



Installation and maintenance instructions

Arcafaçade Pneumatic

Designation and commercial reference : Arcafaçade Pneumatic

Certificate No. :0333 CPR 219 065

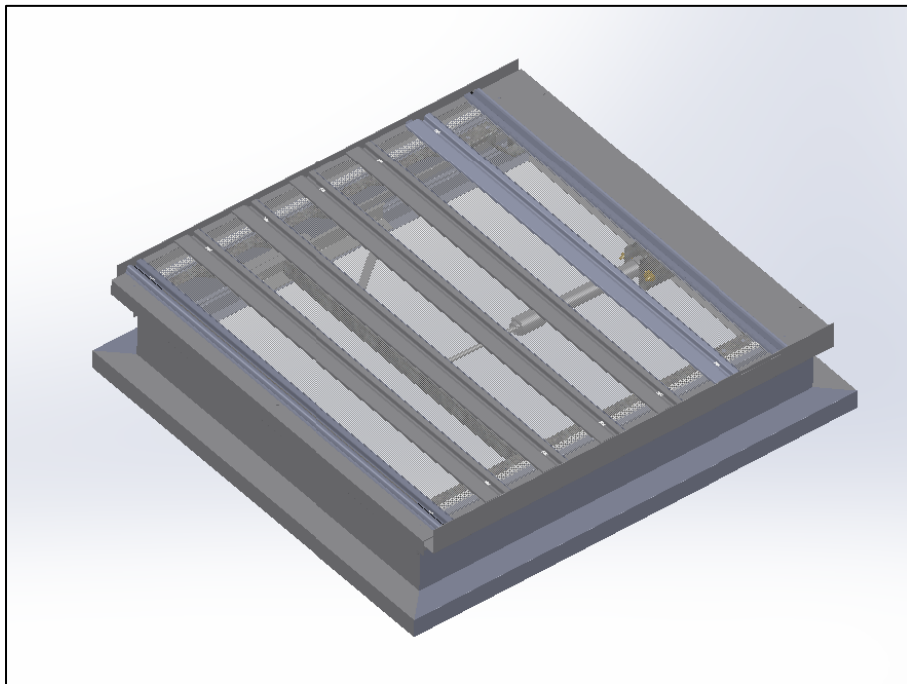
DOP number: AFP

Year of certificate: 2006

Reference standard: NF EN 12101-2

Certification rule: CE 219

Warning: This notice cannot constitute a contractual document; the manufacturer reserves the right to make without notice any modification he deems useful.



Certifying body:
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1. Identification

1.1 Type of DENFC (Natural Smoke and Heat Evacuation System)

DENFC mounted on the façade.

1.2 Type of range

Asmoke extraction slide opening blades of the range ARCAFADE PNEUMATIQUE.

1.3 Type of energy

DENFC powered by internal and/or external pneumatic energy within the meaning of standard NF EN 12101-2.

The availability of the energy source must be ensured.


1.4 Possible variants in the range

- Types of installation:
 - Tunnel
 - Wall light
- Fills:
 - 10 mm thick cellular polycarbonate
 - Aluminium profiles
 - Laminated glass 33.2
- Options:
 - Hot melt
 - Position switch

2. Characteristics

2.1 General characteristics of Operated Safety Devices (SARs)

- A D.A.S. must not issue an order
- Devices for checking the safety and/or waiting positions of the D.A.S.
- Unblocking energy external to the D.A.S.
- Functional independence of the self-control and remote control
- No remote reset if passing in safety position by self-control
- Rearmament by remote control only if the energy to the previous rearmament has been interrupted
- End-of-life damping
- Type B or type A if height of the component to be handled less than or equal to 2.50 m from the ground

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2.2 General characteristics of constituents

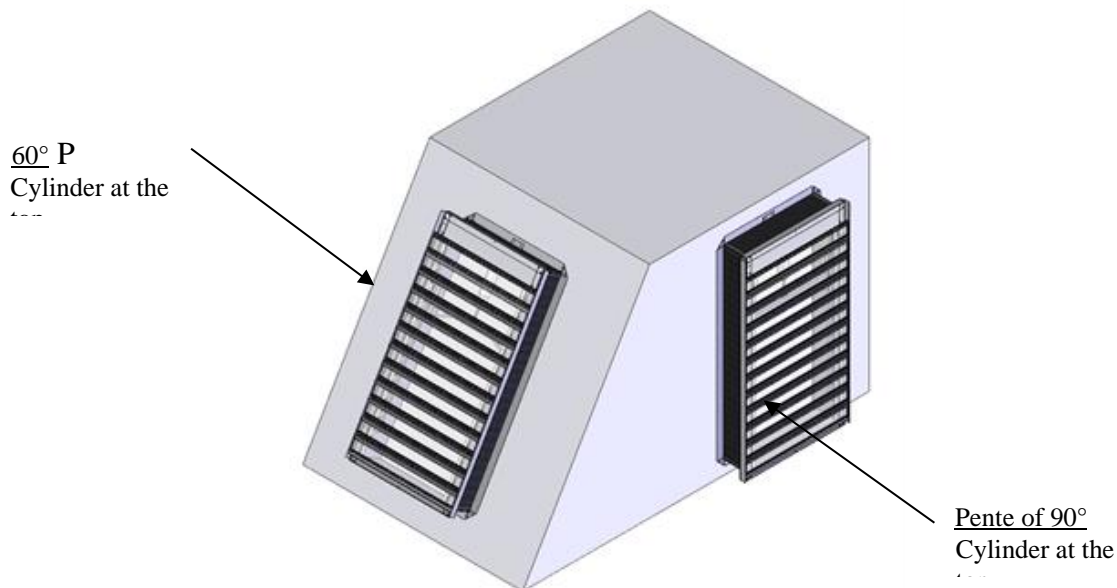
- Control of the positions of the D.A.S.
- Class III for electrical equipment operating under very low safety voltage (TBTS)
- Isolation of electrical circuits in TBTS and electrical circuits of other equipment
- Minimum protection class IP 42
- Presence of the main connecting device
- Specific TBTS connection device
- Operation of the traction stop device
- Minimum electrical characteristics of position contacts
- Independence of control electrical circuits with other circuits
- Test pressures of pneumatic equipment

