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ARCHITETTURE TRASPARENTI

italian style

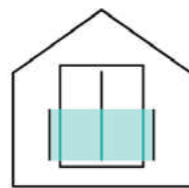
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Giulietta[®]

FRENCH GLASS BALCONY





Giulietta[®]

FRENCH GLASS BALCONY

Italian design

PATENTED SYSTEM



The “French balcony” takes this name precisely because in France, and in European countries in general, it is common to encounter this type of application, typical of that architectural style.

What does it look like? The French balcony is a small balcony that does not protrude more than the size of the window opening.

Its main characteristic is protective as well as aesthetic. It allows the use of full-height windows and large sliding glass windows in order to make the most of the brightness and space within the room.

In their most classic form, French balconies are often associated with iron balustrades, sometimes very elaborate and decorative.

Today, however, even in this sector we see that glass balustrades are increasingly appreciated for their transparency, aesthetic beauty and safety.

In Italy, too, this type of balcony is gaining ground, especially in large cities where there is a need to optimise space as much as possible, to avoid thermal bridges where not necessary, or simply as an aesthetic choice of the designer.

We are ready to enter this market by offering our version of the French balustrade, paying particular attention to safety, given its essential protective function.

Why Giuletta? Another name often used for the French balcony is “Juliet’s balcony” in reference to the famous balcony of Juliet’s house in Verona.

We felt it was an appropriate name both to give a clear reference to the product category and to convey its “Italian-ness”.

We therefore welcome Giuletta.

Flavio Faraone

CEO Faraone Transparent Architecture

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WHAT YOU NEED TO KNOW ABOUT FRENCH BALCONIES

Did you know that...

THE FRENCH BALCONY IS NOT CONSIDERED A BALUSTRADE FOR ALL INTENTS AND PURPOSES.

The French balcony, in Italy, is still a product under development and has only been on the architectural scene for a few years compared to traditional balustrades.

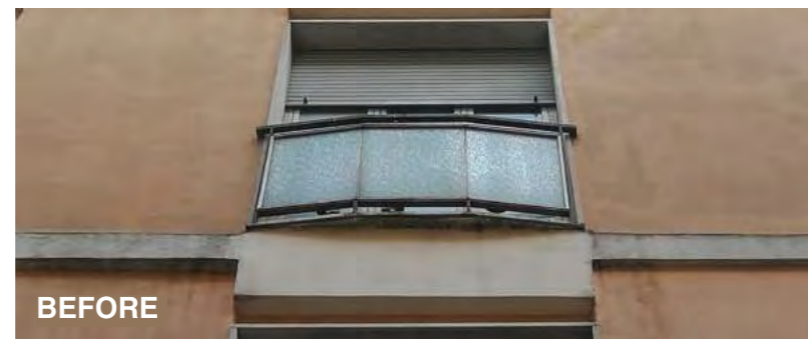
The latter, in fact, are now widely known, as are the risks associated with decay, improper installation, new non-standard solutions, etc.

The French balcony in these respects still has a long way to go.


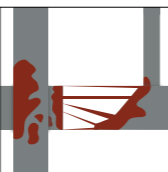


As a result of the growing demand for this type of product, various solutions have appeared, but these are often “handcrafted” from other profiles, not specifically designed for this use or, above all, without any laboratory testing.

There are numerous examples of “minimum safety” not being respected.

Handcrafted French balconies are not as safe as Julietta?



Example of a building with non-standard French balconies with wired glass.

- 1  **BROKEN GLASS**
Damaged wired glass. These types of balustrades are now prohibited by regulations.
- 2  **RUST**
Iron structures consumed by rust, highly dangerous in the fastening part.
- 3  **GALVANIC CORROSION**
Namely, accelerated corrosion of a metal due to the effect of a corrosive element.
- 4  **UNSUITABLE MASONRY**
The type and condition of the masonry also influence the total safety of the French balcony (even if new or newly replaced).

What you should know...

In an internal study, we found that the attention to safety and standardisation of spaces with French balconies is very minimal, perhaps non-existent.

Even if there is no actual balcony (i.e. a liveable outdoor space), we are still talking about a balustrade that must prevent falling into the void and must withstand a certain impact force to ensure the total safety of people and pets.

The French balustrade, regardless of its width, must comply with the Italian safety regulations for glass balustrades and classes C2/C3.

This for us is an indispensable factor and is the basis of the Julietta system.

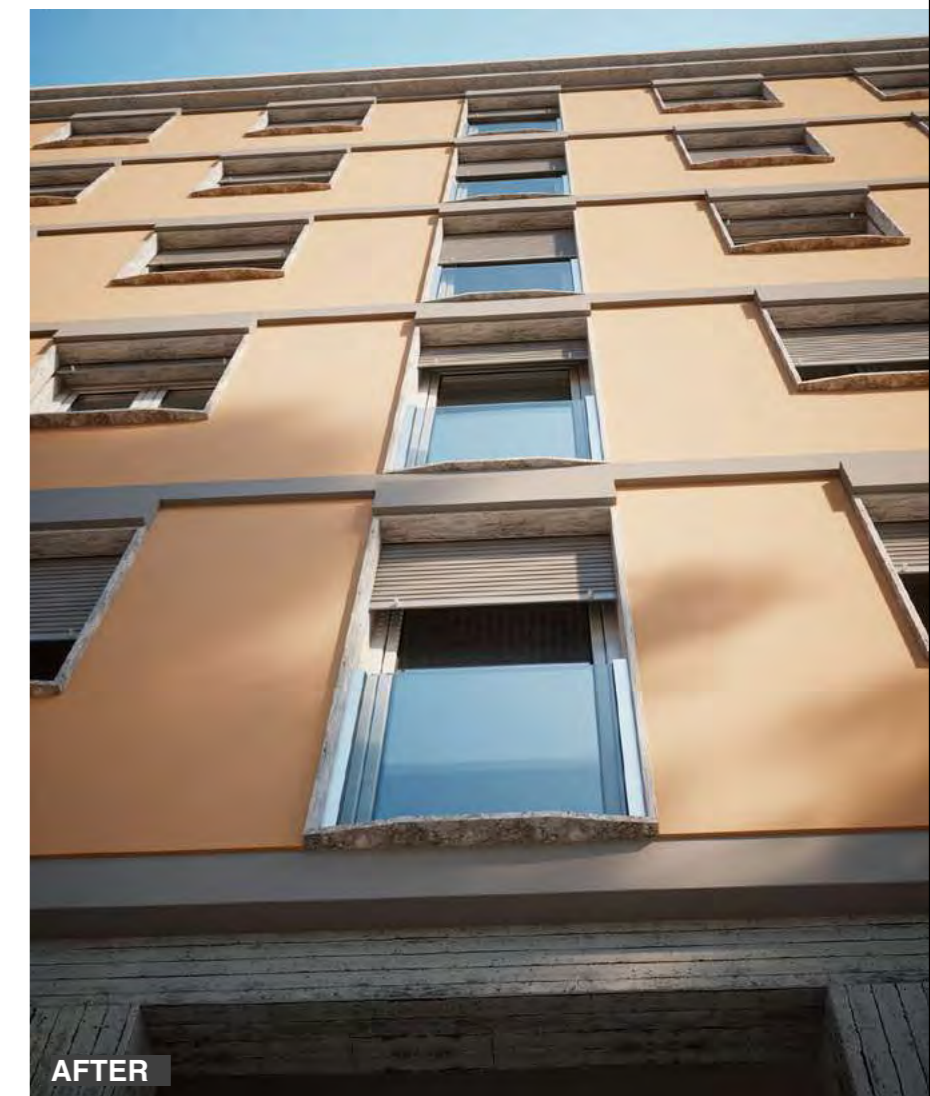
Today, most likely, **the existing artefacts are to be completely replaced with new and safe ones.**

DEFINITION

The French balcony is a balustrade protecting people, installed in front of a full-height window with a drop into the void (wall front or soffit).

Flavio Faraone

Faraone decided to make rooms with French balconies accessible, and therefore safe.



The same building with the new, elegant, French Julietta balconies.

THE FRENCH GLASS BALCONY

by FARAONE

Why Giulietta was born

GIULIETTA, TO DATE IT IS THE SAFEST FRENCH GLASS BALCONY ON THE MARKET.

Attention to market needs combined with Faraone's 15 years of experience in the field of balustrades, particularly in their aesthetics and safety, led to the creation of an important project such as Giulietta.

The R&D department meticulously studied every detail, starting with the technical engineering analysis up to the test cycle to determine the correct functioning of the system.

Over 1,000,000 metres of Faraone balustrades installed in Italy and abroad from 2009 to 2021.

Giulietta is the first French-style balustrade made in Italy, certified according to national standards, to have passed all static load and impact tests required by the regulations.

As many as **50 crash tests** (destructive tests) were carried out for the Giulietta, taking into account the **type of application**, the **type of glass** (8+8 or 10+10), and the **width** (as wide as 250 cm).

The laboratory tests were performed according to the Italian Ministerial Decree of 17-01-2018 and the Uni 11689-2017 standards.

WHAT THEY'RE SAYING ABOUT US

Partners, collaborators, designers: Stories and experiences with Faraone



Tecnovetro
Sandro Squeri

"We are very satisfied with what Faraone has done for us"



Studio GVA
Arch. Giovanni Vaccarini

"I have been working with Faraone for over 20 years, always with an excellent professional relationship"



Vetreria Nuova Romagnola
Luigi Amadei.

