

# Façades

Curtain Wall, VEC & VEP

Building

# Façades

## Univers® Façades: the Choice of Transparency

Installlux Aluminium over the years has developed an internationally recognized technical and design know-how in the field of multi-purpose façade systems. The Univers® range includes structures with visible grid (exposed aluminium cover caps), continuous raster, and bonded clearance glazing, meeting all the technical needs, and designed from the beginning for easy installation (front fitting or progressive fitting/semi-unitized).

Installlux Aluminium guarantees the compliance of its façade systems with the EU requirements (CE marking) and with the current standards.

## Your Reasons to Choose the Installlux Aluminium Univers® Façades

- The possibility to meet all the technical constraints and requirements: structure with visible grid, continuous raster (two-sided), or bonded clearance glazing (four-sided);
- Thermal efficiency, with one of the best heat transfer rates on the market;
- Compliance with standards and CE marking;
- A wide choice of finish and look.



### Univers® 54

Concept  
p. 4-7

### Univers® 54

Opening Frames  
p. 8-11

### Univers® 54 VEC

p. 12-13

### Univers® VEC TH

p. 14-15

### Univers® VEP

p. 16-17

### Univers® Sunbreaker

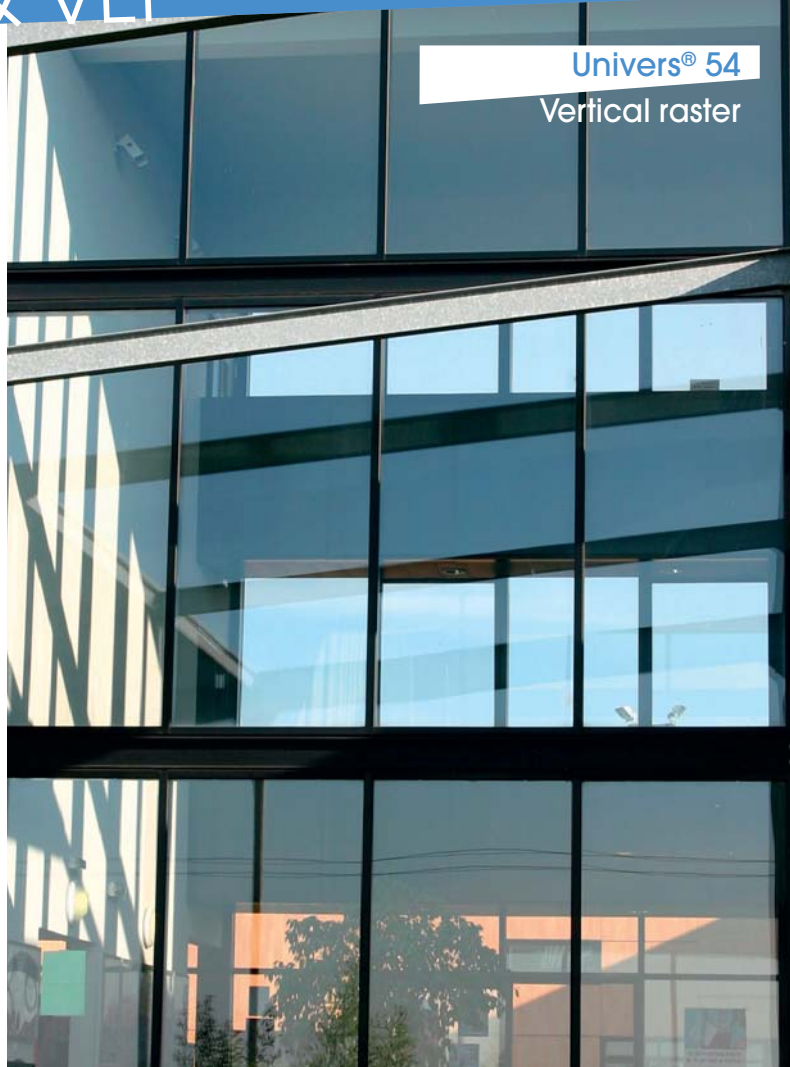
p. 18



# Curtain Wall, VEC & VEP



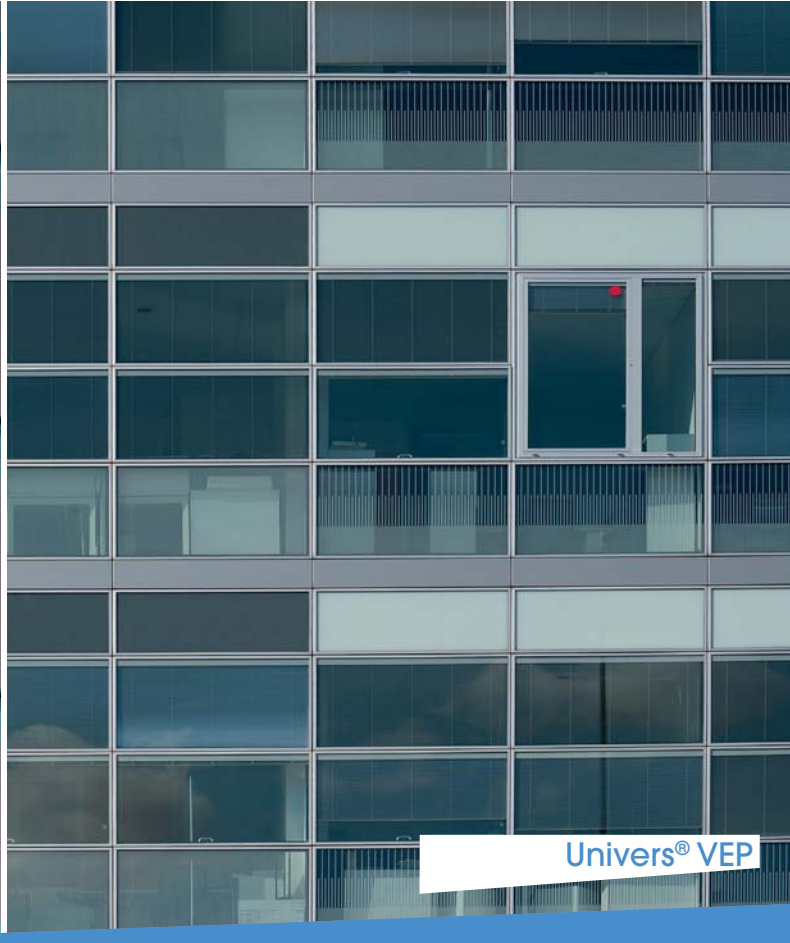
Univers® 54  
Horizontal raster



Univers® 54  
Vertical raster

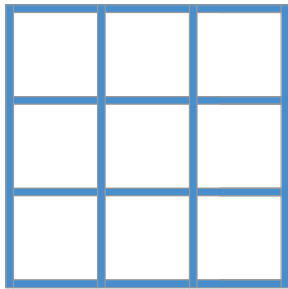


Univers® VEC TH

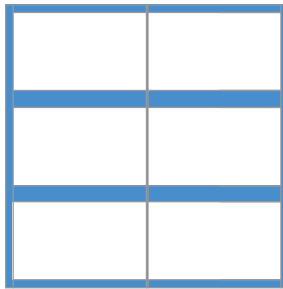


Univers® VEP

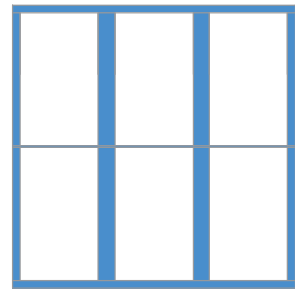
## Grid



## Horizontal Raster



## Vertical Raster



## — Features —

Profiles for the construction of façades include a wide choice of mullions and transoms.

The transoms are fixed to the mullions directly by screws, or by transom connector blocks without any machining. The system provides the choice between frontal and progressive installation/semi-unitized.

