











G&G – it operates on the market since 1998, presenting fixtures with italian quality and design.

Craftsmanship and industrial innovation are the keys to the success that lead the products of the company to be the protagonists of many construction projects, in collaboration with architecture studes and big international groups working in the field of residential and hotel constructions.

A cohesive, professional, experienced team that is at the service of its clients to create added value and great satisfaction.

The know-how acquired throuhout the years brought trademarked innovation.





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# Production

With an entirely italian production G&G has automated lines and qualified techincal personnel.

The supply chain is organized to provide complete quality: attention to every step of the process, choosing suppliers and raw material wisely, development and design of the product according to the client's needs, production with industrial standards and hand-crafetd details, delivery to the client with the utmost efficiency.

Services are highly customized: every single project is unique and imoprtant. A specialized team of company technicians

A specialized team of company technicians ensures that our fitters have up-to-date specialised training to guarantee the best performance of our products.

GUARANTEED 10 YEARS

CERTIFIED EN ISO 9001:2008

PRODUCTS CERTIFIED

**)))** aire permeability EN 1026:2001 EN 12207:2000 + ECI:2007

「「「「「「」」」

water tightness EN 1027:2001 EN 12208:2000 + ECI:2007

<b>(</b> )	W
	EI
	FI

C2:2007

thermal trasmittance EN 14351-1:2010 UNI EN ISO 10077-2:2



Quality

G&G products are certified by an internal quality check system and they are appre-ciated for their excellent performance under any climatic and environmental condition. The combination of style and functionality makes you appreciate daily long-lasting comfort and safety.

doors and windows s.r.

# nnovation



PPAR

Modern technology combines with design in daily art. The chance to live in bright spaces brings wellness, comfort and relaxation. REVER is and international patent.

The "heart" of REVER fixtures is entirely in alluminium, backbone to which apply the external coverings, in alluminium and wood, with various stylistic combinations. Renewing the design is easy and versatile. Each setting can easily be customized with different finishes and colours

Technological innovation is the secret that allowed the company to constantly grow in time.

Sustainability

G&G fixtures grant high thermal insulation. Such energy efficiency allows to reduce consumption for heating and air conditioning, limiting the emission of carbon dioxide.

The philosophy inspired to the nature of the wood combines with the functionality of alluminium, which grants lightness, resistance and thermal insulation.

The materials are eco-friendly and eco-sustainable: the wood comes exclusively from controlled deforestation areas; no toxic paints or materials are used and the production processes have low environmental impact.



# the REVEA BY patent



#### Innovation and Personalisation

A new look with interior design

Double thermal break fixture with a modulary system that allows matching of the materials to customise each setting of the house.

The opportunity to choose different finishes and colours, one for the internal facade and one for the external one, makes them unique in style.

The core "heart" is in alluminium and grants high structural performances, good air permeability and wind resistance and it's also water proof.

The REVER patent is the result of years of experience and research that allowed G&G products to make a name for themselves on the italian and international market with next generation fixtures.



### Glazing Energy-saving glazing



is lost via the windows, explains the rising demand towards the outside. The differences in the thermal for highly thermally insulating windows. In order to insulation value of glazings are the result of different fulfil the trend of innovative highly insulating triple coating structures and noble gases. glazing solutions, REVER has expanded with a third insulating glass line and with that, now becomes Au- Triple thermal insulation glazing. The highly insulastria's largest manufacturer of insulating glass.

costs can be saved by applying thin precious metal coatings onto the glass surface and by using no- lation glazing the energy balance is improved consible gases in the spaces between the glass panes. derably and thus keeps the heating costs low. The noble gases used are argon and krypton, which have a considerably lower thermal conductivity than

The fact that around 30 % of the warmth of a house air and therefore, additionally reduce the heat loss

ting properties of REVER window systems with triple thermal insulating glazing compared to double Insulating space between the glass panes. Heating glazing allow up to 40 % more glass areas with the same amount of heating costs. By using such insu-

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### Solar+ REVER's energy efficient glazing

its special coating SOLAR+. The triple insulating zing SOLAR+ the overall energy transmission is 20 glass features extremely high thermal insulation, % higher than with standard triple glazing. Thus as well as an overall energy transmission factor the solar energy gain also increases by 20 %. (q value) which can otherwise only be achieved at Through the glazing you have additional free-ofthis level with double glazing. Due to this excep- charge heating! tional rate of thermal insulation (Ug) and energy A plus point for climate protection. transmission (g value), this glazing is perfectly REVER's climate protection windows achieve optibuilding. The high g value makes it possible even LAR+. This reduces emission of CO2 and SO2. in not ideal building positions or in not precisely on passive solar energy.

