



Installation and maintenance instructions

Rooflam Pneumatic evolution

Designation and commercial reference: Rooflam Evolution Pneumatic

Certificate No. :0333 CPD 219017

DOP: REP

Year of certificate: 2006

Reference standard: NF EN 12101-2 / NF S 61-937-1 / NF S 61-937-7 / NF S 61-937-8

Certification rule: CE 219 / NF 537

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



Certifying body:

AFNOR Certification

11, rue Francis de Pressensé
F-93571 La Plaine Saint Denis Cedex
Phone : +33(0)1.41 62 80 00
Fax: +33(0)1 49 17 90 00

Websites: www.afnor.org and www.marque-nf.com

Email: certification@afnor.org



Page 1 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
-----------------	--	--	--



Table of Contents

- 1. Identification 3
 - 1.Type of DENFC (Natural Smoke and Heat Evacuation System)..... 3
 - 2.Range Type 3
 - 3.Energy type..... 3
 - 4.Possible variants in range..... 3
- 2.Features 4
 - 1.General characteristics of Operated Safety Devices (SARs) 4
 - 2.General characteristics of constituents:..... 4
- 3. Media precautions 4
 - 1.The support receiving the DENFC must be flat, within the normative tolerances of building construction. 4
 - 2.The installation of DENFC is carried out according to one of the following two rules: 4
 - a.Rule 1 4
 - b.Rule 2..... 4
- 4.Explanation of the product marking code..... 5
- 5.Range..... 77
- 6.Installation and implementation 8
 - 1.La installation of apparatus 8
 - 2.Implementation of the ROOFLAM Evolution Pneumatic 8
 - 3.La installation of deflectors 8
 - 4.Assembly and connection 10
- 7.Instructions for use..... 10
- 8.Maintenance instructions 10
- 9.Spare..... 11
- 10.Options 11
- 11.Note..... 11



1. Identification

1. Type of DENFC (Natural Smoke and Heat Evacuation System)

DENFC mounted on the roof.

2. Type of range

A simple smoke extraction parklet opening of the ROOFLAM® Pneumatic evolution range.

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.

4. Possible variants in the range

- Costières:
 - Polyester shell
- Fills:
 - Honeycomb polycarbonate cover thickness 10,16 and 32 mm
 - 32 & Dome
 - Single / double or triple domes
 - Non-insulated aluminium cover, 40 mm and 60 mm
 - Acoustik'Light
- Options:
 - Pneumatic or Electric Ventilation
 - Hot melt
 - Fall arrest and/or burglar retardant bars
 - Position switch



2. Characteristics

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

2. General characteristics of the constituents:

- Test pressures of pneumatic equipment (60 – 90 Bar)
- 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
- Minimum electrical characteristics of position contacts
- Independence of control electrical circuits with other circuits
- Electromagnetic trigger operating characteristics

3. Precautions on the support

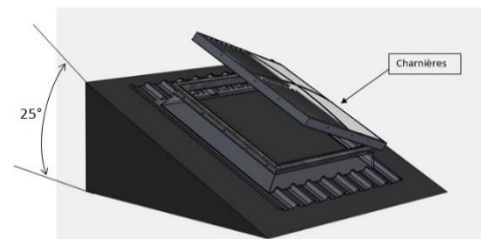
1. The support receiving the DENFC must be flat, within the normative tolerances of building construction.
2. The installation of the DENFC is carried out according to one of the following two rules :

a. Rule 1

The maximum slope allowed when the axis of articulation is parallel to the roof slope and (Av) is $<$ to $2m^2$, is 25° or 46.65%. The geometric surface

The maximum slope allowed when the axis of articulation is parallel to the roof slope and the Geometric surface (Av) is $>$ to $2m^2$, is 20° or 36.45%.

In both cases, the hinges are positioned on the right if you look towards the ridge.



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

Page 4 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
-----------------	--	--	--

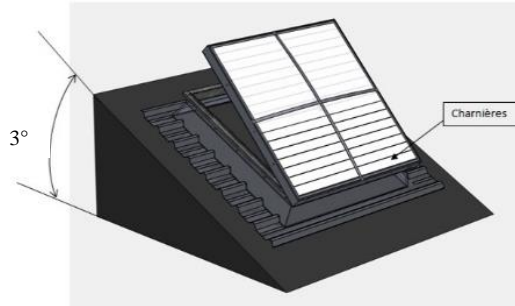


Installation and maintenance instructions

Rooflam Pneumatic evolution



b. Rule 2

The maximum slope allowed when the axis of articulation is perpendicular to the roof slope is 3° or 5.25%. In this case, the hinges are positioned at the bottom of the slope.