3. Precautions on the support

3.1 The support receiving the DENFC must be flat, within the normative tolerances of building construction.

3.2 The installation of the DENFC is carried out according to the following rule :

Rule: *The slope of the support must be between 60° and 90° maximum regardless of the position of the axis of articulation. However, when the axis of articulation is perpendicular to the slope, the cylinder must be positioned at the top of the slope.*




Warning: the device must be installed according to the standards, technical instructions, and any rules or texts in force.

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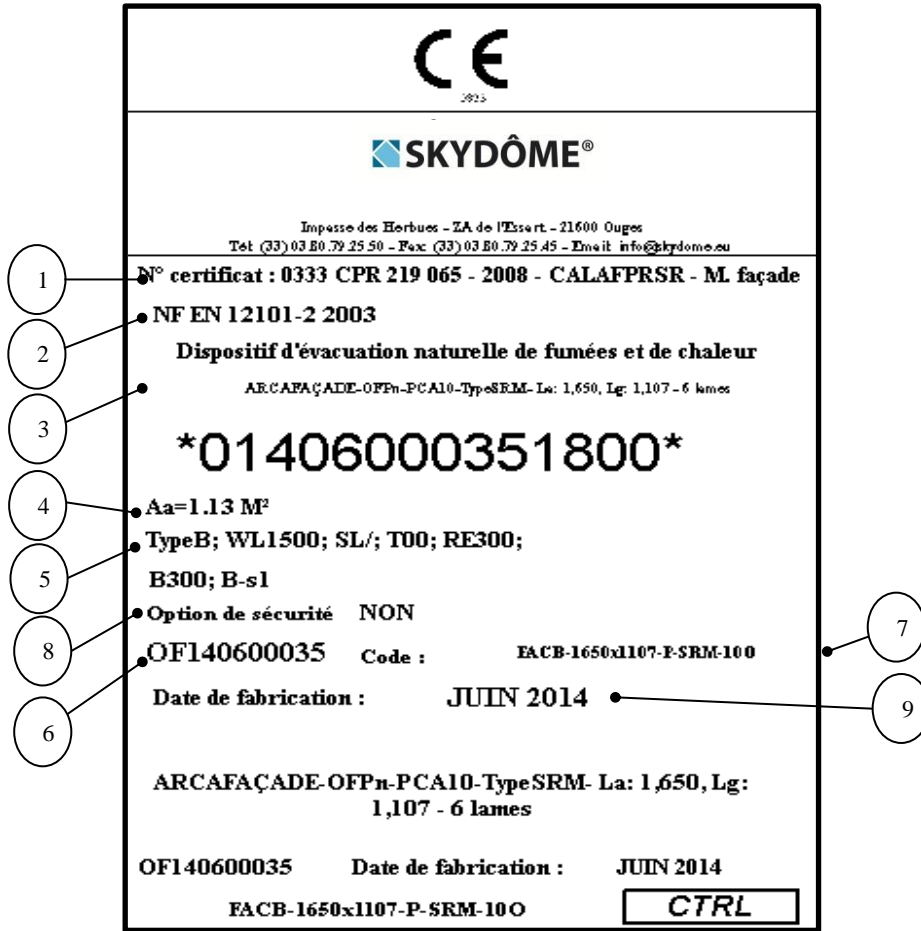
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4. Explanation of the product marking code



- ① Number of the certificate, its date of obtaining, D.O.P number and type of assembly.
- ② Reference standard in effect.
- ③ Trade description of the device.
- ④ Hopper size and Useful Aperture area (Aa).
- ⑤ Respectively:
 - Type of opening of the natural smoke and heat evacuation device.
 - Classification of wind load.
 - Classification of snow load.
 - Ambient temperature classification.
 - Reliability classification.
 - Power input.
 - Heat resistance classification.
 - Reaction to fire classification of the materials constituting the DENFC, according to the European standard in force.
 - Consumption in normo liter

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- ⑥ Manufacturing order number.
- ⑦ Item code (for device traceability).
- ⑧ Description of security options:
Trigger temperature for hot melt option.
- ⑨ Date of manufacture of the device.

