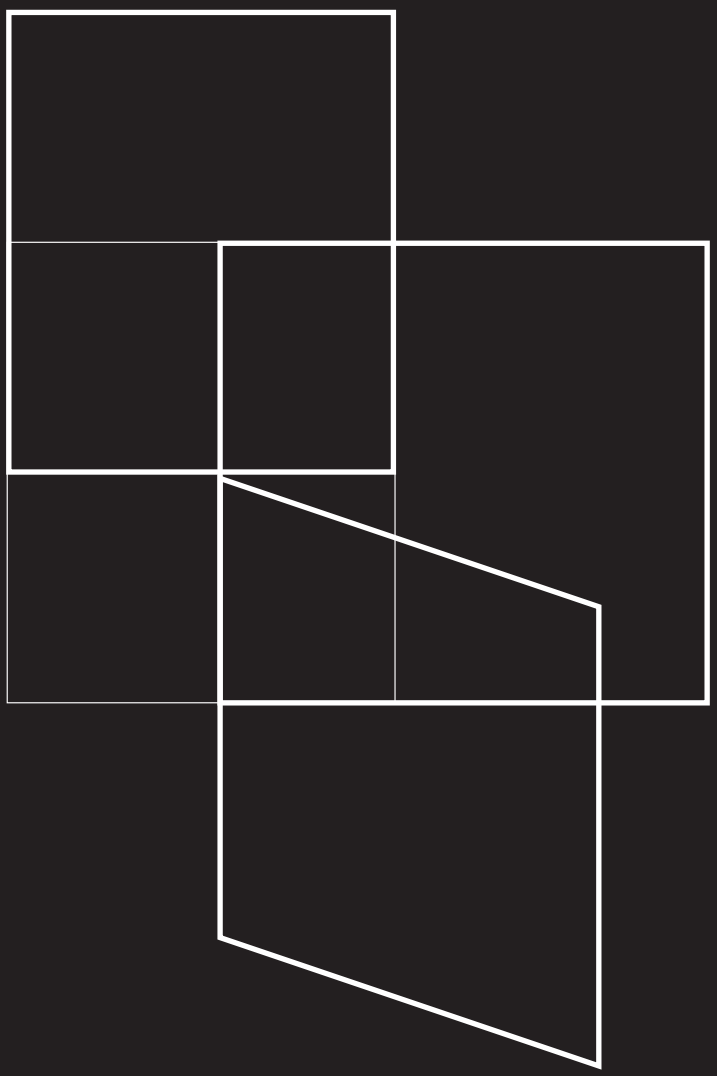


VITROCSA

Introduction

There can be no technological revolution without pioneers. Although not well-known to the general public, there is no doubt Éric Joray joined their ranks when he invented the modern minimalist window in 1992. Vitrocsa exports its systems to more than 60 countries in five continents, ensuring their current position as global bestsellers.

Vitrocsa is an official member of SWISS LABEL, a recognised symbol of quality, safety and reliability for over a century. All of its micromechanical systems and solutions are designed in the Swiss town of Saint-Aubin-Sauges by technicians trained to watchmaking standards.

Vitrocsa has been certifying the perfection of its products and constantly developing new innovations for more than 25 years. In the words of Éric Joray: "What matters most is a passion for the job and a desire to overcome challenges."
An entrepreneurial philosophy that he has passed on to his team and partners.

1989 — Éric Joray created the company Orchidées Constructions SA.

1992 — Éric Joray invented Vitrocsa, the modern minimalist window.

1993 — Launch of Vitrocsa 1001 and 2001 windows. First Vitrocsa window installed in a villa designed by the architect Andrea Bassi, close to the city of Geneva.

1994 — Éric Joray registered the Vitrocsa trademark and the first patent for the sliding system.

1995 — Several traditional conservatories were created using Vitrocsa 2001 windows.

1996 — Vitrocsa came up with a new design for the Vitrocsa 3001 window.

2000 — Multiple extensions of homes and new builds designed around Vitrocsa 3001 windows.

2001 — The first prototype of the Vitrocsa 3001 pivoting window was developed.

2002 — Vitrocsa developed the guillotine solution. The firm entered the European market with the Braga stadium in Portugal, designed by architect Eduardo Souto de Moura for the Euro 2004 football championship.

2004 — Between 2004 and 2006, new markets opened up: Russia, Australia, Israel, India, Canada and the USA.

2007 — Launch of the Vitrocsa TH+ range, offering excellent insulating properties.

2008 — Between 2008 and 2010, Vitrocsa exported to Lebanon and the United Arab Emirates.

2010 — Launch of the Vitrocsa Swimms range designed to meet the needs of hot countries.

2011 — Development of the invisible frame.

2012 — Vitrocsa developed the revolutionary Turnable Corner system and filed a new patent. That same year, the curved application was developed.

2013 — Korea and South Africa were added as new export markets and several guillotine solutions were developed between 2013 and 2016.

2014 — Launch of the Vitrocsa V32 range, with thermal reinforcement.

2015 — Éric Joray gradually passed the baton to his team. A team of six people was formed with a view to taking over the company (management buy-out).

2016 — Vitrocsa became the owner of the watchmaking building located in Saint-Aubin-Sauges, employing about twenty staff. Worldwide, the brand's partners selling and installing the range of products exceeded 500 people.

2017 — Launch of the Vitrocsa V56 range allowing infinite glazing surfaces. Vitrocsa, the original product, celebrated its 25th anniversary.

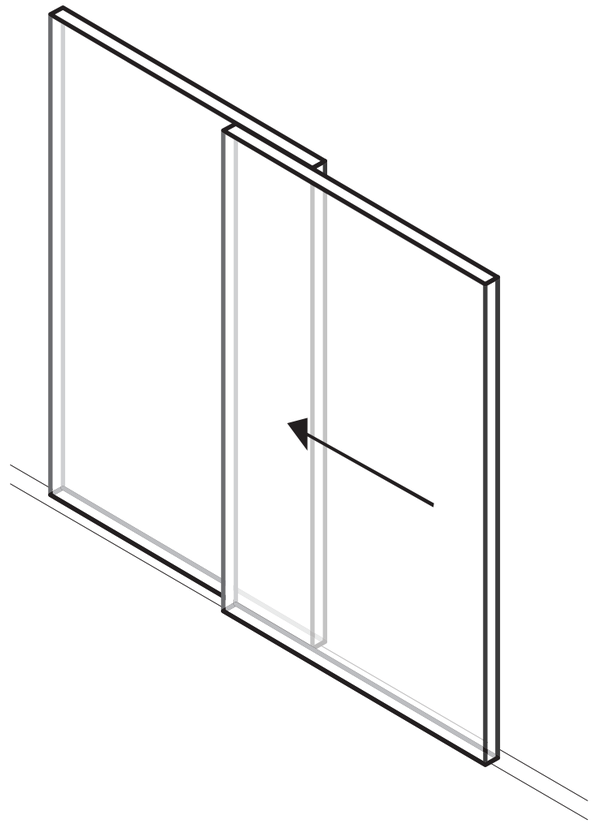
2018 — Vitrocsa is planning the construction of a new storage and manufacturing hall in Saint-Aubin-Sauges. Development of the Vitrocsa V44 range.

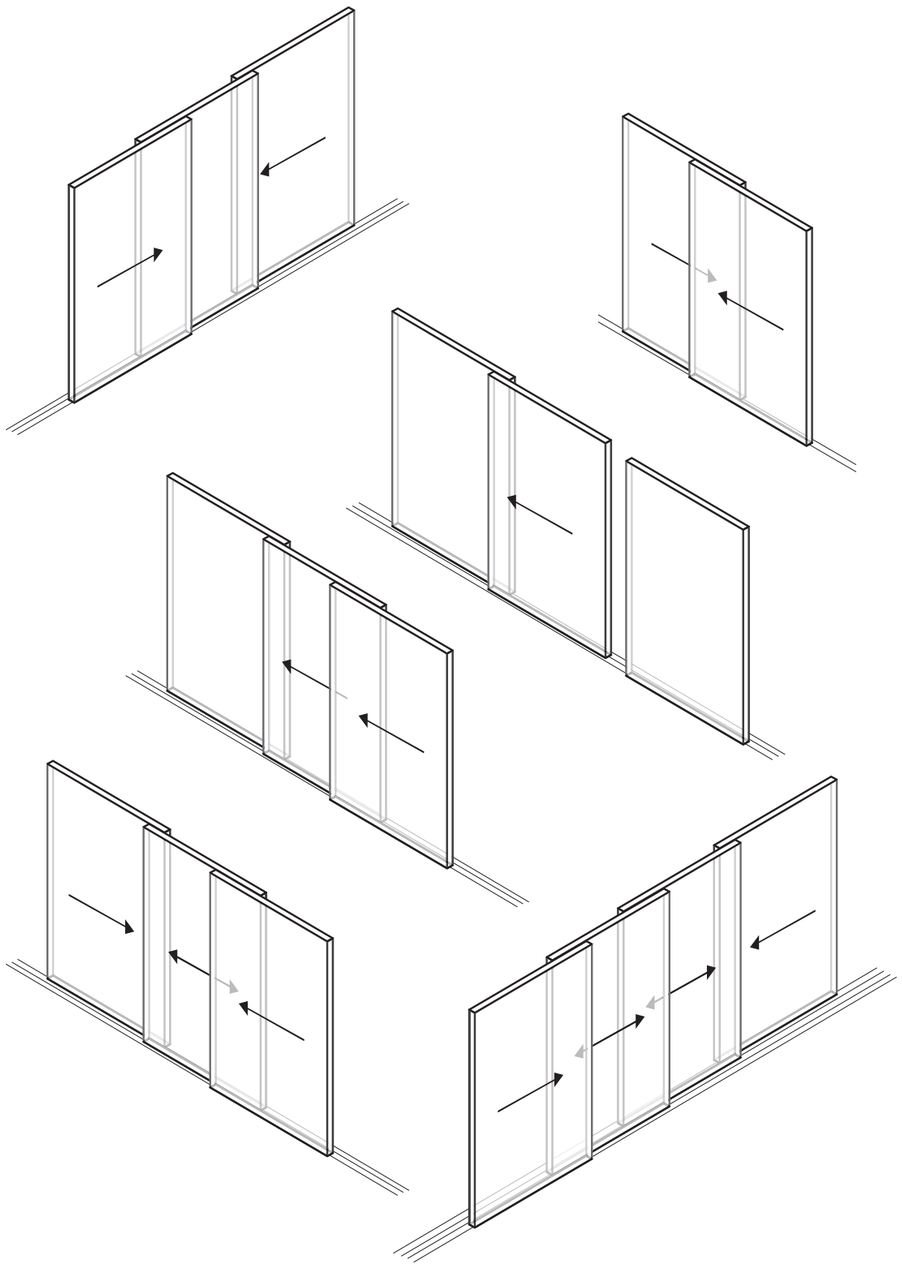
CONFIGURATIONS

To better meet the needs of its customers, Vitrocsa has developed several systems which can be adapted to each individual and each situation. We assess the environment and composition of your building, then offer you the perfect solution.

Your patented new windows are then produced in Switzerland and installed by one of our trained and experienced partners.