REVER'S SOLAR+ glazing is characterised by Here the windows are the heating. With triple gla-

suitable for implementing in solar buildings. Espe- mum solar gain and guarantee maximum thermal cially in cold seasons it uses low solar radiation insulation thanks to the energy saving triple pane to its optimum and keeps the gained heat in the technology and the innovative special coating SO-More light – more brillancy: SOLAR+ south-facing glazing positions to optimize the gain The high transparency creates warm brightness on the inside: an important asset especially in winter







### Thermal insulation Energy efficient. Pleasant. Warm.,

re homeliness and warmth in your own four walls. tively influence the energy balance of the building. In connection with a special coating for using solar The thermal insulation of the window depends on radiation they virtually become your free-of-charge the frame material, the insulating glass and the tightadditional heating.

careful planning, correct positioning of the window can improve the U value.

Highly thermally insulating window systems ensu- areas (large window areas south-facing) can posiness of the window. The parameter for the insulating As a building can lose approximately 25 to 30 % of capability of the window is the U value. The lower the its energy through the windows, the thermal insula- value, the better the thermal insulation. Additional fetion of the windows is especially important. Through atures such as roller shutters and window shutters

VOLUME	NOISE EFFECT	TYPE OF SOUND
10 dB		Pin dropping
20 dB	very quiet	Leaves rustling, clock
30 dB		Whispering
40 dB	quiet	Quiet talking
50 dB		Residential street, birds
60 dB	loud	Talking, radio
70 dB		Loud talking, street
80 dB		Heavy traffic
90 dB	very loud	Shouting, hooting
100 dB		Circular saw
110 dB		Pneumatic hammer
120 dB	unbearable	Jet plane
> 150 dB		Explosion, rocket

### Sound reduction Calm. Cozy. Quiet.

man ear and passed on to the brain.

bels. The higher the value, the better the sound re- construction connection. duction. Sound reduction states how much sound energy from the original sound energy is allowed to pass through. At an insulation of 10 dB 1/10 of

Interference of noise is unpleasant and can, given the original sound energy passes through, at 20 the right intensity and duration, affect the human dB 1/100, at 30 dB 1/1000 etc. Humans perceive body negatively. Noise is perceived through the hu- a reduction of 10 dB as halving the noise. Sound reduction of a window is dependent on frame mate-Sound reduction of a window is measured in deci- rial, insulating glass, tightness of the window and the





The REVER casing in different styles

classic design light slide





# Classic

From the sinuous shape, offered by the most classic version, the REVER window is enriched with elegant and refined details, accompanied by ac-cessories that embellish and persona-lize rooms: handles, ashlar, arch and shutters.

The English style is trendy for locations having both a contemporary and traditional design. The Classic line is ideal for traditional

homes in historic town centres.









Clean and minimal lines are ideal for Clean and minimal lines are ideal for modern environments and the installa-tion of large glass panels. The frame's small size maximizes the glass surfa-ce: the luminous environments create a feeling of well-being and continuity between interior and exterior of your building. Can be integrated with orientable blinds and home automation devices.









Even more light in the light version. The light version combines style and REVER technology. The external façade is made entirely from glass maintaining all the technical characteristics and stylistic versatility, while giving continuity to the façade for a flush effect that integrates perfectly with every style of architecture. Anti-burglary sensors, temperature

Anti-burglary sensors, temperature controls and technologically advanced home automation systems can be integrated perfectly for safety and total comfort.





# slide

Ideal for large glass surfaces, the slide line offers a sliding opening system. It is possible to embed the tracks for the window in the floor to ensure that the panel slides open smoothly and effortlessly, notwithstanding the size of the windows. It is thus possible to create a seamless boundary between inside and outside maximizing brightness and comfort.

This design is particularly suitable for large spaces, especially in residential settings, where the absence of barriers and optimal light conditions improve comfort and well-being.

REVER opening systems are perfectly compatible with each other and can be combined.







doors and windows s.r.I



# **REVERONE** Light is life

#### REVERONE Minimal is in the lines: Classic, Design, Light and Slide.

The design stands as an innovation in every-day life. Light is the protagonist, to provide wellness and comfort, thanks to the great glass surfaces realized with the REVERONE minimal technology. The combination between beauty and functionality let you appreciate daily its long lasting quality. REVERONE minimal windows have an alluminium finish on the outside and a wood finish on the inside.

