

## VETROVENTILATO® WINDOWS. TOP OF THEIR CLASS.

### Low consumption

VetroVentilato®  
Windows

Triple  
glazing

A

Double  
glazing

B

Single  
glazing

C

Other  
windows

D

Other  
windows

E

Other  
windows

F

Other  
windows

G

### High consumption

- Average **saving of over 35%** on cooling and heating costs.
- U-value  **$U_w$  0,69 W / m<sup>2</sup> K.**
- g-value **0,19.**
- The first ever dynamic window.  
**Worldwide patent.**



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**VETROVENTILATO®**  
comfort and savings – clear to see

## VETROVENTILATO® IS SO MUCH MORE THAN JUST GLAZING. IT IS A SYSTEM OFFERING COMFORT, SAVINGS AND ADDED VALUE.

### ■ GREAT ENERGY SAVINGS.

Make considerable savings: on average 35%+ reduction in current heating and cooling costs. VetroVentilato® Windows allow you to use the hot air which collects in its cavities to increase the comfort level in the indoor environment. Thanks to external temperature sensors, the hot air is conveyed:

- in winter, inside the building,
- in summer, outside the building.



### ■ AIR THE ROOM WITHOUT OPENING THE GLAZING.

This revolutionary system allows you to air the room without having to open the glazing. Keeping the dust, noise, heat and cold out. The environment is noticeably healthier and the discomfort typical of closed, sealed rooms becomes a thing of the past.

### ■ MAKES MORE SPACE AVAILABLE.

VetroVentilato® actually eliminates the dramatic changes in temperature you find near windows. All the spaces near the windows can now be put to good use. Both in summer and in winter. In a nutshell, VetroVentilato® Windows increase the usable floor space, as well as guaranteeing energy savings and a new comfortable lifestyle.



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### ■ NO NEED FOR SUN BLINDS AND OUTSIDE CURTAINS.

You can say goodbye to curtains with VetroVentilato® Windows because the system has a built-in blind.

### ■ NATURAL LIGHT.

Thanks to clear glass and the absence of shaded glazing and outside curtains.

### ■ NO MORE CONDENSATE ON THE PANES.

No more condensate or ice on the inner pane.

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### ■ RESPECT FOR THE ENVIRONMENT.

VetroVentilato® noticeably increases your level of “perceived” comfort – a step in the right direction in our commitment to respecting the environment. With its lower energy consumption and consequent reduction in CO<sub>2</sub> emissions, the system makes more efficient use of our dwindling natural resources and helps safeguard our precarious balance with nature.

### ■ CONSIDERABLE RISE IN THE VALUE OF THE PROPERTY.

The VetroVentilato® system gives added value to any building and will increase its value considerably over the years.



## VETROVENTILATO® WINDOWS. A SIMPLE CONCEPT WITH GREAT RESULTS.

VetroVentilato® Windows actively control the temperature of the rooms, thanks to their built-in electronic and mechanical system.

The double glazing system is only 25 mm thick and is fitted with a microperforated technical curtain



### HOW IT WORKS.

1. The motorised fan (controlled by sensors) helps extract the air from the room through the bottom section. The air enters the ventilated cavity between the pane and the curtain.
2. In the ventilated cavity, the air from the room pushes out the air which has been heated by solar irradiance.
3. Now the air has reached its hottest temperature, it is expelled by the fan;
  - **in the summer** it is conveyed directly outside the building, bringing about considerable savings in the use of air conditioning units.
  - **in the winter** it is reintroduced into the room to heat it, working alongside traditional heating systems.

Should there be no solar irradiance, VetroVentilato® shuts down but can be reactivated to air the room.

### POWERED BY A PHOTOVOLTAIC PANEL.

Upon request, the fan and curtain on the VetroVentilato® Windows can be powered by a small photovoltaic panel fitted directly into the window frame.



## VETROVENTILATO® WINDOWS. UNBEATABLE ENERGY SAVINGS.

### IN SUMMER.

Energy required  
to cool.\*

With VetroVentilato®  
Windows

49.328 MJ

With other  
windows

180.326 MJ

Higher costs with  
other windows

more than 260%



### IN WINTER.

Energy required  
to heat.\*

With VetroVentilato®  
Windows

157.673 MJ

With other  
windows

179.795 MJ

Higher costs with  
other windows

more than 14%



\* The data refer to buildings in Milan.

## VETROVENTILATO® WINDOWS - IN A CLASS OF THEIR OWN VETROVENTILATO®.

### VETROVENTILATO®. A WORLDWIDE PATENT.

The savings, comfort and safety offered by VetrolVentilato® are patented throughout the world.

### VETROVENTILATO® HAS OBTAINED CNR- ITC CERTIFICATION NO. 2005.12.09.0094.

The Italian National Research Council has stated that with VetrolVentilato® windows go from being the weakest point thermally in a building to the strongest, because the system guarantees less heat loss than a wall.

VetrolVentilato® creates a thermal and acoustic buffer which protects the room from heat, cold and noise, and as a result thermal insulation and soundproofing are of a higher standard than is required by stringent EU requisites.

U-value Ug 0,3 W / m<sup>2</sup> K.

The VetrolVentilato® system has been compared to other glazing systems both experimentally at the ITC-CNR (Italian Institute for Building Technologies, part of the National Research Council) using the methodological approach of external tests cells, and analytically using EnergyPlus (EnergyPlus is a dynamic energy simulation programme which has been developed by the United States Department of Energy in conjunction with the University of Illinois and the University of California).



**VETROVENTILATO® IS FITTED ON  
PRESAL EXTRUSION PR 75 TT**   
**PROFILES MANUFACTURED BY GRUPPO PREDIERI.**

#### **Section:**

Frame 67 mm

Wing 75 mm flush externally / overlapping internally

#### **Insulation:**

32 mm bar

#### **Seal:**

Open joint

#### **Thermal transmittance UNI EN 10077-2:**

$1,75 \text{ W / m}^2 \text{ K} < U_f \leq 1,99 \text{ W / m}^2 \text{ K}$

#### **Permeability and seal:**

Air EN 12207

Water tightness EN 12208

Wind EN 12210

**VETROVENTILATO® WINDOWS.  
UNBEATABLE PERFORMANCE.**

- U-value  $U_w$  0,69 W / m<sup>2</sup> K

- g-value 0,19

- Higher standard of thermal insulation and soundproofing than required by stringent EU requisites.