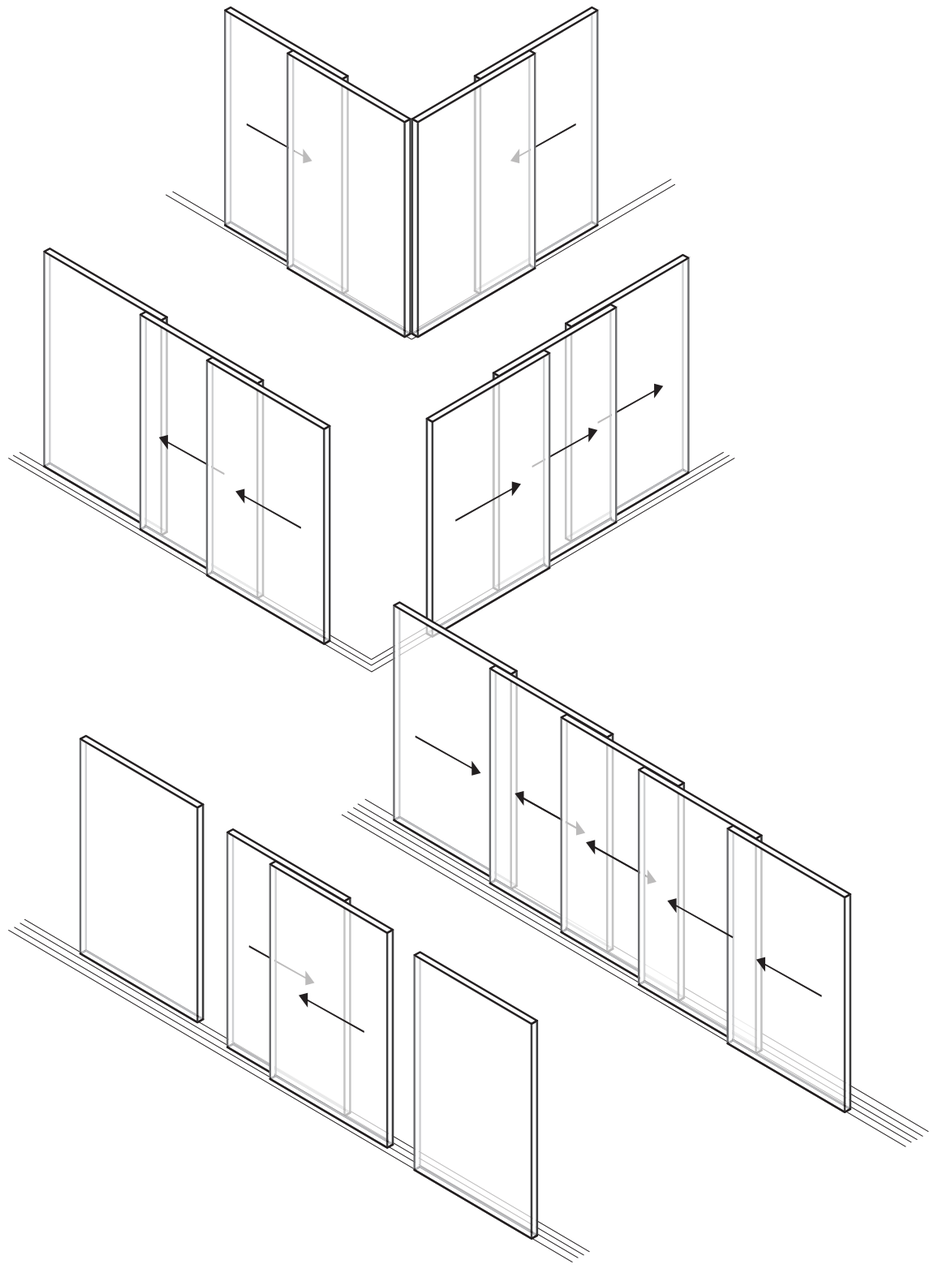
SLIDING





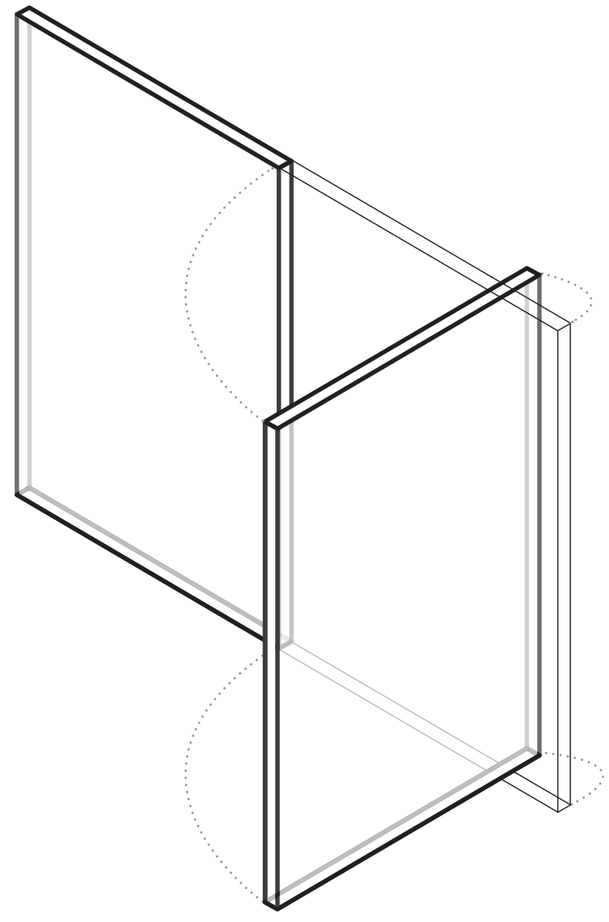
Configurations

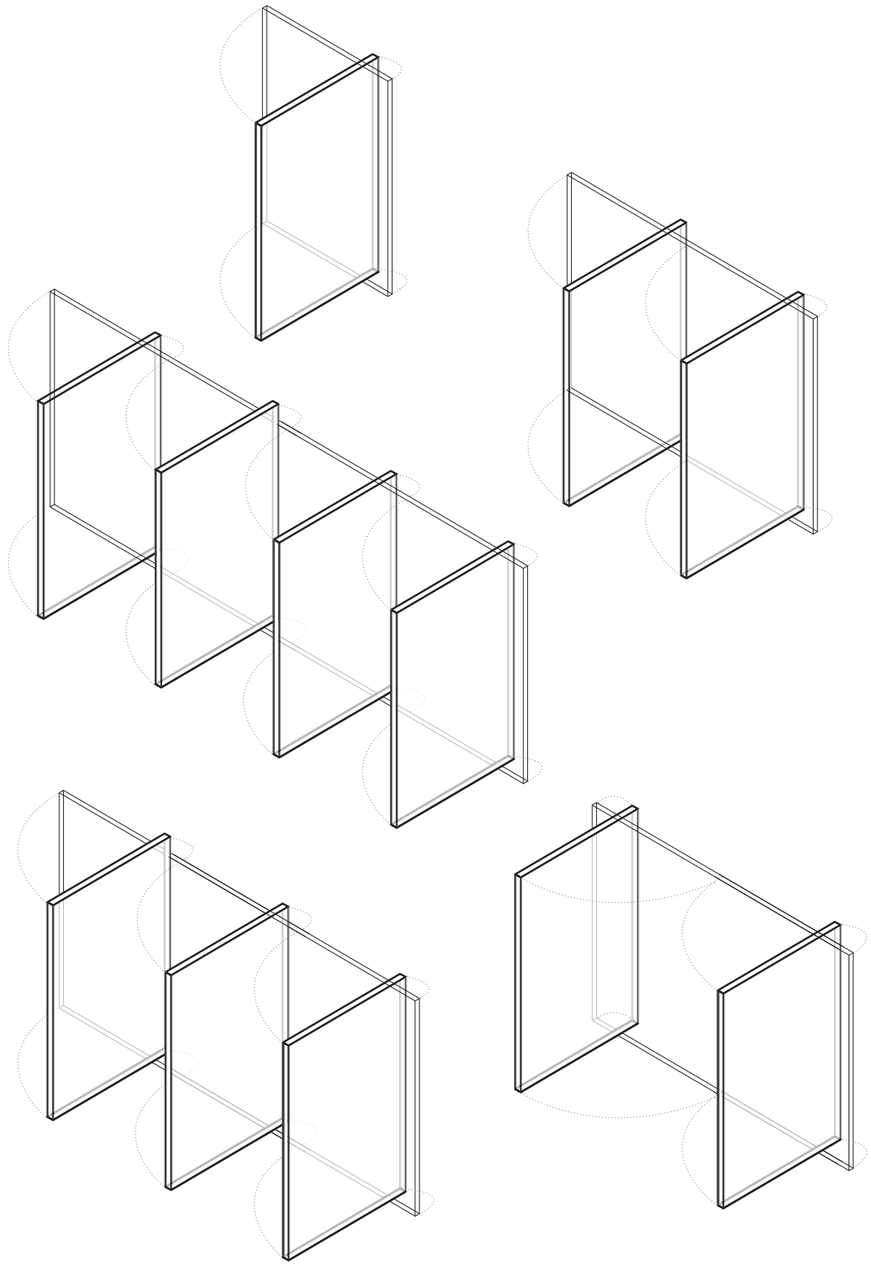
Other configurations are available on request.