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

4. Explanation of the product marking code

SKYDÔME®
SONS-ET-RONCHÈRES

DEPARTEMENT ECLAIREMENT ZENITHAL ET DESENFUMAGE INCENDIE D'ANTER
Entre deux villes - 02270 Sons et Ronchères
Tél: (33) 03.23.21.79.90 - Fax: (33) 03.23.21.78.23 - Email: info@skydome.eu

1 • N° certificat : 0333-CPR-219017 - 2006 - BQPP2 - M.toiture

2 • NF EN 12101-2 2003

3 • Dispositif d'évacuation naturelle de fumées et de chaleur

4 • **ROOFLAM EVOLUTION PNEU**

5 • Aa0.7 m² Dimension Tremie (1x1)

6 • TypeB; WL1500; SL250; T; RE1000;

7 • E.alim : 10 bars

8 • B300; B-s1, d0 Volume NL: 17

9 • Option de sécurité : T93°C - Grd6

10 • OF200208293.001 Code : **BP2300206XE39B-BI000S**


11 • Date de fabrication : **MARS 2020**

12 • **BP2300206XE39B-BI000S**

13 • **BP2300206XE39B-BI000S**

ROOFLAM EVOLUTION PNEU SD SL250 100x100 KINGSPAN KS 1000 RW Ti /
Bi000 NON ISOLEE Raf7035 Pca10 Opal Grd6 Thermo 93 /IndA/

OF200208293.001 Date de fab :MARS 2020
BP2300206XE39B-BI000S

6



Page 5 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
-----------------	--	--	--



Installation and maintenance instructions

Rooflam Pneumatic evolution

- ① Number of the certificate, its date of obtaining, D.O.P. number, 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 normal liter
- 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.

Page 6 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
-----------------	--	--	---



Installation and maintenance instructions

Rooflam Pneumatic evolution

5. The range

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

Below is the summary table of the air consumption according to your device and its filling and snow load (SLXXX).

Largeur Trémie	Ø Vérin	Volume en l
1000	Ø56	1.7
1100		1.7
1200		1.9
1300		1.9
1400		2
1500		2
1600	Ø63	2.7
1700		2.7
1800		2.7
1900		2.7
1900		2.7
2000		2.7

Volume in Normo-liter:

Volume to be multiplied by the corresponding pressure in the tables below.

Example: for a 100x100 SL500 Double Dome device, working pressure 15 bar: 15 x 1.7 = 25.5 Normo-liter.

		Hors gamme		SL250		SL500																			
Charge de neige SL250, SL500 et pression de service PCA10 / PCA16 / PCA16+ / Capot 10mm opaque / Simple Dôme												Charge de neige SL et pression de service PCA32 / PCA32+ / Double Dôme / Capot 40mm / Capot 60 mm /													
la	Lo	100	110	120	130	140	150	160	170	180	190	200	la	Lo	100	110	120	130	140	150	160	170	180	190	200
100	10	15											100	10	15										
110													110												
120			11	15									120		11	15									
130													130												
140					13	22							140				14	23							
150	10	15					17	27					150	10	15				17	25					
160								16	26				160						17	28					
170													170												
180													180												
190													190												
195													195												
200	11	15	14	20	18	30							200	11	15										
210													210												
220													220												
230													230												
240													240												
250			17	24									250												



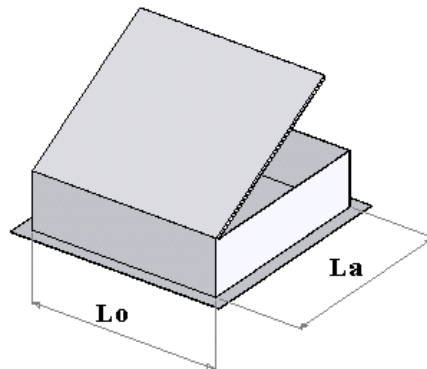
Installation and maintenance instructions

Rooflam Pneumatic evolution

Charge de neige SL et pression de service Pca32 & dôme/Pca32+ & dôme/Triple Dôme/Acoustik'light											
la	100	110	120	130	140	150	160	170	180	190	200
Lo	15										
100											
110											
120			15								
130											
140					23						
150	15					25					
160							28				
170											
180											
190											
195											
200	15										
210											
220											
230											
240											
250											

* "The" is the width of the device that receives the central pneumatic crossmember.

"Lo" is the length of the device that includes the hinges of the opening.





