

Architects: Nuno Leonidas and Frederico Valsassina - Photography: TECHNAL

SUNEAL

MULTIFUNCTION BRISE-SOLEIL



SUNEAL, between design and efficiency

A solution serving your projects

To meet the multiple needs of building envelopes and particularly of glazed facades: sun protection, solar gain control, optimisation of natural light and customisation, Technal has created SUNEAL, a careful balance between attractive design and efficiency.



A wide choice of solutions

SUNEAL brise-soleil or sunshade can be integrated in all design options of GEODE-MX curtain walling: Trame Horizontale and Trame Verticale, structural sealant glazing (SSG), beaded glazing (BG) and roof lights as well as on an independent structure. This offer proposes to customise the design and optimise comfort with a wide choice of solutions: vertical or horizontal brise-soleil, fixed or motorised with several options.

A symbol of resistance

Technal has developed a methodology based on a wind-tunnel test protocol. This true test is used to define graphs for dimensioning the brise-soleil according to the location, wind pressure and snow load, on fixed or mobile models:

- progressive increase in airflow speed up to 160 km/h,
- speed maintained for 10 minutes,
- rapid rise to 210 km/h.

* Tests carried out at CSTB (Construction Scientific and Technical Centre)



Architect: José Ramon Sola



A wide choice of solutions

1. On facades

■ SUNEAL brise-soleil envelopes the whole of the GEODE-MX curtain wall range from the simple grid facade to structural sealant glazing or beaded glazing solutions.

■ Fixed blades of 100 mm and 150 mm, as well as a 215 mm blade which can be equipped with photovoltaic cells, are adaptable to the curtain wall.

■ A complete selection of accessories allows installation:

- on a canopy,
- on an offset vertical structure,
- or on a roof light.

2. On independent structures

■ SUNEAL brise-soleil is installed on a totally independent structure.

■ A wide choice of brise-soleil blades is available.

- Single-piece blades from 100 to 300 mm.
- Multi-part blades from 350 to 600 mm.
- Semi-elliptical blades from 175 to 300 mm.
- Special blades:
 - Rectangular 300 x 40 mm,
 - Large blades - Perforated sheet 580 mm,
 - Louvres 100 and 115 mm.



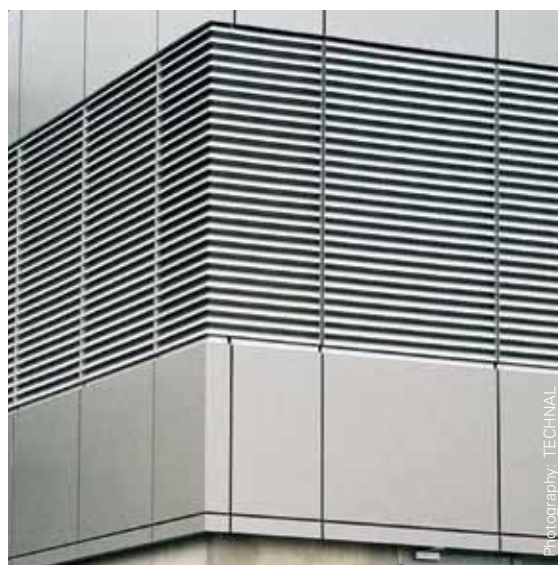


3. Facade cladding

- The louvre blades integrate fully with a standard cladding structure.
- On concrete slab structure or vertical steel structure.

Possible options for efficiency and optimum comfort

- Brise-soleil blades with photovoltaic cells integrated on aluminium blades.
- Mobile blades for optimum comfort: motorised or manual.