Transom connector block fixed transoms are drained through holes in pressure plates and cap-pings, whereas the direct screw-fixed transoms are drained through the mullions (cascade drainage).

The variety and range of its aesthetic variations allow the system to suit any architectural requirement, the dimensions of modules, range of inertia of profiles make the system to adapt to any technical constraints or requirement.

The technical solutions and options of the system reduce fabrication and installation time, while guaranteeing top performance and quality.

## Pluses Product

### Insulation & Weatherproofing

- Glazing up to 49 mm.
- High thermal efficiency thanks to an extruded polyethylene foam spacer (min. Uf 0.9 W/K.m<sup>2</sup>)

### Technical

- Mullions and transoms have been designed to be easily reinforced with standard steel profiles.
- Half mullions for expansion joints or adjustable angles.
- The system is designed for skylights.

### Look

- Various models of cover caps.
- 90° salient angle post.
- Harmonious integration of concealed opening window profile.
- Segmented façades are possible.

### Standards

- Complying with RT2012 and LEB regulations.
- CE marking of façade according to EN 13830 standard.
- Technical validation by SSGS ETA.

## Pluses Fabrication & Fitting

### Assembly

- Screw-fixed or junction-block fixed transoms. No mullion machining required.

### Fitting

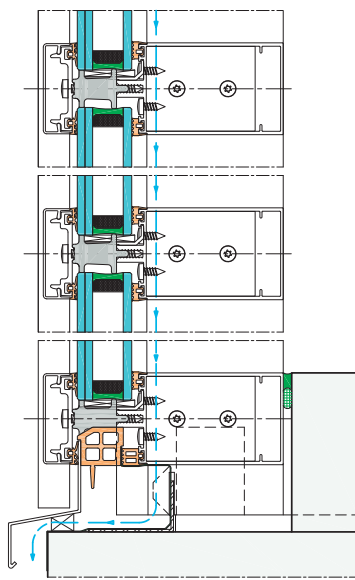
- Progressive or frontal fitting.

# Curtain Wall Façade

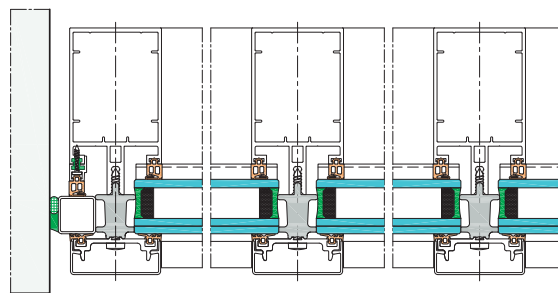
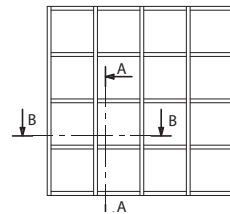
## Grid



## – Typical Sections



Vertical section A-A



Horizontal section B-B

## – Performances

A.E.V. (Air - Water - Wind) as per EN 13830 AE - RE 750 - V 1200	
SHOCK RESISTANCE	
Inside	Outside
I5	E5

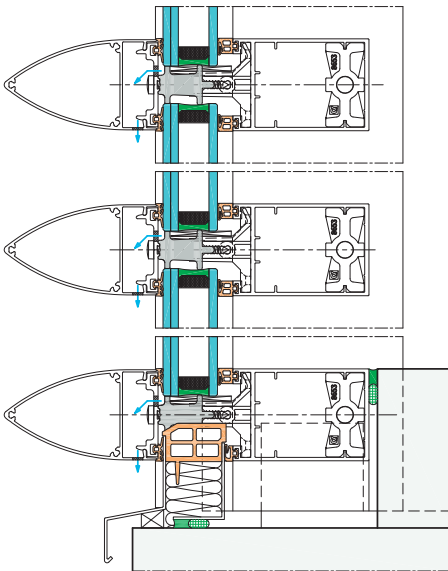
THERMAL	
Glaz. Thickn. (mm)	Uf (W/K.m2)
24	3
26	1.2
36	0.9

