faraone®
ARCHITETTURE TRASPARENTI
italian style

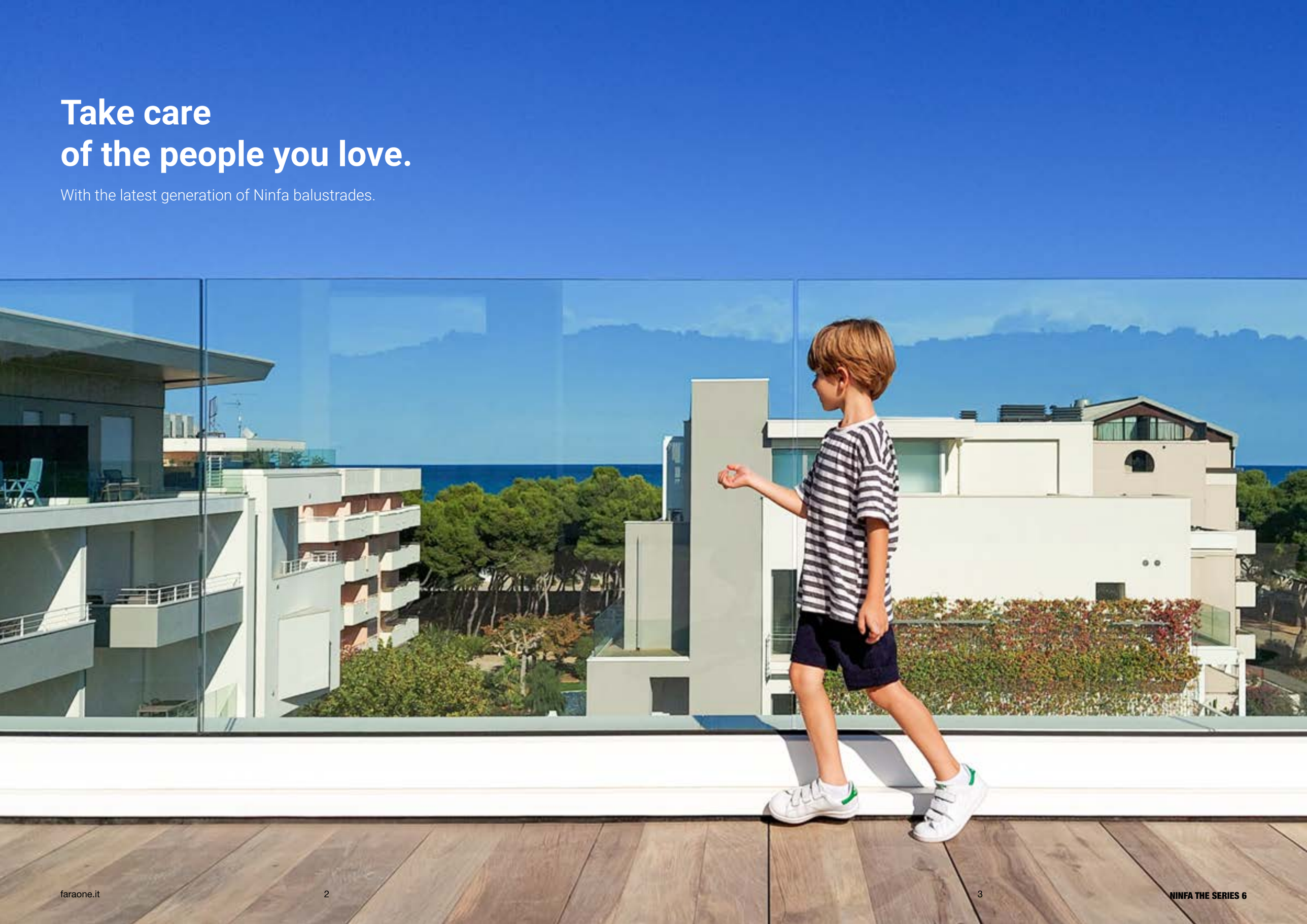
faraone.it

NINFA® 6
THE SERIES
GLASS BALUSTRADES FOR ARCHITECTURE

IT CONTAINS NINFA MODELS 6, 106, 116, 56, 176, 186

Take care
of the people you love.

With the latest generation of Ninfa balustrades.



In 2008, the first meters of what would later become a reference system for glass balustrades in Italy were shipped: the Ninfa system.

At the time, this system was relegated to the last pages of the balustrade catalogue, after the stainless steel systems, occupying a small space with a single article.

Thirteen years and five series later, breaking records over records, the Ninfa balustrade system has definitely conquered designers and operators of the Italian sector, becoming a best-selling item with over 800,000 meters installed from 2008 to the end of 2021.

Now in its sixth generation, the Ninfa 6 series has new records to break, which we see as a natural evolution of design inherited from the previous series.
For the market it is a real technological innovation that will stand out for its unique design and performance.

The entire range stems from our desire to always look forward by aiming for continuous innovation, aimed at improving its performance, its beauty, its functionality, its ease of installation and much more.

Among the main new records you will find the simplicity of the management of glass thicknesses and the possibility of using higher glass, much higher (to meet current demands), with calculation verifications and laboratory tests in total compliance with the regulations.

We do all this not because the market requires it, but because we strongly believe in what we do and always want to raise the level of the category.

Welcome to our new innovation.

Flavio Faraone

CEO of Faraone Transparent Architectures

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WHY USE THE NEW NINFA FARAONE BALUSTRADE SYSTEM?

After more than 50 years in the world of Transparent Architecture, Ninfa is still the best-selling “all-glass” balustrade in Italy.

The Ninfa glass balustrades by Faraone are synonymous with experience, comfort and safety for outdoor environments such as balconies, terraces, poolside fencing, fences; and for indoor environments such as stairways, galleries and walkways.
The reason for using the new Ninfa series 6 balustrades by Faraone can be found in some of the following records achieved to date:

1. The Ninfa system by Faraone was the first industrialized all-glass balustrade to arrive on the market in Italy since 2008, previously there were mainly handcrafted or “do-it-yourself” solutions;
2. To date, more than 900,000 meters *(984.300 yd)* of Ninfa balustrade have been installed in Italy with total customer satisfaction;
3. Ninfa was the first balustrade to use the “only from the inside” assembly methodology since 2016 and today it reduces assembly times by 40% compared to the market average;
4. Ninfa the 6th series is the first glass balustrade system that fully complies with static calculations, which are verified by our technical department with inimitable performances;

Sabatino Faraone
PRESIDENT

Flavio Faraone
CHIEF EXECUTIVE OFFICER / CEO

Pamela Faraone
ADMINISTRATIVE MANAGEMENT

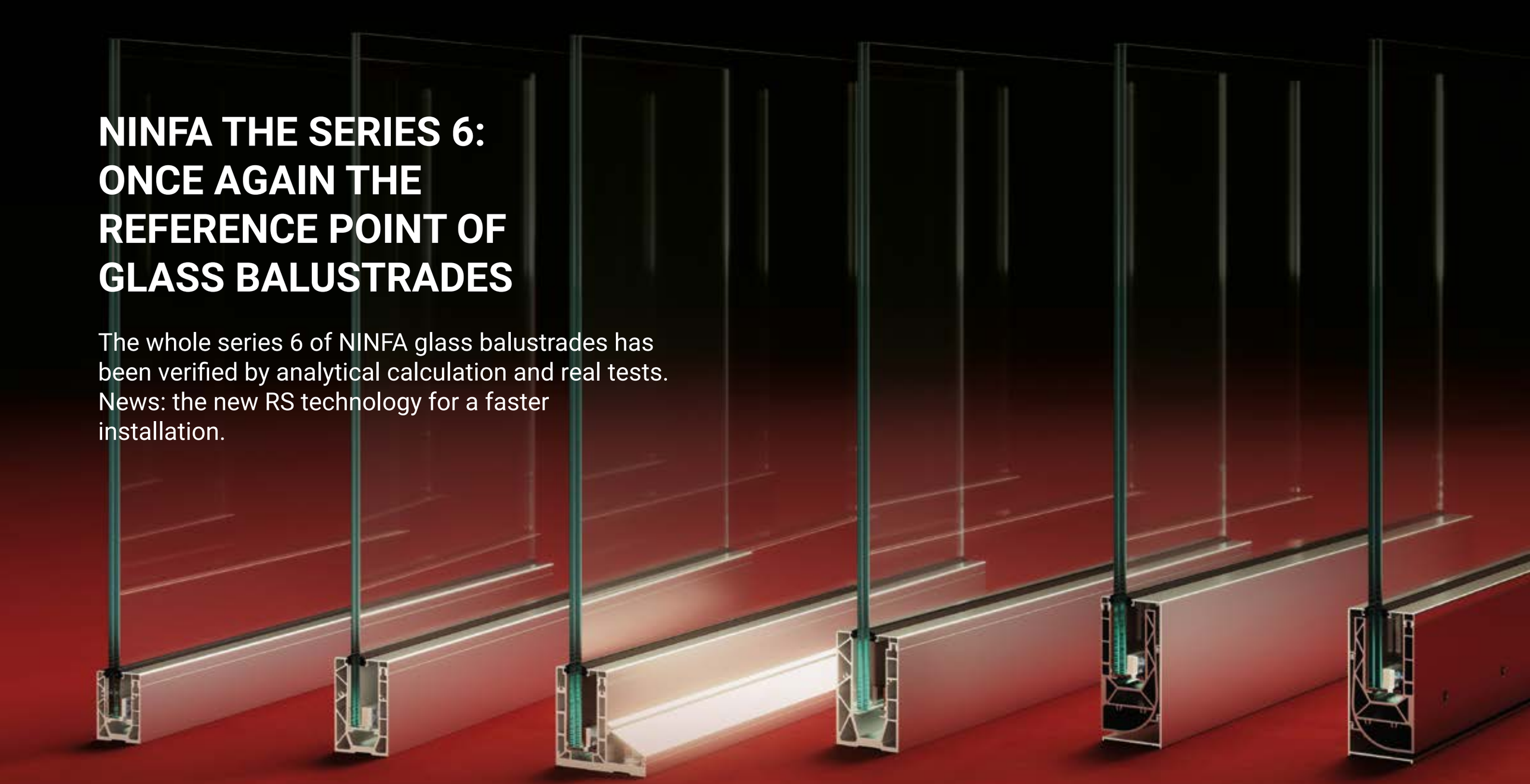
Federico Vallese
ORGANIZATIONAL DIRECTION

5. Ninfa the 6th series is the first to present its technology package with the “RS system”;
6. Ninfa series 6 offers high customization and prestigious finishes for the profile and for the glass;
7. NINFA 116, the profile with mounting flush with the wall and/or for solutions with floating floors.

Ninfa the 6th series is not just a product. These are some numbers related to the world of Ninfa: 35,000 orders processed to direct customers; 800,000 meters installed equal to 80,000 homes with Ninfa balustrades (about 10 meters per home). A network of consultants throughout Italy is ready to offer maximum assistance for every need, starting from simple technical or commercial advice to the definition of the design. The internal department is also able to guide you in choosing the most suitable product for you or to respond to your emergencies.
Below we have tried to answer the main FAQs (frequently asked questions), to illustrate how Faraone solves the main technical problems, at the construction site and as assistance service.
In the final part there is a section related to Ninfa’s references.

NINFA THE SERIES 6: ONCE AGAIN THE REFERENCE POINT OF GLASS BALUSTRADES

The whole series 6 of NINFA glass balustrades has been verified by analytical calculation and real tests. News: the new RS technology for a faster installation.



NINFA® 56
THE GLASS BALUSTRADE WITH AN ULTRA SLIM DESIGN
(It's ideal for mounting on a low wall)

NINFA® 106
THE MINIMAL BUT HIGH-PERFORMING BALUSTRADE
(ideal for for private places like balconies and terraces, and uncrowded public places)

NINFA® 116
THE GLASS BALUSTRADE TO BE MOUNTED FLUSH WITH THE EXTERNAL SIDE OF THE FLOOR AND FOR SOLUTIONS INTEGRATED INTO THE FLOOR
(ideal for private places like balconies and terraces, and uncrowded public spaces)

NINFA® 6
THE GLASS BALUSTRADE WITH HIGH PERFORMANCE
(ideal for public and crowded places)

NINFA® 176
THE GLASS BALUSTRADE WITH INTERNAL SIDE FIXING
(ideal for private and crowded public places)

NINFA® 186
THE GLASS BALUSTRADE WITH EXTERNAL SIDE FIXING
(ideal for private and crowded public places)

OUR TEAM
OF THE R&D DEPARTMENT

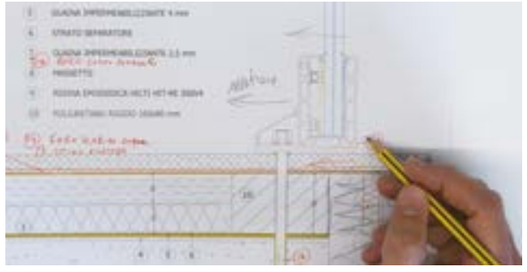
The design of the NINFA series 6 followed well-defined plans and design steps.
Since 2008 we have improved processes and procedures to create the R&D department dedicated to product development and innovation.
Specific figures have been selected to form a heterogeneous team made up of professionals who have grown up over the years, who have become real experts in the design of glass balustrades with a single common purpose: to aim for excellence.
This excellence has also been achieved thanks to the use of sophisticated 3D modelling/ analysis software, a state-of-the-art testing laboratory and 3D printing instrumentation.
Nothing has been left to chance and everything has started from a specific briefing: Ninfa series 6 was born thanks to the technical improvements of the previous systems, an accurate market analysis, and the insights of the Faraone company to be offered to the market.
The R&D department, the technical office, the purchasing office, the marketing division, the commercial division: all together to ensure a product of excellence.

