

SAFETYLINE

CONTEMPORARY
LOUVRE SYSTEM



Architect: 2APMR
Photography: Hervé Douris

IMAGINE WHAT'S NEXT



TECHNAL



SAFETYLINE

/ AN AESTHETIC AND EFFICIENT RANGE

A MODERN WINDOW WITH MULTIPLES BENEFITS

SAFETYLINE window offers quality, innovation and design, which are Technal's strengths.

- Large dimensions
- High level of performances
- Multiple choices of composition: fixed louvres/moving, aluminium/glass/mixed
- Integration of mosquito screen
- Hidden motorisation
- Compatibility with TOPAZE range

TECHNAL QUALITY

Along with quality, Technal prides itself on innovation and design. This is the result of many years of product research and development with international teams of experts. Technal's Development Centre, based in France, has links with international teams based in several countries. Its aim is to create the products of tomorrow and to ensure coherence and compliance with Technal's quality standards in every country. All Technal products are tested in line with European standards and local standards upon request. Technal benefits from a certified testing laboratory which guarantees performance in terms of thermal properties, water tightness, shock resistance, wear, etc. The technical performance of Technal products, which often exceeds standards, allows a wide range of possible solutions for each project.

SUITABLE FOR COMMERCIAL AND RESIDENTIAL BUILDINGS

The SAFETYLINE system is ideal for new build or renovation projects involving commercial or residential properties. This louvre system reduces reliance on air-conditioning by favouring the natural ventilation and solar protection of buildings, thus contributing to energy savings.



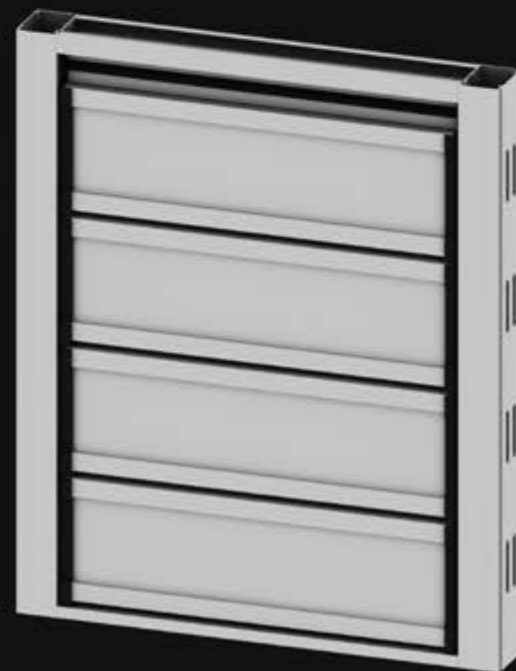
SAFETYLINE

/ THE CONTEMPORARY LOUVRE

GLASS LOUVRES



ALUMINIM LOUVRES



KEY FEATURES AND INNOVATIONS

LARGE SIZES

- Available in sizes up to 1400 mm as a single unit or with an optional connector frame.
- Louvre up to 135 mm.
- Louvre open up to an 80° angle.

SECURITY

- Pull-out resistance of the louvre: traction in excess of 200 daN.
- Forced entry resistance.
- Shock resistance: 900 joules (balustrade standards).
- Hurricane resistance: class 5.

MULTIPLE CONFIGURATIONS

- Frames with glass or aluminium louvres.
- Mixed frames with glass and aluminium louvres.
- Option frame with mosquito screen.
- Balustrade function.
- Combination with TOPAZE range.
- Curved or flat aluminium louvres.
- Fixed or moving louvres.

INNOVATION

- Aluminium-/glass adjustable flanges
- Integration of fixed louvres.
- Movement and protection assured by polyamide flanges with overlaps for excellent water tightness.

LOCKING MECHANISMS

- Louvres are opened with rods fitted with crimped pins which activate the flanges directly.
 - Levers, knobs, espagnolette rods or winding mechanisms.
- A spring-loaded compensator for the easy manipulation of the louvres in accordance with size.

PERFORMANCE

- Tested in accordance with European standards.
- Watertightness ensured by EDPM gaskets on mullions and transoms.
- Solar ageing: no notable change in characteristics after 300 hours.

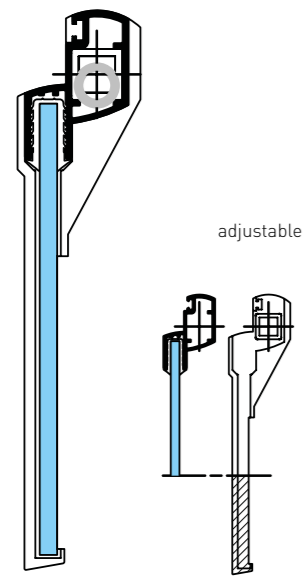
FITTING ENVIRONMENT

- Independent site installation or panelling.
- Complementary covering profiles according to the fitting situation.