5. The range

The input characteristics of the device are available on the CE marking label on the inside front of the upstand.

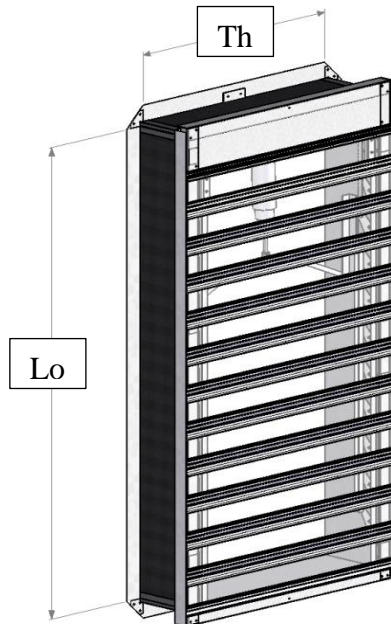
The dimensions of the upstand hopper vary from:

- 1107 mm to 3051 mm in length
- 1000 mm to 2200 mm in width

Hopper Dimension			
Width "The" (in mm)		Length "Lo" (in mm)	
≥ 1000	≤ 2200	≥ 1107	≤ 3051

"Lo" is the length of the device

"The" is the width of the device.



The ARCAFACADE PNEUMATIC range is able to open despite the presence of an unfavourable wind of 10 m/s.



6. Installation and implementation

6.1 The installation of the device

Warning: any maneuver that may damage the mechanisms and/or structure of the DENFC is prohibited. SKYDOME® cannot be held responsible for the impact of such maneuvers.

6.1.1 *Installation of the ARCA PNEUMATIC FACE according to its support*

- *Trimmer :* Through self-drilling screws or rivets or others
Boulonneries respecting a **maximum distance between 2 fastenings of 330 mm.**
- *Ribbed steel sheets:* Through self-drilling screws or rivets or others
Bolts respecting a **maximum distance between 2 fasteners of 330 mm.**
- *Masonry support:* Through adapted fastenings respecting a **center distance Maximum between 2 fasteners of 200 mm.**

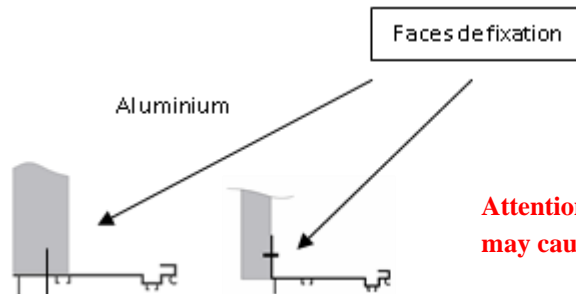
6.1.2 *Installation of the ARCA PNEUMATIC FACADE*

The center distance requirements described above are identical subject to installation on a suitable existing support, i.e. steel, concrete, wood, or any other material which has already passed the thermal deformation test. The geometric surface (Av) of the existing support costing must be greater than or equal to the geometric surface of the capping cost.

The smoke extraction DENFC must be fixed and sealed according to the requirements defined in the waterproofing D.T.U. (Unified Technical Document) in force.

6.1.3 *Schematics for fixing an apparatus according to its version*

Scheme:



Attention: Any other place for fixation, may cause water leakage.

6.1.4 *Installation of the ARCA PNEUMATIC FACADE*

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The device will be fixed according to the recommendations of the texts and standards in force.

6.2 Assembly and connection

For the connection of the DENFC and its options to the pneumatic safety power supply (APS): refer to the standard in force.

Cylinder	Opening Bar pressure	: Closure and pressure in aeration : Bar pressure
Diam 40 mm	15	7

7. Instructions for use

- For commissioning, ensure that the pressure at the pneumatic cylinder is in line with the values defined in the table above.
- Carry out a test(s) to verify the proper functioning of the DENFC. Check the opening and closing mechanical and pneumatic, as well as the holding of the lock.
- To guarantee the passage in a safe position in less than 1 minute, the device must be completely purged

8. Maintenance instructions


Please note: our devices are not warranted for an exhibition that may alter the initial characteristics of an element or function of the DENFC.

The operation, maintenance and periodic verification operations will be carried out according to the requirements of the texts and standards in force as well as the following SKYDOME® requirements :

- Proceed at least 2 times a year to the opening/closing in a safe position of the DENFC.
- Verification operations:
 - In particular, check the condition of the joints, connecting rods and cylinder rods. It is important to keep these elements lubricated (Teflon grease for slides, oil), except the cylinder stem.
 - Control the tightening of the screwed elements.
 - Do not clean the cylinder stem with a solvent, as this can damage the inner seals.
 - Do not paint the stem of the cylinder.
 - Clean drainage channels
 - Check that the joints are not glued.
- DENFC verification operations must be carried out at least 1 time per year.

9. Replacement

All components of the device are available on request from SKYDOME. ®

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10. Note

Devices equipped with a position switch are exempt from NF certification.

In accordance with the Labour Code, project owners and companies have an obligation not to endanger the staff circulating on the roofs.

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