# Univers<sup>®</sup> 54

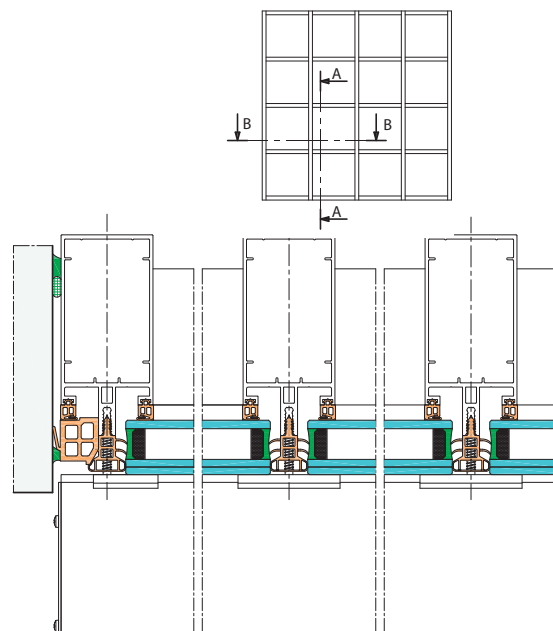
## Horizontal Raster



### — Typical Sections



Vertical section A-A



Horizontal section B-B

### — Performances

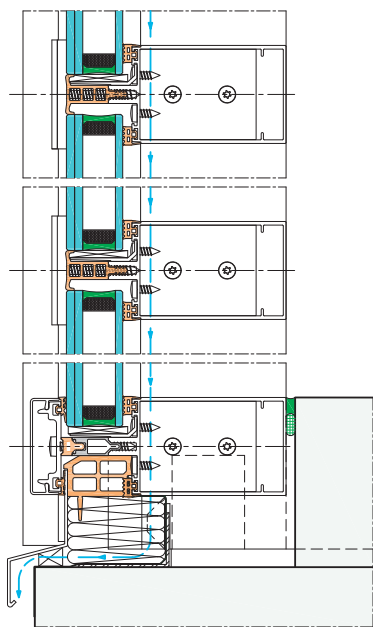
THERMAL	
Glaz. Thickn. (mm)	Uf (W/K.m <sup>2</sup> )
26	1.8

# Curtain Wall Façade

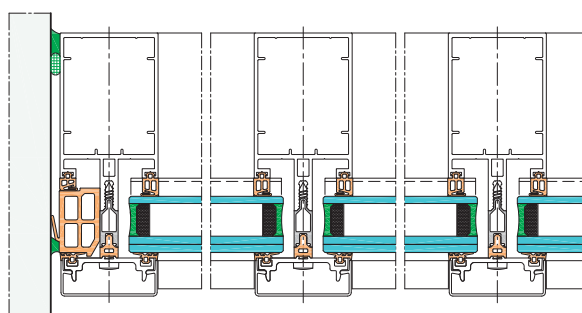
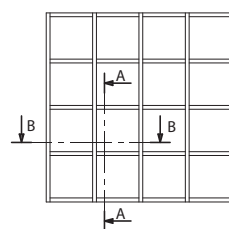
## Vertical Raster



## — Typical Sections



Vertical section A-A

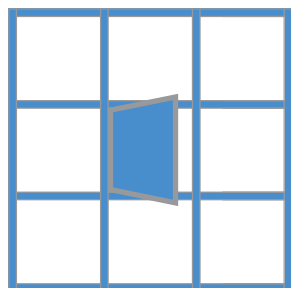


Horizontal section B-B

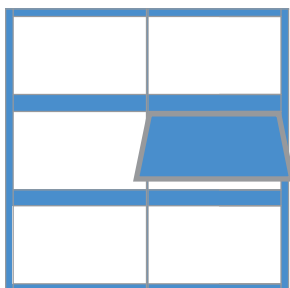
## — Performances

THERMAL	
Glaz. Thickn. (mm)	Uf (W/K.m2)
26	1.8

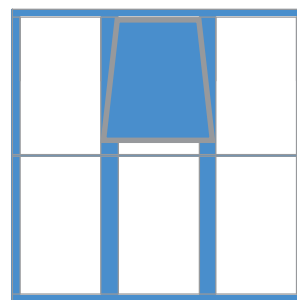
## Fire Brigade Access



## Italian Window



## Concealed Window



## — Features —

This façade system accepts glazing up to 49 mm. Possibility to fit in a concealed SSG italian window, concealed SSG tilt-and-turn window, in- or outward opening fire-brigade access window, and all the frame types of the Espace<sup>®</sup> 70 TH et Comète<sup>®</sup> 70 TH ranges.

In order to comply with the RT2012 standard, it is possible to increase the thermal efficiency by adding an extruded polyethylene foam spacer to achieve a minimum  $U_f$  of 0.9 W/K.m<sup>2</sup>.

The VEC bonding technique is sanctioned by an SSGS ETA in compliance with the current standards.

The initial type tests have been carried out with an italian window, thus authorizing the CE marking of the complete façade.

The thermal performance of this type of window corresponds perfectly to the overall performance of the façade, thus complying with the LBE and HPE/THPE RT2012 requirements.

## Pluses Product

### Standards

- Complying with RT2012 and LEB regulations.
- CE marking of façade according to EN 13830 standard.
- Bonding validated by SSGS ETA.

## Pluses Fabrication & Fitting

### Assembly

- Crimp or screw corner cleats.

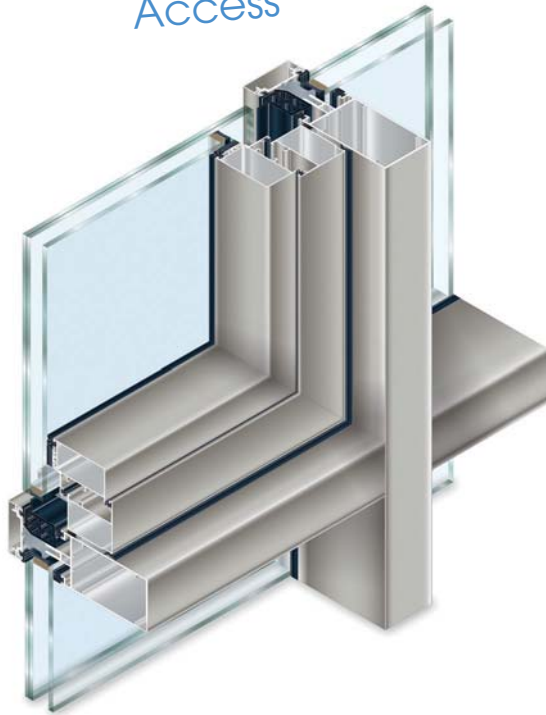
### Fitting

- From inside or from outside.
- Template for perfect fitting of the window into the façade.



# Curtain Wall Façade

## Fire Brigade Access



## — Features —

The presence of totally concealed fire-brigade access windows doesn't affect the outside look of the façade, since their visible area is equal to the area of the fixed parts. The result is a smooth and homogeneous looking façade.

Accepted glazing 24 mm.