Louvre on aluminium cladding



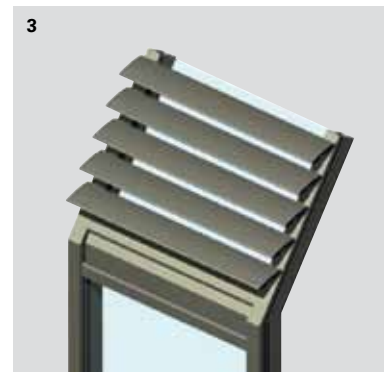
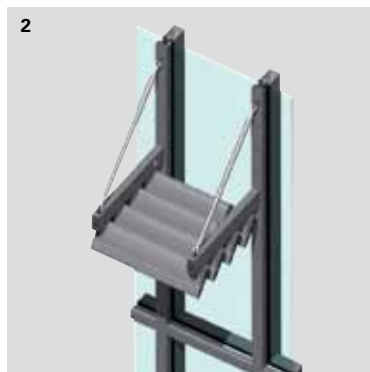
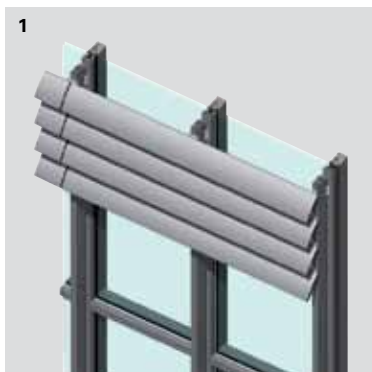
Brise-soleil blades for integration into GEODE-MX curtain walling

- Fixed blades 100 and 150 mm.
- Angle: 15°, 30°, 45°, 60°



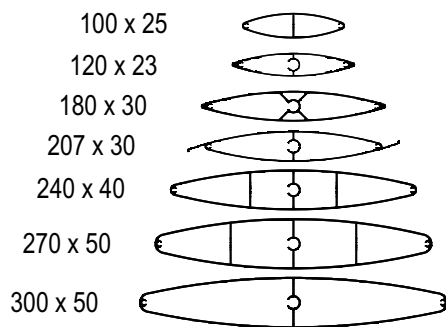
Photography: TECHNAL

- Horizontal blades.
- Installation:
 - on aluminium structure offset from the facade (1),
 - on canopy with stays (2),
 - on roof light (3),
 - on independent bearing structures.

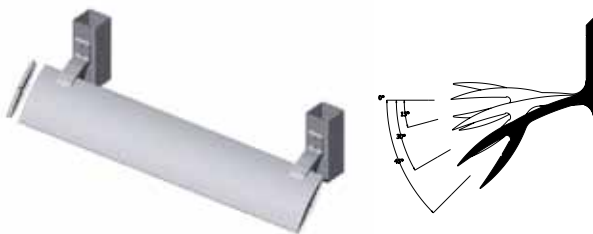


Single-piece brise-soleil blades

- Vertical or horizontal blades.
- 100 to 300 mm.



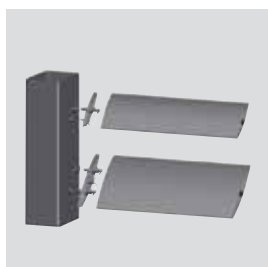
- Fixed or mobile.
- Continuous blades on aluminium clamps.
 - Angle : 0°, 15°, 30°, 45°.



- Installed between uprights (steel, aluminium or wood primary structures).
 - Free blade angle.



Screw flanges, outer sight line



Retractable pins, outer sight line





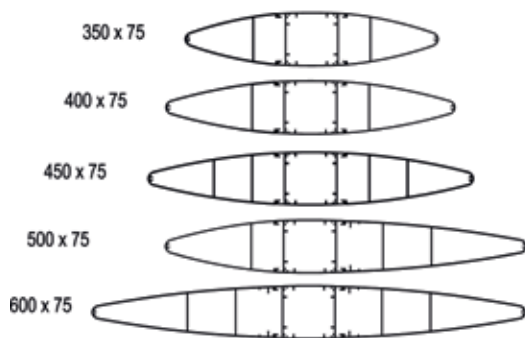
8

Photography: TECHNAL



Multi-part brise-soleil blades

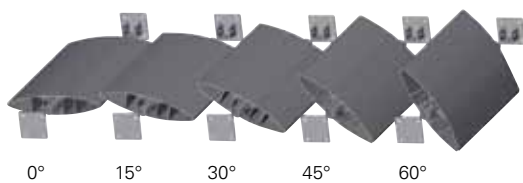
- Fixed blades.
- Horizontal or vertical blades.
- From 350 to 600 mm.