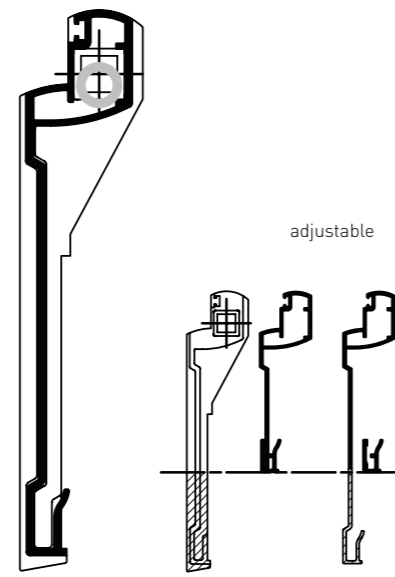
SAFETYLINE

/ AESTHETICS

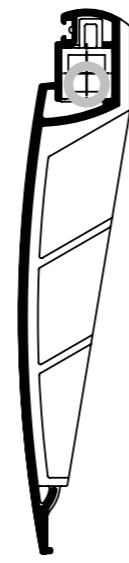
LOUVRES



Glass louvre



Flat aluminium louvre



Curved aluminium louvre

CLOSURES

Technal developed a complete offer of exclusive-design aluminium handles that provides ergonomics, quality and identity.



Reversible handle



Indexed lever handle



Winding mechanism



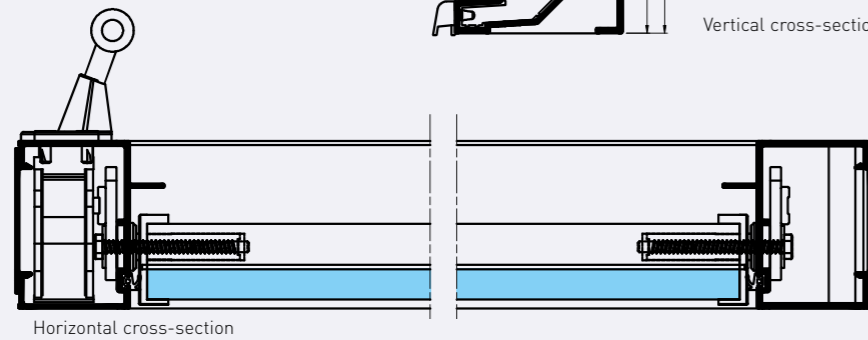
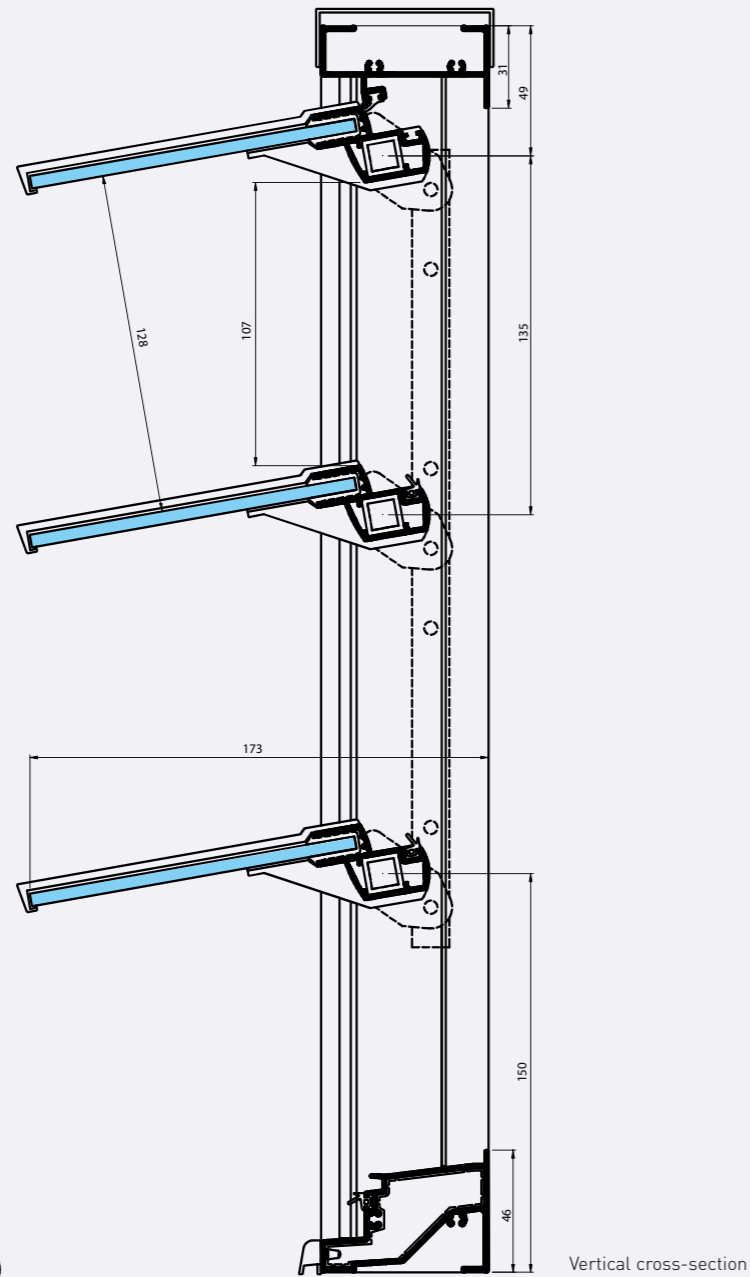
Lever handle



