

DAYLIGHTING / SMOKE EVACUATION / NATURAL VENTILATION

VOÛTE ARCADE / ARCADEF ÉVOLUTION / ARCAD-AIR

CE
0333

SKYDÔME[®]
La sécurité en toute clarté



ARCADEF ÉVOLUTION WITH DEFLECTORS
IN STEEL AS OPTION, PCA OPAL IN STANDARD

The **VOÛTE ARCADE** is a continuous skylight unit which lighting part is realised either with structured polycarbonate (PCA), full polycarbonate (PC) plate or with polymetacrylate methyle (PMMA). The whole is supported by an aluminium structure.

The natural smoke evacuation function could be done by a smoke evacuation system, certified in accordance to the norm NF EN 12101-2, completely integrated into the lighting function of the **VOÛTE ARCADE**: The **ARCADEF ÉVOLUTION** (exists only in PCA 10) works exclusively with the pneumatic technology (opening and closing).

The ventilation function could be realised by a system, completely integrated into the **VOÛTE ARCADE**: The **ARCAD-AIR**. This opening system operates either mechanically, pneumatically or electrically.

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1 ADVANTAGES

Architecture and aesthetic: according to the glazing, the **VOÛTE ARCADE** is available in low rise (arch lowered 1/5 of the span), high rise (half circle), quarter of circle.

The **ARCADEF ÉVOLUTION** is perfectly integrated to the concept of the aluminium **VOÛTE ARCADE**.

The pneumatic mechanism of the **ARCADEF ÉVOLUTION** is completely contained within the height of the kerb as well in the opened as the closed position. It allows an easy installation on every point of the **VOÛTE ARCADE**.

Easy installation: supplied in kit form, the **VOÛTE ARCADE** is easy to install (complete installation notice supplied), thanks to a minimum of components and a simple profiles' fixing procedure. The glazed end profiles are completely assembled in the factory.

Security: system conforms to the resistance tests 1200 joules in standard.

Conformity: the **VOÛTE ARCADE** holds an Avis Technique CSTB (only for the arch lowered 1/5 of the span) and the **ARCADEF ÉVOLUTION** is certified conform to the norm NF EN 12101-2.

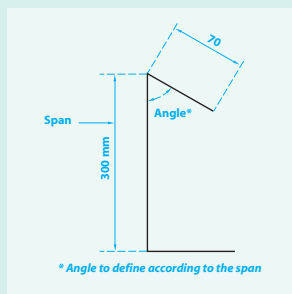
Options: anodisation or painting possible on the complete aluminium structure (possibility equivalent in painting 9006).

Colour finish: aluminium framework and kerbs post painted depending on the span's dimension of the **VOÛTE ARCADE**. Contact us in order to know the RAL colours available.

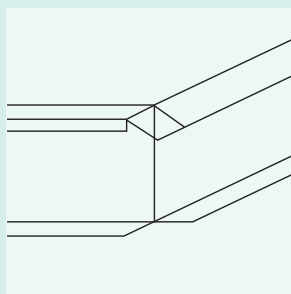
Adaptability on roof: ideal for new roofs. Standard kerb with a height of 300 mm and a foot of 90 mm. Possibility to install on roof crest (depending on construction slopes).



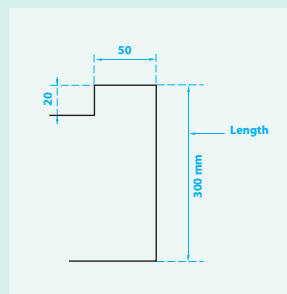
Steel kerbs:



Edge kerb

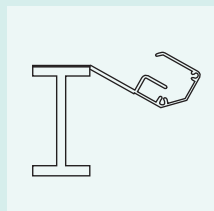


Angle to plan

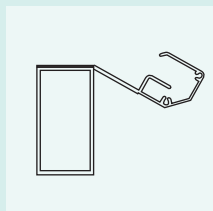


Butt kerb

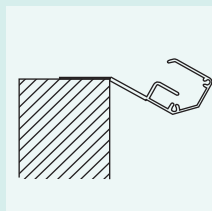
Other fixing supports:



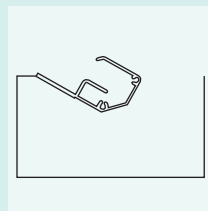
Fixing on steel purlin



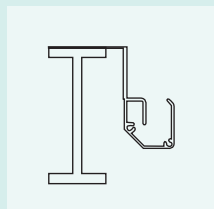
Fixing on tube



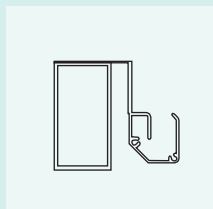
Fixing on concrete or wood structure



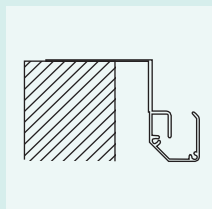
Fixing on gutter



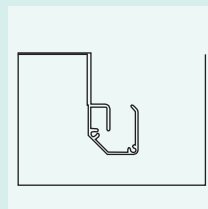
Fixing on steel purlin



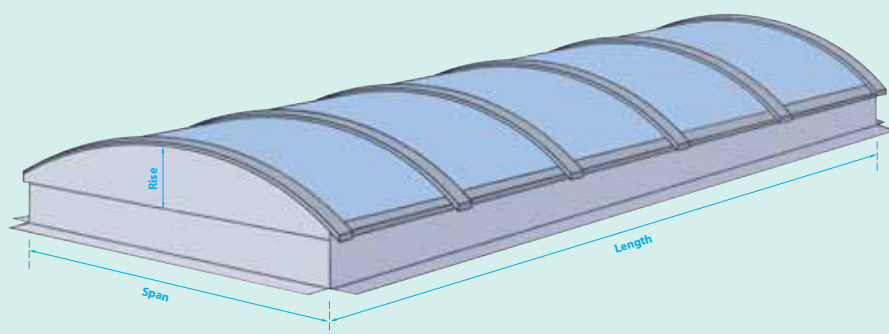
Fixing on tube



Fixing on concrete or wood structure



Fixing on gutter



VOÛTE ARCADE :

- Self-draining inside support profiles (arches).
- Clamping bars (joint covers).
- A side profile fixed on each side of the support (to be defined) allowing:
 - The fixing of the support profiles;
 - The draining and evacuation of running and condensation water;
 - The maintain in position of the lower part of the glazing;
 - The fixing of each end of the clamping bars.
- End glazing completely assembled in the factory.

ARCADEF ÉVOLUTION :

- **Fixed part:** it is made up of an arched gutter for rainwater recovering, mono-bloc welded, in raw aluminium or anodised or standard RAL painted (contact us).
- **Opening part:** it is made up of 2 panels, pre-assembled in factory, opening at 100°, and realised in raw aluminium or anodised or standard RAL painted (contact us).
- **Opening mechanism:** there are 2 opening and closing mechanisms articulating on 2 supports fixed on the kerb. They are completely contained within the height of the kerb even during the opening and closing phases.
- **Kerb:** realised in galvanised steel, its folded angle will depend on the span of the vault.

VENTILATION PERFORMANCES

SPAN	USEFUL WIDTH (m)	WIDTH WITHOUT STRUCTURE (m)	Av (geometric surface) (m ²)	Aa (opening surface) with deflectors of 150 mm	Aa (opening surface) with deflectors of 100 mm
1,50	1,00	1,30	1,50	0,96	0,89
1,60	1,00	1,30	1,60	1,03	0,95
1,70	1,00	1,30	1,70	1,10	1,02
1,80	1,00	1,30	1,80	1,18	1,09
1,90	1,00	1,30	1,90	1,25	1,16
2,00	1,00	1,30	2,00	1,33	1,23
2,10	1,00	1,30	2,10	1,40	1,30
2,20	1,00	1,30	2,20	1,48	1,37
2,30	1,00	1,30	2,30	1,56	1,44
2,40	1,00	1,30	2,40	1,64	1,52
2,50	1,00	1,30	2,50	1,72	1,59
2,60	1,00	1,30	2,60	1,80	1,67
2,70	1,00	1,30	2,70	1,88	1,74
2,80	1,00	1,30	2,80	1,96	1,82
2,90	1,00	1,30	2,90	2,05	1,90
3,00	1,00	1,30	3,00	2,13	1,98

The laboratory tests guarantee that the **ARCADEF ÉVOLUTION** resistance and performance levels are in accordance with the most restricting current legislations, when installed in conformity with the DTU 43-3.

The **ARCADEF ÉVOLUTION** has the Product Certification CE NF EN 12101-2 N°0333 CPD219 020 including with the safety options:

- Position contact.
- Thermal fuse.

The conformity certifications of the norm NF EN 12101-2, 1200 joules and fire rating data are available on our website: www.skydome-axt.com under the heading "Espace Partenaires" (Partner Information).

PERFORMANCES AND MAXIMUM ACCEPTABLE LOADS FOR THE ARCADEF ÉVOLUTION

LOADS kg/m ²	WIND LOADING (Depression test)	RELIABILITY TEST	HEAT RESISTANCE
50 kg/m ² only in PCA10	WL 1500	Re 300	B 300

In standard, the **ARCADEF ÉVOLUTION** are of type B, T(00) and SL500.

Reminder IT 246: Article 3.8 Characteristics of smoke evacuation units

"The smoke evacuation units of reliability class **Re 300** (300 cycles of security process).

The bi-function units, used for ventilation, are opened 10 000 times during the ventilation tests.

The classification of the snow load is **SL 250** (25 daN/m²) for altitudes lower or equal to 400 m,

SL 500 (50 daN/m²) for altitudes over 400 m...

The units are inside temperature class **T00** (0°C) and heat resistance class **B₃₀₀ 30** (300° during 30')."



Installation should be carried out in accordance with current regulations. Decks should be sound, resistant and in accordance with the requirements of current decking standards and the installation guide.

Fixing: in accordance with the current DTU series 43, on steel, wood or concrete structure.

Waterproofing seal:

- The bitumen-faced insulation on the standard kerb guarantees the seal of the waterproofing detailing material.
- Zinc flashing to be installed in situ to create a seal with roof tiles or slates.
- A co-laminated metal sheet for PVC membrane.

Maintenance: glazing should be washed with soapy water. Do not use corrosive products or solvents.

The installation notice of the **ARCADEF EVOLUTION** is available on our website: www.skydome-axt.com under the heading "Espace Partenaires" (Partner Information).