- Installed between uprights.



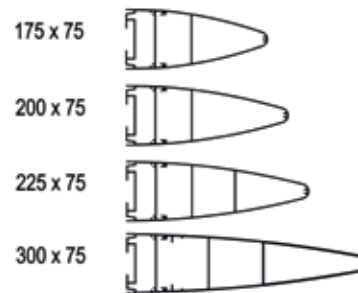
- Angle 0°, 15°, 30°, 45° ou 60°.



Choice of angle

Semi-elliptical brise-soleil blades

- Blades 175 to 300 mm.



- Continuous horizontal fixed blades.



Photography: TECHNAL

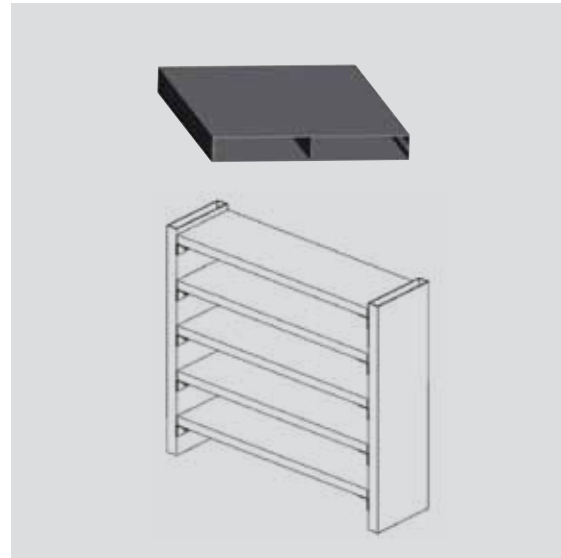


Special blades

Rectangular

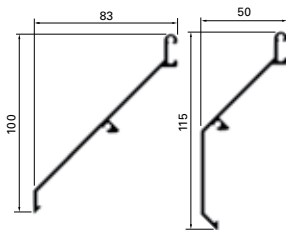
- Blade 300 x 40 mm.
- Installation: continuous or between load-bearing structures.

300 x 40 

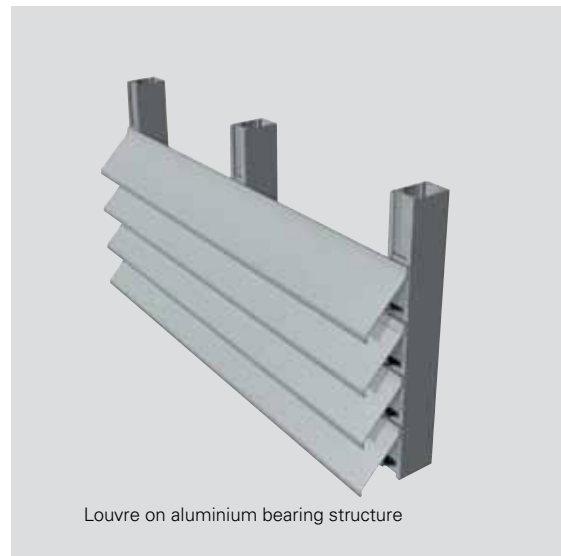


Louvre

- Louvre blades 100 and 115 mm.
- Attached to an independent structure or to a supporting aluminium profile.