"Today our company, thanks also to Faraone, is also present abroad, in the Caribbean, in Africa. We also have the brand for the United States"



Studio Archea
Arch. Marco Casamonti

"The collaboration with Faraone has led to leaving our mark of Italianness abroad"



Idea Vetro
Massimo Mozzillo

"Faraone is the essential partner for our work"



Studio Riboli
Beppe Riboli

"We needed a certain technology and capacity above the norm, so we chose Faraone and we can only say good things about this"



Watch all video testimonials from Faraone partners and designers.



The Giulietta system is divided into two main models:

A Giulietta INT: Internal fastening (i.e. inside the window opening)

B Giulietta EXT: Wall-front fastening (i.e. outside the window opening, directly on the FACADE)

Both systems accommodate both 8.8 and 10.10 glass, with the corresponding seals. The height of the balustrade can reach **up to 1.2 metres**.

Finishes: Customisation as per standard and on request.

Giulietta INT/EXT **H**



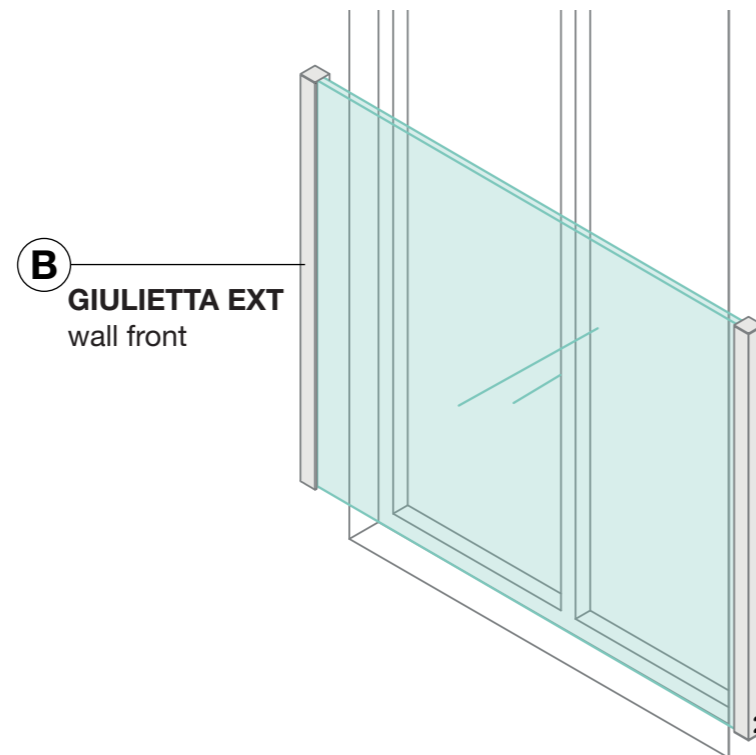
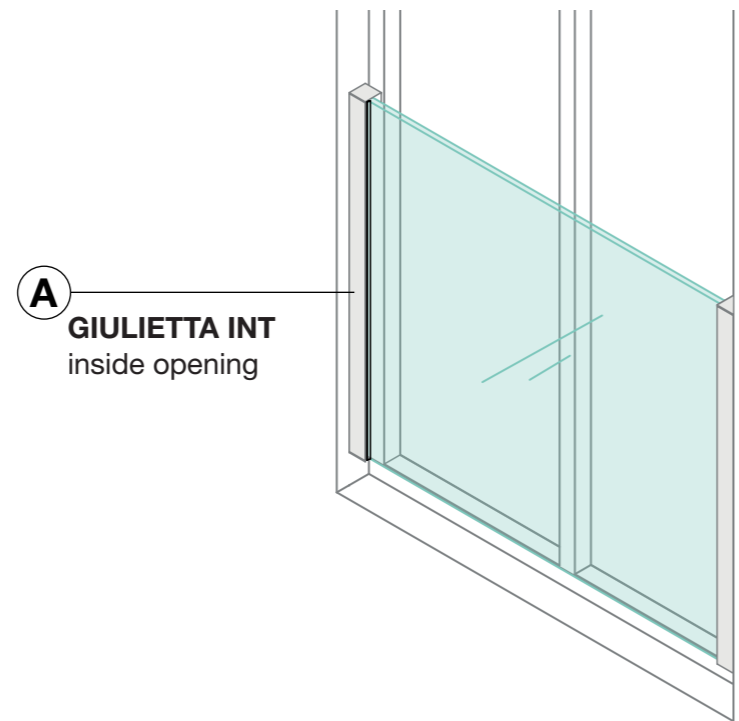
For uncrowded environments:
Tested to 300 kg/m (206 lb/ft)

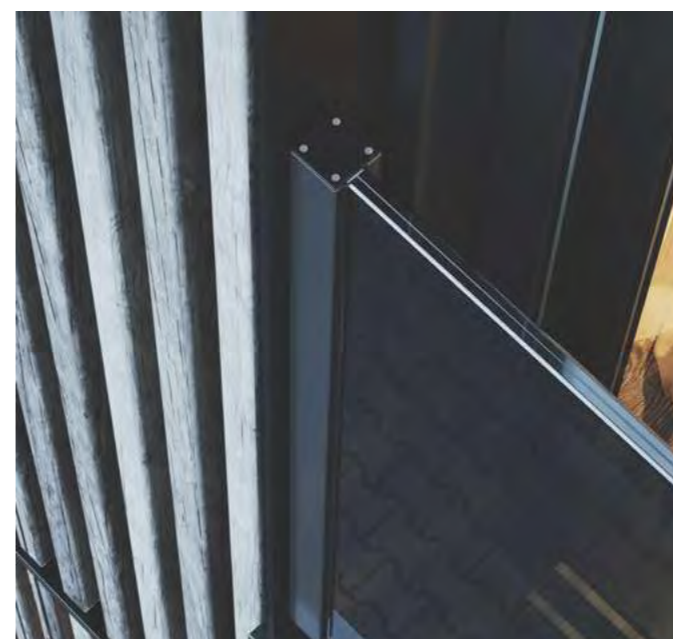
Giulietta INT/EXT **P**



For very crowded environments:
Tested to 450 kg/m (302 lb/ft)

Giulietta **H** (Home)
Giulietta **P** (Professional)





TOTAL SAFETY FOR YOUR FAMILY

Make the most of the space inside your room even without the presence of a balcony



**SPECIFIC SOLUTION FOR EACH WINDOW
OPENING**

Example of French Julietta balcony insertion
with different glass widths, from 60 cm to
250 cm.



TECHNOLOGY PACKAGE

1. Giulietta system + 2. Safety glass

Only with **Giulietta technology** and the **right safety glass** is it guaranteed to achieve the same **performance** as NINFA* and comply with regulations.

When we speak of a “**Technology package**” we are referring to the set of two components that make the Giulietta system **effective, safe** and **guaranteed**.

Why are both essential?

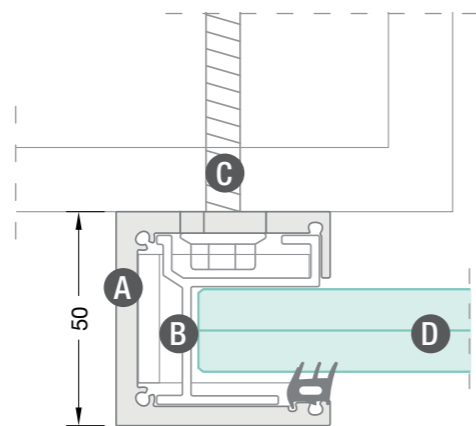
The **Giulietta System** encompasses all of Faraone's know-how in the world of glass balustrades. From strength performance, demonstrated during laboratory tests together with calculations using specific software, to installation requirements and ease of assembly.

The **Safety glass**, on the other hand, concerns the production technique of glass panes, the tempering and working processes that make this basically fragile material resistant and high-performance.

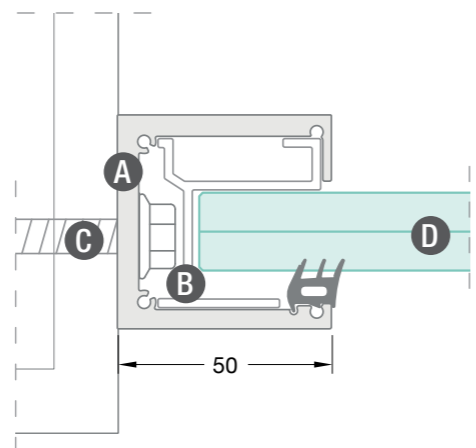
The number of panes that make up the balustrade, their thickness and the type of interlayer inserted inside affect this.

* Ninfa, the most widely used all-glass balustrade in Italy

GIULIETTA EXT (wall front)



GIULIETTA IN (inside opening)



①
GIULIETTA SYSTEM

- A Extruded aluminium alloy profile
- B Extruded PVC profile
- C Fastening screw

②
SAFETY GLASS

- D Tempered-hardened laminated glass thickness 8.8/10.10

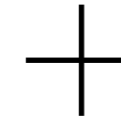
①

GIULIETTA SYSTEM
(PROVIDED BY FARAONE)

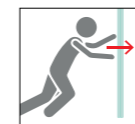


②

SAFETY GLASS
(INDICATED BY FARAONE)



The advantages of the Faraone technology package



TESTS IN COMPLIANCE WITH REGULATIONS

We calculate and test Giulietta's strength capacity according to current regulatory standards.