Sliding

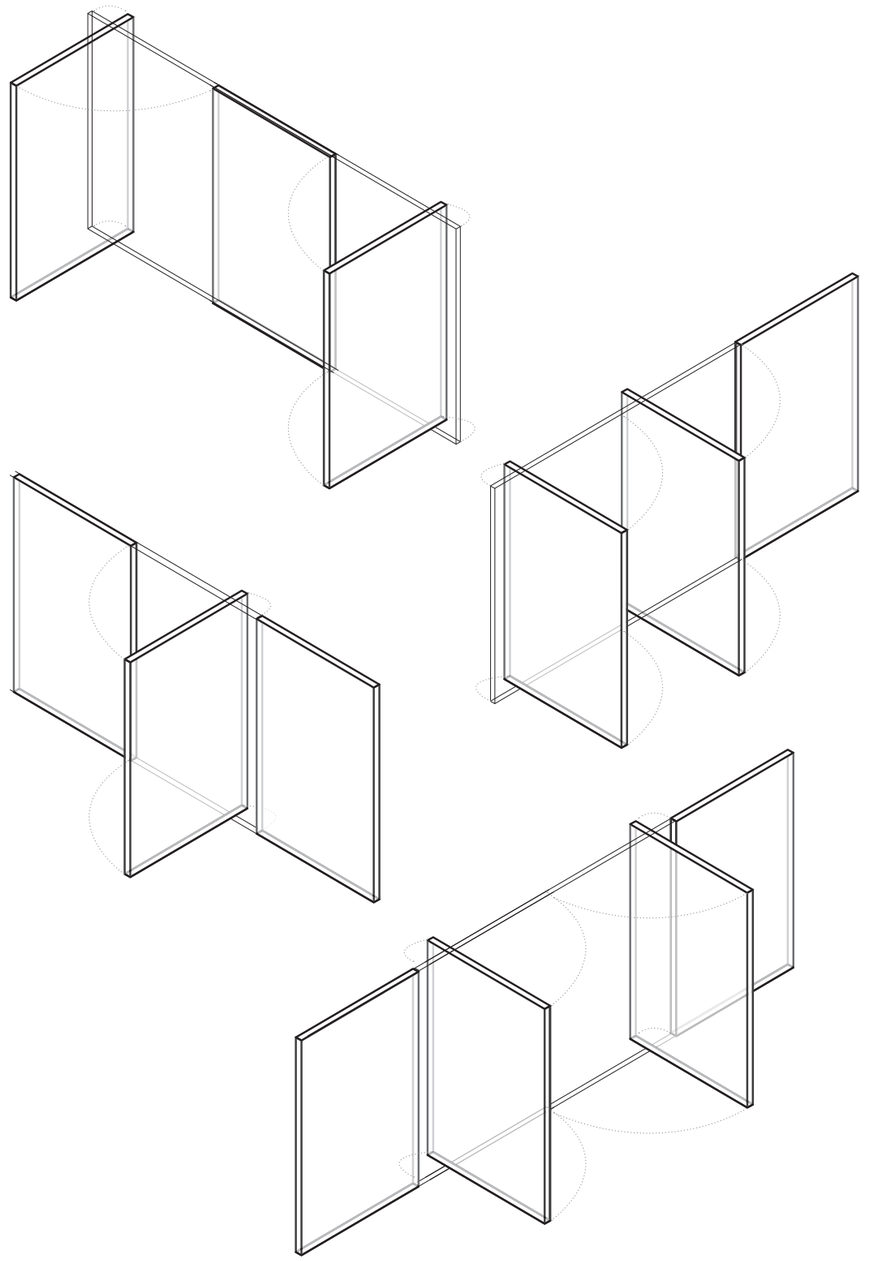
PIVOTING





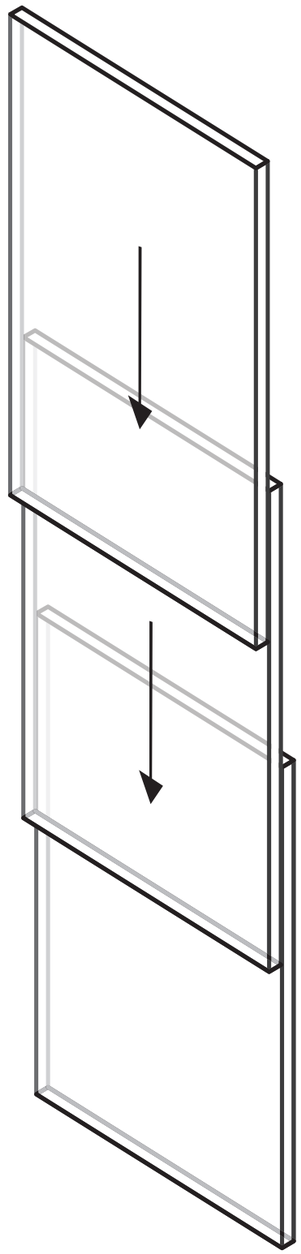
Configurations

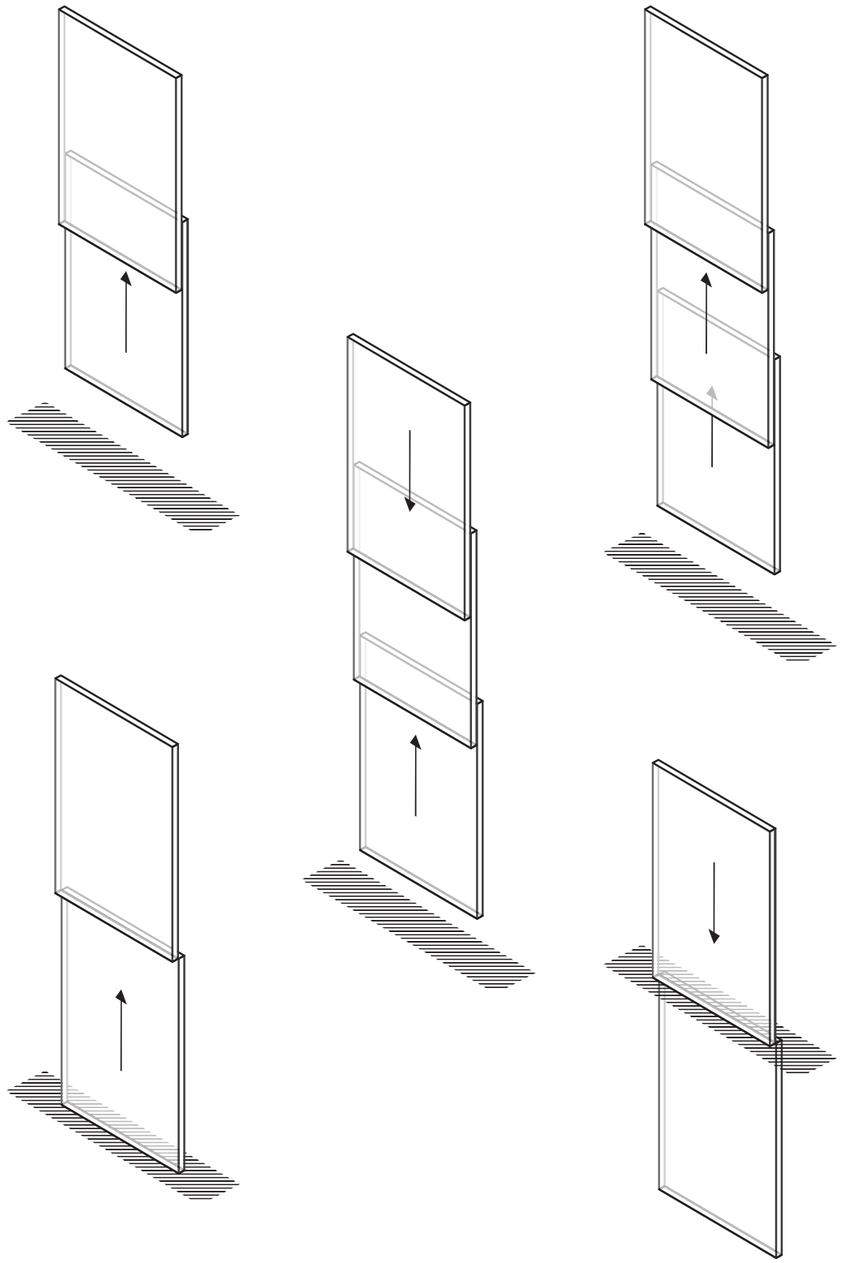
Other configurations are available on request.



Pivoting

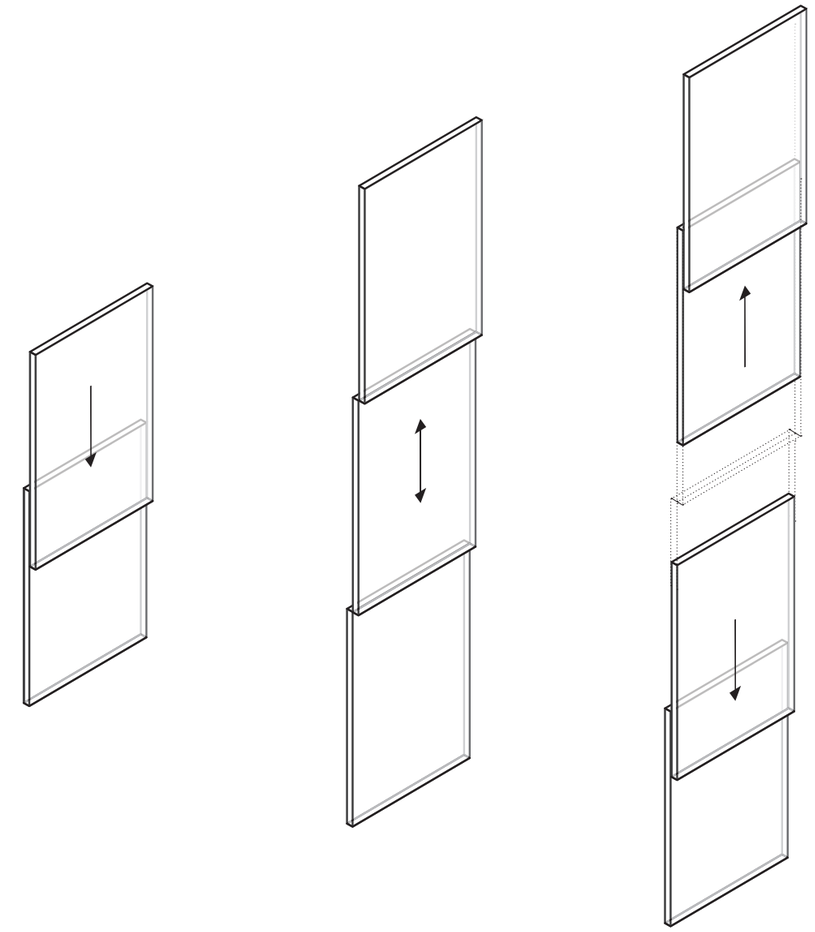
GUILLOTINE





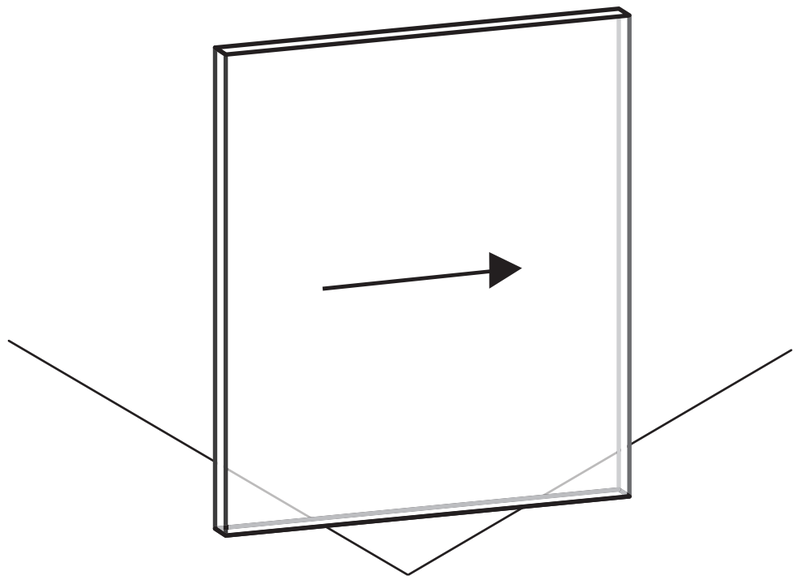
Configurations

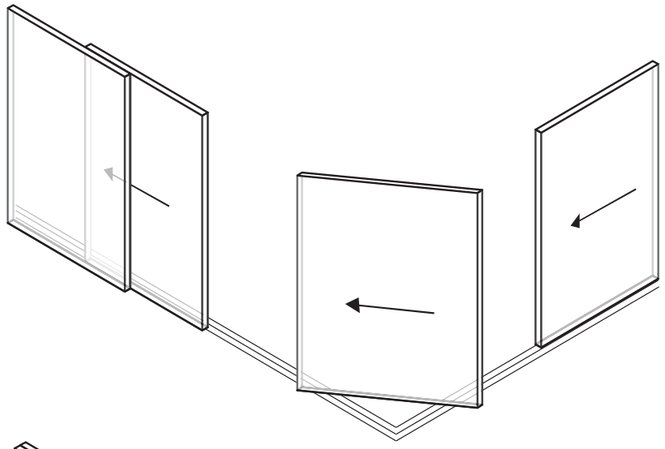
Other configurations are available on request.

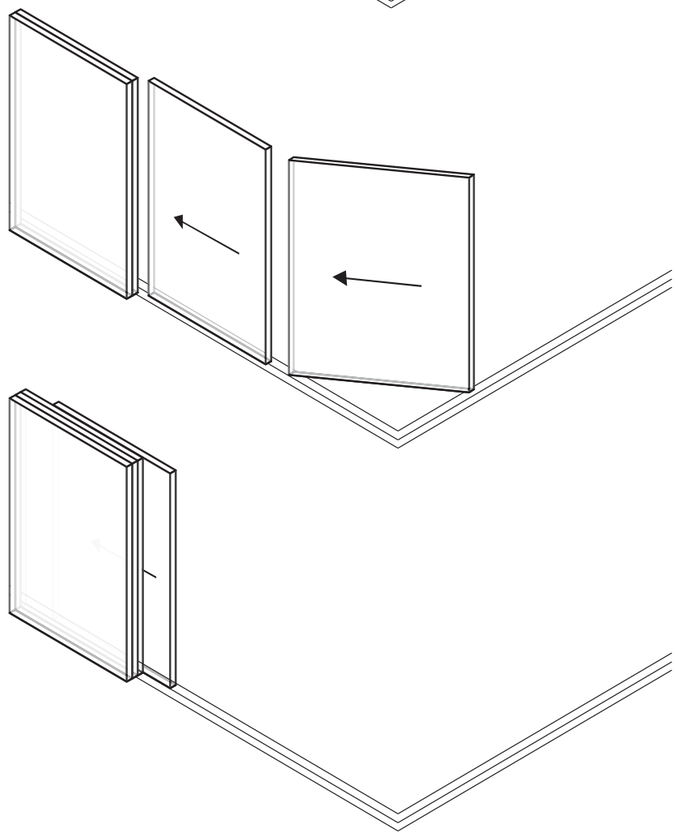


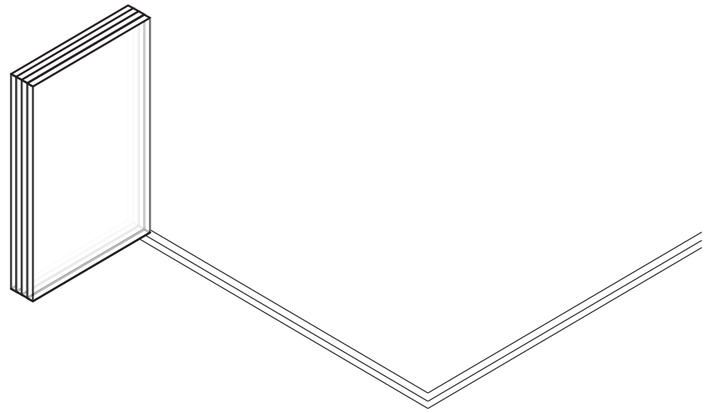
Guillotine

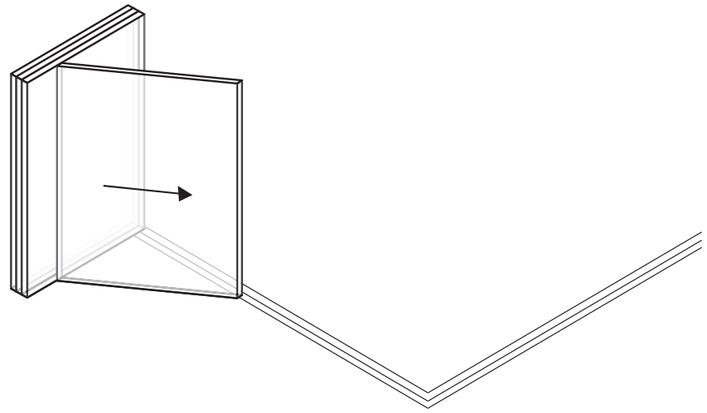
TURNABLE CORNER

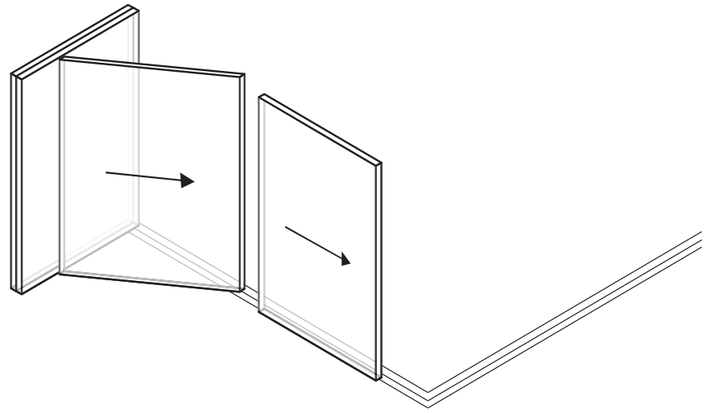












Configurations

Other configurations are available on request.