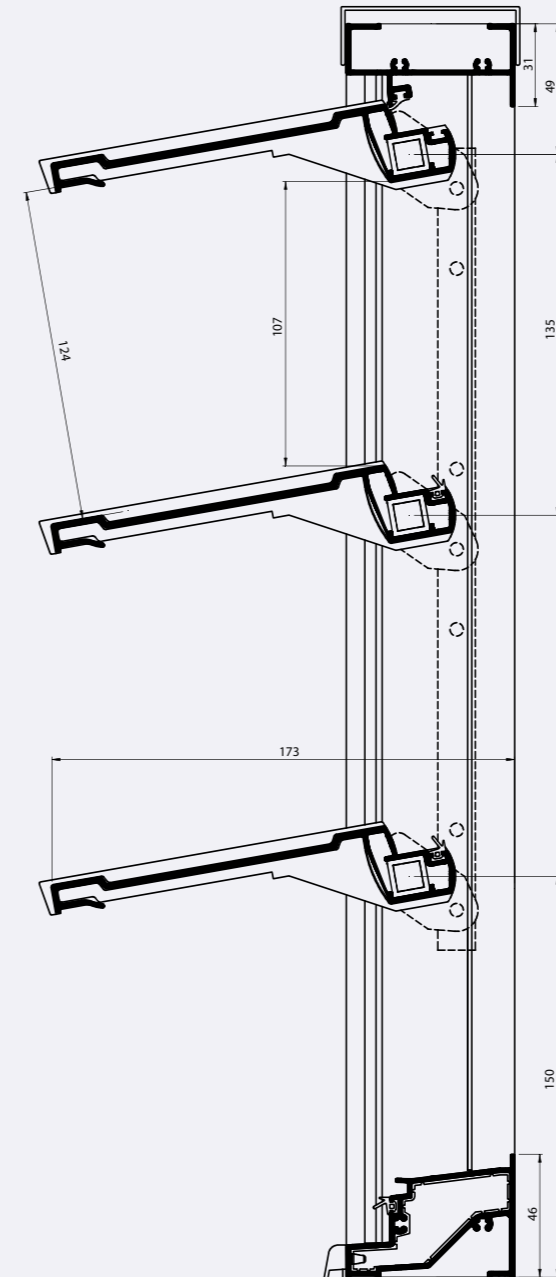
Architects: Antoine Perrau, Michel Reynaud
 Photographer: Hervé Douris