Hinged opening with the several available configurations



# REVERONE design

The new window aluminium-wood doble thermal break REVER-ONE design minimal creates light-fooded rooms and enlarges your home beyond.

The window REVER-ONE design offers modern design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- · Narrow sliding frames and frameless side elements
- · Easy operation of sash up to 120 kg sash weight
- · Energy efficient and heating cost saving
- · No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- Thoughened panes protect from injuries when glass breakages
- · Can be perfectly combined with all other REVER-AI and REVER-ONE window and sliding systems by G&G





# REVERONE classic

Classic and elegant style furnished with accessories which enhance the room.

The window REVER-ONE design minimal offers classic design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- · Narrow frame
- · Easy operation of sash up to 120 kg sash weight
- · Energy efficient and heating cost saving
- · No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- · Thoughened panes protect from injuries when glass breakages
- · Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G

PROF	PERTIES	
Thermal insulation (in W/m <sup>2</sup> K)	<b>₽</b>  *	$U_{\rm w}$ as low as 1.20
Sound reduction (in dB)	9 («	up to 41



# REVERONE light

With the external view completely made from glass, this integrates style and durability for any type of building from classic to modern.

The window REVER-ONE light offers modern design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- · Narrow sliding frames and frameless side elements
- · Easy operation of sash up to 120 kg sash weight
- · Energy efficient and heating cost saving
- · No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- · Thoughened panes protect from injuries when glass breakages
- · Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G



Sound reduction (in dB)

up to 43



# REVERONE slide

The timber/aluminium lift-sliding makes the borders between inside and outside disappear almost magically. It connects the inside space with the surrounding nature and creates a new, generous awareness of space.

The REVER-ONE Lift Sliding offers unique design and exceptional comfort, combined with high-quality technology:

- · More light through large-scale glazings
- · Available up 6500 x 2800 mm
- · Narrow sliding frame and frameless side elements
- · Easy lifting and sliding of sash up to 400 kg sash weight
- Energy efficient and heating cost saving
- · Low heat emission due to triple glazing
- · No tripping hazard due to low threshold height
- Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- · Thoughened panes protect from injuries when glass breakages
- · Can be perfectly combined with all other REVER window systems
- . Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G









REVER al is a casing with a double thermal bridge and pure aluminium frames. Like any of our other REVER patented products, the casing can be customised to fit any living environment. Available in classic, design and light lines.

Aluminium, being light and resistant, is excellent for use in challenging weather conditions especially on the exterior of buildings.

REVER al is one of the most popular solutions because it combines versatility, durability and thermo-acoustic insulation for large and bright spaces.

Swing opening in different possible configurations.





# **REVERAL** design

Clean and minimal lines are ideal for large glass panel installation.

The window REVER-AL design offers modern design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- $\cdot$  Narrow sliding frames and frameless side elements
- · Easy operation of sash up to 120 kg sash weight
- $\cdot$  Energy efficient and heating cost saving
- $\cdot$  No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- · Thoughened panes protect from injuries when glass breakages
- Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G





# **REVEAAL** classic

The new window aluminium doble thermal break REVER-AL design creates light-fooded rooms and enlarges your home beyond.

The window REVER-AL design offers classic design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- · Narrow frame
- · Easy operation of sash up to 120 kg sash weight
- · Energy efficient and heating cost saving
- · No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- $\cdot$  Thoughened panes protect from injuries when glass breakages
- · Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G





# **REVEAAL** light

The new window aluminium doble thermal break REVER-AL Light creates light-fooded rooms and enlarges your home beyond.

The window REVER-AL light offers modern design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- $\cdot$  Narrow sliding frames and frameless side elements
- $\cdot$  Easy operation of sash up to 120 kg sash weight
- $\cdot$  Energy efficient and heating cost saving
- $\cdot$  No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- · Better stability due to glass fibre low threshold
- · Thoughened panes protect from injuries when glass breakages
- $\cdot$  Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G

#### PROPERTIES



 $U_{\,\scriptscriptstyle W}$  as low as 0.80

Sound reduction (in dB)

up to 43

9((



### **REVEAAL** slide

Ideal for large glass surfaces, the slide line offers a sliding opening system.

Without any effort the large-scale sliding elements can be opened to make even more space.