6. Installation and implementation

1. The installation of the device

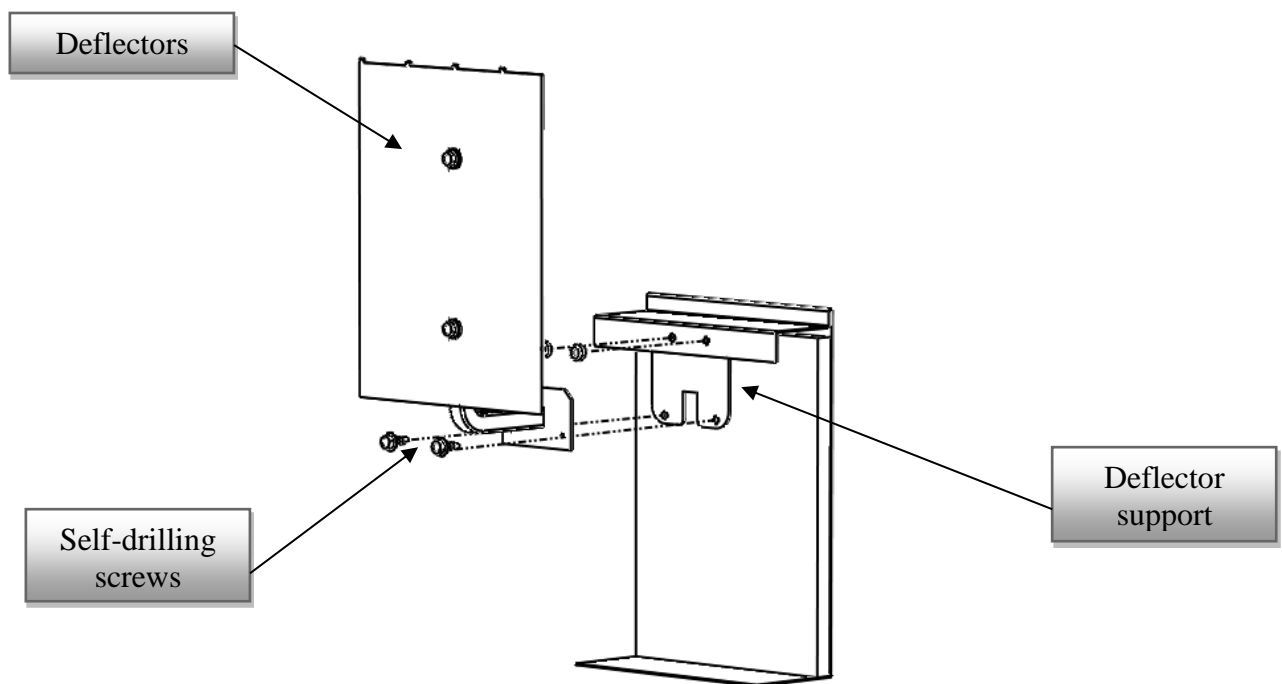
Caution: any maneuver that may damage the mechanisms and/or structure of the DENFC is prohibited. SKYDOME® cannot be held responsible for the impact of such maneuvers.