Turnable Corner

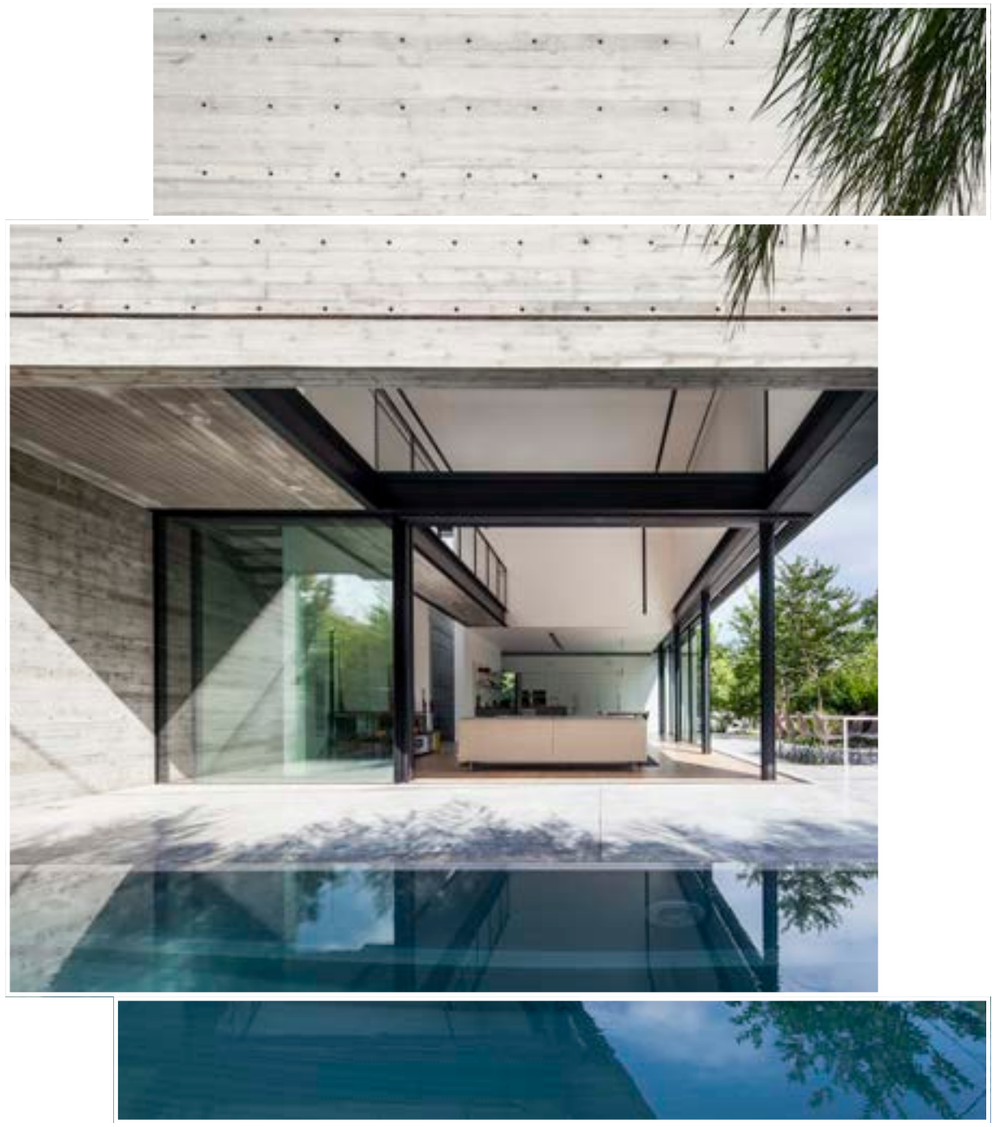
SLI

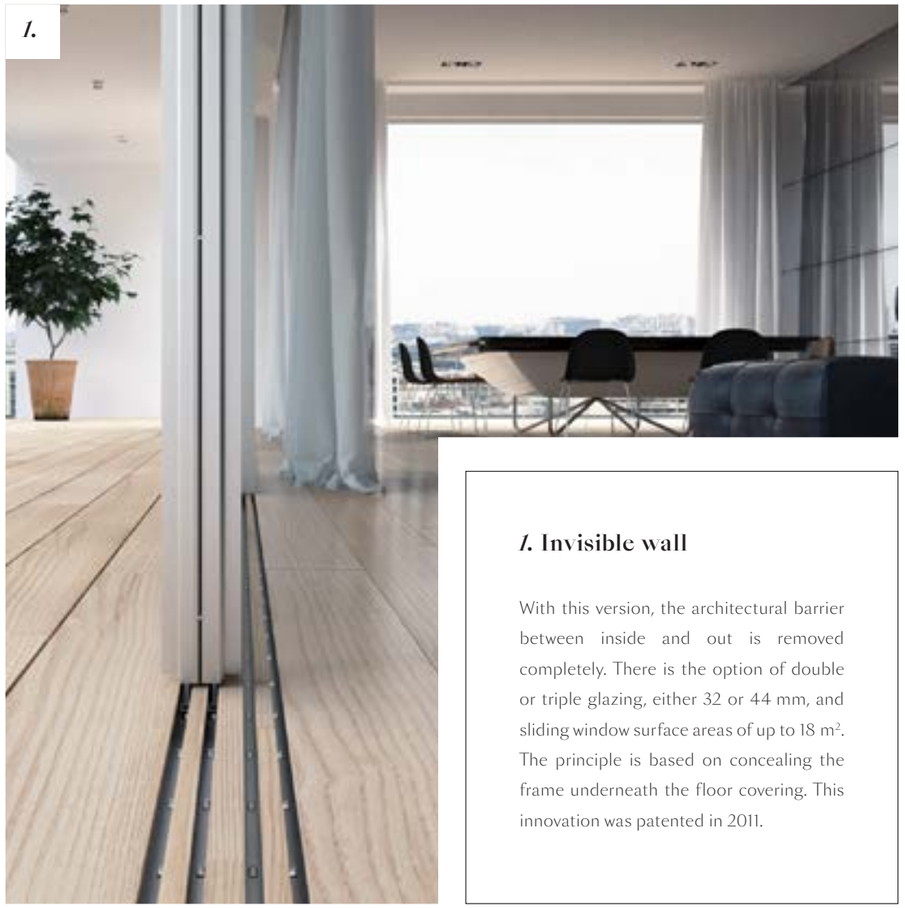
Available in fixed or sliding versions, the width of the vertical profile is 18 mm and the maximum surface area per pane is 18 m^2, with scope for even larger panes.

The panes can be moved using just a few grams of thrust, either manually or using a motor.

The system is ideal for very big projects and allows for several different options:

DING





1. Invisible wall

With this version, the architectural barrier between inside and out is removed completely. There is the option of double or triple glazing, either 32 or 44 mm, and sliding window surface areas of up to 18 m^2. The principle is based on concealing the frame underneath the floor covering. This innovation was patented in 2011.

2. Pocket

It is possible to conceal one or more sliding panels in a closed and isolated space.

3. Curved

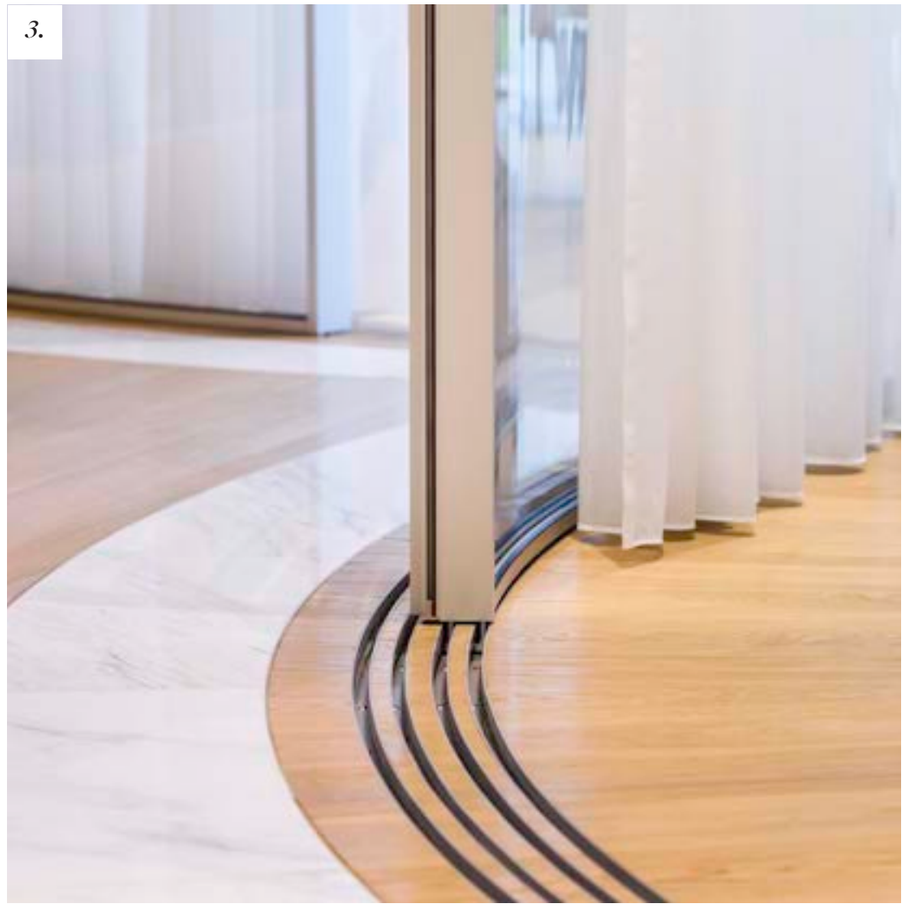
The curved application supports a minimum radius of 3 meters for mobile elements and a minimum radius of 1.5 meters for fixed elements.

4. Open angle

With this solution, the corner is freed from any jambs. All combinations of rails are possible, for example a combination of two and three rails.

5. Mosquito net

Several options are available to counter the issues posed by insects. It is possible to add a rail allowing a mosquito net to be inserted, or a folding canvas to be concealed, offering coverage of 80 cm in the vertical jamb.