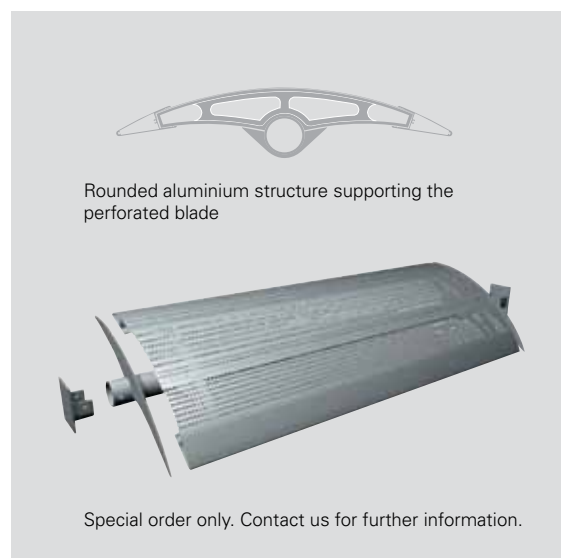


- Integrates with the standard cladding structure.



Large perforated blade

- Combines elegance and the lightness of aluminium, horizontal or vertical.
- The shade effect can be improved due to the perforation of the sheet with 40% or 28% open area.
- The 580 mm SUNEAL perforated blade is attached to an independent structure and allows spans of up to 6m (contact us for further information).



Efficiency and maximum comfort

Photovoltaic blades

- The SUNEAL photovoltaic blades provide efficient visual privacy and electricity production with a 15% efficiency.
- Blade angles 15°, 30°, 45°, 60° depending on the facade orientation and geographical zone for maximum efficiency.

Photovoltaic modules

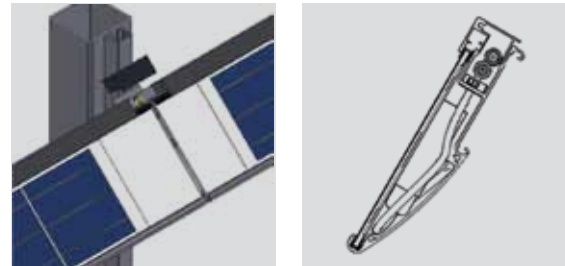
- The photovoltaic modules integrated in the SUNEAL blade are made to the highest market standards and meet the IEC 61730 (safety) and IEC 61215 (performance) standards.

PV module features

Dimensions:	1200 x 185 mm
Number of cells :	7
Power:	28 Wc
Different visual aspects:	monocrystalline (White Tedlar) polycrystalline (Black Tedlar).



Photovoltaic modules 185 x 1200 mm
Polycrystalline cells (27 Wc) or monocrystalline cells (28 Wc)



Attached to a self-supporting structure independent of the facade

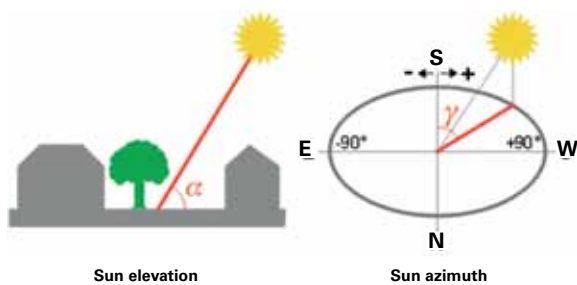


Rotating blades for optimum comfort

Fixed or mobile for optimum comfort

To use the effect of the sun in the choice and orientation of a brise-soleil, the sun's position at all times must be known.

Enjoy the benefits of solar gains in winter and sun protection in summer, finely control the natural lighting of interior rooms.



300 mm motorised blades - Angle 15°



Architects: J-P. Dhalluin and P. Peny - Photographer: Patrick Loubet
300 mm motorised blades - Angle 45°

Automatic rotation by motorisation

- Blades 180 to 300 mm.



Operated by electric actuator
(actuator system not included)

Manual rotation by sequencer

- Blades 180 to 270 mm.