## Pluses Product

### Insulation & Weatherproofing

- Glazing 24 mm
- Triple tightness barrier

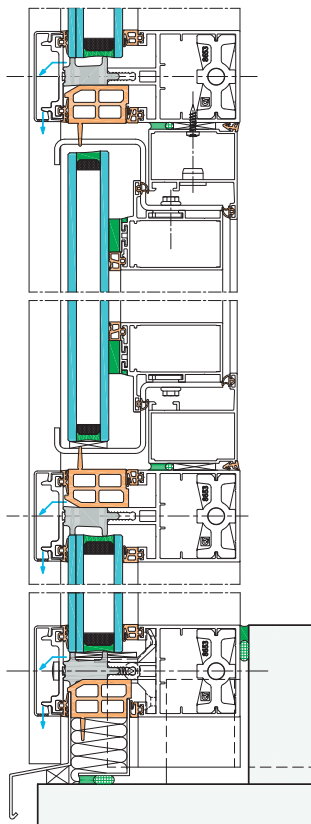
### Technical

- Adjustable hinges
- 3-point lock

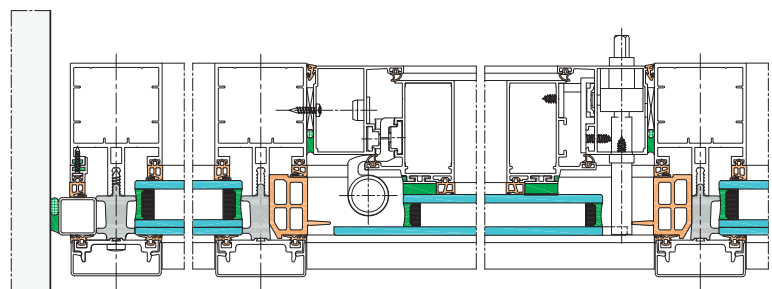
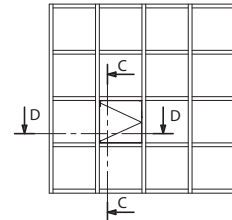
### Look

- Square look
- Customized handle possible

## — Typical Sections —



Vertical section C-C with fire-brigade access



Horizontal section D-D with fire-brigade access

# Univers<sup>®</sup> 54

## Italian Window



## — Features —

The presence of concealed Italian windows respects the outside look of the façade: their visible area is equal to the area of the fixed parts, resulting in a smooth and homogeneous looking façade.

Accepted glazing from 24 up to 32 mm.  
Possibility of 3 sets of fittings of different sizes corresponding to a wide span of frame dimensions and weights.

## Pluses Product

### Insulation & Weatherproofing

- Glazing from 24 up to 32 mm.
- Triple tightness barrier.
- Thermal performance  $U_f$  : 1.9.

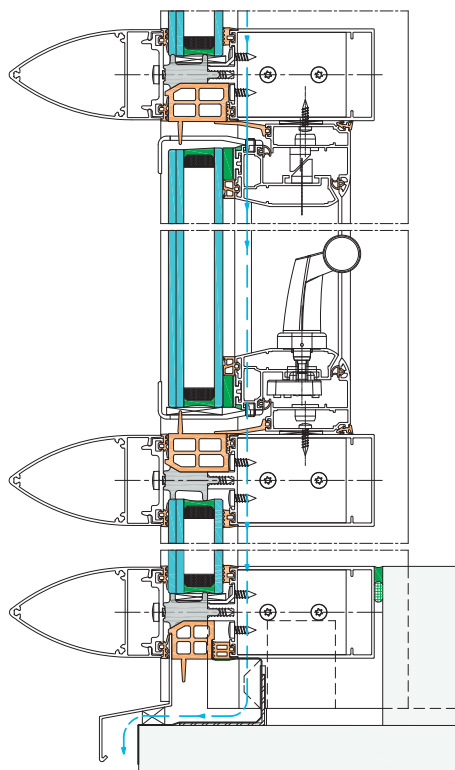
### Technical

- 3 sets of fittings.
- Maximum height 2000 mm.

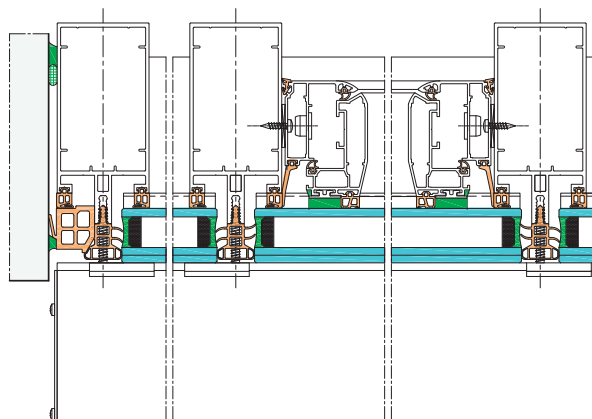
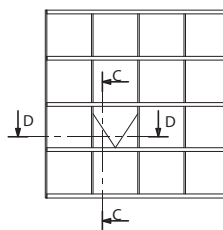
### Look

- The rounded line goes unbroken from the fixed to the opening profile.
- Customized handle possible.

## — Typical Sections —



Vertical section C-C with Italian window



Horizontal section D-D with Italian window

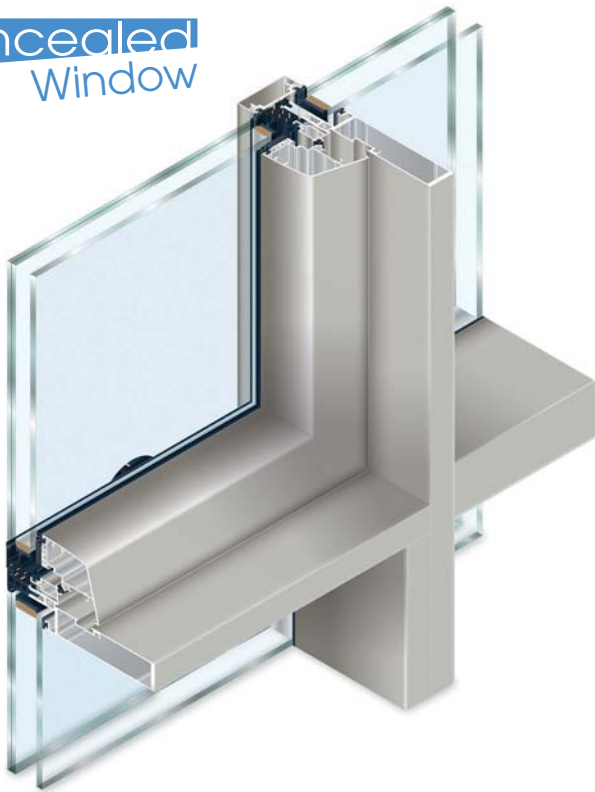
## — Performances —

A.E.V. (Air - Water - Wind) as per EN 13 830
AE - RE 750 - V 1200

THERMAL	
Glaz. Thickn. (mm)	$U_f$ (W/K.m2)
26	1.9

# Curtain Wall Façade

## Concealed Window



## — Features —

The presence of concealed windows doesn't affect the outside look of the façade, since their visible area is equal to the area of the fixed parts.