Sliding

Sliding

Sliding

PI

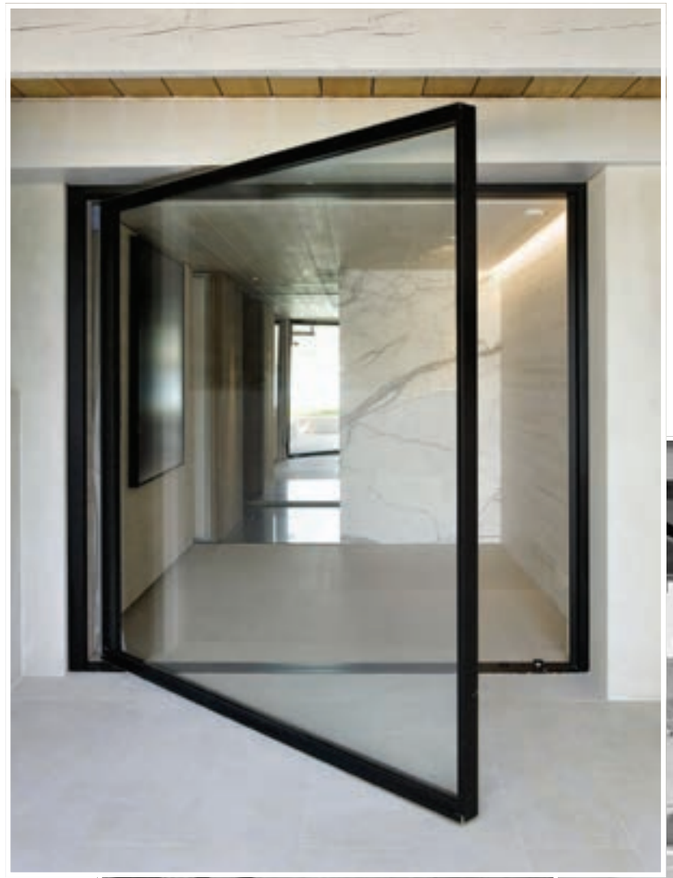
VO

TING

This system has been developed specifically to conceal highly precise mechanisms, using similar methods to those employed in watchmaking.

Available in a fixed or pivoting version, the width of the vertical profile is 18 mm.

The surface area of the pivoting leaf can be up to 12 m^2.



GUIDELINE

Guillotine frames enable almost boundless heights to be reached, whilst retaining the same quality and aesthetic criteria as other products.

Perfectly balanced, the moveable panes (maximum 500 kg per pane) can be manipulated with just a few grams of thrust, either manually or using a motor.

They can operate in one of two ways:

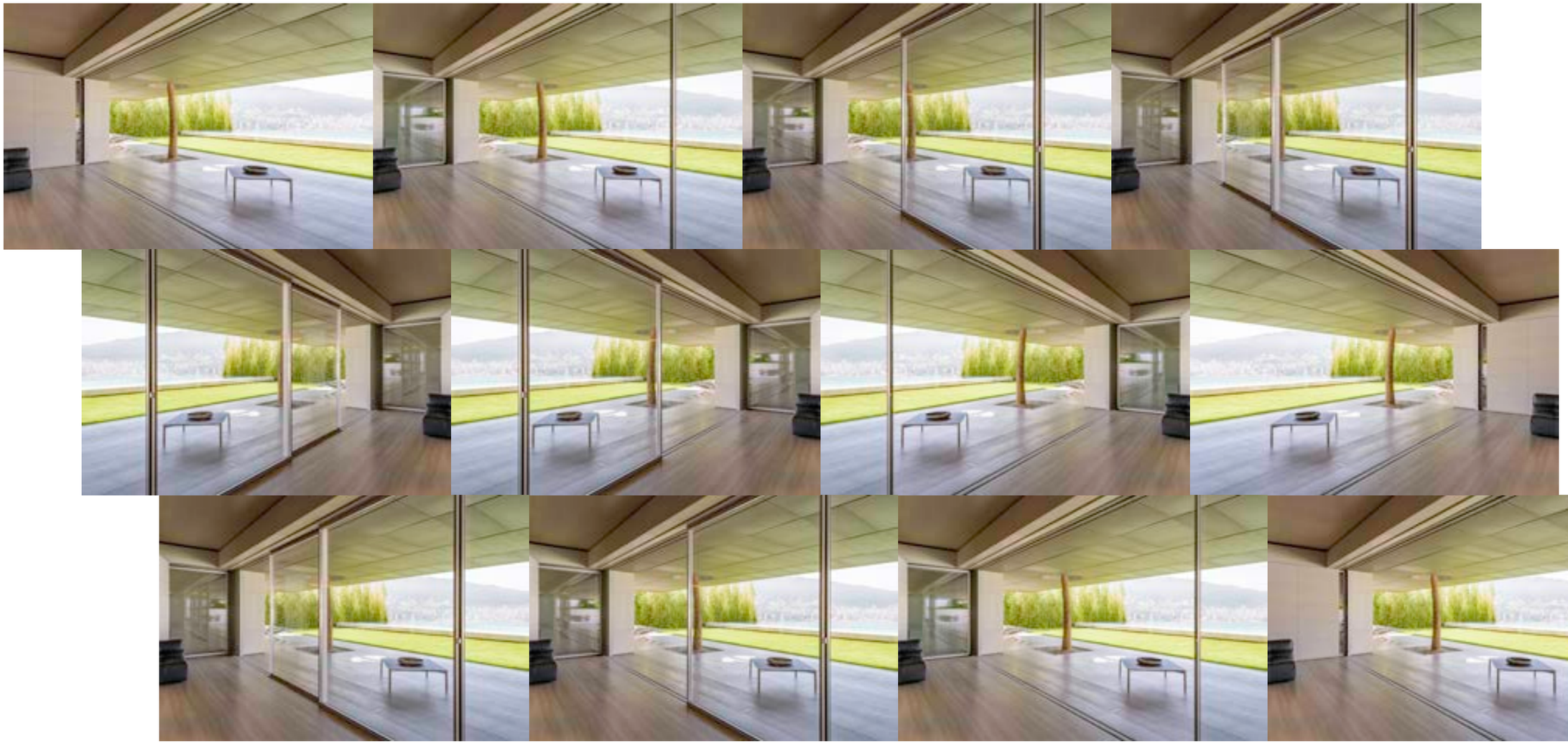
- a system with two identical glass panes which counter-balance one another;
- a counterweight system on the side (integrated into the finishes) which opens up an infinite range of configurations.

Guillotine

TURN ABLE CORNER

The Turnable Corner system has been developed to optimise space by using a roller principle which completely frees up the glazed components.

This major architectural solution creates space along the surfaces and corners by enabling the glazing to be stored in a dedicated area. The surface area of the glass panels can be up to 6 m^2, and they can weigh up to 250 kg.



Turnable Corner

Credits

Page 2
Vitrocsa Headquarters

Pages 6, 7
Architect: Studio Internationale
Photographer: Katherine Lu
Partner: Vitrocsa Australia

Page 27
Architect: Pitsou Kedem Architects
Photographer: Amit Geron
Partner: Wintec Ltd

Pages 28-29
1. Partner: Sias
3. Architect: Pierre Studer
Photographer: Patrice Schreyer
4.a Architect: Fran Silvestre Arquitectos
4.b Partner: Glassline Industries

Pages 30-33
Architect: John Pawson
Photographer: Lindman Photography

Page 35
Architect: Rémi Tessier
Photographer: Didier Jordan

Pages 36-37
Architect: Pitsou Kedem Architects
Photographer: Amit Geron
Partner: Wintec Ltd

Page 39
Architect: dmvA Architecten
Partner: Vorsselmans NV

Page 41
Architect: Paul + O architects
Photographer: Fernando Guerra
Partner: Vitrocsa Minimal UK

Pages 42-43
Architect: Pitsou Kedem Architects
Photographer: Amit Geron
Partner: Wintec Ltd

Page 45
Vitrocsa Headquarters

Pages 46-47
Architect: Nabil Gholam Architects
Photographer: Patrice Schreyer
Partner: Glassline Industries

Pages 55-95
Vitrocsa Headquarters

Translation and revision
Star SA

Design
Antonio Fazio

TECHNICALS DATAS

Vitrocsa

TH+

range

- SLIDING
- PIVOTING
- GUILLOTINE
- TURNABLE CORNER

Available in 32 or 44 mm double or triple glazed versions, the Vitrocsa TH+ range is for sliding window surfaces of up to 18 m^2, with scope for larger panes, depending on the supplier of the glass.

The excellent insulating properties of the profiles, in combination with the glass, enable current low energy consumption standards to be met.

SPECIFICATIONS

RAIL + FRAMES

Embedded and concealed in the floor, wall and ceiling
Rails just 140 mm wide for a birail (mono: 64 mm + 12 mm seal)
Saline treatment specially adapted for coastal projects

VERTICAL CONNECTION

22 mm
Reinforced for very windy locations or installation at high altitudes

GLAZING

32 mm or 44 mm
Panel size up to 18 m^2 (6 x 3.21 m), with scope for larger panes, depending on the supplier of the glass, vertical or horizontal

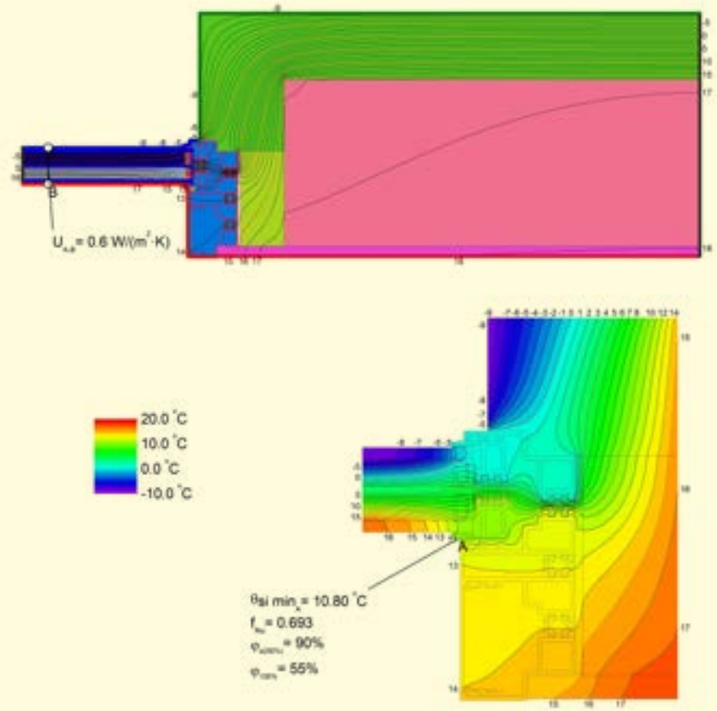
CLOSURE MECHANISM

One-point closure button (029, 035, 055)
Two-point closure button
Three-point closure button
Cylinder
Range of options for electric closure
Alarms

CONFIGURATION

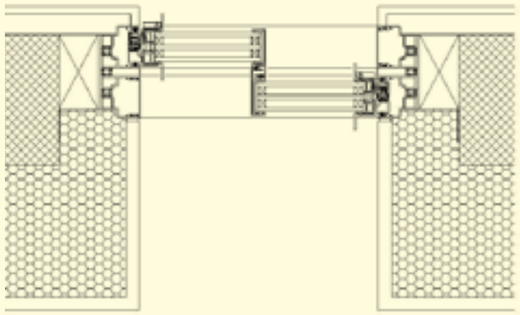
Standard sliding frame (up to 18 m^2, or more)
Sliding invisible frame (up to 18 m^2, or more)
Curved (sliding: minimum radius of 3 m; fixed: minimum diameter of 1.5 m)
Pivoting (up to 12 m^2)
Guillotine (up to 500 kg per pane)
Turnable Corner (up to 250 kg per pane, 6 m^2)
Fixed (up to 18 m^2, or more)
Opening angle
Pocket
Motorisation
Mosquito net

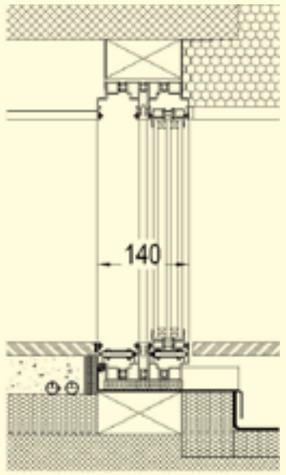
THERMAL CROSS SECTION



TH+ range

MAIN CROSS SECTIONS





TH+ range

TESTS

TH+ sliding-fixed	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 3
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 8A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class B5
Repeated opening/closing	EN 1191 (test) EN 12400 (classification)	Class 3 (20,000 cycles)
Resistance to a vertical load	EN 14608 (test) EN 13115 (classification)	Class 3 (600 N)
Resistance to break-ins	EN 1628 to 1630 (test) EN 1630 (classification)	WK2/RC2 (resistance class 2)