INTENDED USE

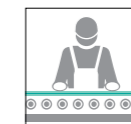
Each Giulietta French balcony is designed to be fixed on the wall front or inside opening.



SPEED OF ASSEMBLY

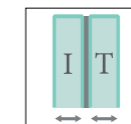
Assembly is immediate. However, it must be ensured that it is fixed on a load-bearing support.

Rely on Faraone's instructions on glass



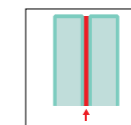
HARDENING AND TEMPERING PROCESSES

One of the main steps in processing glass to increase its strength.



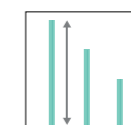
CORRECT ASSEMBLY

In addition to the thickness of the glass panes, it is important to include hardened glass on the inner side and tempered glass on the outer side.



TYPES OF INTERLAYERS

An essential element that determines the behaviour of the glass even after breakage. Use “rigid” plastic (Sentryglas type) for higher resistances.



CERTAIN GLASS HEIGHT

Thanks to the data from our tests, in addition to the types of glass, we are able to indicate the maximum height of each glass relative to its intended use.

① GIULIETTA SYSTEM

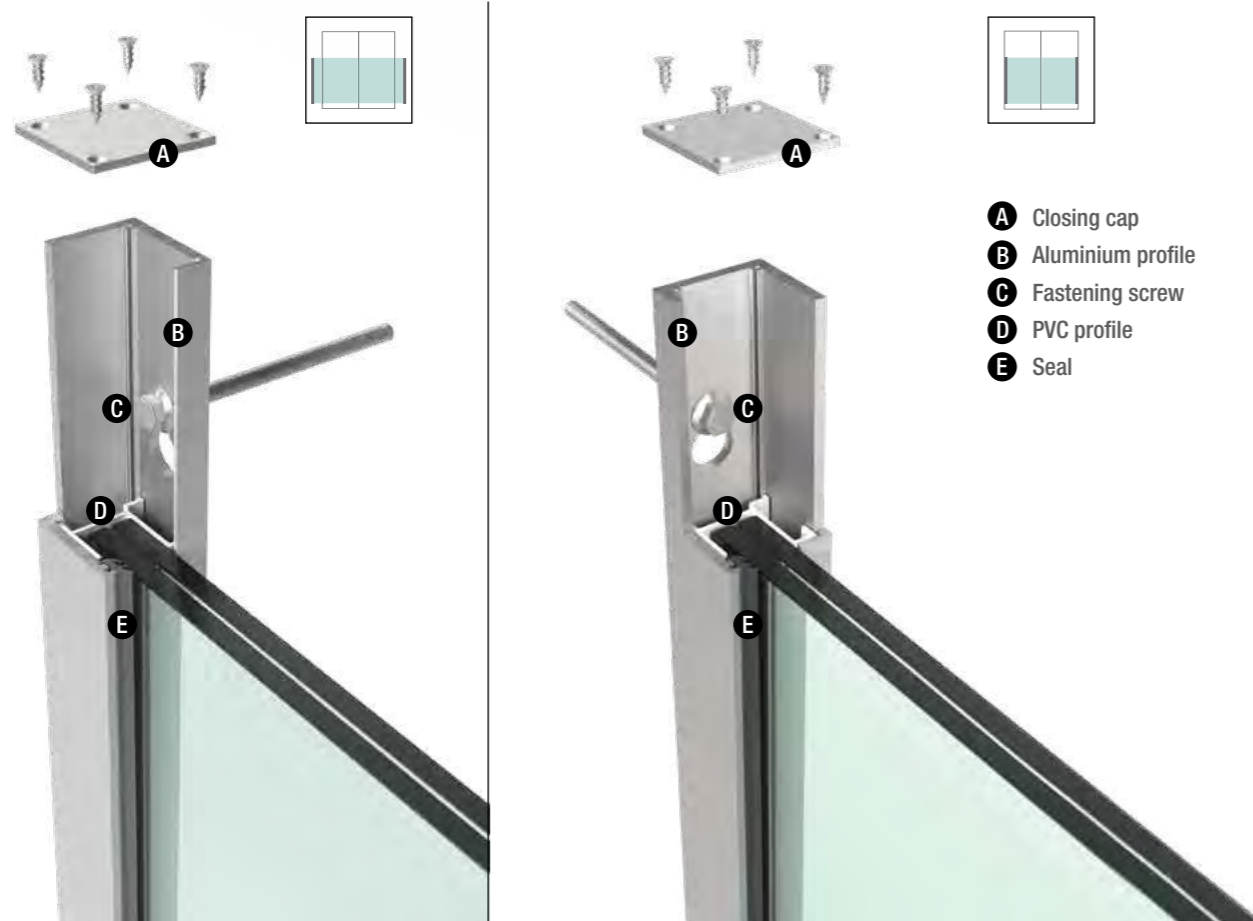
The heart of the Julietta system

The main block of the Julietta profile (the same for both INT and EXT models) consists of the following elements:

- The aluminium profile
- The internal PVC profile that houses and blocks the glass
- The fastenings, not visible.
- The glass press seal

STRENGTHS

- Certified performance according to regulations in force
- Adaptable to different glass lengths and customised projects
- Extensive customisation of finishes
- Reduced number of components for immediate assembly
- Heights are supplied both in kit and customised form



② THE SAFETY GLASS

The following points must be taken into account

A. HARDENING PROCESS

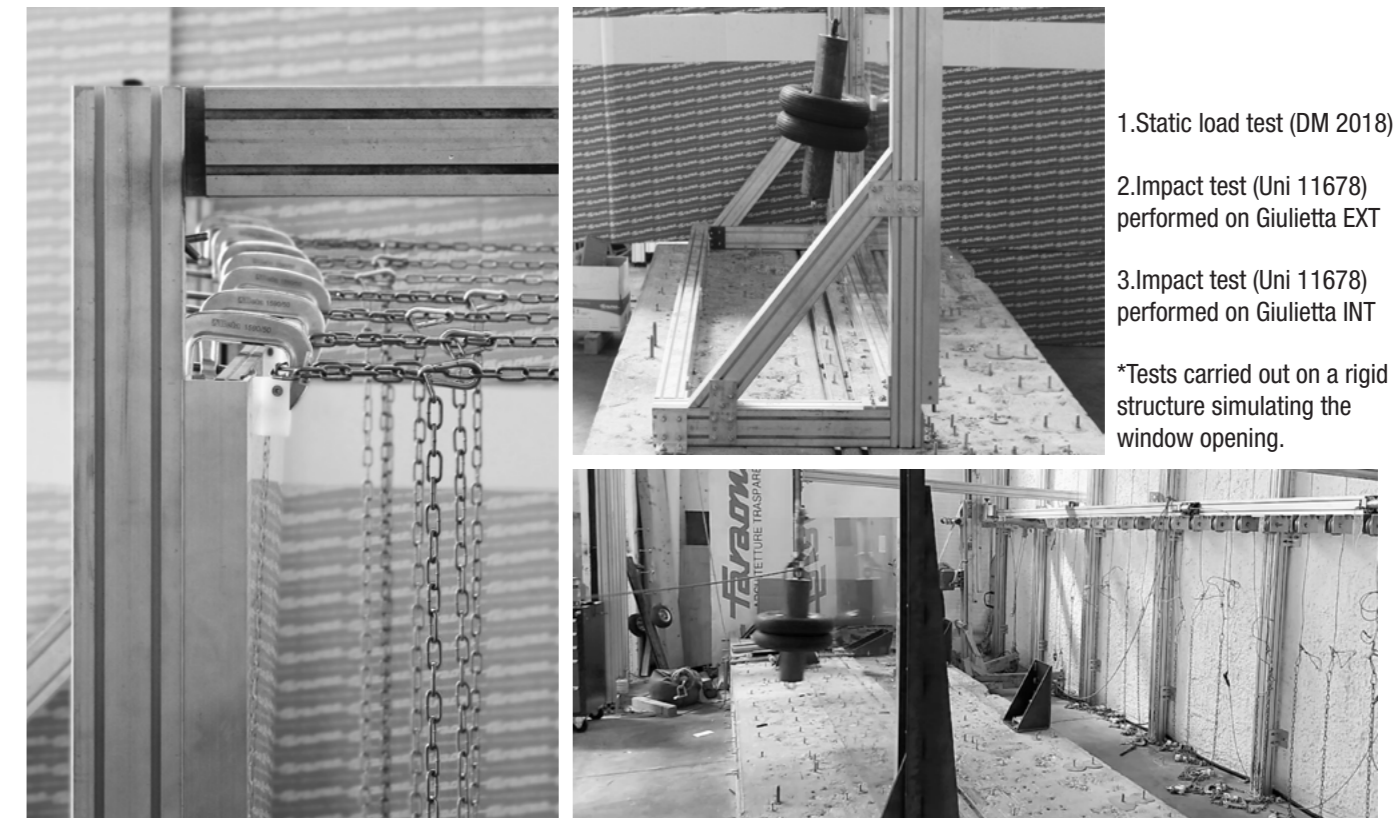
- Increased mechanical resistance to bending and tensile stress.
- Avoids breakage caused by thermal shock

B. LAMINATION PROCESS

By means of lamination, two or more panes of glass can be joined together by means of interlayer sheets, thanks to which it is possible to give the glass greater ductility and increase its performance.