DESIGNER
Matteo Paolini
For 16 years at Faraone, he has designed the Ninfa 6 project and is the Research and Development Manager, assisted by a young and dynamic team of professionals.

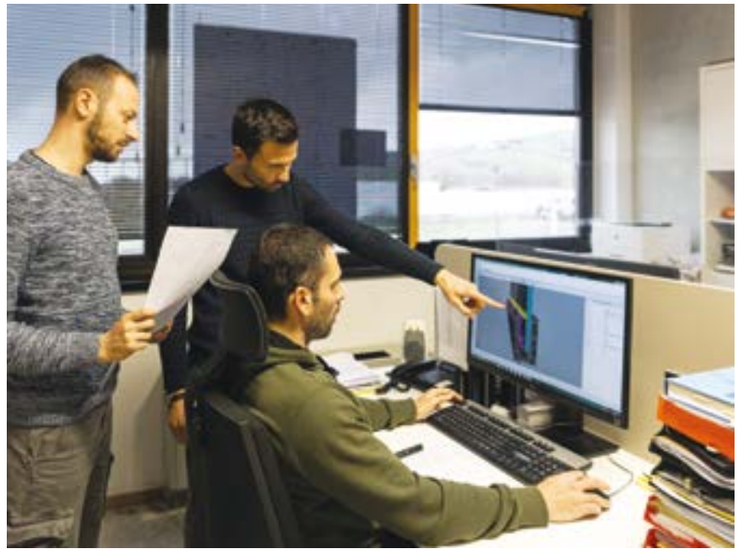
ENGINEER
Gabriele Romagnoli
For 9 years at Faraone, structural verification of the Ninfa 6 system. He deals with consulting, projects and structural verifications, feasibility studies, research and development of new products and the definition of load tests on structures.

ARCHITECT
Fabio Levante
For 5 years at Faraone, designer in the Research and Development department where he constantly contributes to the product innovation and optimization.

ENGINEER
Dante Centola
For 5 years at Faraone, designer in the Research and Development department.



3D printer
for prototyping

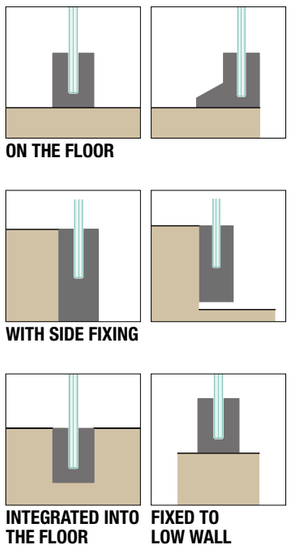


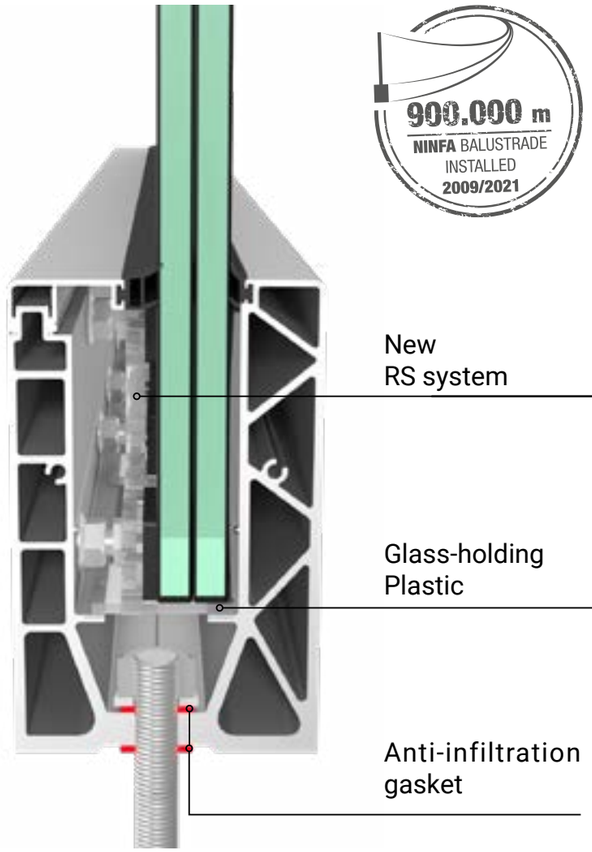
THE NEW NINFA PROJECT

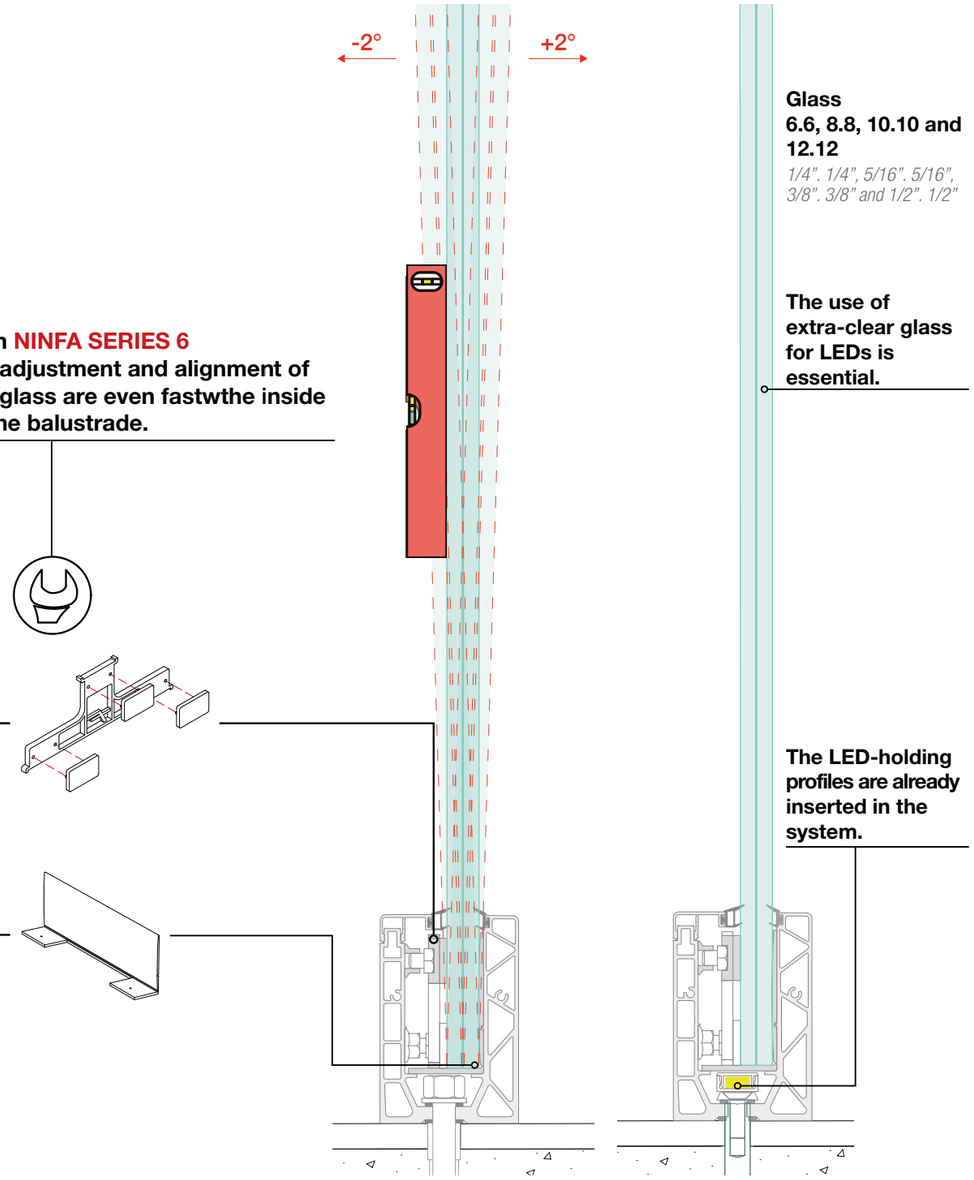
The new NINFA Series 6 project further improves the previous series with a more practical and faster glass adjustment system.

PATENTED SYSTEM
New range with resistance from 200 kg/m (tested at 300 kg/m) up to 500 kg/m (tested at 750 kg/m).
137 lb/ft (tested at 206 lb/ft) up to 343 lb/ft (tested at 514 lb/ft).
THE SYSTEM GUARANTEES THE USUAL SAFETY LEVEL.

Types of FIXING





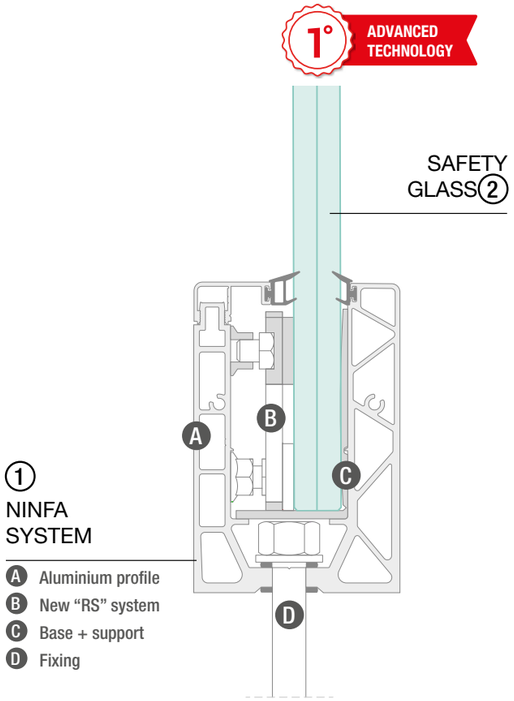


THE IDEAL TECHNOLOGICAL PACKAGE

1 - NINFA system
2 - Safety glass

Only with **the NINFA system** and the **appropriate safety glass** it is possible to obtain **surprising performances** in total compliance with the regulations.

The knowledge of the materials used such as aluminium and glass combined with their technological capabilities has allowed Faraone to develop increasingly performing systems.
This is possible thanks to the Technology Package consisting of the **NINFA System** (profile, RS, base, fixing) and the **appropriate Structural Glass**.
Why are they both essential? The **NINFA System** concerns Faraone's know-how: from resistance performance (based on the intended use and the glass used) to installation needs and ease of assembly.
The **Structural Glass,** on the other hand, concerns the production technique of the glass sheets, the hardening and processing methods that make this material, basically fragile, into a resistant and performing one.
The performance of a glass balustrade depends mainly on the number of sheets that make up the balustrade, their thickness and the type of interlayer that is inserted inside.



1

NINFA SYSTEM
(SUPPLIED BY FARAONE)

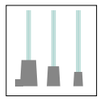
+

2

SAFETY GLASS
(INDICATED BY FARAONE)

The advantages of the NINFA system

TEST IN COMPLIANCE WITH REGULATIONS
We calculate and test the resistance levels of Ninfa balustrades in compliancewith current regulatory standards.

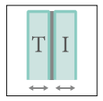


INTENDED USE
Each NINFA glass balustrade is designed for specific uses.

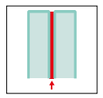
SPEED OF ASSEMBLY
The assembly and plumbing of the glass are faster and easier

Rely on the indications by Faraone on the glass

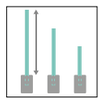
TEMPERING AND HARDENING PROCESSES
One of the main steps in glass processing to increase its resistance by 4 times.



CORRECT STRATIFICATION
In addition to the thickness of the glass plates, it is important to insert the Hardened glass on the outside and the Tempered glass on the inside.



TYPES OF INTERLAYER
It is an essential element that determines the behaviour of the glass even after breaking. Use "hard" plastic interlayer for superior resistance.