CROSS SECTIONS

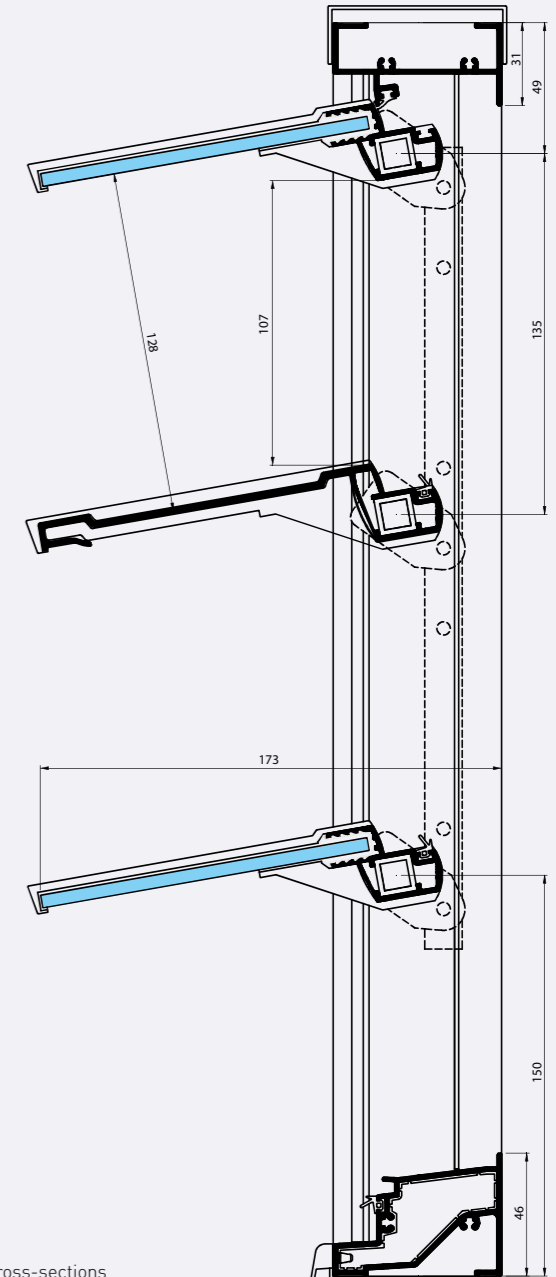
GLASS LOUVRES



ALUMINIUM LOUVRES



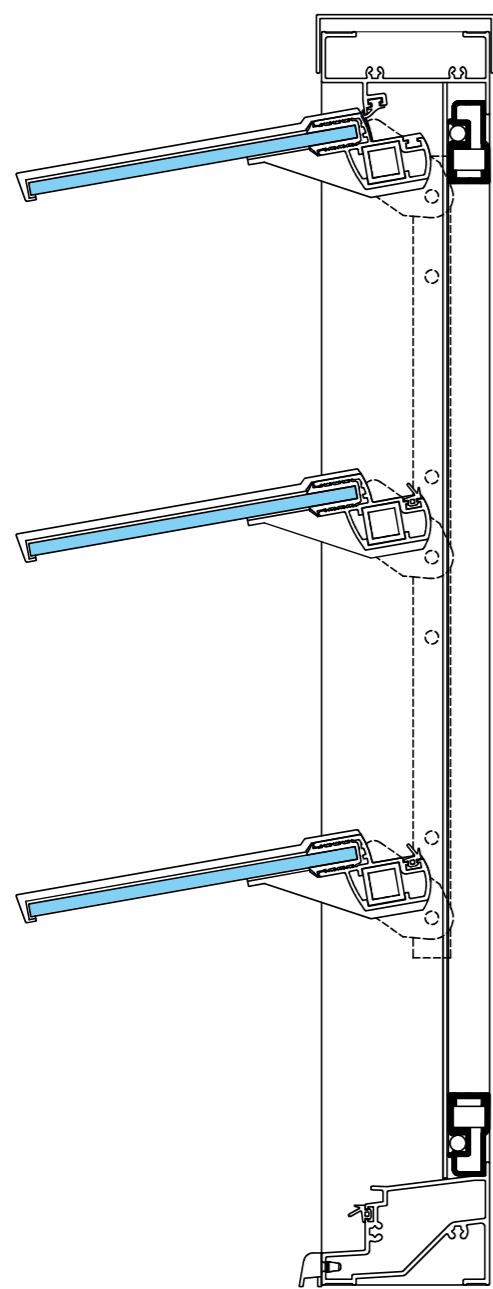
MIXED LOUVRES



CROSS SECTIONS

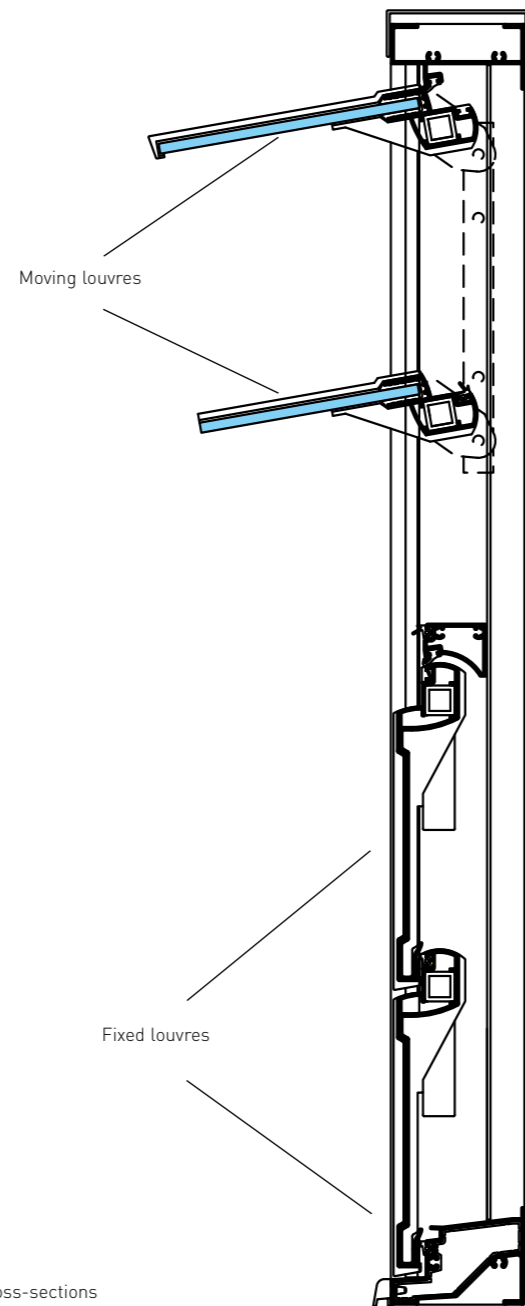
FRAME WITH MOSQUITO SCREEN

Option for integrating an internal mosquito screen into the outer frame



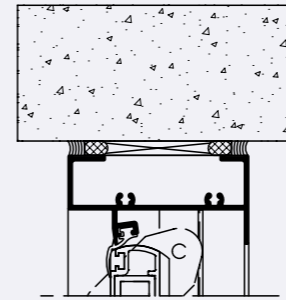
Vertical cross-sections

FIXED/MOVING LOUVRES WITH MIDRAIL

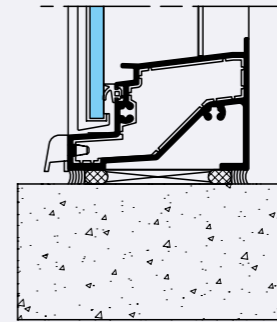


SITE INSTALLATION

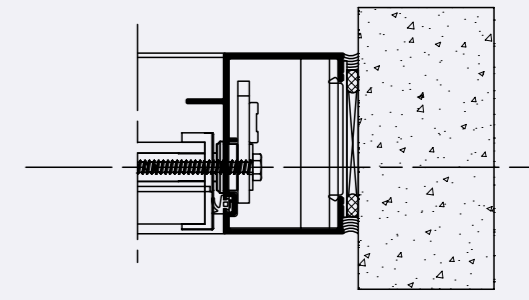
INDEPENDENT



Upper section

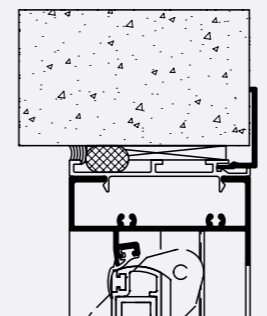


Lower section

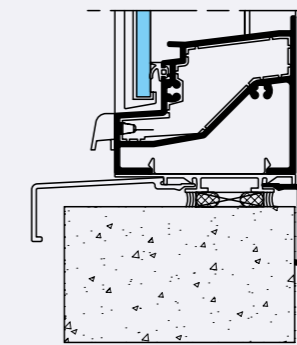


Horizontal section

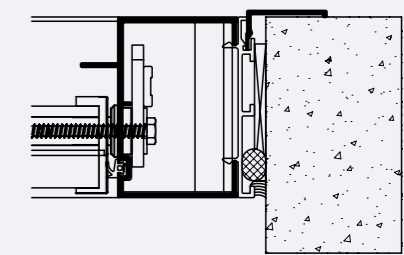
INDEPENDENT WITH PRESSING/ARCHITRAVE GROOVE



Upper section

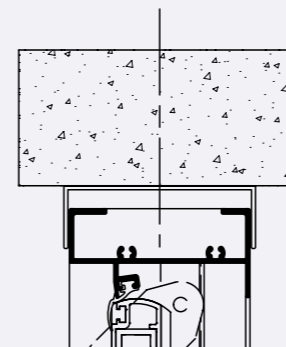


Lower section

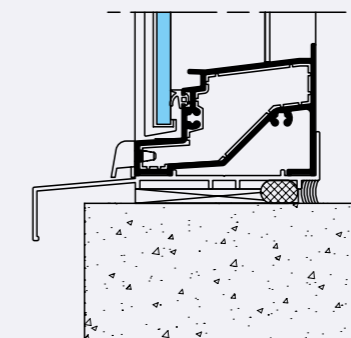


Horizontal section

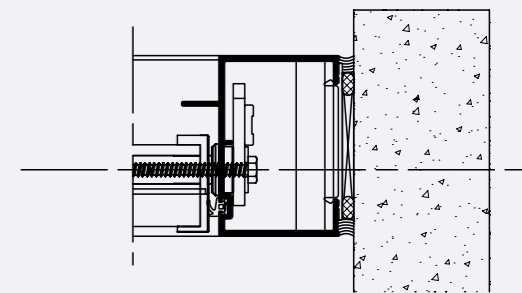
PANELLING



Upper section



Lower section



Horizontal section



SAFETYLINE

/ INTEGRATED MOTORISATION



COMFORT AND WELL-BEING

This solution designed for jalousie SAFETYLINE motorisation reconciles users comfort, access and aesthetics, these are essential brand values. For universal use, Technal's motorisation devices have been shaped to offer self-adjustment for a power voltage between 110 and 240V. Technal also offers an electronic card which functions at high humidity. Thus motorisation can be applied in any country, what-ever the climate.

Technal has made motorisation an affordable option for many more users.

A FUTURE VISION

Motorisation, totally hidden in fixed frame, includes successful results on remote management of many assets.

Access: improve disabled access by facilitating access and manoeuvre.