These windows are either casement or tilt-and-turn type. The hinges are concealed. Accepted glazing of 32 mm.

## Pluses Product

### Insulation & Weatherproofing

- Glazing 32 mm
- Triple tightness barrier with vulcanized gasket frame

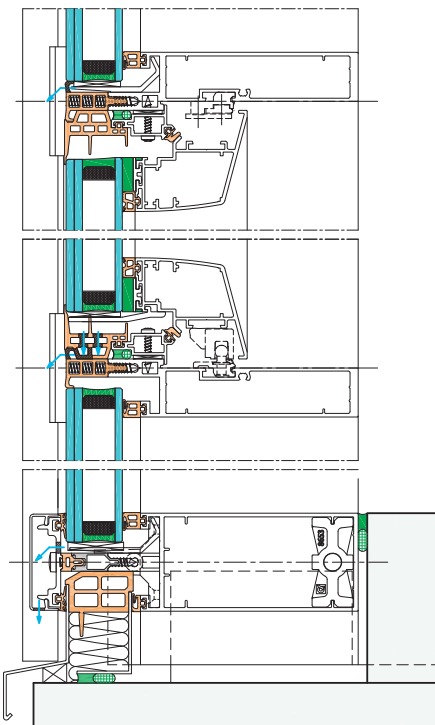
### Technical

- Concealed hinges.
- Maximum height 2400 mm, maximum width 1500 mm

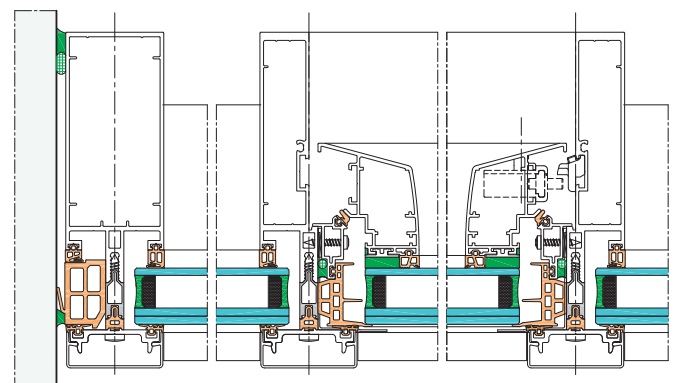
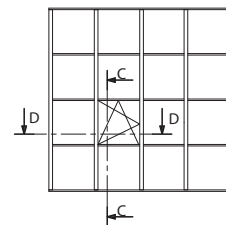
### Look

- 2 models of openable frames: square and bevelled.
- Customized handles possible.

## — Typical Sections —



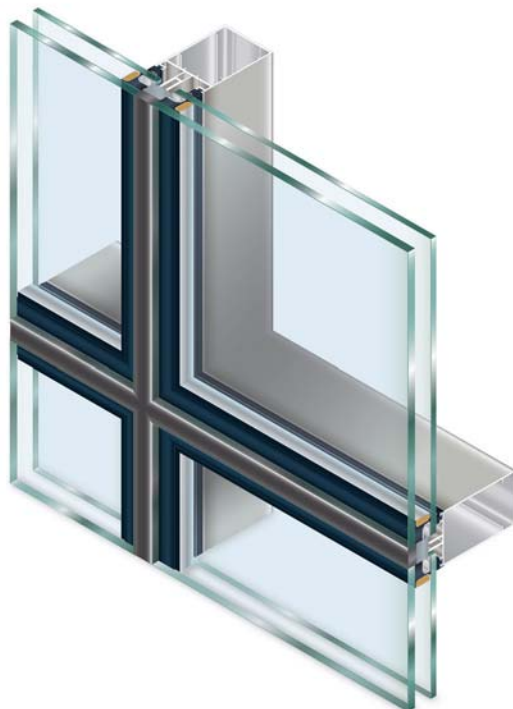
Vertical section C-C with concealed window



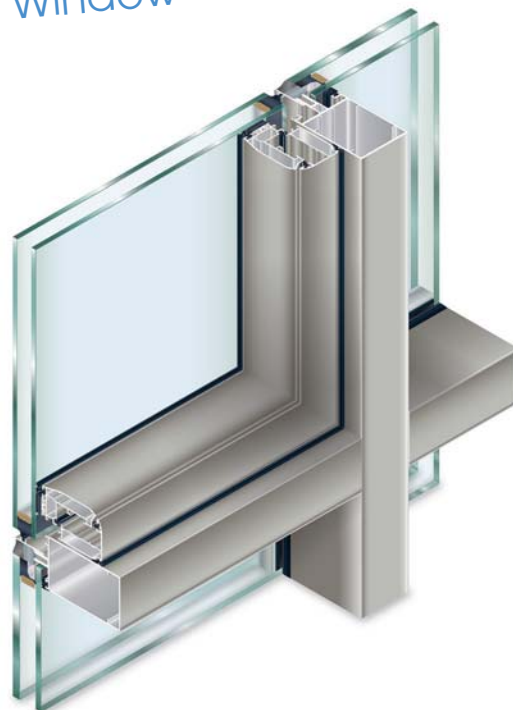
Horizontal section D-D with concealed window

# Univers<sup>®</sup> 54 VEC

## Concept



## Italian Window



## — Features —

The Univers<sup>®</sup> 54 VEC range is destined to the construction of grid-pattern curtain wall façades with fixed frames and Italian windows of equal visible area, separated by 20-mm joint gaps. This system is commonly known as mechanically clamped/fixed SG-curtain wall.

The system proposes 2 methods of glass bonding: silicon and 3M's VHB system. Silicon is the traditional method of bonding glazing units to a curtain wall and its Italian windows, whereas 3M's VHB is a recent alternative with a patented adhesive tape sanctioned by the CSTB (official French organism) with a DTA (technical application document). The glass bonding with this system is much quicker and much easier to carry out.

The mullion-to-transom assembly is screw-fixed, the transoms are drained without machining through the mullions.

All the frames must be fitted out with safety devices for added security and safety.

The technical options of this design reduce fabrication and installation time, while guaranteeing top quality of the finished product.

## Pluses Product

### Weatherproofing

- Glazing from 6 to 32 mm.
- Tested at 3000 Pa.

### Look

- Fixed and openable frames of equal visible area.
- SSG aspect with 20-mm joint gaps between the frames.
- Choice of modern-looking mullions and transoms.