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

OUR STRENGTH: THE QUICK ASSEMBLY

1° OPTIMIZED ASSEMBLY TIME

4 simple steps, and that's it!

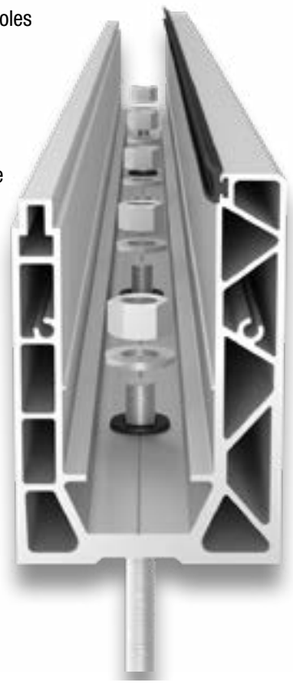
STEP01

> PREPARATION

a) Position the pre-drilled bar (with external gasket already inserted) to use as a template
b) Mark the holes and then drill the floor
c) Thoroughly clean the holes
d) Apply the resin
e) Insert the rods

> START OF ASSEMBLY

a) Fasten the profile to the floor



YOU ONLY HAVE TO
Posizionare in sequenza: prima rondella in gomma, profilo, seconda rondella in gomma, rondella piana, dado M12

STEP02

> Glass housing

a) Insert the plastic for glass housing inside the profile
b) Prepare the RS system by inserting the correct spacers according to the glass to be inserted (6.6, 8.8, 10.10, 12.12) *(1/4". 1/4", 5/16". 5/16", 3/8". 3/8" , 1/2". 1/2")*

YOU ONLY HAVE TO
Distribute the plastic for glass support (4 for each meter)

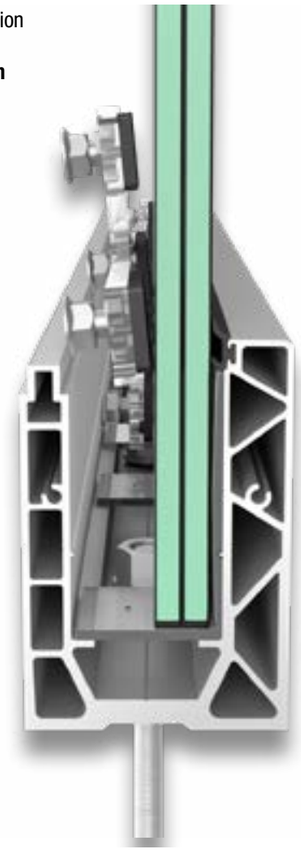
STEP03

> Positioning of the glass

a) Insert the glass in an inwards inclined position

> Insert the RS system

a) Insert the adjusters (RS system)
b) Adjust the inclination
c) Tighten both rows of adjusters

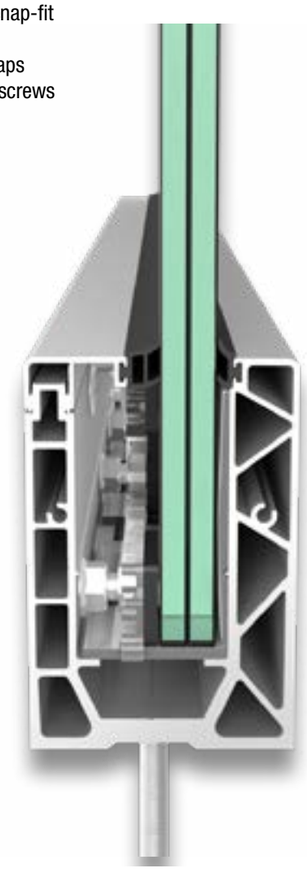


YOU ONLY HAVE TO
Insert 4 adjusters (RS system) for each meter. Make sure you correctly plumb the glass, having spaced the slabs by 2 cm.

STEP04

> Final phase

a) Insert the upper snap-fit cladding
b) Fasten the side caps with the supplied screws



YOU ONLY HAVE TO
Make sure you have performed a professional installation.

ALUMINIUM FINISHES

Exemplary reproduction of the available finishes

Customize your balustrade

1° CUSTOMIZATIONS AND QUALITY FINISHES

Customize your profile with trendy finishes for INDOOR and OUTDOOR use, or choose a colour on request among more than 2,000 RAL colours.

Anodized finishes

BASE

SILVER
ANODIZED
(raw on request)

PREMIUM ON REQUEST

INOX CHROME MATT
ANODIZED

Other colours

ON REQUEST

2000 RAL colours

RAL Finishes and Special Paints

BASE

WHITE
RAL 9010 POLISH

BLACK
RAL 9005 MATT

PREMIUM ON REQUEST

TRAFFIC WHITE
RAL 9016 MATT

ALUMINIUM GREY
RAL 9006 MATT

ANTHRACITE GRAY
RAL 7016 MATT

GREY
RAL 7016 GRINZ

BRONZE
EFFECT PAINTINGBRONZE

ANTIQUE GREY
SPECIAL PAINTING
WRINKLED EFFECT

NKR1
SPECIAL PAINTING
DOVE GREY EFFECT

NKR2
SPECIAL PAINTING
CONCRETE GREY EFFECT

NKR3
SPECIAL PAINTING
CORTEN EFFECT

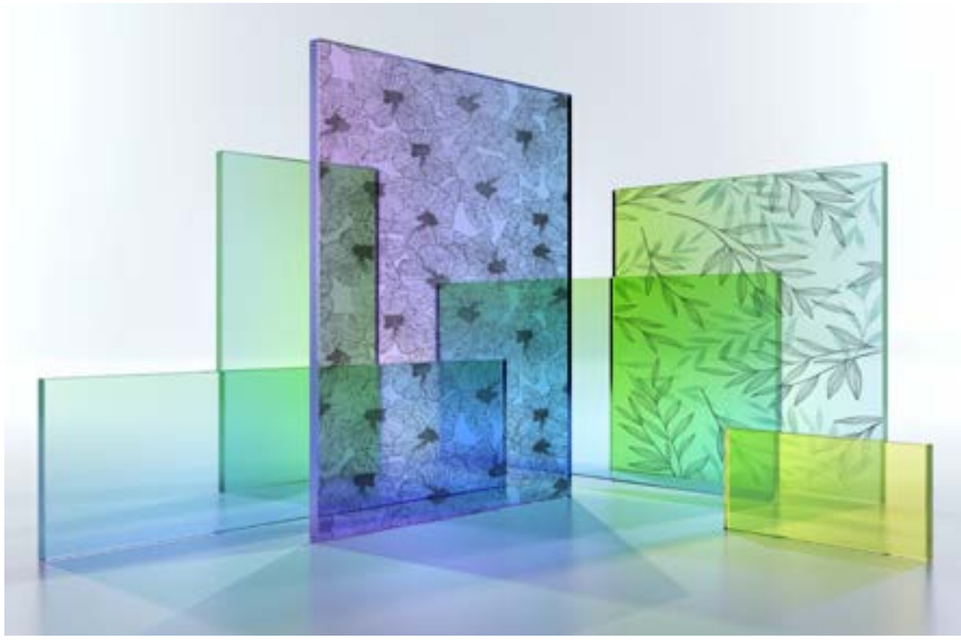
GLASS FINISHES

Customize your glass
(Glass not supplied by Faraone)

Not just transparent glass

Follow our directions and get the effect you have in mind.

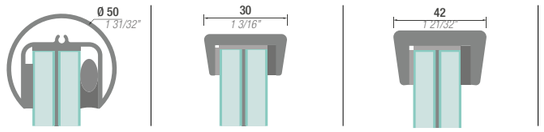
- Choose to customize your glass sheets with opaque colours or particular shades such as the cloud effect.
- Use screen printing or etching to give a special touch to your environment.
- Customize the interlayer with special fabrics or print the graphics or effect you prefer directly on the glass.



OPTIONAL

Exemplary reproduction of the available finishes

Handrail



Anodized inishes and Painted

BASE

SILVER
SILVER ANODIZED
(raw on request)

WHITE
RAL 9010
GLOSSY

BLACK
RAL 9005 MATT

Other colours

ON REQUEST

2000 colours
RAL

Led Pack

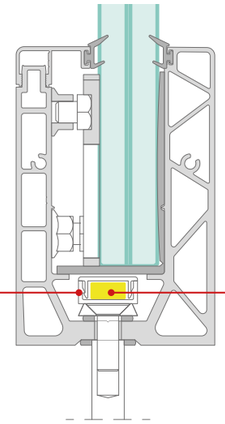
(Not supplied by Faraone)

TYPES OF LIGHT

WHITE LIGHT:
Unique light effect

MULTICOLOR LIGHT
Customize the type of light thanks to the RGB LED version

Supplied by Faraone



LED EFFECTS
Get the most of the light and the effect you want:

EDGE EFFECT:
• on extra-clear glass

DIFFUSED LIGHT EFFECT:
• on glass with surface treated for LEDs

Supplied by Faraone

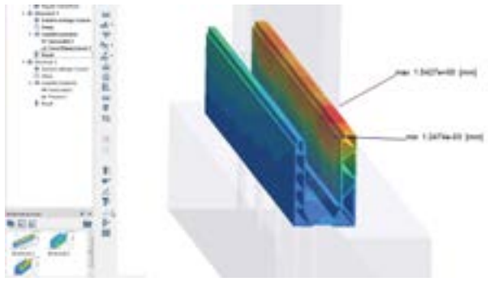
NINFA with multicolor LED.
Hotel Diplomatic, Riccione.
PARTNER
Vetreria Nuova Romagnola

NINFA THE 6th SERIES AND ITS POTENTIAL

The secret of the new glass balustrades is in the details.

Sabatino Faraone
Founder and President of the Faraone Company with over 50 years of experience in the sector.

THE IMPORTANCE OF THE ALUMINIUM SHOCK ABSORBER PROFILE



What is important to know is that you have to choose the right materials for the uses you will have to make.
This is true for aluminium, too: there are different alloys and different hardness levels that determine its characteristics depending on the use; consequently, this aspect also applies to the balustrades. There is a need for study, continuous experimentation of knowledge of the materials and suppliers who follow you along this path.
Ninfa series 6 was born thanks to the knowledge of the behaviour of the materials, thanks to which it was possible to obtain a system that has the right stiffness and, at the same time, the right elasticity to obtain the right shock-absorbing effect; that is, the ability to unload on the profile the loads that are applied to the glass.
It is easy to design a "heavy profile" (rigid and resistant) that is not optimized for glass.
It is difficult, very difficult, to create a "shock-absorbing profile" (elastic and resistant) that is designed to collaborate with the glass and to obtain a highly performing and optimized system.
In the following pages you will discover the surprising results achieved by Ninfa series 6.

THE FUNDAMENTAL ROLE OF ACCESSORIES: THE RS SYSTEM
Immediately after the profile, we find the heart of the new NINFA technology: the RS system of internal accessories.
Having a profile with exceptional performance is not enough, if it is not accompanied by a system of accessories that are equally performing.
The new RS system, an unprecedented glass pressure and adjustment system, allows in a few quick steps to adjust the plumb and tighten the glass in order to obtain a complete collaborating system.
Furthermore, the glass thickness change system is also new; it is done simply by replacing the presser plugs with a simple click.
The choice of the material is also important: the RS system is made entirely of transparent moulded polycarbonate, with high compressive strength and at temperatures from -40 up to +95 C°.
All the bolts of the adjusters are made of AISI 304 stainless steel.

THE GASKETS: ADVANTAGES OF THE NEW DESIGN AND COMPOUND
Have you ever thought of gaskets as an important element for a glass balustrade? They are not needed only to avoid contact of the glass with aluminium, but also to avoid water infiltration. A simple gasket that acts only as an exterior appearance is not enough, it must have a real role of a protagonist.

The compound must be designed in such a way as not to expand or shrink, and to maintain its colour over time despite its exposure to different weather conditions and atmospheric agents.
On the technical side, it must be easy to insert and must adhere to the glass in the various conditions of inclination.
The Ninfa 6 series has left nothing to chance, thanks to the gasket made with a special compound that allows it not to shrink over time, not to yellow and always remain under pressure on the glass.

FIXING: CHEMICAL vs. MECHANICAL

This is the question that designers and installers ask us most often: which fastening do you recommend?

Fastening is a fundamental element in any application. Whether it's a window, an awning, a canopy, each product must have its fixing suitable to hold that weight under certain conditions and on certain supports.

I can assure you that the fixing for the balustrades is of fundamental importance.

Since 2008, with the first Ninfa systems, fixing to the floor has always been an element of primary importance, so much so that in the design of the various Ninfa systems over the years, fixing is the first element that has always been taken into consideration.