Ventilation: greater well-being through natural ventilation and optimum internal temperature, reduces the need for air conditioning.

Universality: suited to new-build and renovation.

Installation: 3 years guaranteed, the motor is independent of the frames and allows easy access for maintenance.

The (+): easy to install and to use, motorisation is compatible with any building management system.



Architect: 2APMR
Photographer: Hervé Douris

SAFETYLINE

/ MOTORISATION

MIXED LOUVRES



CHARACTERISTICS AND INNOVATIONS

MAXIMUM SIZES

- Wide width up to 1400 mm in a single element or with frame junction.
- One motor can run up to 18 aluminium louvres (2,4m high) or 12 glass louvres 1,6m high).
- Possibility to use different motors with different middle transoms.

SECURITY

- Closure speed in accordance with the 3rd class level of the (2006/42/EC) European standard:
 - 40 seconds for complete opening.
 - 45 seconds for complete closing.
- Possibility to connect with a presence sensor to meet requirements of schools, hospitals or any public buildings.
- Operation guarantee of electric elements at high humidity.

MULTIPLE APPLICATIONS

- Frame with glass or aluminium louvres.
- Mixed frames with glass and aluminium louvres.
- Frame with mosquito screen.
- Balustrade function.
- Can be combined with casements, hinged doors or sliding windows from the TOPAZE range.

TECHNICAL CHARACTERISTICS

Supply voltage	12 VDC
Consumed power	10 W
Lowest limit voltage	12 V
Protection indicator	IP30
Operating temperature	-20° / +60°

INNOVATION

- Motor size reduced at maximum.
- Exclusive drive system (Technal Patent).
- Rotating drive system made by square stem.
- Eliminates use of compensating spring.
- Control by domotisation / centralisation.