### Technical

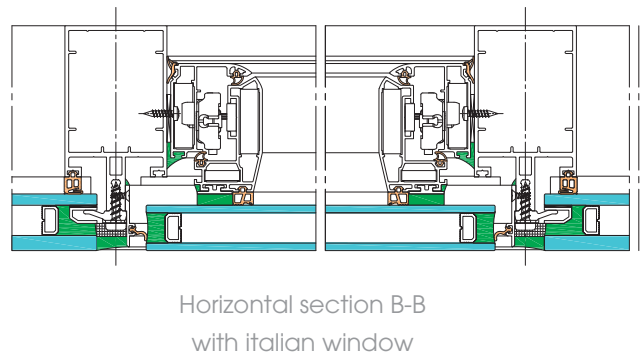
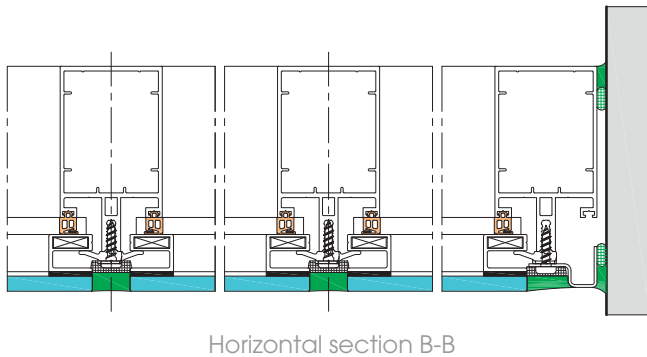
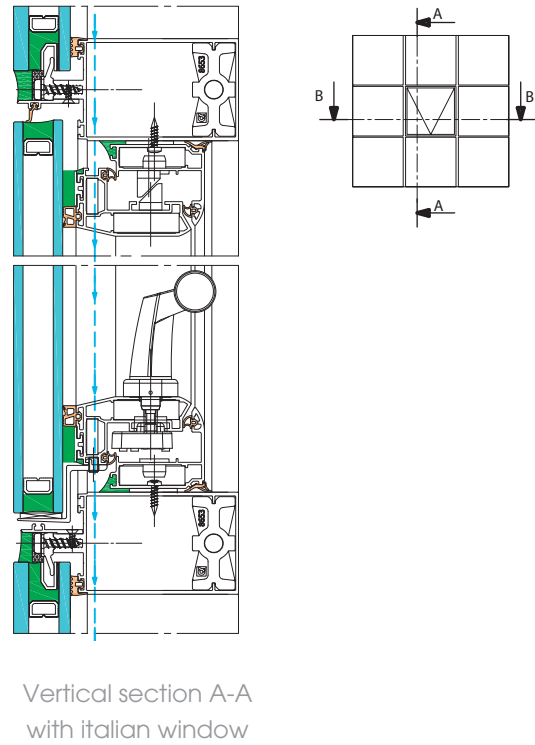
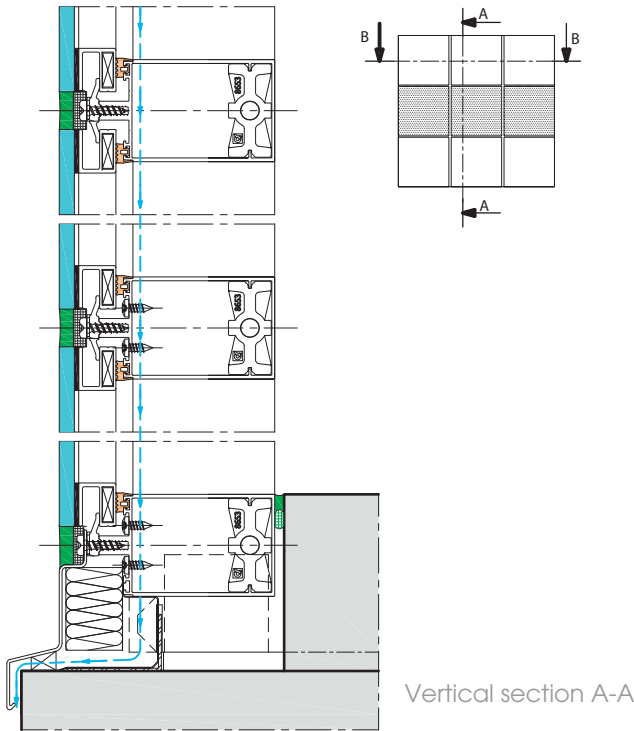
- Mullions and transoms designed to accept easily standard tubular steel reinforcers.

## Pluses Fabrication & Fitting

- Easy bonding in a standard workshop thanks to 3M's VHB adhesive tape.
- Workshop fitting of the safety devices.

# Structural Sealant Glazing Façade

## — Typical Sections —



## — Performances —

A.E.V. (Air - Water - Wind) as per French standard XP P 28.004 of June 1995			
	REQUIREMENTS	RESULTS	COMMENT
AIR PERMEABILITY	< 1.5m <sup>3</sup> /h/m under P1	Pressure = 0.6m <sup>3</sup> /h/m <sup>2</sup> Depression = 0.6m <sup>3</sup> /h/m <sup>2</sup>	Fixed curtain wall
	< 4.5m <sup>3</sup> /h/m <sup>2</sup> under P2	Pressure = 3.28m <sup>3</sup> /h/m <sup>2</sup> Depression = 2.5m <sup>3</sup> /h/m <sup>2</sup>	
WATERTIGHTNESS	Watertight under P3	No visible infiltration	Fixed parts
WIND RESISTANCE	Mullion sag < 1/300 under PN	Pressure (in mm) = 9.8m <sup>3</sup> /h/m <sup>2</sup> Depression (in mm) = 8.2m <sup>3</sup> /h/m <sup>2</sup>	
		Sudden pressure Nothing to report under PE	Nothing to report

Test report BEB1.A.5031-1 dated 6 january 2011.

TEST PRESSURES		
	PRESSURE	DEPRESSION
P1=25%PN	300 Pa	300 Pa
P2=PN	1200 Pa	1200 Pa
P3=50%PN	600 Pa	600 Pa
PE	2800 Pa	2800 Pa

# Univers<sup>®</sup> VEC TH

## Concept



## Italian Window



## — Features —

The Univers<sup>®</sup> VEC TH range is destined to the construction of grid-pattern curtain wall or semi-curtain wall façades with fixed frames and Italian windows of equal visible area, separated by 14-mm joint gaps.

It is composed of a series of mullions and transoms to assemble with junction blocks.

The thermal-break frame profiles accept 20 to 24-mm glazing.

The use of a vulcanized gasket frame made to the dimensions of the glass panes facilitates the installation (no angle sealing) and achieves optimal thermal insulation ( $U_f = 1.85 \text{ W/K.m}^2$ ) complying with the RT2010 standard.