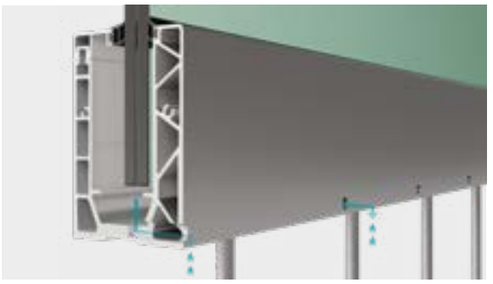
The fixing system indicated by Faraone is the only one that is able to guarantee the perfect tightness, which is verified by calculation and carried out in several tests performed both in our test laboratory and at the certification bodies:

- a threaded bar certified according to the standard
- a corresponding CERTIFIED chemical anchor recommended by the manufacturer, not just any chemical resin!

Is the mechanical fixing not up to standard? Let me be clear, even the mechanical fixing offers the necessary guarantees if you are sure that you have a "guaranteed" concrete, better if vibrated; however, on the construction site you do not always have to deal with an ideal concrete.

This is why fixing with a chemical resin offers all the guarantee that is needed for those who do not want to have problems after the installation.

WATER DISCHARGES ON THE PROFILE



The first question that is asked by the designer and the customer is: where does the water go?

Water has always been a hassle for all those who have to do with outdoor balustrades. You never know where it comes from. Even when everything is planned and designed well, it can sometimes infiltrate into a micro-crack and become a problem.

As for the balustrade, the utmost attention must be paid to:

- the gasket along the glass
- the gasket between glass and glass
- the fixing
- the water that stagnates near the bar due to the inclination and the non-prediction of water discharges
- do not use polyester resins, they are not suitable for the required loads.

Paying attention to all these points, with an excellent installation, infiltrations are avoided.

However, we wanted to go further with two important technical measures:

- the use of anti-infiltration epoxy resin (water-proof)
- external discharges on the whole new Ninfa 6 series

This prevents water from infiltrating into the fixing points and any excess water from escaping from the discharges (just like windows).

THE TESTS

① Test at the Faraone laboratory

The birth of each product passes through laboratory tests. Even the series 6 of Ninfa, during the development process, was subjected to numerous tests at the Faraone LAB.

② Test at the Polytechnic Institute of Milan

Après avoir passé les tests au Faraone LAB, les certifications sont également obtenues à l'Institut Polytechnique de Milan.

Faraone® LAB
ARCHITETTURE TRASPARENTI

MORE THAN 100 TEST CYCLES CARRIED OUT ON THE PROFILES - 100 QUINTALS OF GLASS USED

THE MAINTENANCE

In general, classic iron or masonry balustrades need continuous ordinary and extraordinary maintenance with painting from 6 to 10 years.

The more you live in areas affected by atmospheric agents, such as near the sea, the more maintenance you will need to do.

With an aluminium and glass balustrade (with suitable anodizing or painting) you can rest assured for many years. These materials, in fact, are widely used in architecture to last over time. This type of balustrade consists of an aluminium profile painted according to QUALICOAT and SEASIDE system and anodized according to QUALANOD.

The profile is fixed to the floor or a base by means of specific bolts. The glass sheets are inserted inside the aluminium profile, and they are adjusted and blocked by means of special systems that prevent them from escaping and ensure their due rigidity.

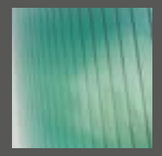
The main components of a balustrade system are:
- Painted or anodized aluminium profile (supporting structure);
- Floor fixing bolts;
- Laminated tempered/tempered or tempered/hardened glass 8.8 or 10.10 *(5/16". 5/16" or 3/8". 3/8")* + interlayer;
- Gaskets;

For each system, a booklet on ordinary maintenance is available, which consists of simply cleaning the profiles and the glass.
Zero Maintenance

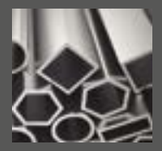
Maintenance with specific antirust treatments for common metal balustrades is recommended, to prevent them from being corroded by time, losing beauty and safety.

WE ARE GREEN

Faraone chooses sustainable and recyclable raw materials for its products and their packaging.
The management of its own particular waste is accomplished according to the italian legislation.



GLASS . Glass is the sustainable material par excellence.
Glass can be reused an unlimited number of times, while keeping its properties intact. In addition, at the production level, re-melting the waste material implies a lower waste of energy and raw materials.
It is also an energetically advantageous material for its applications in architecture and design. (Such as, for example, the application of glass with photovoltaic cells for the balustrades).



ALUMINIUM. Aluminium is today one of the most common materials in the construction sector, both because it is optimal for countless uses and, from an environmental point of view, for its quality, thanks also to the new carbon-free production methods.
To date, aluminium is one of the best choices in terms of sustainability, as it is a 100% recyclable material and it allows to significantly reduce energy consumption during production, while maintaining its qualitative performance intact.

STEEL. Steel is thought to be the most recycled material in the world, of which Italy holds the record in Europe with about 80%.
High strength and durability make it an essential material in the construction world, as well as beneficial for the environment and the economy.

PACKAGING. All our packaging is made with recyclable materials, starting from the cardboard used to make the product packaging up to the plastic used for the pallets.

INTENDED USE

For new or refurbishment

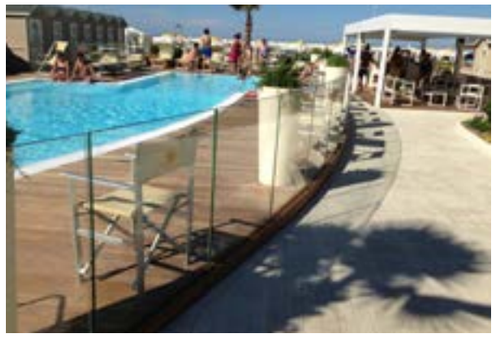
01RESIDENTIAL
- private house - indoors / outdoors

02CONDOMINIUMS
- balconies
- terraces

03FENCES
- residential
- public

04WORKING ENVIRONMENTS
- offices
- conference rooms

05HOSPITALITY
- hotels
- restaurants
- chalets
- poolside fencing



06INFRASTRUCTURE
- airports
- train stations

07HISTORICAL BUILDINGS
- Churches and places of worship
- redevelopment of historic centres

08SHOPPING CENTERS
- halls
- external terraces

INTENDED USE

For new or refurbishment

09HEALTHCARE FACILITIES

- hospitals
- private clinics
- socio-health structures
- nursing homes

10SCHOOL BUILDINGS

- schools
- campus and university

11SPORTS FACILITIES

- stadiums
- sports halls
- swimming pools
- racetracks

NINFA® 106

THE **MINIMAL** & **PERFORMING** GLASS BALUSTRADE

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 106

THE **MINIMAL** & **PERFORMING** GLASS BALUSTRADE

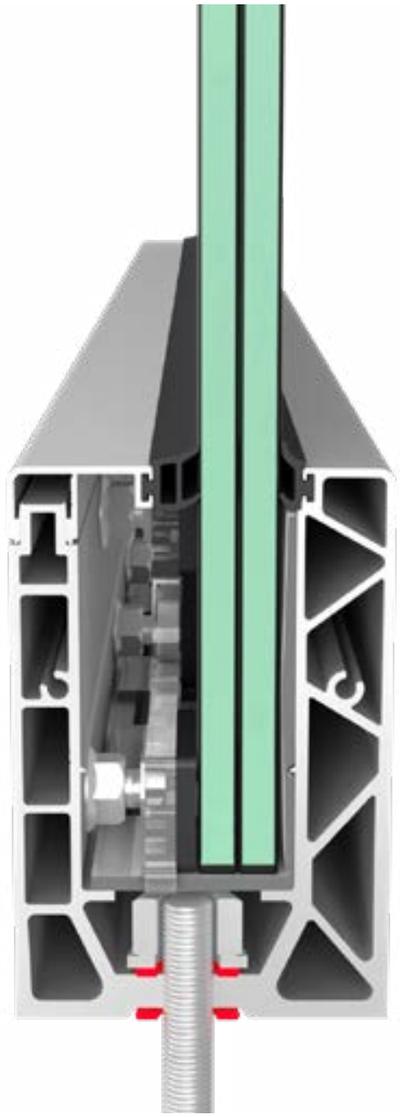
The glass balustrade **NINFA 106** was created to increase the safety level of balconies, terraces, stairs, galleries and poolside fencing. It's ideal for private and public spaces.

The profile accommodates both 8.8 and 10.10 *(5/16" .5/16" and 3/8".3/8")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.

1° INIMITABLE PERFORMANCE



NINFA® 106 H

For uncrowded environments:
Tested to 300 kg/m *206 lb/ft*
Dynamic impact resistance up to 350 J *258 ft*lb*

NINFA® 106 P

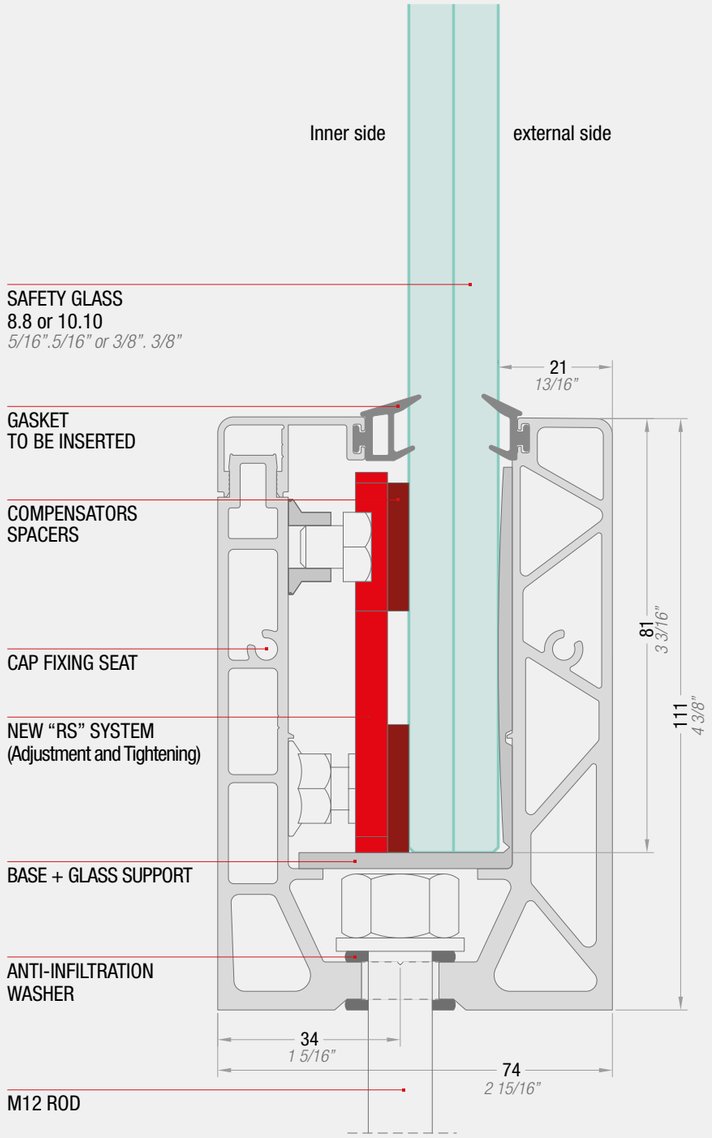
For very crowded environments:
Tested to 450 kg/m *302 lb/ft*
Dynamic impact resistance up to 600 J *440 ft*lb*

Ninfa 106 **H** (Home)
Ninfa 106 **P** (Professional)

TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the "compensator thickness" shown in the drawing alongside.

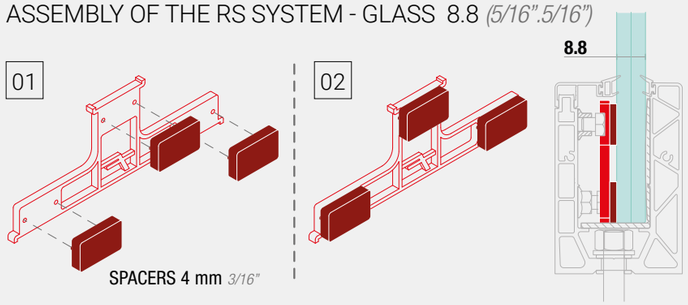


scale 1:1

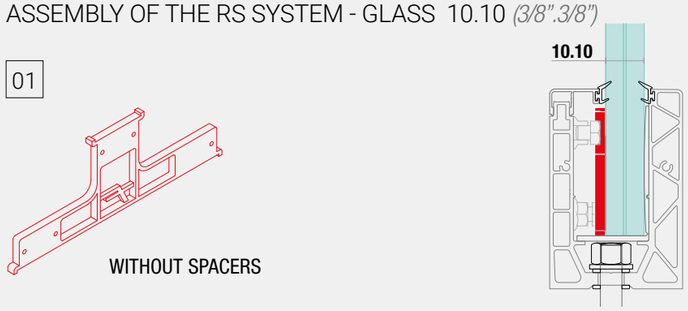
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 8.8 *(5/16".5/16")* to a maximum of 10.10 *(3/8".3/8")* using the appropriate compensator thickness inserted in the "RS System". On the left, the two variants with glass thickness change (highlighted in red).