EFFICIENCY

- Low consumption motorisation (12 VDC / 10 W)
- Automatic rotation stop.
- Motor integration in standard fixed frame.
- External power use.

CONTROL

- Wired or radio remote control.
- Motorisation compatible to centralise management system allowing opening control of louvres.
- Simultaneous operation of 4 motors by switch and more with commercial power.

PERFORMANCES

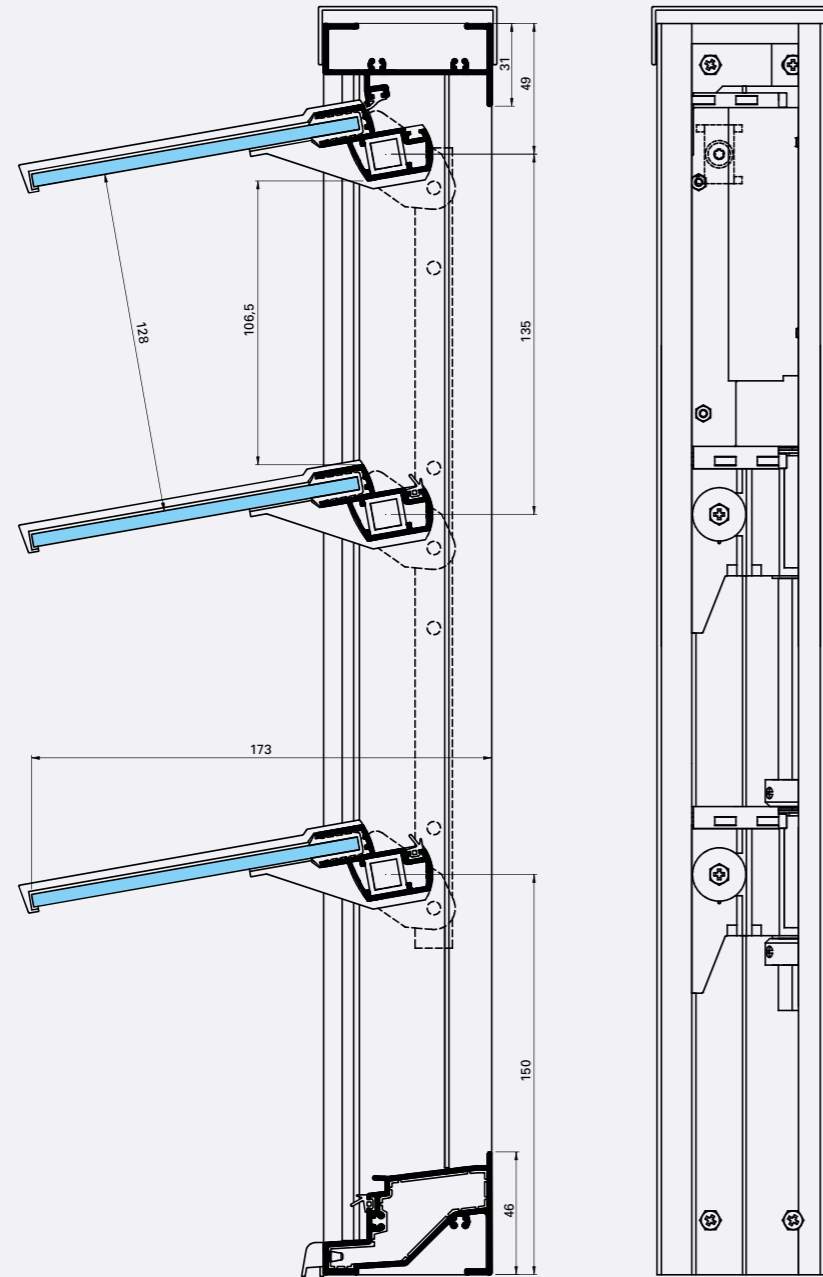
- Tested at 30 000 cycles.
- Weather tightness identical with manual version.

AFTER SALES SERVICE

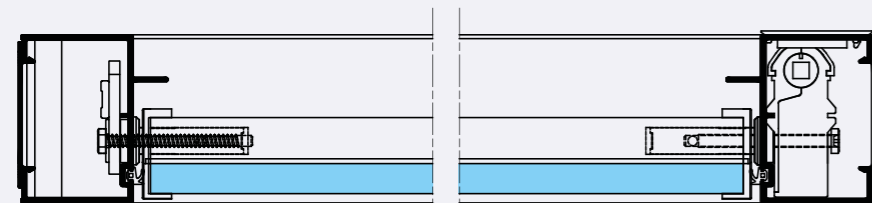
- Easy access to the motor for maintenance.
- Motor guarantee: 3 years.
- Possibility for manual operation.