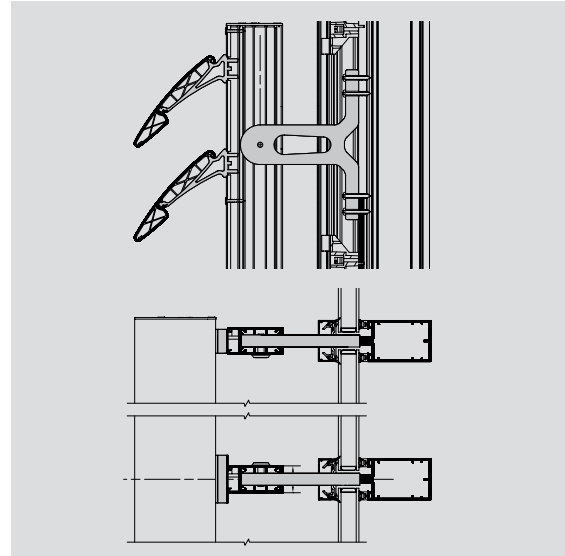
Rotation in 15° increments



Type of installation

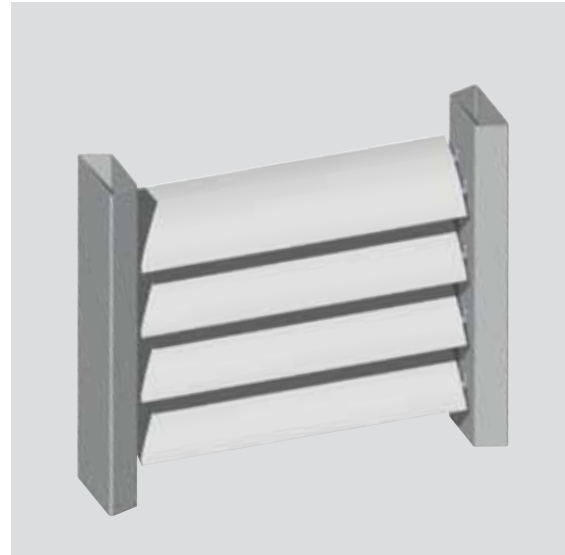
Integration in GEODE-MX curtain walling

- Attached to an aluminium structure offset from the facade.
- Blades clipped onto aluminium supports.
- Linked to GEODE-MX curtain walling by fixing lugs for vertical structure or cross-beams.
- On roof lights on continuous clamp bar with integrated clipping slot for blade attachment.
- Angle: 15°, 30°, 45°, 60°.



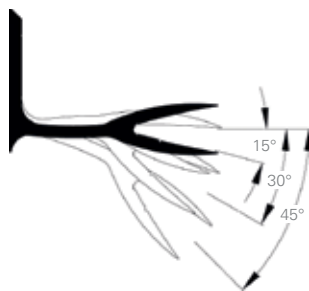
Between load-bearing structures

- Solution for single-piece or multi-part blades.
- Aluminium block and flange principle.
- Horizontal and vertical blades.
- Steel, aluminium or wood primary load-bearing structure.
- Angle: 0°, 15°, 30°, 45°, 60°.



Continuous blades

- The single-piece horizontal 120 to 270 mm blades are placed in front of the load-bearing structure giving a continuous visual effect.
- Blade attachment by aluminium clamps.
- Angle: 0°, 15°, 30°, 45°.



Materials and components

As with all Technal systems, only the highest quality materials and components are used for low maintenance and long-term performance.

- The aluminium profiles are extruded from the following alloys: 6060 T5 EN 12020, EN 573-3, EN 515 and EN 775-1 to 9.
- The accessories are cast from Zamak 5 meeting EN 12844.
- The screws are made of stainless steel.



Architects: J-P. Dhalluin and P. Peny - Photographer: Patrick Loubet

Finishes and colours

A wide range of finishes is available to satisfy the requirements of individual projects, for use on existing buildings and to give architects and designers additional design flexibility:

- Natural anodised meeting EN 123731: 2001,
- Polyester powder coating finishes in an extensive range of colours meeting the «QUALICOAT» standard,
- SUNEAL is also available in polyester powder coating finishes in exclusive Technal colours for a stylish and contemporary appearance.



Architects: Nuno Leónidas and Frederico Valsassina - Photography: TECHNAL



Photography: TECHNAL





Photography: TECHNAL