ASSEMBLY OF THE RS SYSTEM - GLASS 8.8 *(5/16".5/16")*

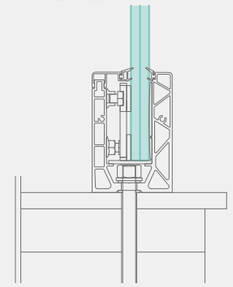


ASSEMBLY OF THE RS SYSTEM - GLASS 10.10 *(3/8".3/8")*

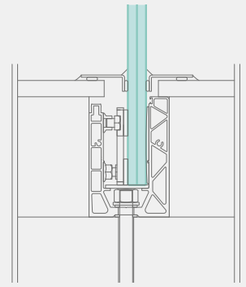


MAIN APPLICATIONS

ON THE FLOOR



INTEGRATED INTO THE FLOOR 1



Integrated into the floor 1 recommended for indoor use only

NINFA® 116

THE GLASS BALUSTRADE FOR **EXTERNAL FLUSH MOUNTING**

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 116

THE GLASS BALUSTRADE FOR **EXTERNAL FLUSH MOUNTING**

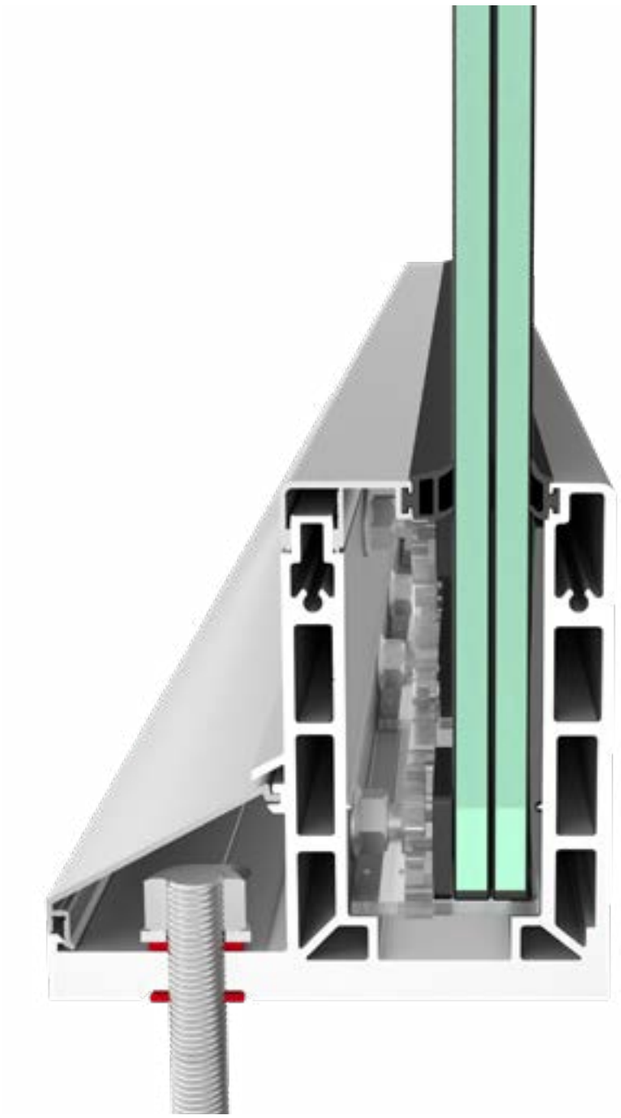
The **NINFA 116** was created to increase the safety level of balconies, terraces, stairs, galleries and poolside fencing. It's ideal for private and public spaces.

The profile accommodates both 8.8 and 10.10 *(5/16".5/16" and 3/8".3/8")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.

1° INIMITABLE PERFORMANCE



NINFA® 116 H

For uncrowded environments:
Tested at 300 kg/m *206 lb/ft*
impact up to 350 J *258 ft*lb*

NINFA® 116 P

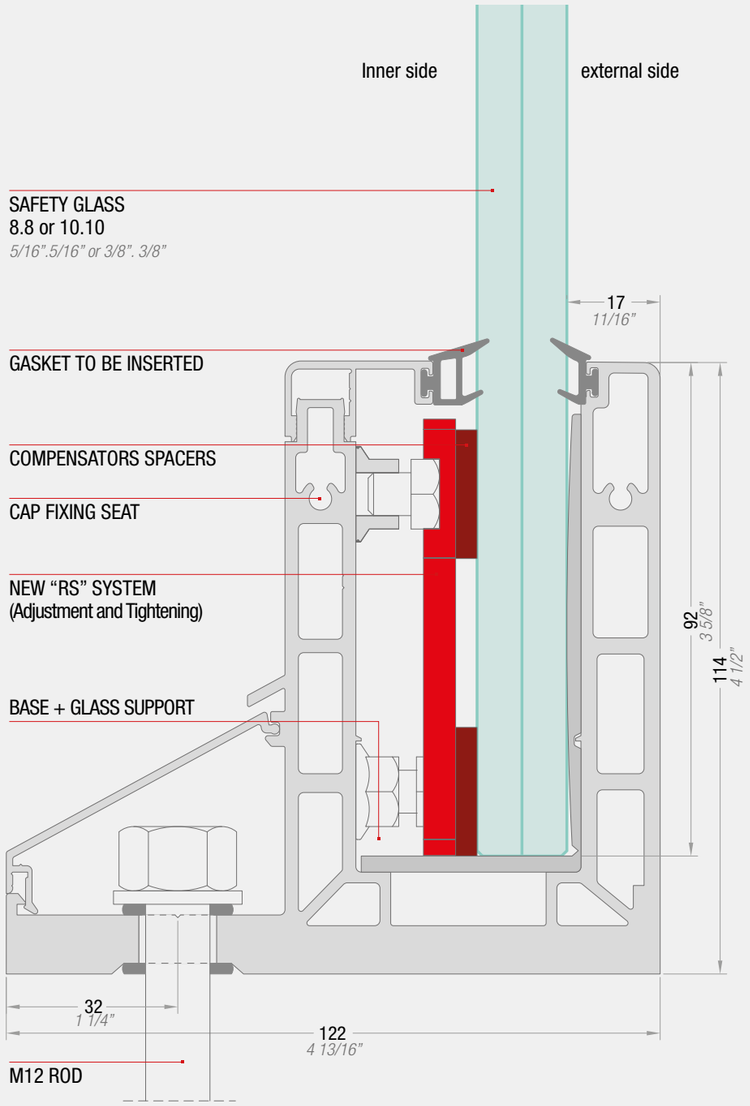
For very crowded environments:
Tested to 450 kg/m *302 lb/ft*
Dynamic impact resistance up to 600 J *440 ft*lb*

Ninfa 116 **H** (Home)
Ninfa 116 **P** (Professional)

TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the "compensator thickness" shown in the drawing alongside.

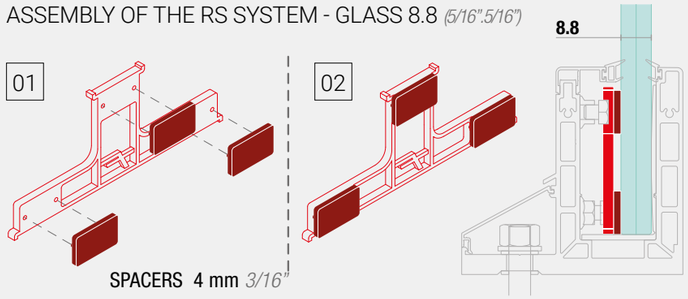


scale 1:1

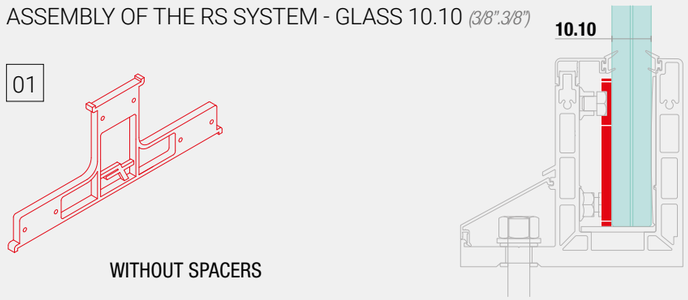
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 8.8 *(5/16".5/16")* to a maximum of 10.10 *(3/8".3/8")* using the appropriate compensator thickness inserted in the "RS System".
On the left, the two variants with glass thickness change (highlighted in red).

ASSEMBLY OF THE RS SYSTEM - GLASS 8.8 *(5/16".5/16")*

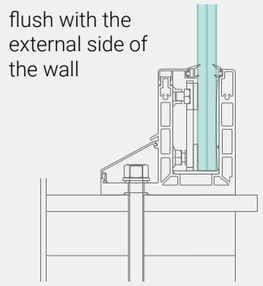


ASSEMBLY OF THE RS SYSTEM - GLASS 10.10 *(3/8".3/8")*

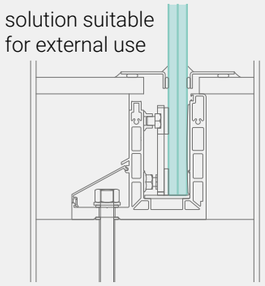


MAIN APPLICATIONS

ON THE FLOOR
flush with the external side of the wall



INTEGRATED INTO THE FLOOR 1
solution suitable for external use



NINFA® 56

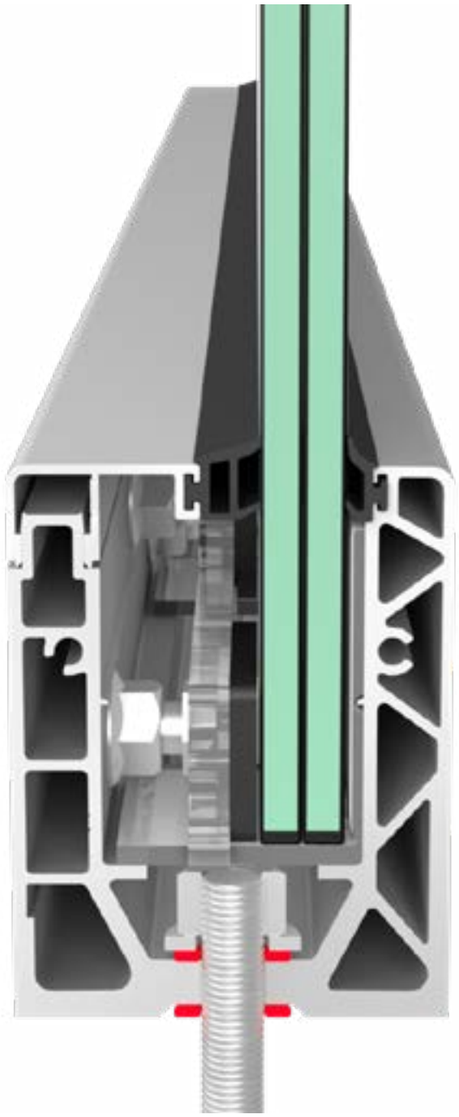
THE GLASS BALUSTRADE **WITH ULTRA SLIM DESIGN**

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 56

THE GLASS BALUSTRADE **WITH ULTRA SLIM DESIGN**

1° INIMITABLE PERFORMANCE



The **Ninfa 56** profile is the smallest of the series, in height and width (It's recommended for private places) can be used in the following ways:

1) on a low reinforced concrete wall, **the glass can have a variable height up to a maximum of 90 cm.** (example 20 cm *(11" 13/16)* wall + 90 cm *(2' 7" 1/2)* glass = H 110 cm *(3' 7" 5/16)*, height now required in general).
The use of the anti-climbing cladding for children is essential.
2) It can be mounted on the floor with the normal cladding and with the 8.8 *(5/16". 5/16")* glass 100 cm *(3' 3" 3/8)* high only if there is no fall into the void, or with a fall height of less than 100 cm from the floor level. (example: internal partition, ground floor, or similar).
The profile accommodates both 6.6 and 8.8 *(1/4" . 1/4" and 5/16". 5/16")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.