CROSS SECTIONS

MOTORISATION WITH ONE MOTOR

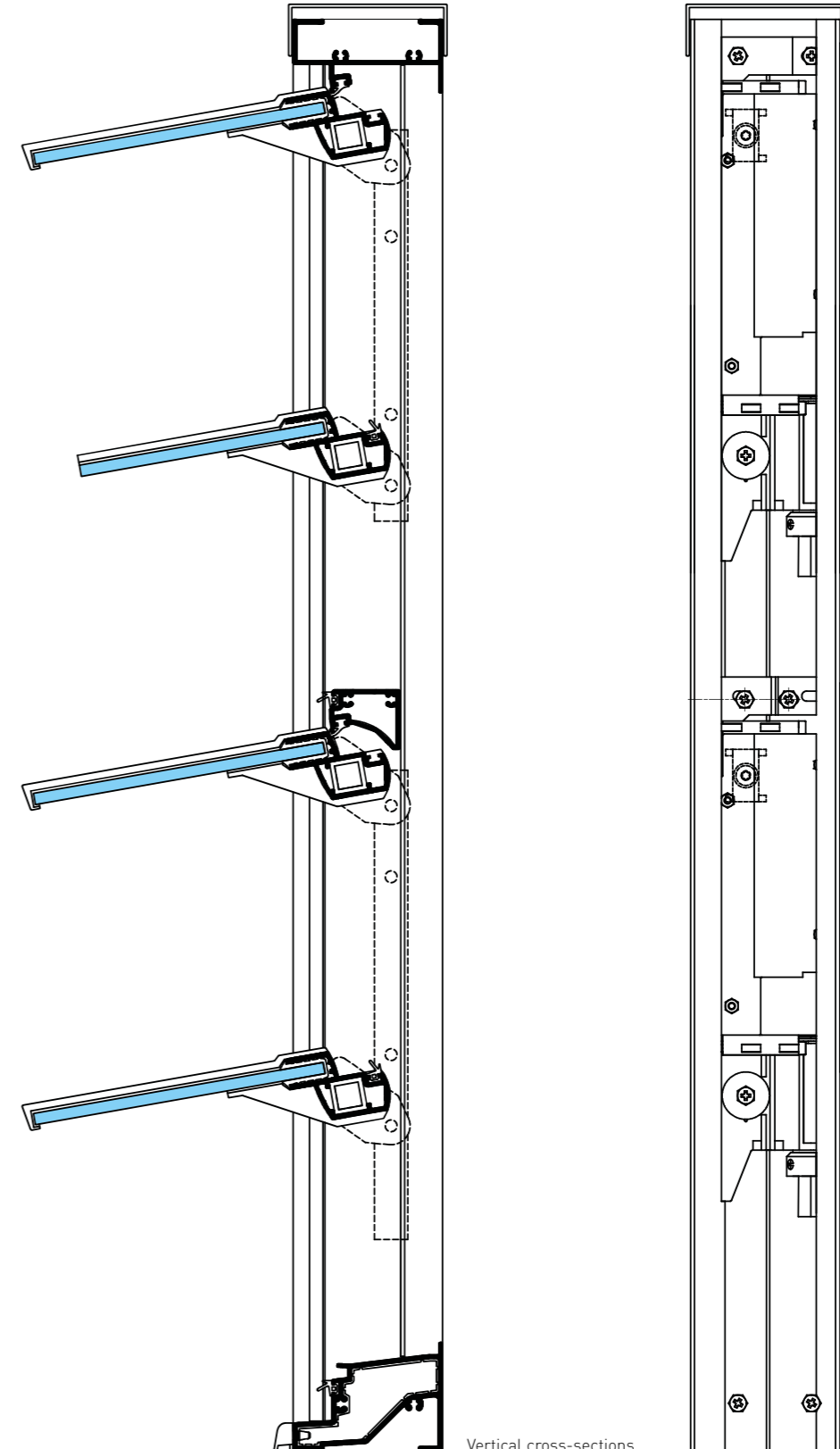


Vertical cross-sections



Horizontal cross-section

MOTORISATION WITH MULTIPLE MOTORS AND MIDDLE TRANSOM



Vertical cross-sections

PERFORMANCE

WEATHER PERFORMANCE: A.E.V. (A: Air, E: Water, V: Wind)					
Type	Dimensions W x H in m	A	E	V	Test n°
Glass louvre	1 x 1,144	2	7B	VC5	R15-03-04
Glass louvre	1,4 x 1,144	3	7B	VA5	R15-05-03
Flat aluminium louvre	1 x 1,144	2	7B	VC5	R15-03-03
Flat aluminium louvre	1,4 x 1,144	3	7B	VA5	R15-05-02
Mixed louvres with middle transom	1,4 x 2,089	3	6B	VA5	R15-05-04
Rounded aluminium louvre	1,4 x 1,144	3	7B	NC	R02-05-02
Rounded aluminium louvre	1,1 x 1,144	2	4B	VC5	R02-05-04

Performance in accordance with NF P 20-302/A1

Shock Resistance				
Type	Dimensions W x H in m	Energy	Opinion	Test n°
Centre of the bottom light (glass louvres)	1,4 x 2,089	600 J	Preferable	R02-05-05
On the middle transom (glass louvres)	1,4 x 2,089	900 J	Preferable	R02-05-05
Centre of the bottom light (plate aluminium louvres)	1,4 x 2,089	600 J	Preferable	R14-12-01
On the middle transom (plate aluminium louvres)	1,4 x 2,089	900 J	Preferable	R14-12-01
Centre of the bottom light (aluminium louvres)	1,4 x 2,089	600 J	Preferable	R02-05-06
On the middle transom (aluminium louvres)	1,4 x 2,089	900 J	Preferable	R02-05-06