TH+ sliding-fixed MINERGIE	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 4
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 9A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class B3
Behaviour in different climates	EN 13420 (test)	There is no classification
Calculation of the Uw value and isotherms	EN ISO 10077-1, 2	Uw 0.97 W/(m^2K)

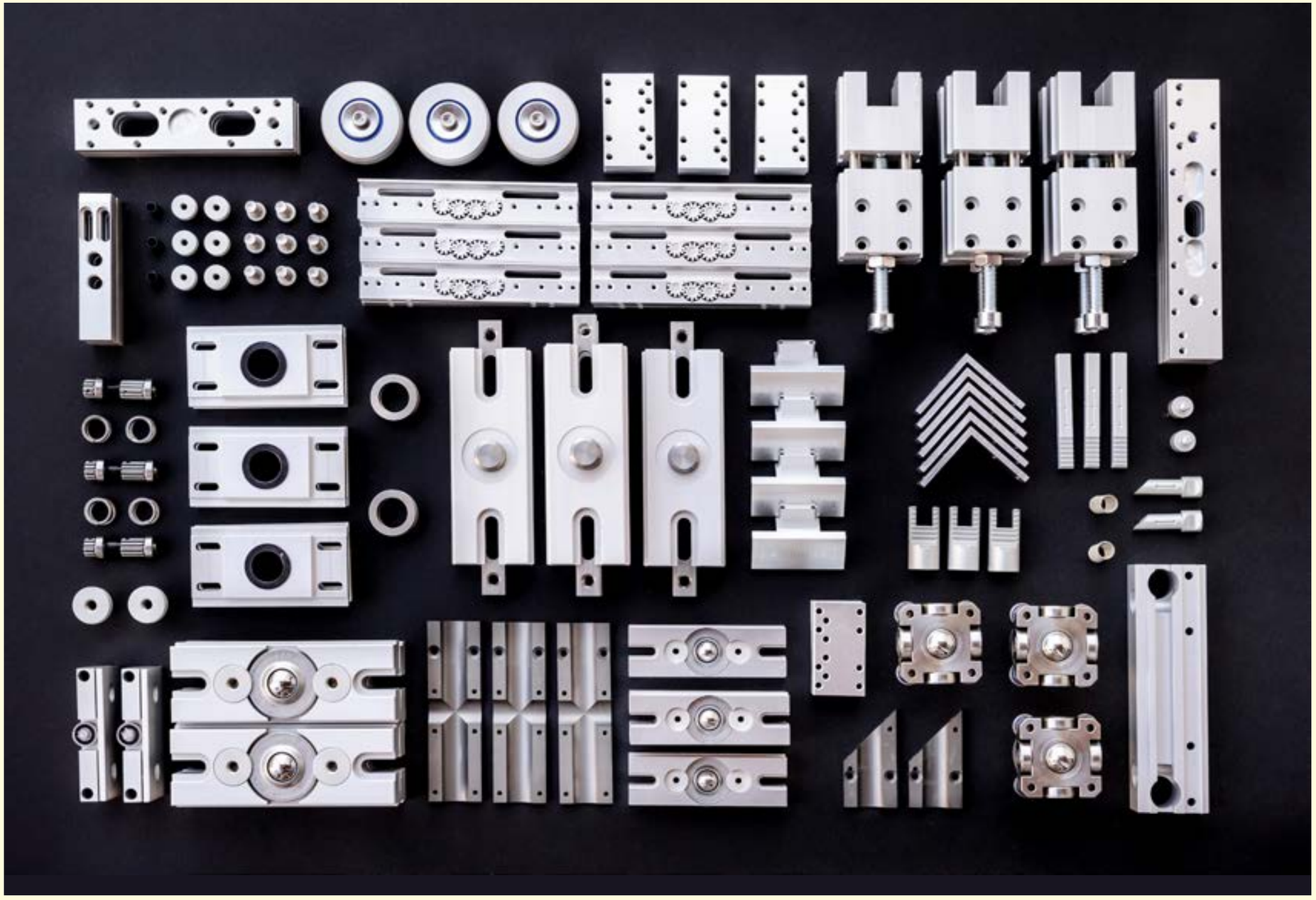
TH+ invisible frame	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 3
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 7A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class C3

TH+ sliding-sliding	Standards (test and classification)	Classification
Air-borne noise insulation (measured in the laboratory) Glass: vPh 5/0,76/5 - 16 - vF5 total thickness: 31.8 mm	EN ISO 10140 (2010)	36 dB

TH+ guillotine	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 3
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 9A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class C2/B3/4A

TH+ pivoting	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 3
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 8A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class C3/B4

TH+ Turnable Corner	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 1 (150 Pa)
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 4A



Vitrocsa

3001

range

- SLIDING
- PIVOTING
- GUILLOTINE
- ~~TURNABLE CORNER~~

The Vitrocsa 3001 range allows for sliding window surfaces of up to 6 m² with 26 mm double glazing.

The first Vitrocsa 3001 window was developed at the start of the 1990s. With the experience we now have, we can guarantee that this system presents no hidden defects.

The roller mechanism and sealing system work perfectly, provided that the window has been assembled in line with good industry practices.

SPECIFICATIONS

RAIL + FRAMES

Embedded and concealed in the floor, wall and ceiling
Rails just 99.5 mm wide for a birail (mono: 45 mm + 9.5 mm seal)
Saline treatment specially adapted for coastal projects

VERTICAL CONNECTION

18.5 mm
Reinforced for very windy locations or installation at high altitudes

GLAZING

26 mm
Panel size up to 6 m^2

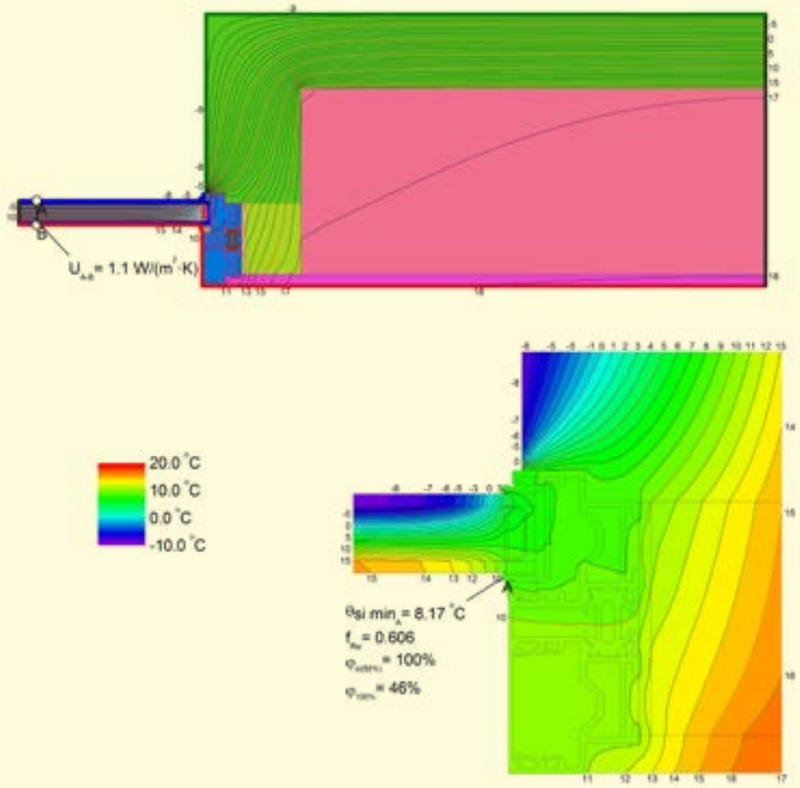
CLOSURE MECHANISM

One-point closure button (029, 035, 055)
Cylinder
Range of options for electric closure
Alarms

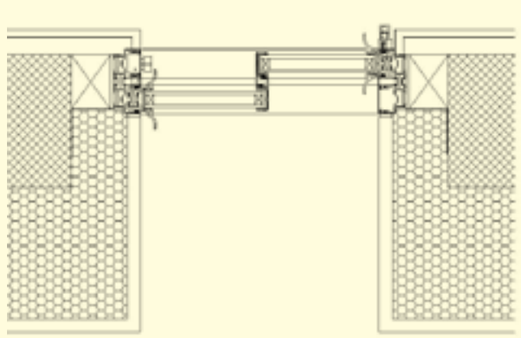
CONFIGURATION

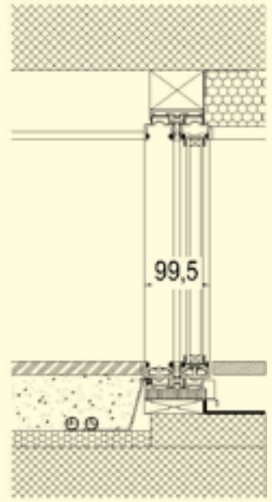
Standard sliding (up to 6 m^2)
Pivoting (up to 6 m^2)
Guillotine (up to 6 m^2)
Fixed (up to 9 m^2)
Opening angle
Pocket
Mosquito net