NINFA® 56 H

For uncrowded environments:
Tested at 300 kg/m *206 lb/ft*
impact up to 350 J *258 ft*lb*

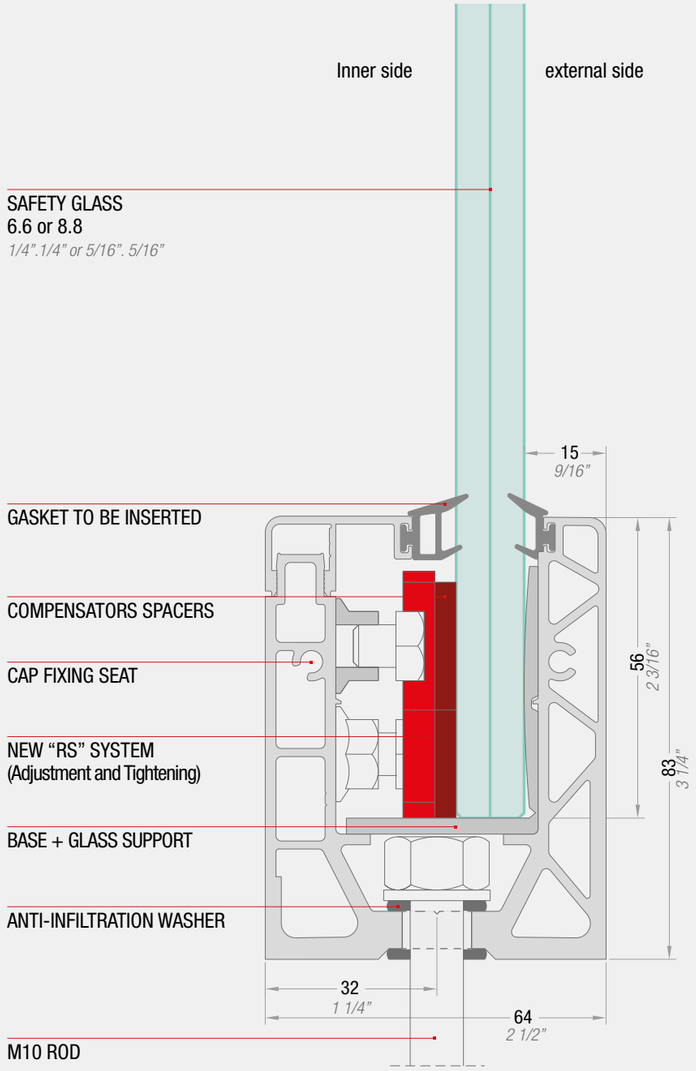
Ninfa 56 **H** (Home)

Example of NINFA 56 with 8+8 H. 100 glass positioned in an environment with a "fall into the void" of less than 80 cm.

TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the "compensator thickness" shown in the drawing alongside.

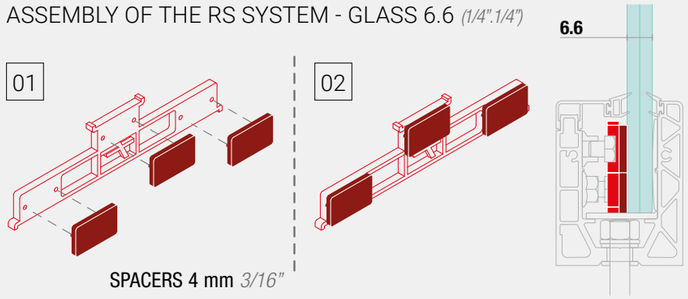


scale 1:1

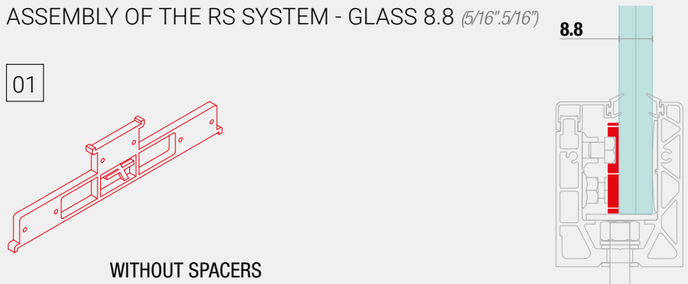
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 6.6 *(1/4".1/4")* to a maximum of 8.8 *(5/16".5/16")* using the appropriate compensator thickness inserted in the "RSSystem".
On the left, the two variants with glass thickness change (highlighted in red).

ASSEMBLY OF THE RS SYSTEM - GLASS 6.6 *(1/4".1/4")*

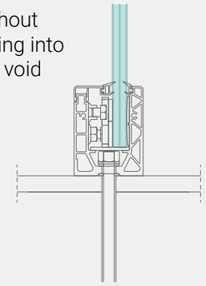


ASSEMBLY OF THE RS SYSTEM - GLASS 8.8 *(5/16".5/16")*

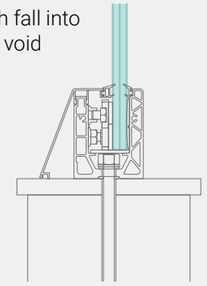


MAIN APPLICATIONS

ON THE FLOOR
without falling into the void



ON THE WALL
with fall into the void



NINFA® 176

THE GLASS BALUSTRADE WITH **INTERNAL LATERAL FIXATION**

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 176

THE GLASS BALUSTRADE WITH **INTERNAL LATERAL FIXATION**

The **NINFA 176** glass balustrade is the technology for internal side mounting, ideal for private and public places thanks to its performance.
NINFA 176, like the whole new series, meet the calculation verifications with engineering software and laboratory test simultaneously (static load test and dynamic impact test), required by the italian regulations.

The profile accommodates 8.8, 10.10 and 12.12 *(5/16".5/16", 3/8".3/8" and 1/2".1/2")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.

NINFA® 176 H

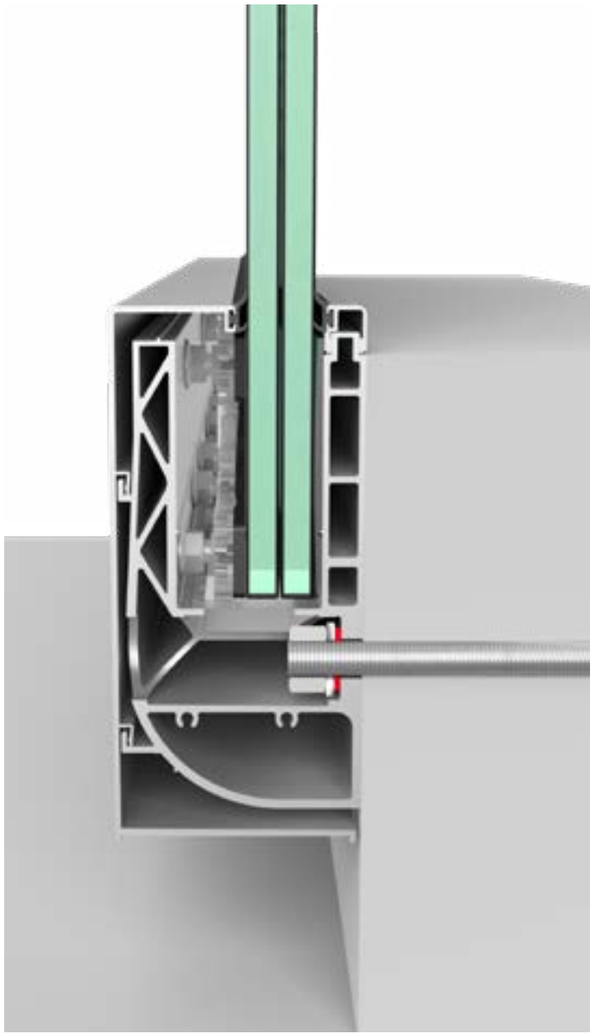
For uncrowded environments:
Tested at 300 kg/m *206 lb/ft*
impact up to 350 J *258 ft*lb*

NINFA® 176 P

For very crowded environments:
Tested to 450 kg/m *302 lb/ft*
impact up to 600 J *440 ft*lb*

Ninfa 176 **H** (Home)
Ninfa 176 **P** (Professional)

1° INIMITABLE PERFORMANCE

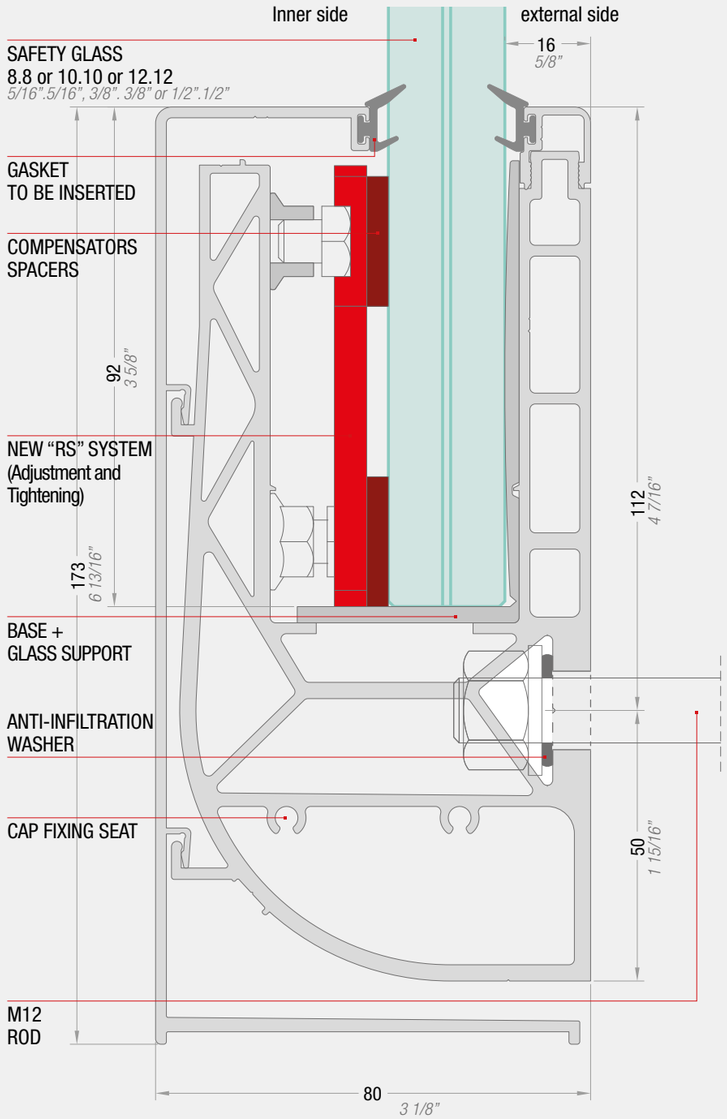


TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the "compensator thickness" shown in the drawing alongside.

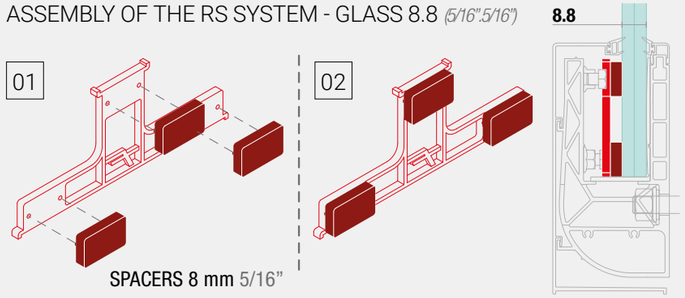
scale 1:1



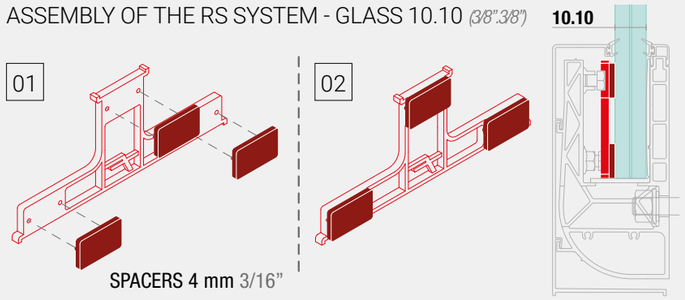
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 8.8,10.10 *(5/16".5/16", 3/8".3/8")* to a maximum of 12.12 using the appropriate compensator thickness inserted in the "RS System".
On the left, the two variants with glass thickness change (highlighted in red).