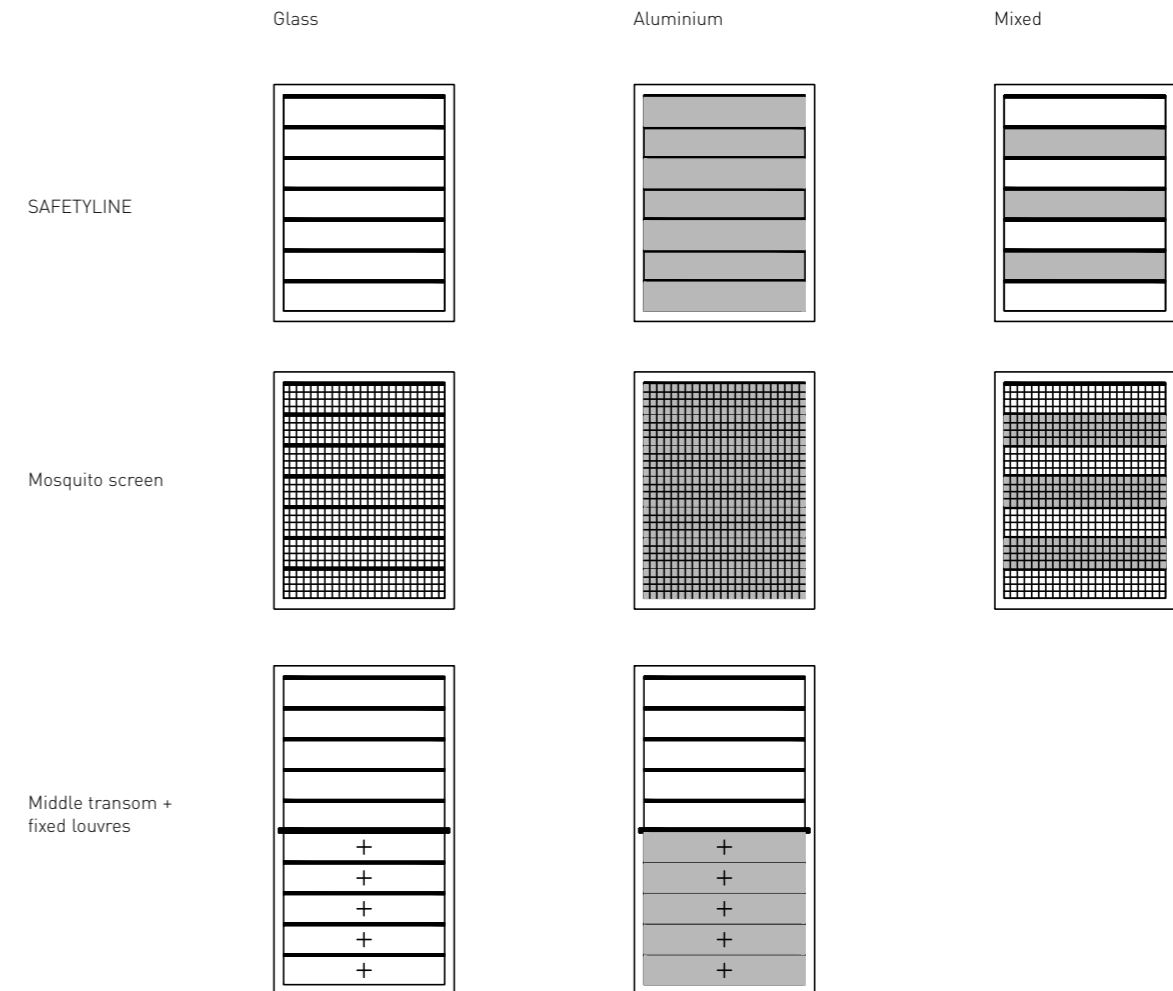
Pulling the glass louvres from the frame
Force in excess of 200daN on the frame without becoming loose

Test N° Q-0305-01

Solar Ageing
On flanges and carriers, after 300hours in accordance with Standard NFT51-056, no notable change in characteristics.

CSTB Test N° 01-0020

APPLICATIONS



MATERIALS AND PARTS

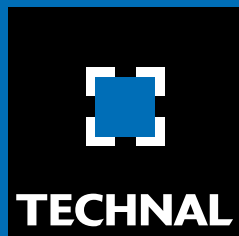
As with all Technal systems, only the highest materials and components are used to minimise maintenance and ensure long-term performance.

- The aluminium profiles are extruded from alloys 6060 Building compliant with EN 12020, EN 573-3, EN 515 and EN 775-1 to 9
- Fittings are cast from EN 12844 compliant Zamak 5.
- Screws are made from stainless steel.

FINISHES AND COLOURS

A wide range of finishes and colours is available to meet individual project requirements, enhancing existing buildings and offering architects and designers greater design freedom:

- Natural anodised in accordance with EN 123731: 2001.
- Polyester powder coating finishes in a wide range of colours in accordance with "QUALICOAT".
- SAFETYLINE is also available in lacquered finishes with exclusive Technal colours for a stylish and contemporary look.



IMAGINE WHAT'S NEXT

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By  Hydro