C. TYPES OF INTERLAYERS

- Elastic interlayers E.G. EVA, PVB
- Rigid interlayers E.G. SG, X-LAB, ABAR



MAXIMUM TRANSPARENCY OR PRIVACY?

Maximum transparency

Enjoy the show outside.

Use an extra-clear transparent glass or the classic one with a greenish hue, and take advantage of the maximum transparency, for excellent outward visibility and increased brightness.

Privacy

Dare with customised glass.

Get the effect you want:

- cloud
- totally coloured
- satin
- acid-etched
- with design or digital print



Transparent glass



Glass with cloud effect finish





DESIGN AND FINISHES

Clean, minimalist lines of the aluminium profiles combined with an elegant “cloud” effect glass finish, also ideal for privacy.



PROFILE FINISHES

Customise your profile, choose the classic and elegant silver design or find your own colour from more than 2000 RAL colours (on request).

Standard finishes

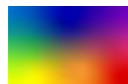
BASE



SILVER
ANODISED SILVER
(rough on request)

Other colours

ON REQUEST



2000 RAL colours



GLASS FINISHES

Not just transparent glass.

Choose to customise your panes with opaque colours or special shades such as the cloud effect.

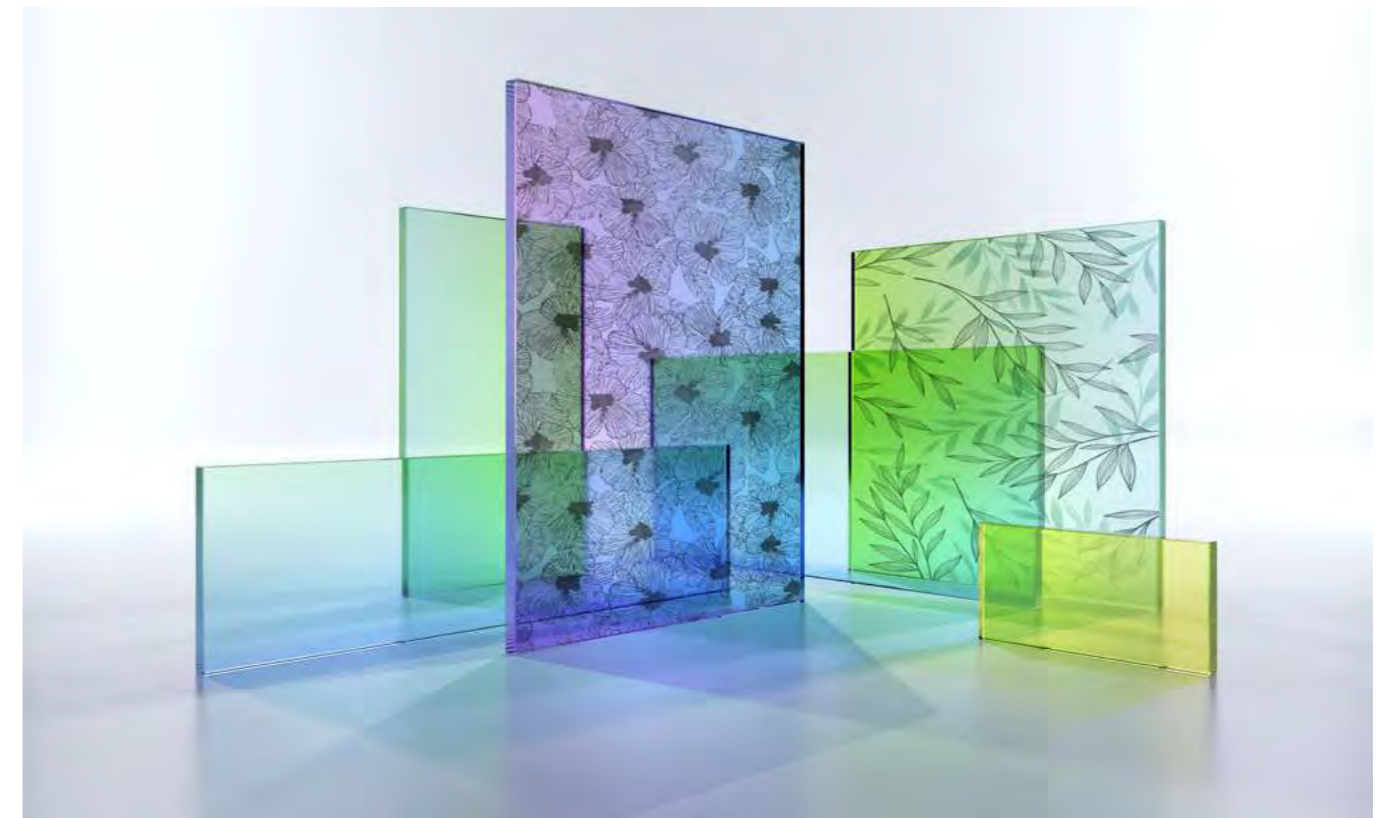
Use screen printing or acid etching to add a creative touch to your environment.

Customise the interlayer with special fabrics or print your favourite graphic or effect directly onto the glass.

Colour the glass panes, choose your screen print, layer with your fabric or print your customised graphic on the pane.

FOLLOW OUR DIRECTIONS

Get the effect you have in mind

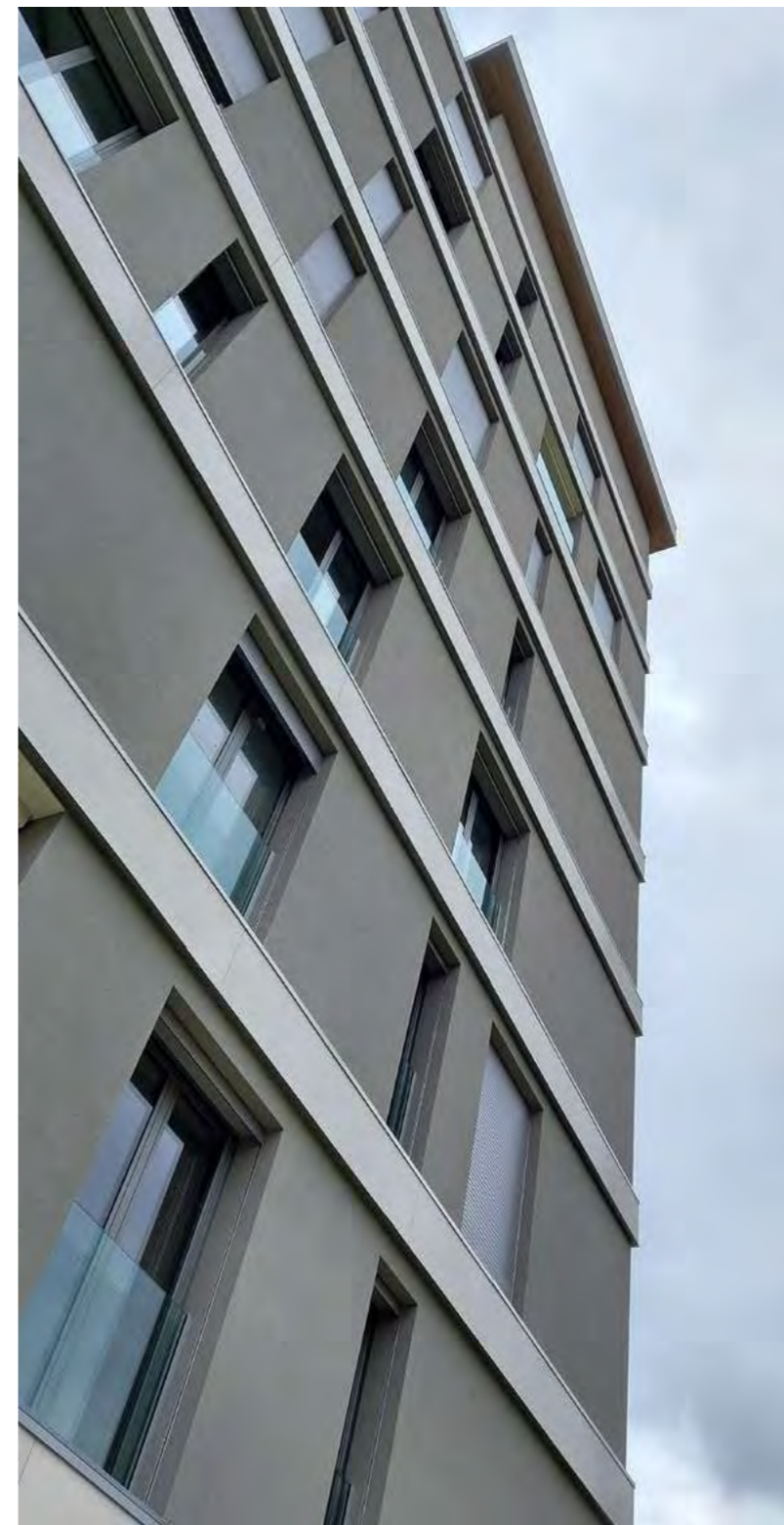


CASE HISTORIES

De Gasperi Residence. Brugherio (MI)

Giulietta's potential and versatility are expressed in this trendy, residential building in Brugherio, Milan. The French glass balcony integrates perfectly in projects like this where there is a need to provide light and protection in the presence of full-height windows. In this particular case, the Giulietta INT system was chosen, adapting the width of the glass to the different window sizes.