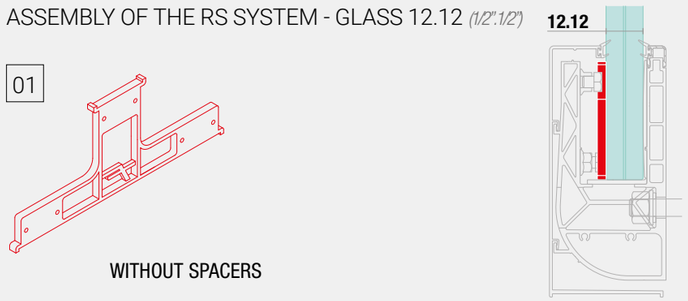
ASSEMBLY OF THE RS SYSTEM - GLASS 8.8 *(5/16".5/16")*



ASSEMBLY OF THE RS SYSTEM - GLASS 10.10 *(3/8".3/8")*

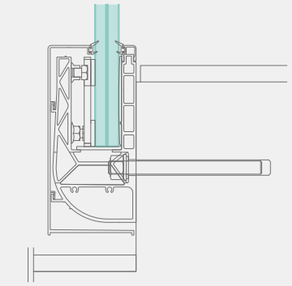


ASSEMBLY OF THE RS SYSTEM - GLASS 12.12 *(1/2".1/2")*

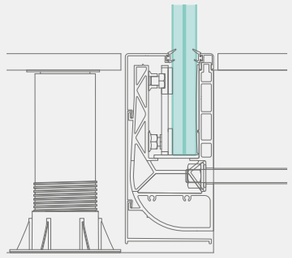


MAIN APPLICATIONS

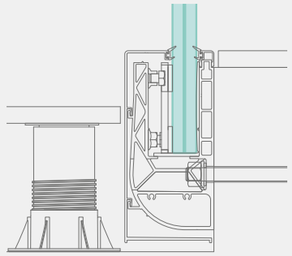
INTERNAL SIDE



INTEGRATED INTO THE FLOOR 1



INTEGRATED INTO THE FLOOR 2



72

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 186

THE GLASS BALUSTRADE WITH **EXTERNAL LATERAL FIXATION**

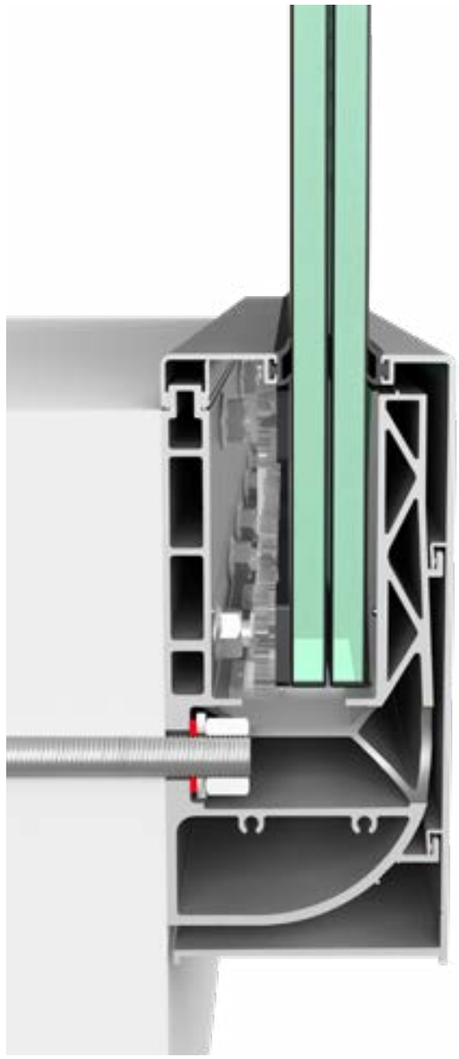
1° INIMITABLE PERFORMANCE

The **NINFA 186** glass balustrade is the technology for external side mounting, ideal for private and public places thanks to its performance.
NINFA 186, like the whole new series, meet the calculation verifications with engineering software and laboratory test simultaneously (static load test and dynamic impact test), required by the italian regulations.

The profile accommodates 8.8,10.10 and 12.12 *(5/16" . 5/16" , 3/8"+ 3/8" and 1/2"+1/2")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.



NINFA® 186 H

For uncrowded environments:
Tested at 300 kg/m *206 lb/ft*
Dynamic impact resistance up to 350 J *258 ft*lb*

NINFA® 186 P

For very crowded environments:
Tested to 450 kg/m *302 lb/ft*
Dynamic impact resistance up to 600 J *440 ft*lb*

Ninfa 186 **H** (Home)
Ninfa 186 **P** (Professional)

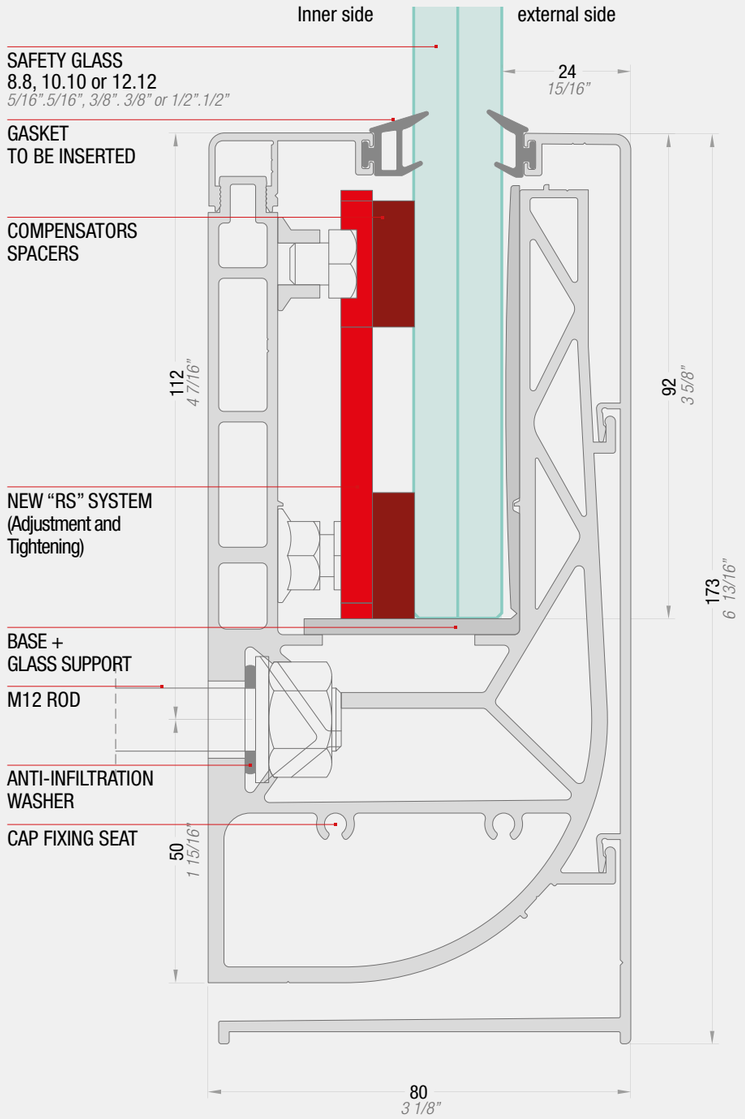
The profile
can also be mounted flush
with the edge of the steps.

TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the "compensator thickness" shown in the drawing alongside.

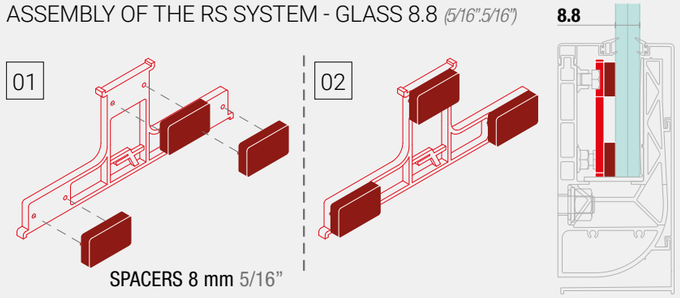
scale 1:1



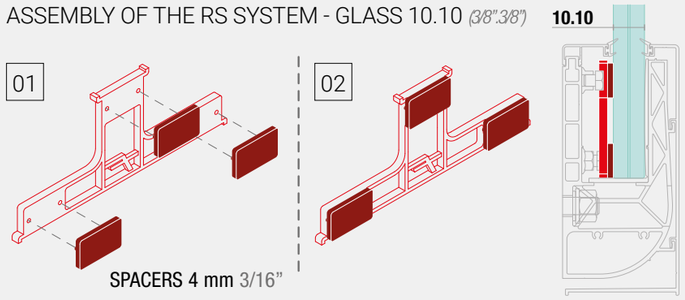
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 8.8, 10.10 *(5/16".5/16",3/8".3/8")* to a maximum of 12.12 *(1/2".1/2")* using the appropriate compensator thickness inserted in the "RS System".
On the left, the two variants with glass thickness change (highlighted in red).

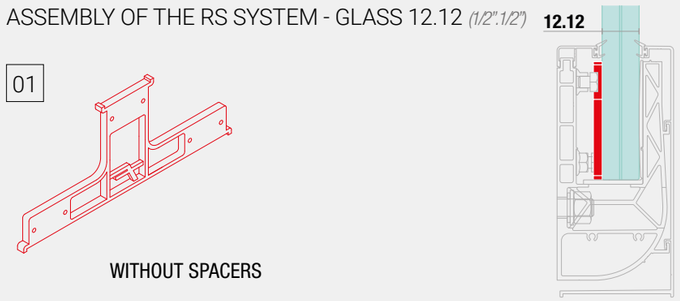
ASSEMBLY OF THE RS SYSTEM - GLASS 8.8 *(5/16".5/16")*



ASSEMBLY OF THE RS SYSTEM - GLASS 10.10 *(3/8".3/8")*

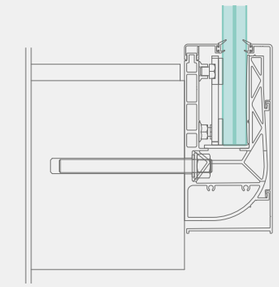


ASSEMBLY OF THE RS SYSTEM - GLASS 12.12 *(1/2".1/2")*



MAIN APPLICATIONS

EXTERNAL SIDE



NINFA® 6
THE HIGH PERFORMANCE GLASS BALUSTRADE

DESIGN: R&D FARAONE - PATENTED SYSTEM

NINFA® 6

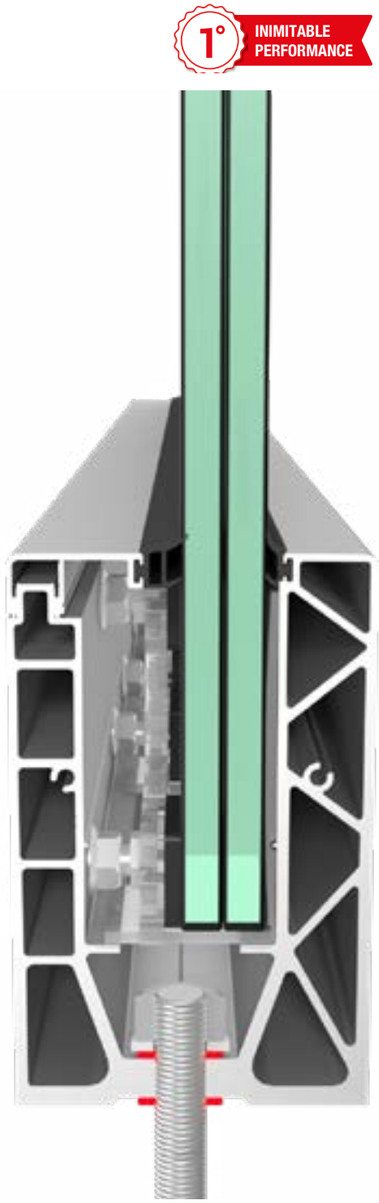
THE **HIGH PERFORMANCE** GLASS BALUSTRADE

The **NINFA 6** glass balustrade represents the new technology of the Faraone company with very high performance levels. It's ideal for public and crowded places, for sports stadium stands, common spaces in infrastructures, cinemas, theatres, hotels.

NINFA 6, like the whole new series, meet the calculation verifications with engineering software and laboratory test simultaneously (static load test and dynamic impact test), required by the italian regulations.
The profile accommodates both 10.10 and 12.12 *(3/8".3/8" and 1/2".1/2")* glass thanks to the new **RS system** for adjusting and tightening the glass.

Optional: integrable LED and handrail.

Finishes: Standard and on request customizations.