The bonding of the glazing units to the workshop assembled frames is carried out by a duly authorized Company according to local regulations.

All the frames must be fitted out with safety devices for added security and safety.

The frames are fitted on site directly into the main structure, the fixed frames by a drop-and-lock, screw avoiding device, the openable frames by hinged arms.

The technical options of this design reduce fabrication and installation time, while guaranteeing top quality of the finished product.

## Pluses Product

### Insulation & Weatherproofing

- Glazing from 20 up to 24 mm (for thicker glass, please consult us).
- Thermal frame with  $U_f = 1.85 \text{ W/K.m}^2$ .

### Look

- Fixed and openable frames identical.

### Standards

- Complying with RT2012 and LEB regulations.
- Technical validation by SSGS ETA.

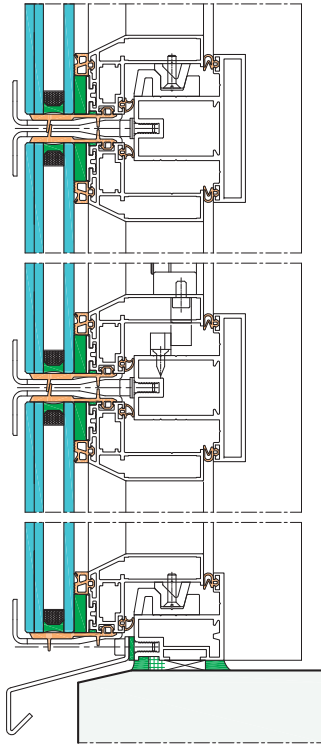
## Pluses Fabrication & Fitting

### Assembly

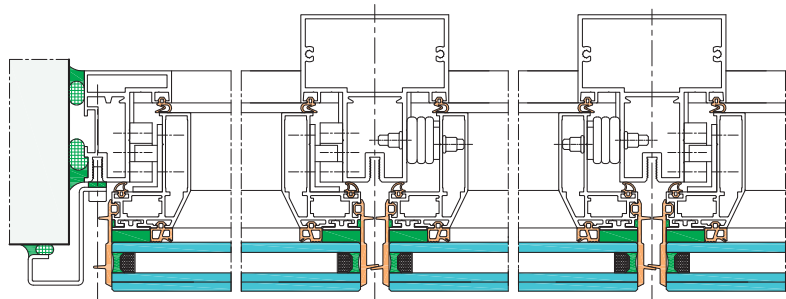
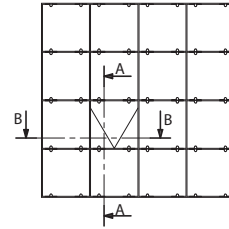
- Fitting around the glazed thermal-break frame of a vulcanized gasket frame cut to the dimensions of the glazing unit.

# Structural Sealant Glazing Façade

## — Typical Sections



Vertical section A-A



Horizontal section B-B

## — Performances

A.E.V. (Air - Water - Wind) as per NF-X28004  
A3 - EE - 1550 Pa

THERMAL  
 $U_f$  (W/K.m<sup>2</sup>) = 1.85

# Univers<sup>®</sup> VEP

## Concept



## Italian Window



## — Features —

The Univers<sup>®</sup> VEP range is destined to the construction of grid-pattern curtain wall or semi-curtain wall façades with fixed frames and Italian windows of equal visible area, separated by 10-mm joint gaps.

It is composed of a series of mullions and transoms to assemble with screws or junction blocks. The system leaves the choice between frontal and progressive installation.

The non-thermal break frame profiles accept 6 to 10-mm single glazing, 9 to 15-mm laminated glazing, or 19 to 34-mm double glazing. These profiles are completed with a thermal-break frame profile for 24 to 34-mm glass.

Frames, infillings and glazing beads are assembled in the workshop. The frames are fitted on site directly into the main structure, the fixed frames by a drop-and-lock, screw avoiding device, the openable frames by hinged arms.

The technical options of this design reduce fabrication and installation time, while guaranteeing top quality of the finished product.

## Pluses Product

### Insulation & Weatherproofing

- Glazing up to 34 mm.
- Thermal-break frame profile.

### Technical

- Half mullions for expansion joints .

### Look

- Fixed and openable frames identical.

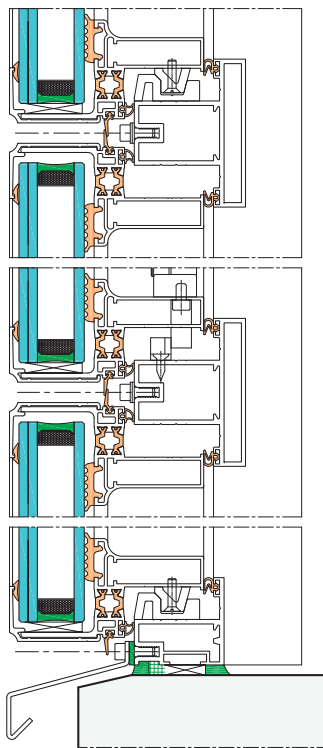
### Standards

- Complying with RT 2012 and LEB regulations.

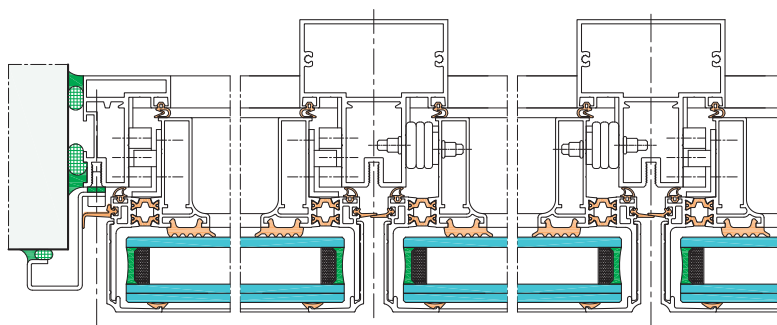
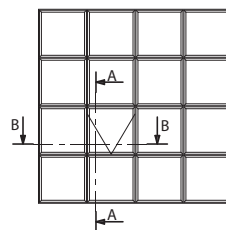