From the inside, the feeling is that of having a visually larger environment, with the possibility of looking outwards in complete safety, as on a classic balcony with a glass balustrade.





Example of an on-site test with static load test up to 300 kg/m with a 10+10 glass 250 cm wide and 110 cm high, with totally positive results

More:

Some guidelines and clarifications.

- It is important to choose the correct fastening according to the type of support on which the Julietta system is to be installed. Particular care must be taken when fastening on supports other than: reinforced concrete pillars, steel, wood supporting structures

- When fastening on brickwork, either on the inside of the window reveal (Giulietta int) or on the wall front (Giulietta ext), the designer must carefully consider how to create a suitable support for safe fastening.

- It is advisable to carry out tests on site to ensure that the installation has been carried out correctly to ensure maximum safety of the balustrade.

- It is not possible to fasten the Julietta aluminium profile directly onto the frame/profile of the window, as it would not be resistant to static load test according to Italian regulations.

- Faraone does not supply the fastening screws for the Julietta kits. The choice of fastening is left to the designer and/or construction management.

GLASS HEIGHTS

Examples of installations with different heights

Giulietta INT

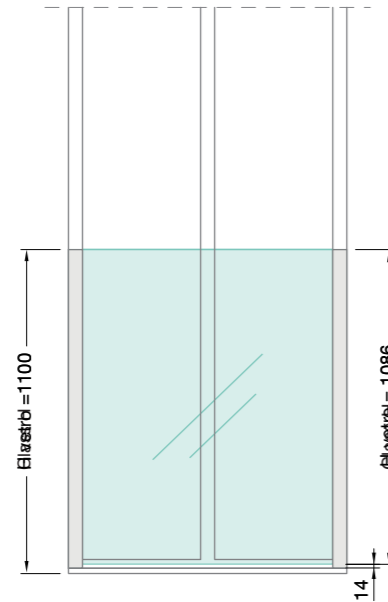
The height of a balustrade glass is determined by several factors. The regulations, in fact, specify that the minimum height must be 1 metre to be within the safety parameters. The Giulietta system safely reaches a height of 1.2 metres from the floor.

In addition to the total height of the balustrade, there are other parameters to take into account, such as the distance of the glass from the floor. In this regard, in fact, the regulations require that the balustrade must be impassable by a sphere with a diameter of 10 cm.

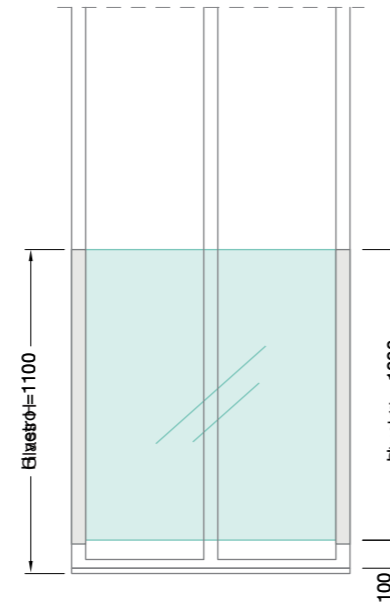
Specifically, therefore, it is possible to install the glass at a ground clearance ranging from a minimum of 14 mm to a maximum of 100 mm, as shown in the drawings on the right for the Giulietta INT model. (Case 1 and Case 2).

As the distance from the ground varies, so does the height of the glass.

Case 1: Ground clearance of 14mm



Case 2: Ground clearance of 100mm



Giulietta EXT

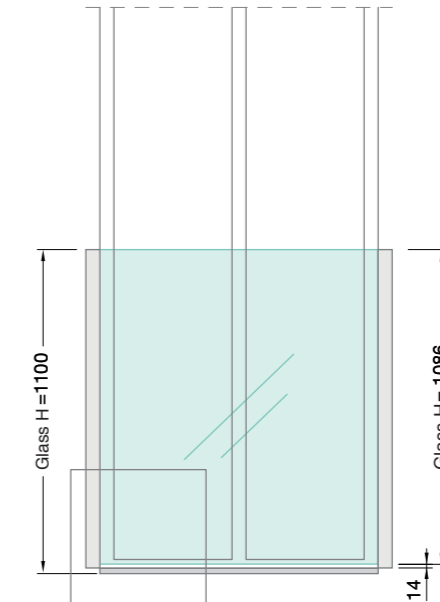
In the case of Giulietta EXT, the same rules apply as described for Giulietta INT with one difference.

The Giulietta EXT system, i.e. with mounting outside the window opening, can also be positioned lower than the window opening, as long as it respects the minimum safety height of 1 metre.

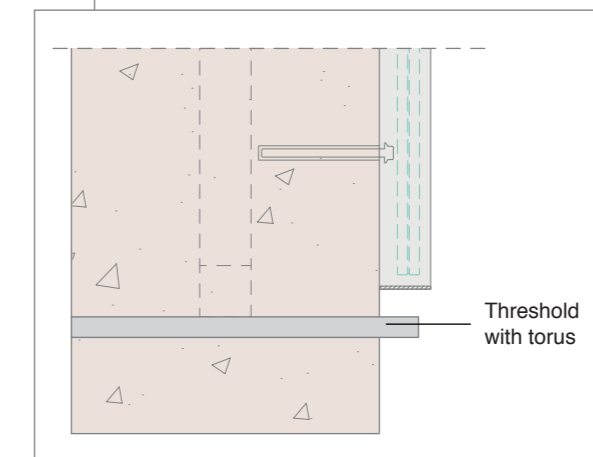
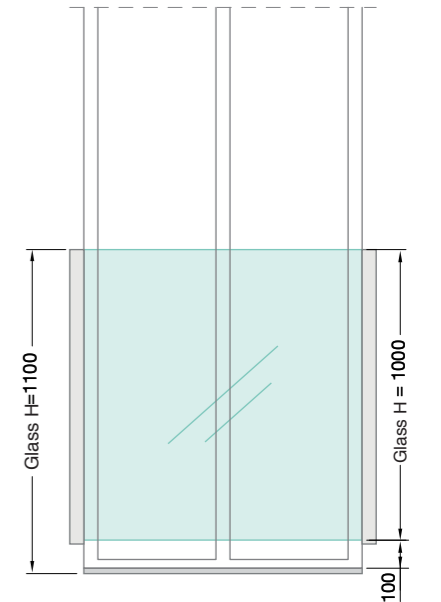
If there is a protruding element, such as a windowsill, the balustrade must be installed above this threshold and the ground clearance range (14 mm to 100 mm) must be observed accordingly.

Again, as the distance from the ground varies, so does the height of the glass.

