseparable part together with the base certificate **LOM 08ATEX7038 X**

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# LABORATORIO OFICIAL J. M. MADARIAGA

(3) Supplement nr. 1 to EC-Type Examination Certificate number **LOM 08ATEX7038 X**

(10) Changes in the special conditions for a safe use

The conditions specified in the certificate based LOM 08ATEX7038 X are changed to:

- It is mandatory to use the break sensors in panels
- The vent panel marking should be visible once placed the flameless device
- Periodic maintenance should be performed in order to remove dust deposits both internally and externally.
- The safety distance is between 1.5 and 4 m depending on the size, type of mesh, product type and protected volume. The manufacturer must indicate the distance for each case. In the absence of data or doubt the greatest distance of at least 4 m will be taken.
- The surface temperature of the flame arrester, if acting, may reach 270 °C
- For the dimensioning of protection venting efficiency is between 45% and 70%, depending on the size, type of mesh, product type and protected volume. The manufacturer shall in each case efficiency in every situation. In the absence of data or certainly reduced efficiency of 45% is assumed.

(11) Descriptive documents

	<u>Rev.</u>	<u>Date</u>
- Technical dossier nr.: Doc. 1977	-	2014-04-22
- Drawing n°		
Doc. 1835	-	2014-04-08
Doc. 1836	-	2014-04-08
Doc. 1839	-	2014-04-08
Doc. 1840	-	2014-04-08
Doc. 1843	-	2014-04-22
Doc. 1864	-	2014-01-18
Doc. 1969	-	2014-04-08
Doc. 1970	-	2014-04-08
Doc. 1971	-	2014-04-08
Doc. 1972	-	2014-04-08
Doc. 1973	-	2014-04-08
Doc. 1973	-	2014-04-22

Getafe, 2015-01-22

Carlos Fernández Ramón  
Head of Certification Committee