# Framed Structural Glazing Façade

## — Typical Sections



Vertical section A-A



Horizontal section B-B

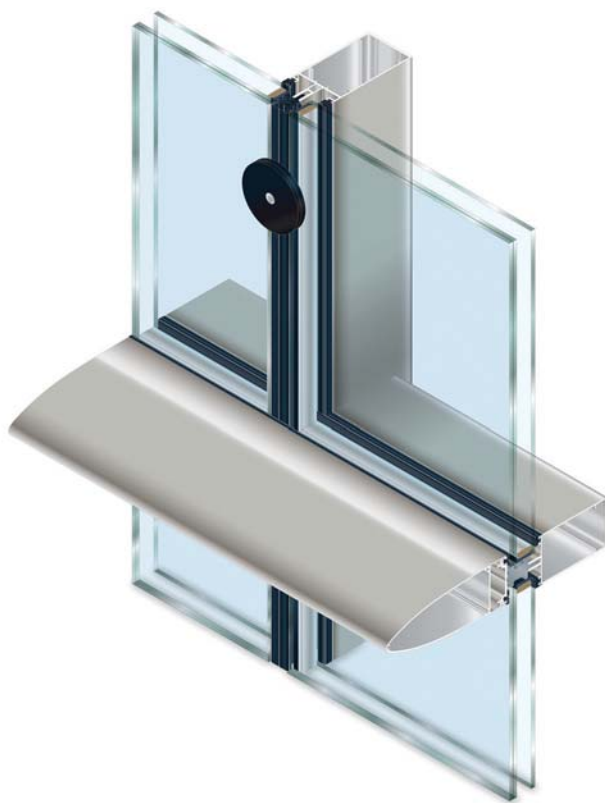
## — Performances

A.E.V. (Air - Water - Wind) as per NF-X28004  
A3 - EE - 1225 Pa

THERMAL  
 $U_f$  (W/K.m<sup>2</sup>) = 4.9

# Univers<sup>®</sup> Sunbreaker

## Concept



## Single



## Mixed



## — Features —

This series of profiles is an addition to the Univers<sup>®</sup> 54 offer.

Fitted to the pressure plates of the Univers<sup>®</sup> 54 curtain wall range, they provide a primary solar protection and give the façade a typical look. Their simplicity and modularity greatly facilitate their installation.

Customizable finish and accessories are common to the whole offer.

## Pluses Product

### Technical

- Spacer profile for broad-shaped sunbreakers.

### Look

- Finishing end caps.

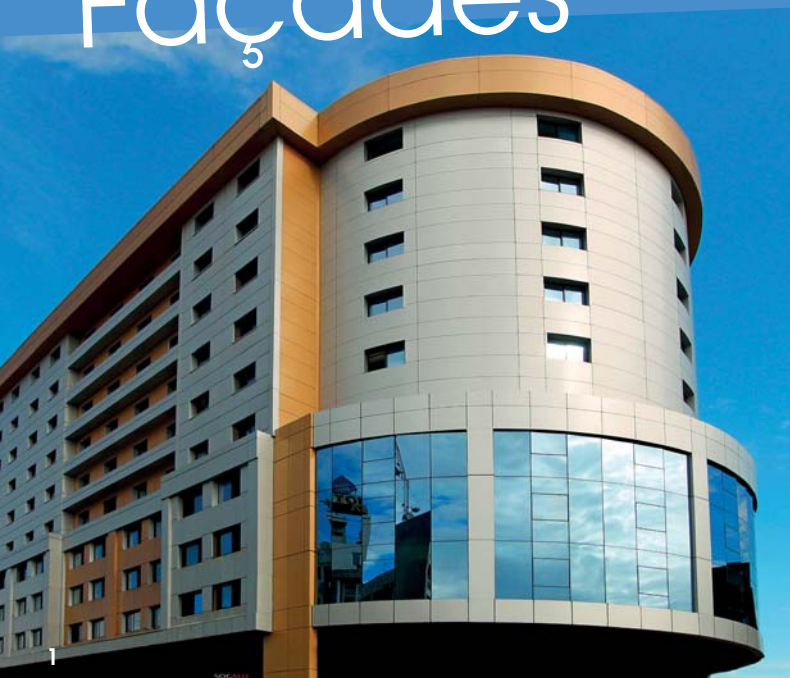
## Pluses Fabrication & Fitting

### Assembly

- To clip to pressure plate or spacer profile.



# Façades



1 Sorepco Building, Douala, Cameroon - 2 Solarenergy Building - 3 Vercors High School  
4 Saint Martin de Crau Multipurpose Hall - 5 Espace François Mitterrand - 6 Lyons Catholic College

# Curtain Wall, VEC & VEP



7 Loire Region Higher Education Institute - 8 Genzyme Building





# Installux Aluminium

## Designer of Aluminium Systems since 1963

### Tuned to Trends

By creating still more accomplished and coherent ranges, we aim to meet the professionals' and their Clients' expectations. By anticipating the requirements of the present standards, we were among the first actors of the sector to integrate the notion of energetic efficiency into all our systems, while still improving the complementarity and the look of our products.

### At the Service of the Residential and Non-residential Building Professionals

As an independent French company with over 1,500 professional Clients in the building finishing's sector, we have built our reputation upon the quality of our service and technical capability.

We work in close collaboration with them in order to design products perfectly suitable to their needs and to the evolution of the residential and non-residential market. Our systems are designed as a coherent whole in order to facilitate and enhance the quality of their work, and to offer the end customer comfort, style, and safety.

### A Solution for each Requirement

Our mission: always to be able to meet the constraints, the demands, and the ideas of our Clients and of the end customers.

Because each construction is unique, we have developed products capable to fit into any requirement: individual house or multiple dwelling, new building or renovation, architectural projects, etc. As a consequence each project can be approached with the same guarantee of performance and design.

Colour, accessories, finish, shapes: we offer you the best that can be made of aluminium. So you can expand your projects to the limits of your imagination.

### Our Expertise

Our mastery of aluminium is based upon strict quality control. For instance, all our technical data are subjected to certified tests carried out by our own teams and by independent organisms. The powdercoating of our profiles conforms to the specifications of the Qualicoat/Qualimarine label, thus guaranteeing perfect adhesion of the coating and stability of the colours.

### Innovation, our Central Ambition

In order to keep breaking new ground in our core business, we always have put innovation at the centre of our approach.

All year round the teams of our R&D Department and Test Centre work on our products in order to improve their energetic efficiency, their look, and their fabrication and installation methods. This know-how has allowed us to participate in remarkable projects requiring the combination of efficiency with sophistication.

This expertise we share and develop with our Clients, which we frequently include in our technical committees to confirm the relevance of our choices.

As far as suppliers are concerned, we have always favoured local and innovating SMEs: dynamic enterprises eager to break new ground, with which we are able to develop the products and technologies of the future.

## The other Installux Building Ranges