Case 1: Ground clearance of 14mm

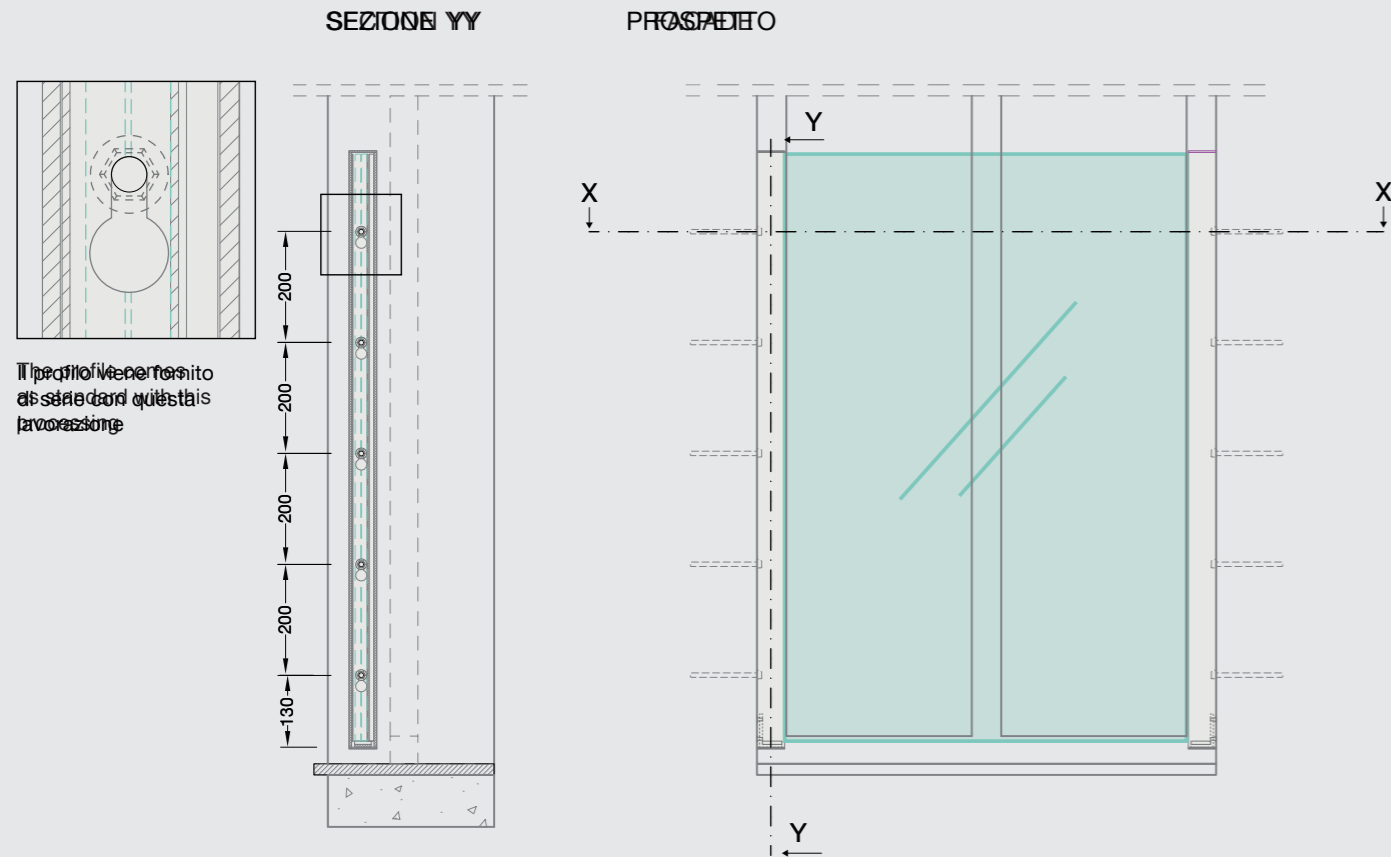


Case 2: Ground clearance of 100mm



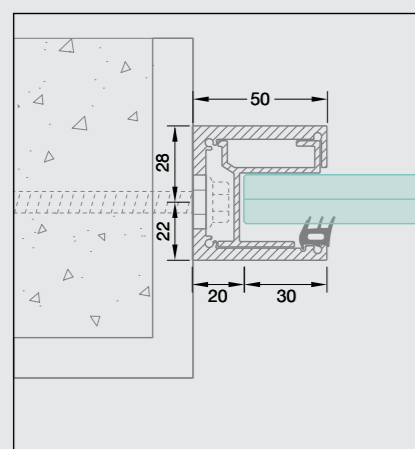
TECHNICAL DETAILS

GIULIETTA INT - inside opening



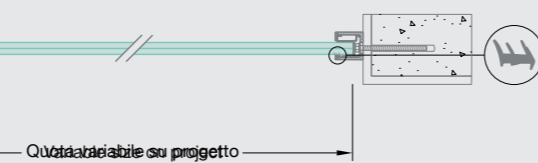
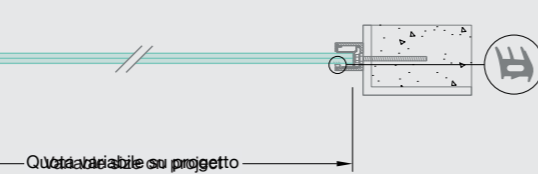
Il profilo viene fornito
assemblato in questa
lavorazione

SEZIONE XX



GLASS 8+8

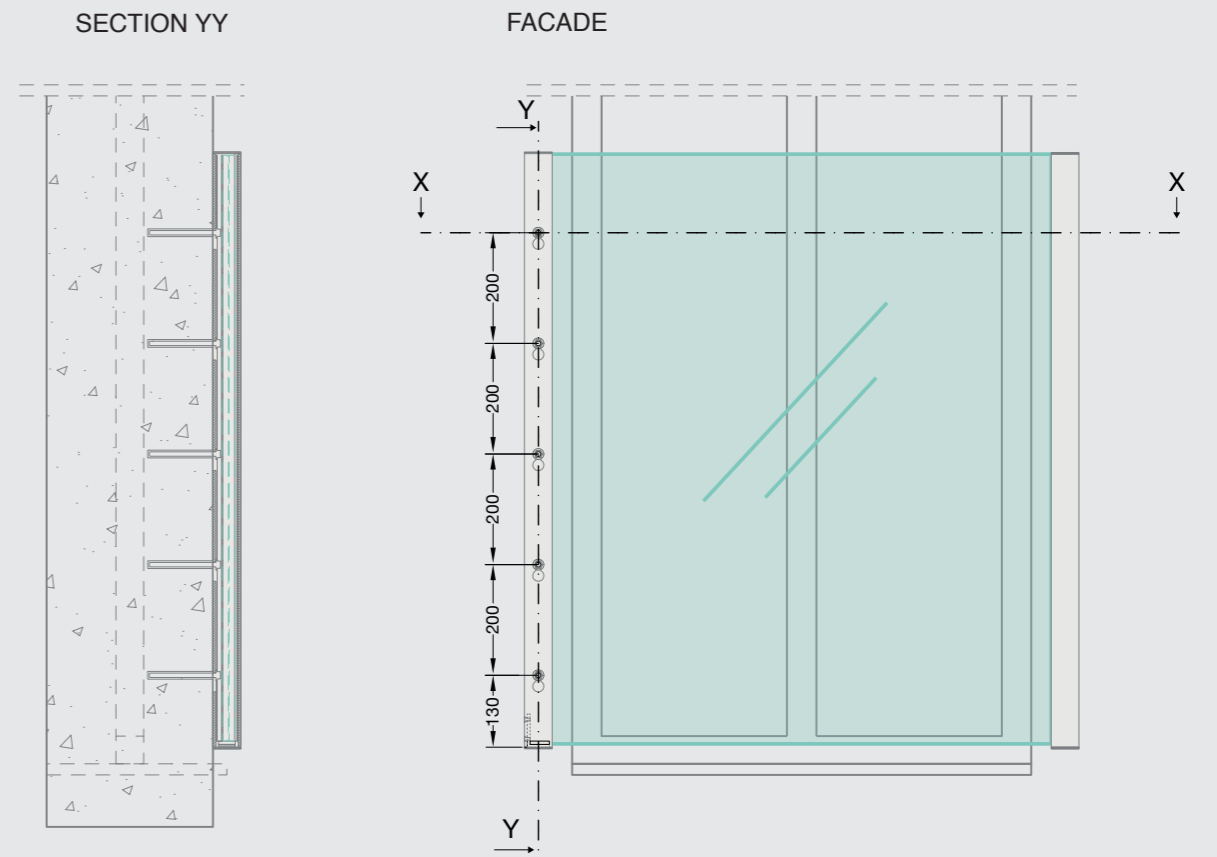
GLASS 10+10



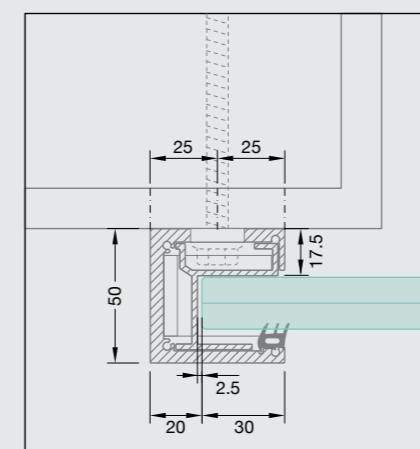
Quota variabile su progetto

Quota variabile su progetto

GIULIETTA EXT - wall front

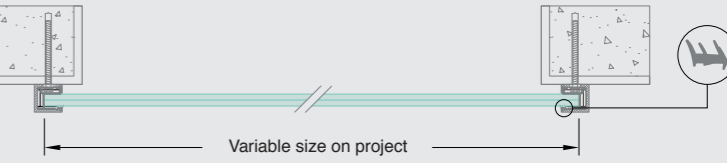
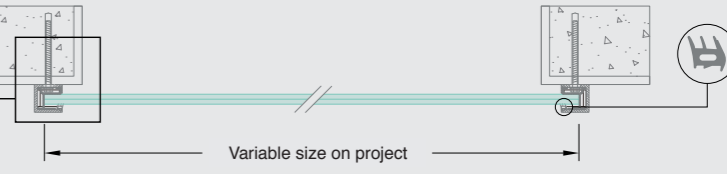