THERMAL CROSS SECTION

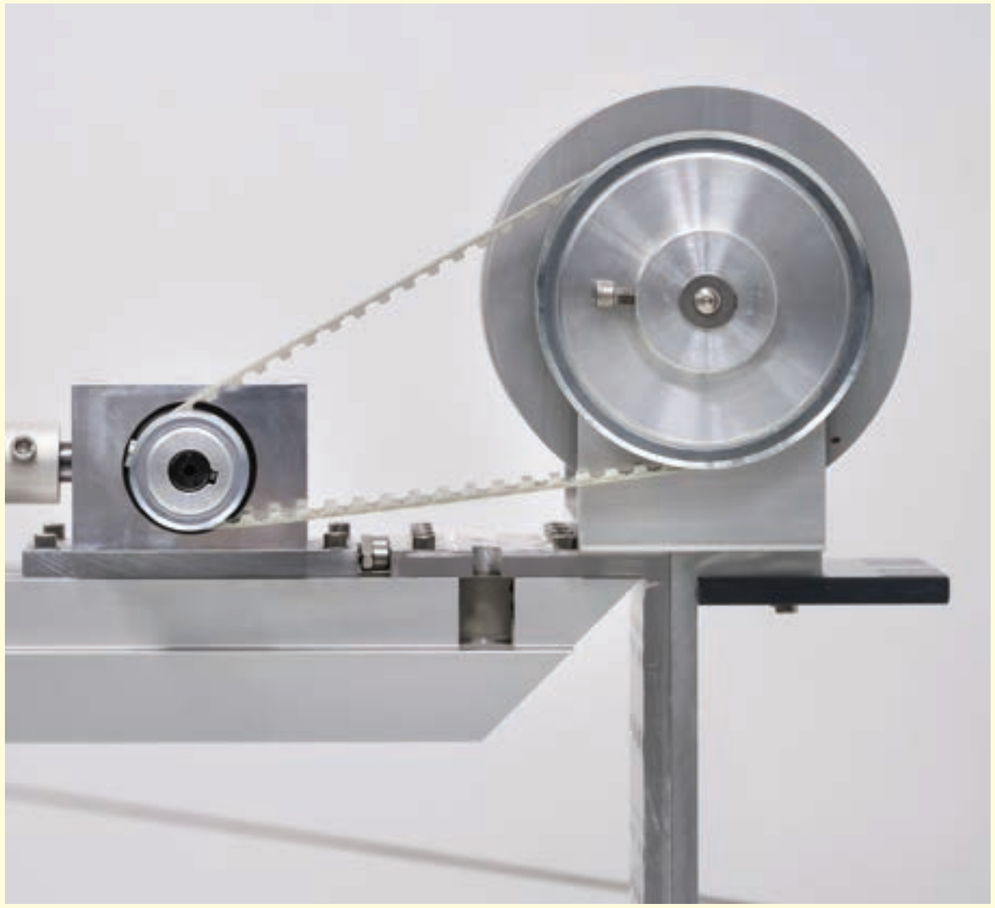


MAIN CROSS SECTIONS





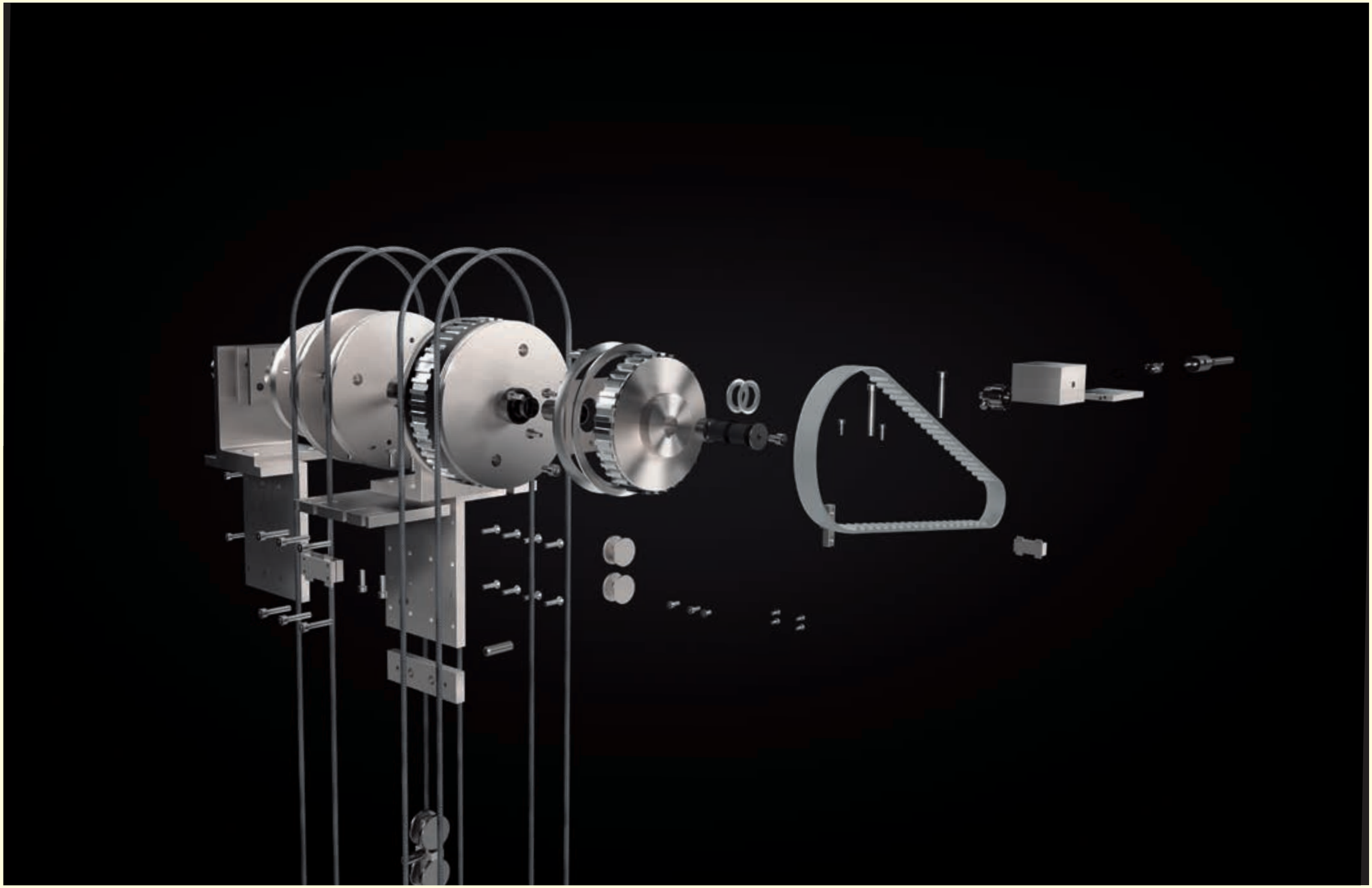
3001 range



TESTS

3001 sliding-fixed	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 4
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 7A
Repeated opening/closing	EN 1191 (test) EN 12400 (classification)	Class 3 (20,000 cycles)
Resistance to a vertical load	EN 14608 (test) EN 13115 (classification)	Class 3 (600 N)
Resistance to break-ins	EN 1628 to 1630 (test) EN 1630 (classification)	WK2/RC2 (resistance class 2)

3001 range



Vitrocsa

SWIMMS

range

- SLIDING
- PIVOTING
- GUILLOTINE
- TURNABLE CORNER

The profile assembly system enables a range of glazing thicknesses to be used: 10-12 mm or 16-20 mm. The Vitrocsa SWIMMS range is ideal for hot countries or internal partitions.

SPECIFICATIONS

RAIL + FRAMES

Embedded and concealed in the floor, wall and ceiling
Rails just 64 mm wide for a birail (mono: 32 mm)
Saline treatment specially adapted for coastal projects

VERTICAL CONNECTION

17.2 mm
Reinforced for very windy locations or installation at high altitudes

GLAZING

10 to 20 mm (single-glazing)

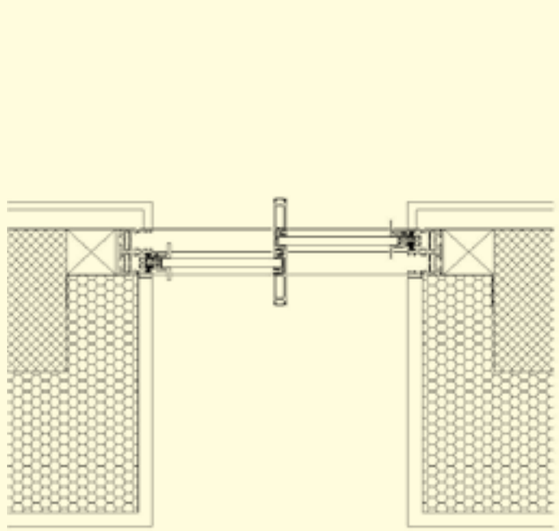
CLOSURE MECHANISM

Two-point closure button
Cylinder
Range of options for electric closure
Switch, alarms

CONFIGURATION

Standard sliding
Opening angle
Pocket

MAIN CROSS SECTIONS



SWIMMS range

TESTS

SWIMMS sliding-fixed	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 3
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 7A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class C3

SWIMMS range

Vitrocsa

V32

range

- SLIDING
- PIVOTING
- GUILLOTINE
- TURNABLE CORNER

The V32 range has thermal reinforcement and a glass fibre profile. This range is designed for standard fixed or sliding openings.

SPECIFICATIONS

RAIL + FRAMES

Embedded and concealed in the floor, wall and ceiling
Thinner rails just 124 mm wide for a birail (mono: 56 mm + 12 mm seal)
Saline treatment specially adapted for coastal projects

VERTICAL CONNECTION

23 mm
Reinforced for very windy locations or installation at high altitudes
Optimised heat retention with fibreglass towers

GLAZING

32 mm
Panels up to 12 m² (4 x 3 m), vertical or horizontal

CLOSURE MECHANISM

Two-point closure button
Cylinder
Range of options for electric closure
Alarms

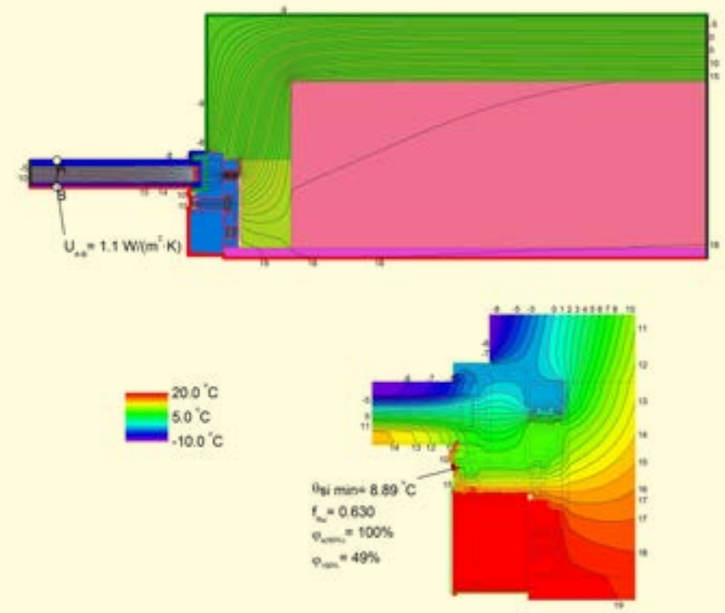
CONFIGURATION

Standard sliding (up to 12 m²)
Fixed (up to 12 m²)
Opening angle
Pocket

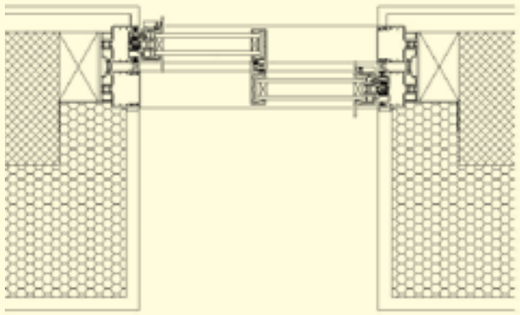
Following the development of the Vitrocsa V32 and V56 ranges, a Vitrocsa V44 range is currently being developed.

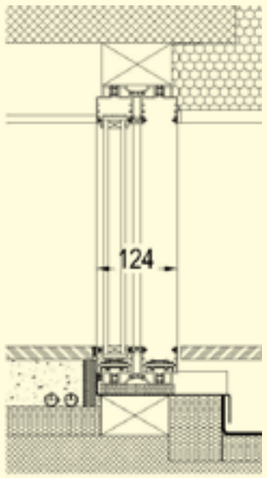
THERMAL CROSS SECTION

Calculation of the U value according to EN ISO 10077-1 and 2 standards



MAIN CROSS SECTIONS





Vitrocsa

V56

range

- SLIDING
- PIVOTING
- GUILLOTINE
- TURNABLE CORNER

The Vitrocsa V56 range allows infinite glazing surfaces using 56 mm thick double or triple glazing. The V56 range is an evolution of our current sliding window systems.

The Vitrocsa V56 window has been developed to keep the same mechanical characteristics of the Vitrocsa systems which have been proving their worth for over 25 years.

SPECIFICATIONS

RAIL + FRAMES

Embedded and concealed in the floor, wall and ceiling

Saline treatment specially adapted for coastal projects

VERTICAL CONNECTION

22 mm

Reinforced for very windy locations or installation at high altitudes

GLAZING

56 mm in double or triple glazing

CLOSURE MECHANISM

Two-point closure button

CONFIGURATION

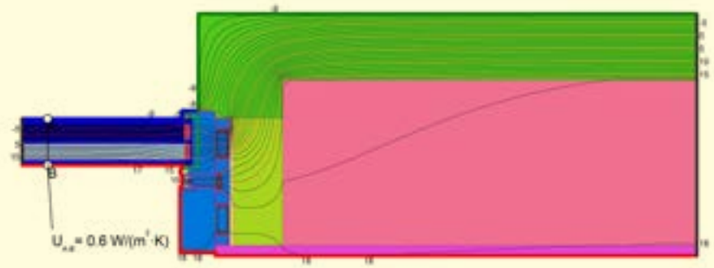
Standard sliding

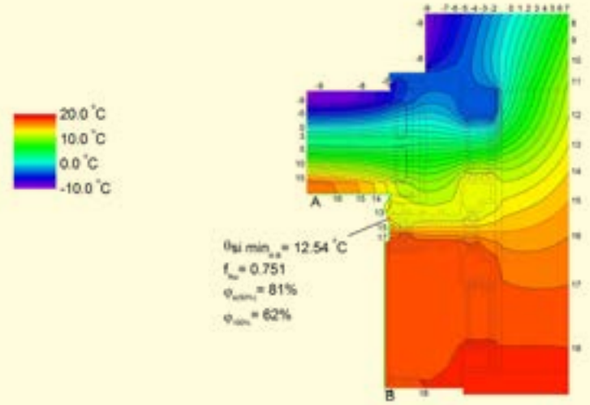
Pocket

Opening angle

THERMAL CROSS SECTION

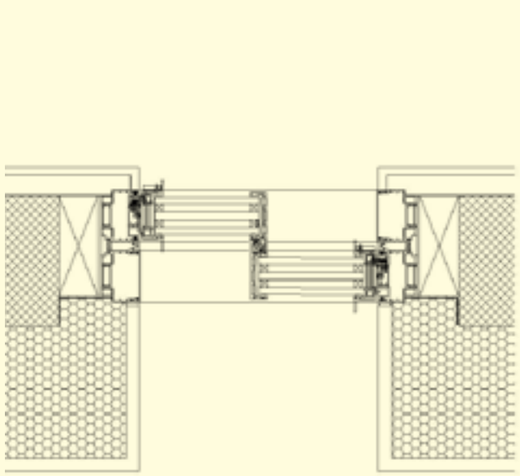
Uw calculation:	*EN 10077*
Thermal insulation value:	*Uw 0.78 W/m²K*
Insulating glass:	*56 mm*