2. Implementation of the ROOFLAM® Eneumatic P evolution

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

3. The installation of deflectors

Fixing deflectors

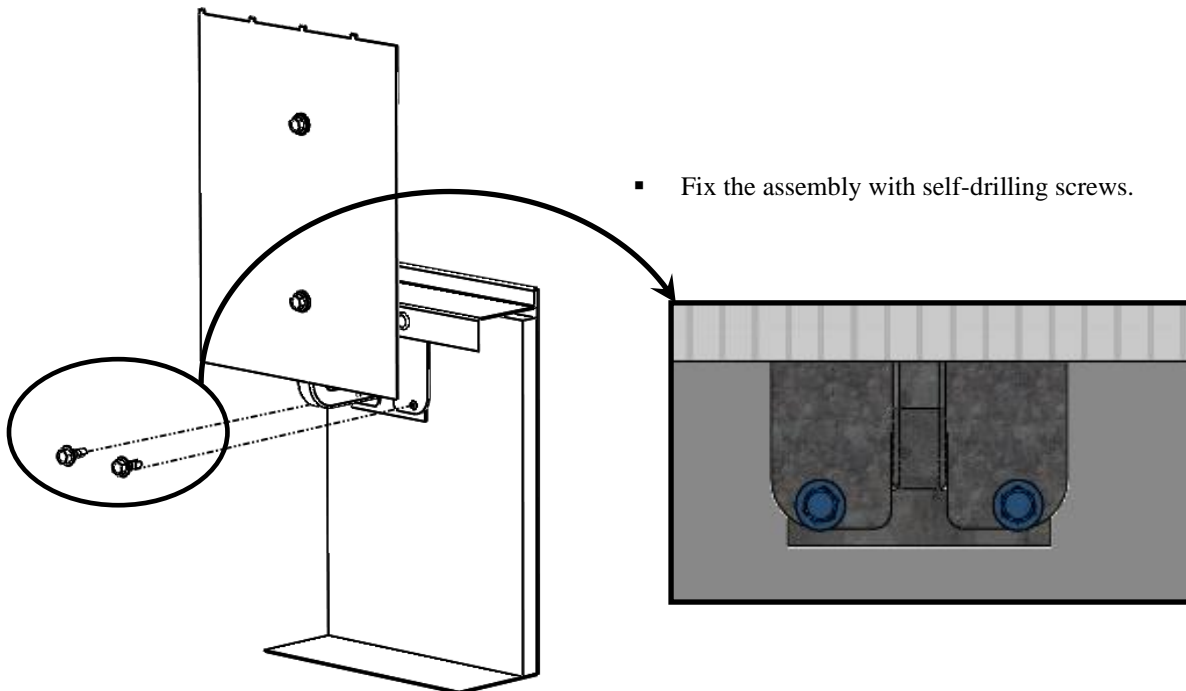
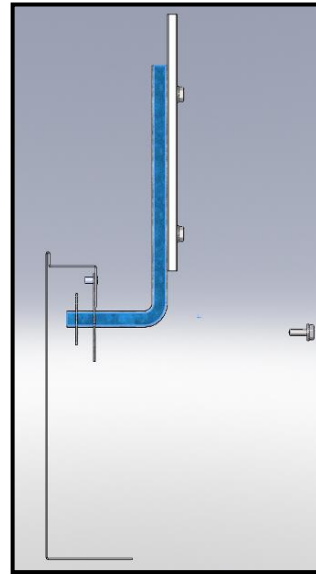
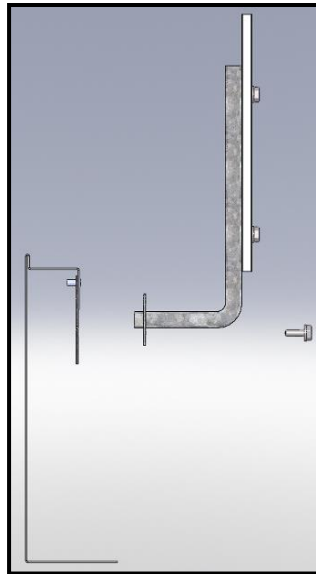




Installation and maintenance instructions

Rooflam Pneumatic evolution

- Pass the deflectors' legs behind their support.





Installation and maintenance instructions

Rooflam Pneumatic evolution

4. Assembly and connection

The device comes with all pre-connections made at the factory.

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

For a SKYDOME® device, the opening and closing fittings have adhesive tape:

YELLOW = RED CLOSURE = **OPENING**

7. Instructions for use

- Once the device is mounted, cut the plastic safety collar that holds the opening during transport.
- For commissioning, ensure that the pressure at the pneumatic cylinder is in line with the values defined in the table on page 6.
- Carry out a test(s) to verify the proper functioning of the DENFC. In particular, check the opening and pneumatic closure, 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:
 - Check in particular the condition of the joints, hinges, verror as well as the stem of the cylinders. It is important tokeep these elements lubricated (graise, oil), except the rod of the cylinders.
 - Check the tightening of the screwed elements (chords, cylinder trunnions, etc.).
 - Check the effectiveness of the locking system.
 - When the stem of a pneumatic cylinder is scratched, deformed or if there are leaks, replace it.
 - Do not clean the cylinder stem with a solvent, as it can damage the joints.
 - Do not paint the stem of the cylinder.
- DENFC verification operations must be carried out at least 1 time per year by an authorized company.

Page 11 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
------------------	--	--	--



Installation and maintenance instructions

Rooflam Pneumatic evolution

9. Replacement


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

10. Options

The ventilation option is provided by an electric cylinder (220V or 24V) or pneumatic. It does not in any way detract from the smoke extraction function of the natural smoke and heat evacuation system.

11. Note

General tolerance on the base of ± 5 mm.

Page 12 on 12	Ref: NIE 017-5 Rooflam Pneumatic evolution Updated: 01/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
------------------	--	--	---