SECTION XX



GLASS 8+8

GLASS 10+10

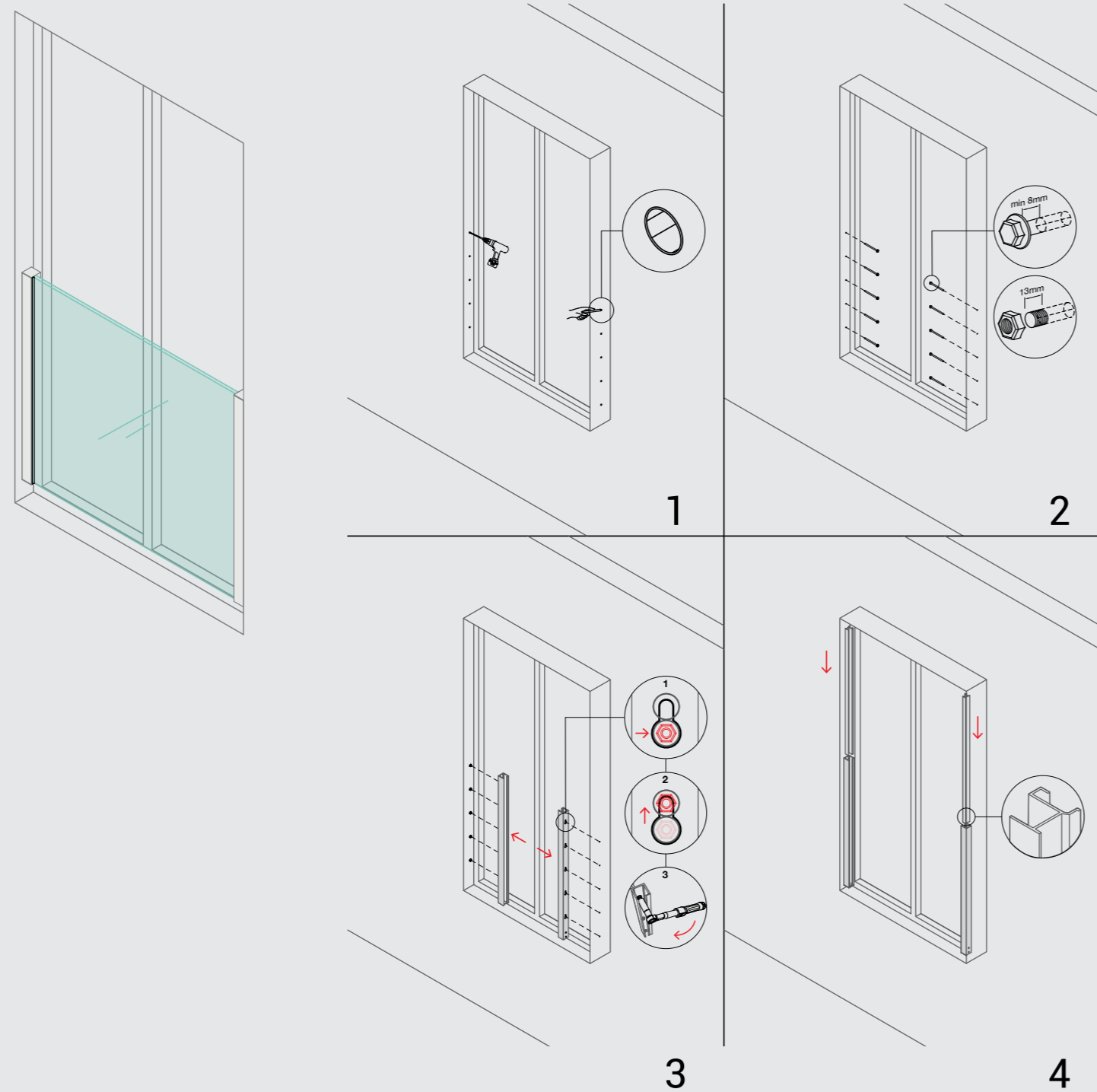


Variable size on project

Variable size on project

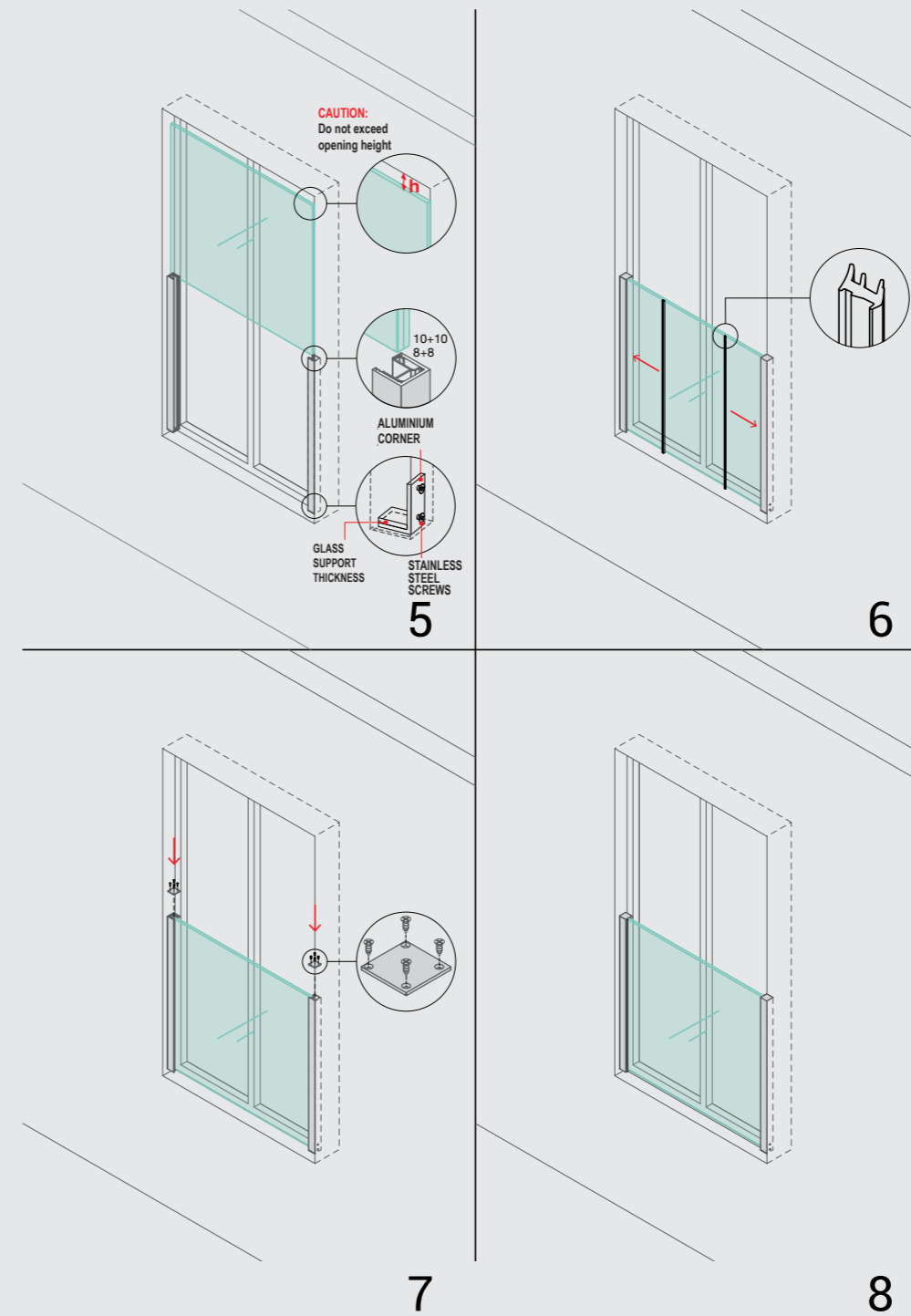
SPEED OF ASSEMBLY

GIULIETTA INT - inside opening



Immediate assembly

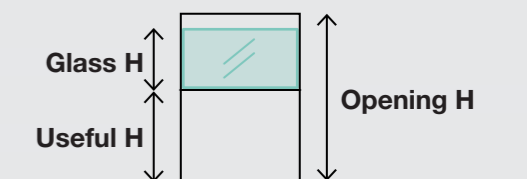
5 construction elements: aluminium bar, PVC profile, seal, glass, caps.



Assembly steps:

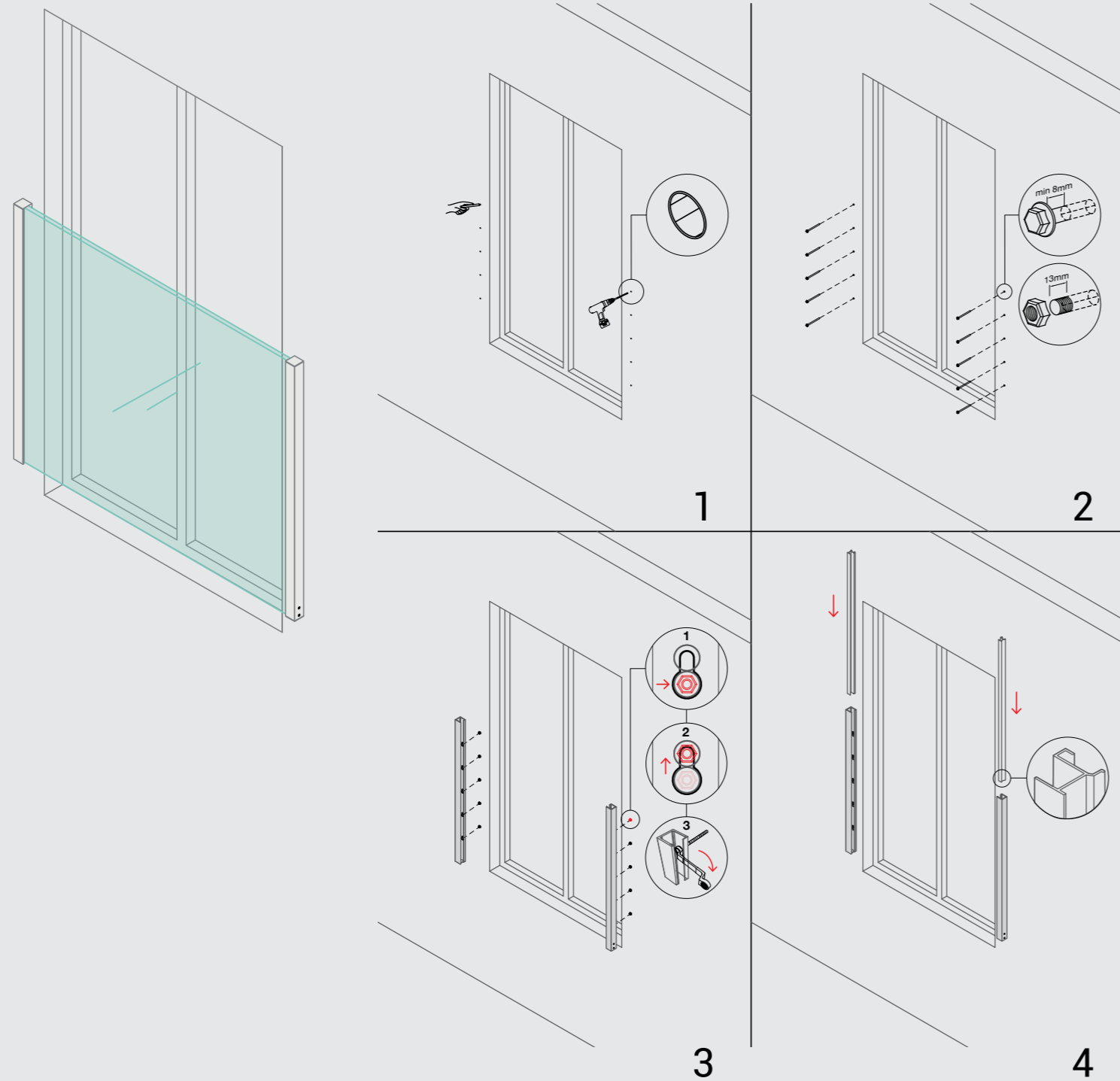
1. Drill holes in the masonry
2. Insert screws (already chosen by the construction management according to the type of fastening)
3. Position the profile using the existing slots in the holes, then tighten the screws.
4. Insert PVC profile from above on both sides
5. Insert the glass pane from above, until it rests on the corner at the bottom of the profile.
Caution: The height of the manoeuvring space to insert the glass must be at least twice the height of the pane.
*** Follow the formula below for the calculation.**
6. Insert the pressure seal, so that the glass is locked in place
7. Finally, screw the aluminium closing caps on top of each profile
8. Finished! **Giulietta INT** is ready

*** Opening H > useful H + glass H + 50mm**



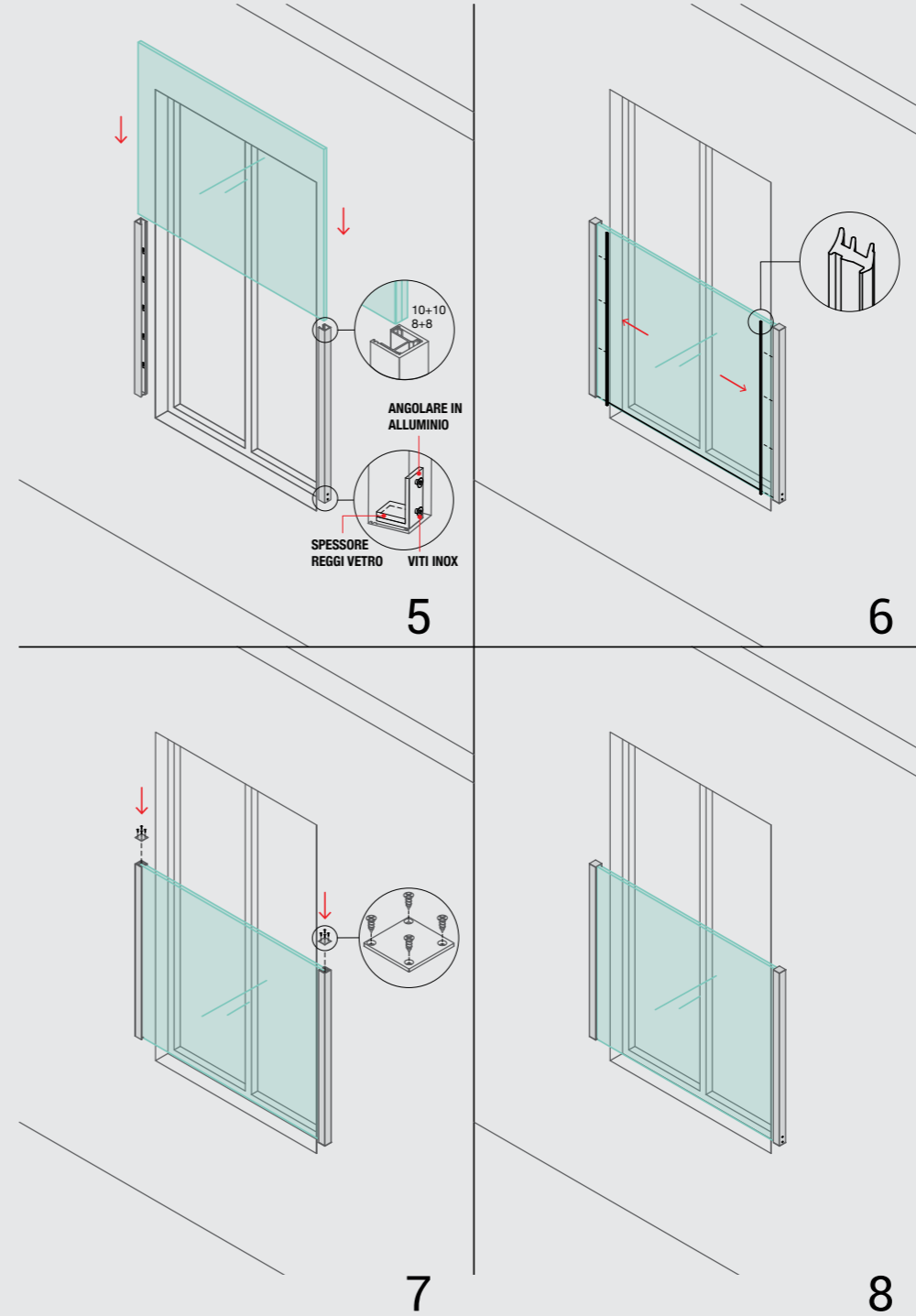
SPEED OF ASSEMBLY

GIULIETTA EXT - wall front



Immediate assembly

5 construction elements: aluminium bar, PVC profile, seal, glass, caps.



Assembly steps:

1. Drill holes in the masonry.
2. Insert screws (already chosen by the construction management according to the type of fastening)
3. Position the profile using the existing slots in the holes, then tighten the screws.
4. Insert the internal PVC profile from above on both sides
5. Insert, again from above, the glass pane all the way to the bottom of the profile, where it will rest on the already assembled corner.
6. Insert pressure seals, so that the glass is locked in place
7. Screw aluminium closing caps on top of each profile
8. Finished! **Giulietta EXT** is ready

GIULIETTA : OTHER APPLICATIONS

Examples of alternative solutions with the Julietta system

The Julietta system was created specifically for French balconies, however, it is also suitable for other types of applications in redevelopment projects or where a special customised solution is required.

For example, when the classic balustrade cannot be installed because a ground anchorage is not possible in the existing structure, or due to other technical problems.

One of the advantages offered by the Julietta system, in addition to reaching a width of 250 cm, is that the profile can be fixed laterally without drilling holes in the floor.



GIULIETTA INT/EXT

Many solutions for every need. Transform your balcony with the Julietta system by installing a new, safe and standardised balustrade on your existing structure. **No holes in the floor**

* It is indispensable to fasten to a load-bearing structure and to install on masonry in a safe manner according to the instructions provided by Faraone.



GIULIETTA : OTHER APPLICATIONS

Examples of alternative solutions with the Giulietta system

In this other case study, Giulietta was placed along the perimeter of a terrace.

The structure has pre-existing painted iron posts on which the classic (and unsafe) fastening of the glass with stainless steel clamps was initially planned.

The designer then thought of exploiting the visual effect and safety of the Giulietta, allowing both a more pleasing solution and passing the stringent static load and impact tests required by regulations.

The Faraone technology was quickly and easily attached to the metal column, leaving the glass pane free of visual disturbing elements.



Construction site image before installation of Giulietta



Terrace with Giulietta system completed

Another case of alternative application of the Giulietta system can be found in this wooden house project.

Precisely because of the particularity of the structure and the materials of which it is composed, the designer decided not to install a normal balustrade with floor fastening (thus avoiding touching the

waterproofing layer) but to take advantage of the already existing columns to fasten laterally with Giulietta profiles.

This also allowed for all-glass balustrades with a width of 250 cm and a height of 110 cm.



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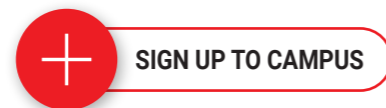
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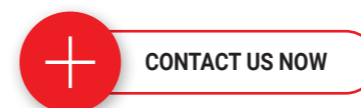
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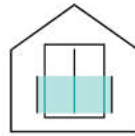
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We select the experts who carry out the installation of our products to ensure the quality standard. During this phase, site tests can be carried out to ensure that the installation has been carried out properly and that everything is safe.



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