The window lift sliding design offers modern design and excellent comfort combined with high-quality technology:

- · More light through large-scale glazings
- · Soft/lift as standard for easy operation
- · Available up to 6500 x 2800 mm
- · Narrow sliding frames and frameless side elements
- · Easy operation of sash up to 400 kg sash weight
- · Energy efficient and heating cost saving
- · No tripping hazard due to low threshold height
- · Attractive colours for individual design requests
- $\cdot$  Better stability due to glass fibre low threshold
- $\cdot$  Thoughened panes protect from injuries when glass breakages
- $\cdot$  Can be perfectly combined with all other REVER-AL and REVER-ONE window and sliding systems by G&G

# PROPERTIES Thermal insulation (in W/m ²K) U w as low as 0.64 Sound reduction (in dB) Image: Constraint of the second s

#### Configurations



Finestra a due ante oscillobattente con maniglia sulla destra (con montante mobile)

Finestra a due ante oscillo-battenti con maniglia a sinistra (con montante mobile)



con maniglie su entrambe le ante (con montante fisso)





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Finestra a due anti oscillobattenti con maniglie su entrambe le ante (con montante fisso)

Finestra o porta oscillo-scorrevole sulla destra (obbligatorio con fisso sulla sinistra)

Finestra o porta oscillo-scorrevole sulla destra (obbligatorio con fisso sulla sinistra)



Porta battente con

apertura a destra (con quadro chiuso)

Porta battente con



Finestra o porta oscillo-scorrevole a due ante (obbligatorio con fisso sulla sinistra e destra

Porta battente con apertura a sinistra apertura a destra (con quadro chiuso)

Porta battente con apertura a sinistra



Porta battente con apertura a destra spazzole)



Porta battente con apertura a sinistra (quadro aperto con spazzole)





# Materials

OAK - A beautiful, durable hardwood, which is the first choice of many for the interior design and furniture in their home. Often termed, 'noble oak' for the high esteem in which it is held, it is available in a selection of options, so as to sit perfectly with any interior design project and budget.

PINE - pine is a softwood whose beauty is its simplicity and practicality, containing a higher proportion of air, which makes it ideal for thermal and sound insulation. Pine is the perfect vehicle where a lighter timber appearance is required, or as a base for a rich variety of alternative veneers to be applied to maximise your colour options and minimise cost.

ALUMINIUM - Its resistance to all weathers makes it the perfect shield for protecting your timber window, thus minimising unsustainable and expensive maintenance. Moreover, the possibility of choosing from an incomparable number of finishes and texture combinations, makes the aluminium windows, easy to match with any facade or architectural style.



#### ALUMINUM

Due to the high quality protection from our factory applied powder coating paint system, the exterior aluminium REVER windows requires minimal maintenance and provides excellent resistance to water, sea spray and air-borne pollutants, allowing the designer free expression with new shapes and colours.

Painting is done after welding, ensuring perfectly sealed comers which are completely protected by the paint, and improving the aesthetics of the finished product.

The process of painting REVER aluminium is as follows:

- Pre-treatment by immersion in chrome-free products in a closed circuit
- Powder coating with polymerisation at heat.

The painting process is carried out in compliance with European Qualicoat standards.

#### ALUMINIUM FINISHES

The sample kit of colours and exterior finishes come in an elegant case containing:

- RAL COLOUR FINISHES
- OXIPULVER –OXIDIZATION
- WOOD and METAL FINISHES
- SPECIAL FINISHES

Aluminium frame are produced using welding technology for corners which give them maximum strength and quality.

The connecting system of aluminium corner blocks glued and crimped is used for oxidised, decorative wood and metal frames.



#### WOOD

#### TECHNO-OAK

Techno-oak frames are produced by an innovative system of fingerjoints which creates the characteristic effect of parquet thanks to the joiring of many carefully selected slats.

This kind of lamination is extremely stable and particularly suited to large-sized windows as it avoids the natural tensions present in solid wood.

#### AGED TECHNO-OAK

The aging treatment which enhances the beauty of wood grain is applied to techno-oak frames to give the window the look of time-aged oak, especially appropriate where the aim is to create an atmosphere of warmth and oldworld charm.

The aging process is accomplished using special abrasive brushes which remove the softer wood between the hard grain of the oak, giving the wood more depth and character.



CERTIFIED EN ISO 9001:2008

PRODUCTS CERTIFIED

paire permeability EN 1026:2001 EN 12207:2000 + ECI:2007

water tightness EN 1027:2001 EN 12208:2000 + ECI:2007

rwind resistance EN 12211:2001 +ECI:2004+EC2:2007 EN 12210:2000

thermal trasmittance EN 14351-1:2010 UNI EN ISO 10077-2:2004

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