NINFA® 6 H

For uncrowded environments:
Tested at 300 kg/m *206 lb/ft*
Dynamic impact resistance up to 350 J *258 ft*lb*

NINFA® 6 P

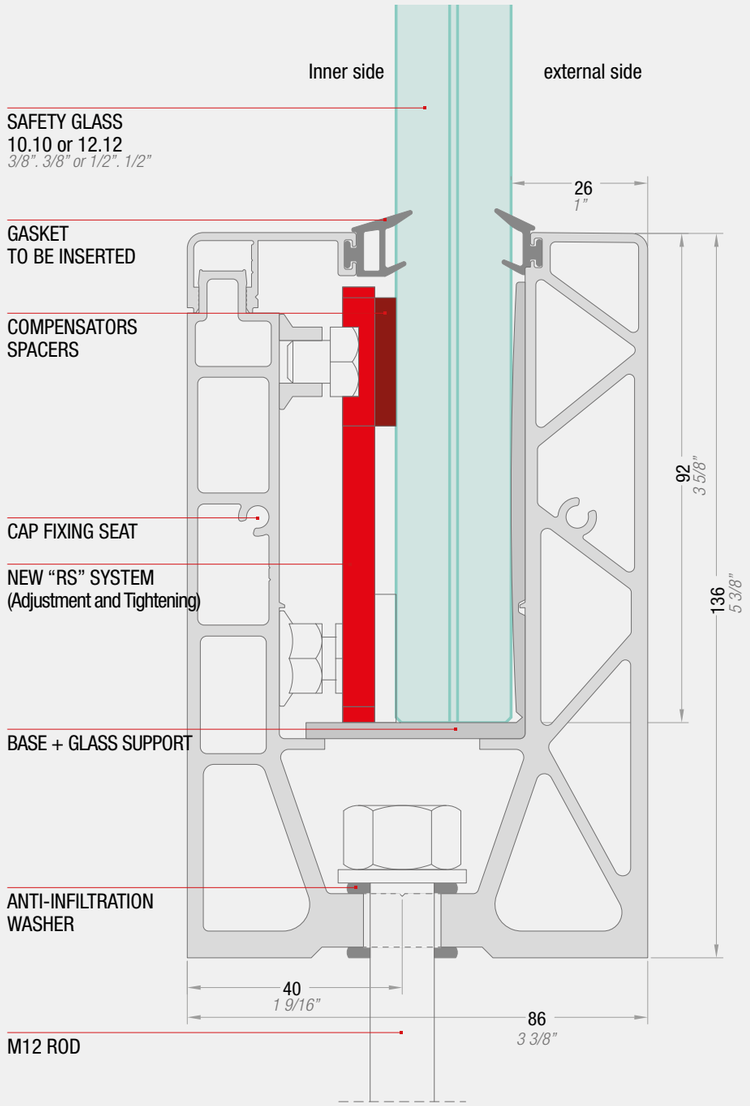
For very crowded environments:
Tested to 450 kg/m *302 lb/ft*
Dynamic impact resistance up to 600 J *440 ft*lb*

Ninfa 6 **H** (Home)
Ninfa 6 **P** (Professional)

TECHNICAL DETAILS

This page shows the complete list of the main components.

Some accessories, such as the adjusting block, the gaskets and the cladding can vary to accommodate different thicknesses of glass sheets, such as the “compensator thickness” shown in the drawing alongside.

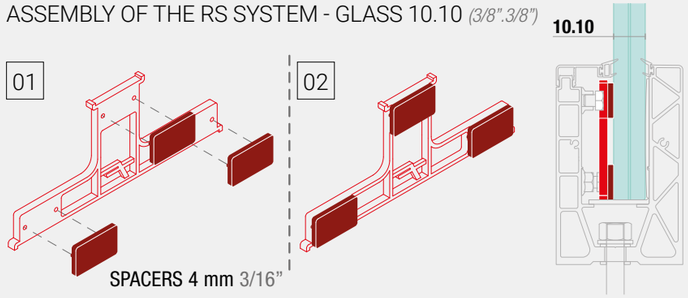


1:1 scale

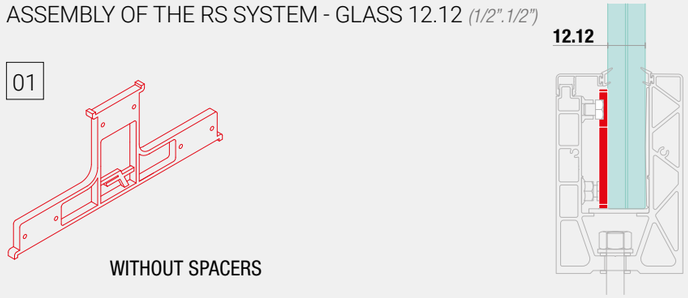
GLASS THICKNESS VARIATIONS:

The thickness of the glass can vary from a minimum of 10.10 *(3/8".3/8")* to a maximum of 12.12 *(1/2".1/2")* using the appropriate compensator thickness inserted in the “RS System”.
On the left, the two variants with glass thickness change (highlighted in red).

ASSEMBLY OF THE RS SYSTEM - GLASS 10.10 *(3/8".3/8")*

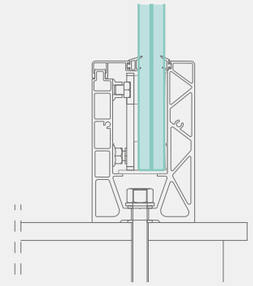


ASSEMBLY OF THE RS SYSTEM - GLASS 12.12 *(1/2".1/2")*

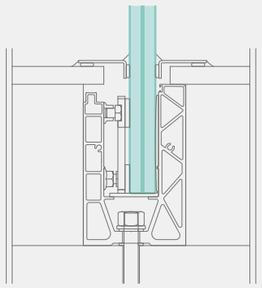


MAIN APPLICATIONS

ON THE FLOOR



INTEGRATED INTO THE FLOOR 1



Integrated into the floor 1 recommended for indoor use only

ACHIEVEMENTS WITH NINFA BALUSTRADES DURING THE YEARS.

Harbor Station, Zaha Hadid Architects
Salerno

Harbor Station, Zaha Hadid Architects
Salerno

Curved glazing in the villa
Partner: Idea Vetro
Marcianise (CE)

Enzo Ferrari Museum
Maranello (MO)

Redevelopment of the Malgrate lakeside promenade, Arch. Stefano Santambrogio
Partner: Vetreria Colombo
Malgrate (LC)

Mall of Berlin, Tchoban Voss Architekten
Berlin

Leonardo Da Vinci Airport
Roma Fiumicino

Bridge of Peace, Arch. Michele De Lucchi
Tbilisi, Georgia

"La Nuvola" Convention Centre, Arch. Massimiliano e Doriana Fuksas
Roma

De Gasperi Residence
Partner: Vetreria Bergamasca Tecnovetro
Milan

Kennedy Residence
Partner: Vetreria Bergamasca Tecnovetro
Milan

F5 Multifunctional building, Arch. Duilio Damilano
Cuneo

F5 Multifunctional building, Arch. Duilio
Damilano Cuneo

ASSEMBLY INSTRUCTIONS NINFA THE 6TH SERIES

Download the assembly instructions in PDF format

NINFA 6

NINFA 106

NINFA 116

NINFA 56

NINFA 176

NINFA 186

CUSTOMER CARE

Our experience is at your service.
We guide you in choosing the best solution for your needs.

EXPERT GUIDE

To follow a project in all its phases is sometimes very difficult. For this reason, we provide you with a total assistance from technical advice to post-purchase.

How you can contact us:
email: **faraone@faraone.it**
web: **faraone.it**

Contact us

INSTALLATION

We carefully select the experts who carry out the installation of our products to ensure our standard of quality. During this phase, tests are carried out on site to ensure that the installation has been performed in a competent manner and that everything is safe.

Watch the assembly video

NINFA TECHNICAL SPECIFICATIONS

Ninfa system glass balustrades (or similar), complying with the regulations currently in force, with relative test report containing:

_ Static load test in compliance with resistance to horizontal static linear load 2 kN/m *(137 lb/ft)* or resistance to horizontal static linear load 3 kN/m *(206 lb/ft)*.
_ Dynamic load test with variable pendulum height depending on the intended use and possible breakage of glass.
_ Technical drawings with the heights and dimensions of each single component of the balustrade.
In addition, it is necessary to define the type of glass sheets and interlayer of the layered package in order to meet the "post-breakage" requirement.

1 CHARACTERIZATION OF NINFA SERIES 6 BALUSTRADES
Ninfa system balustrade or railing (or similar) made with 6060 T66 or 6063 T66 aluminium alloy profile of the model chosen by the Works Management, based on the intended use and the class to which it belongs; it is suitable for being mounted on the floor, integrated into the floor or fascia mounted, to be chosen from the following Faraone models (or similar):

1/A) Model NINFA 6 profile size of 86x136 mm *(3 3/8"x 5 3/8")* (base x height) with laminated glass 10+10 *(3/8"+3/8")*, 12+12 *(1/2"+1/2")*;

1/B) Model NINFA 106 profile size of 74x111 mm *(2 15/16"x 4 3/8")* (base x height) with laminated glass 8+8*(5/16"+5/16")*, 10+10 *(3/8"+3/8")*;

1/C) Model NINFA 56 profile size 64x83 mm *(2 1/2"x 3 1/4")* (base x height) with laminated glass with 6+6 *(1/4"+ 1/4")*, 8+8 *(5/16"+ 5/16")*;

1/D) Model NINFA 186 profile size of 80x173 mm *(3 1/8"x 6 13/16")* (base x height) with laminated glass 8+8 *(5/16"+5/16")*, 10+10 *(3/8"+3/8")*, 12+12 *(1/2"+1/2")*;

1/F) Model NINFA 176 profile size of 80x173 mm *(3 1/8"x 6 13/16")* (base x height) with laminated glass 8+8 *(5/16"+5/16")*, 10+10 *(3/8"+ 3/8")*, 12+12 *(1/2"+1/2")*;

1/E) Model NINFA 116 profile size of 122x114 mm *(4 13/16"x 4 1/2")* (base x height) with laminated glass 8+8 *(5/16"+5/16")*, 10+10 *(3/8"+3/8")*.

2. FUNCTIONALITY AND AESTHETICS OF THE NINFA BALUSTRADES
The aluminium profile of the balustrade will be equipped with special accessories that allow adjustment for the alignment and "plumb" of the glass sheets.
The type and quantity of the profile fixings to the floor/wall will vary according to the resistance class requested by the Works Management and the nature of the support. If the fixing is carried out on a beam or base in reinforced concrete, it will be necessary to make sure that the concrete is of minimum class C25/30.
The aluminium profiles positioned "on sight" will be anodized with silver colour class 15 micron *(0,60 mil)* (or other colour on request) or painted with epoxy powders in RAL colour or other colour on request.

3. PERFORMANCE IN POST-BREAKAGE CONDITIONS
For the profiles of the NINFA system, it will be sufficient to use the tempered-hardened laminate glass to obtain residual post-breakage resistance. It is advisable to pay extreme attention to the installation of the hardened sheet, which must be placed in the compressed part of the laminate, i.e. externally to the horizontal static linear load and impacts.

4. ADDITIONAL SAFETY GUARANTEES IN POST-BREAKAGE OF GLASS AND HANDRAIL
To ensure "system redundancy" and achieve the satisfaction of the post-breakage criterion, the Construction Manager may also request the upper handrail to be anchored and glued to the individual glass sheets in order to ensure, in case of breakage of the sheets, the transfer of linear loads to the adjacent intact sheets and the reduction of the risk of collapse of the laminate glass with both sheets broken. Note that this solution involves a price increase due only to the cost of the handrail.

TO KNOW MORE ABOUT IT
Consult the document "Faraone Informs 27" on the www.faraone.it website.
This documentation is the result of a long and careful experimental campaign combined with the Faraone experience, and it makes available to all that are interested the many tests that have been carried out and the behaviour/performance of the various glass solutions (all valid with Faraone systems only), as well as various examples, observations and analyses on the world of glass balustrades.

Eng. Gabriele Romagnoli

GENERALI CONDITIONS OF SALE

Transportation costs shall be evaluated with every offer, according to volume weight and destination.

COMPLAINTS:
Any complaint must be sent to Faraone within a final deadline of 8 days from receipt of goods; we do not accept returned goods unless previously authorized by Faraone in carriage collect.
Any returned products that should hypothetically arrive to the Faraone company without prior authorization will be refused without exception and returned to the sender in carriage collect.

PAYMENT METHOD:
For foreign countries, the payment of the goods is made by bank transfer in advance. Other payment methods will be agreed under the credit insurance.
- VAT: all prices listed in the pricelists are exclusive of VAT.
Note: As our products are subject to continuous innovation and improvement, design and construction features are subject to change without prior notice. The images in the production catalogues are purely indicative, therefore our company reserves the right to make improvements to the products without any prior notice. All models and designs are exclusive property of Faraone. No reproduction permitted. All prices are exclusive of VAT, transport and installation.

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Marco Ceci / mcomunicare

COORDINATION
Marketing Office of Faraone

TECHNICAL DRAWINGS
Technical department Faraone

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Stefano Spinosi

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www.faraone.it

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With the latest generation of Ninfa balustrades.

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