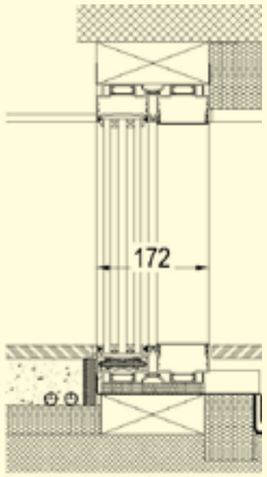




V56 range

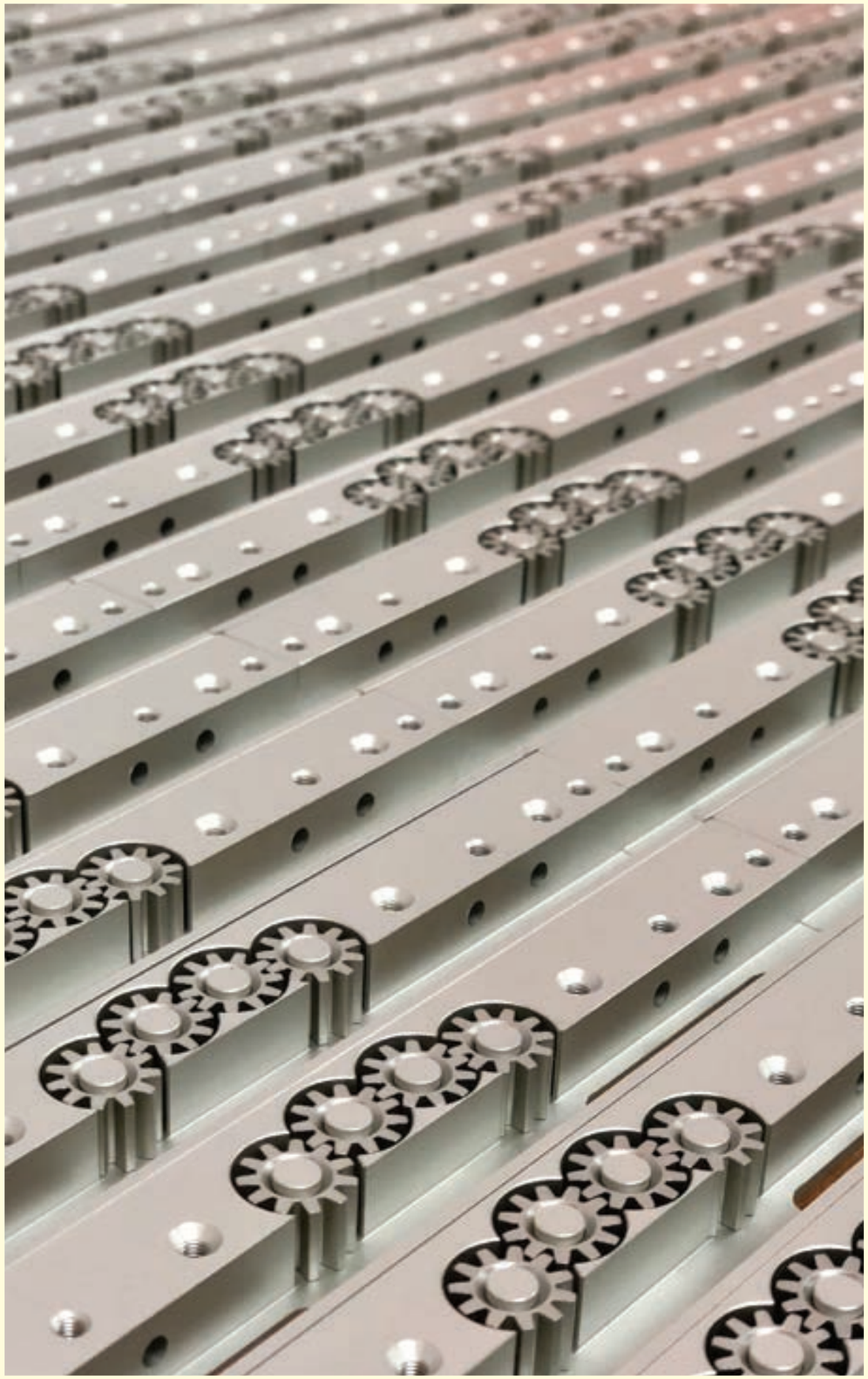
MAIN CROSS SECTIONS





TESTS

V56 sliding-fixed	Standards (test and classification)	Classification
Air permeability	EN 1026 (test) EN 12207 (classification)	Class 4
Water permeability	EN 1027 (test) EN 12208 (classification)	Class 9A
Wind resistance	EN 12211 (test) EN 12210 (classification)	Class B5
Repeated opening/closing	EN 1191 (test) EN 12400 (classification)	Class 3 (20,000 cycles)
Resistance to a vertical load	EN 14608 (test) EN 13115 (classification)	Class 3 (600 N)



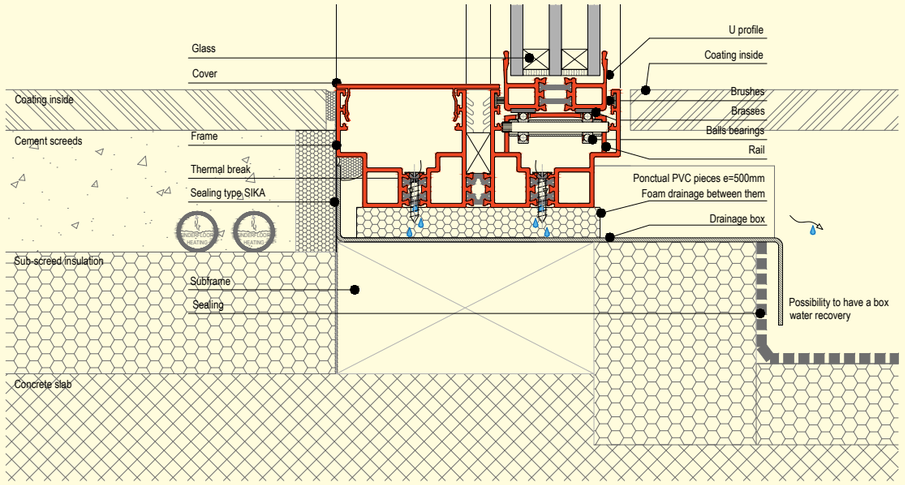
FINISHES

- SLIDING
- PIVOTING
- GUILLOTINE
- TURNABLE CORNER

With an anodised 25 micron natural or coloured aluminium alloy structure, the thermolacquered version is available in an infinite choice of colours.

DRAINAGE CHAMBER

The frames drain vertically, with the rainwater being collected in a stainless steel chamber. This chamber is equipped with drainage foam to protect against the pressure of the wind. It also houses PVC support components which distribute the loads (weight of the glazing) across the structure.



TESTS

To clearly demonstrate the properties of the Vitrocsa window, we have conducted standardised tests in an accredited laboratory (SWISS TESTING SERVICE NUMBER STS 317).

MOTORISATION

In accordance with our philosophy, we developed a motorisation system for all the TH+ guillotine and sliding systems which allows integration into the architectural design with minimum interference, with a simplified and very quiet opening.

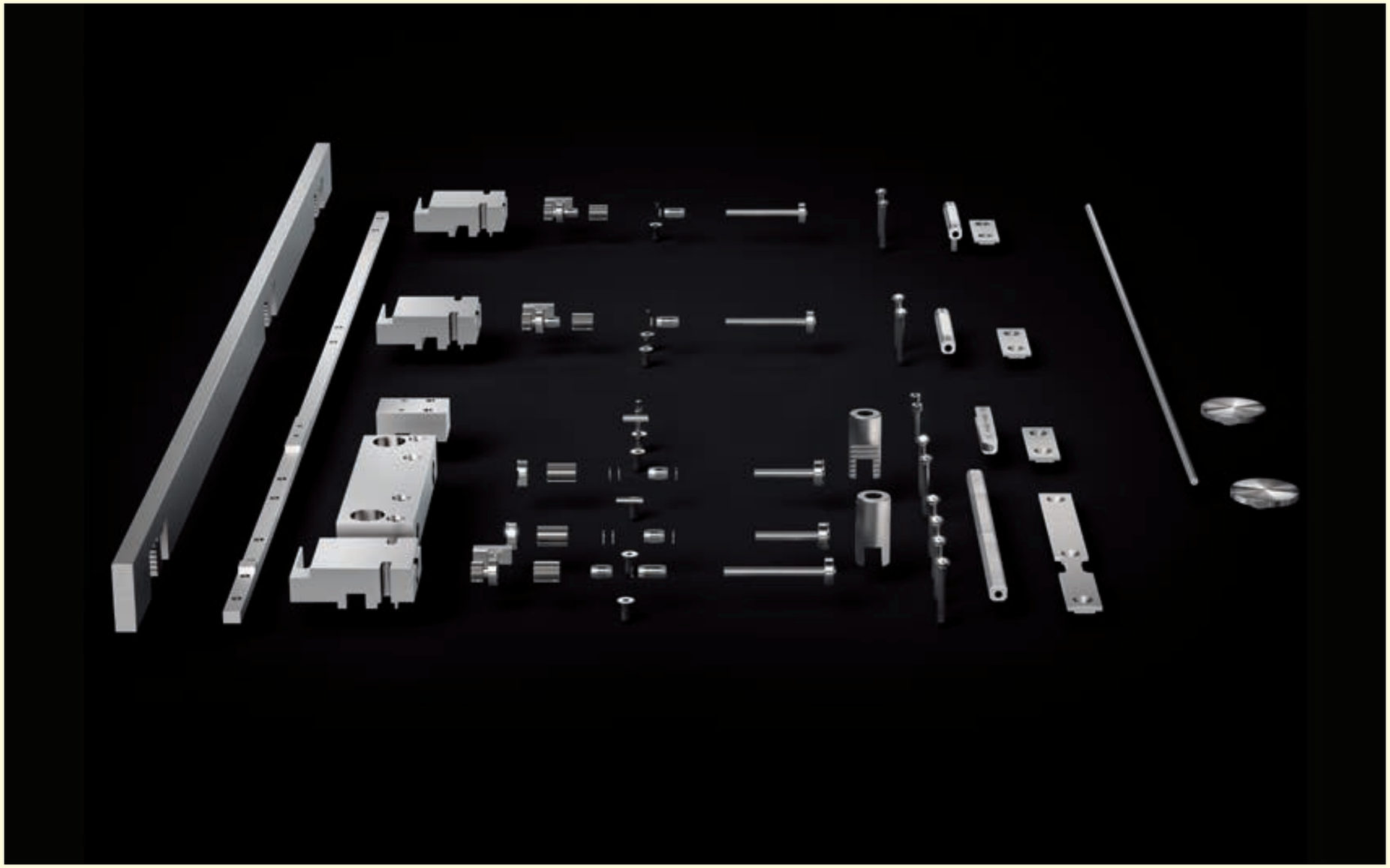
The motorisation system is fully hidden in the top part of our Vitrocsa frame and only requires a height of 12 cm. The maximum driving force is 180 N for a maximum weight of 1,200 kg per motor. The maximum motion speed is 167 mm/s-1 and slows when a second leaf is driven. It has an automatic electrical closure which is compatible with all home automation opening systems: electronic lock, push button, badge reader, etc. Our system is undergoing constant development, and new options will be available soon.

To ensure complete safety, the system stops as soon as an obstacle is detected. The motorisation system is also available for the curved and guillotine solutions.

SAFETY

It is essential for us to meet the requirements and expectations of our clients by offering them the highest level of safety. Our product meets the highest standards such as RC2. Various additional components are available to meet other safety requirements:

- Alarm directly integrated into our system
- Control of the closed leaf position
- Glass breakage detector
- Special burglary-resistant glass



Vitrocsa Headquarters
Orchidées Constructions SA
Rue de la Gare 8
2024 Saint-Aubin-Sauges
Switzerland

T +41 24 436 22 02
T +41 24 436 22 03
www.vitrocsa.ch
info@vitrocsa.ch
Follow us on social networks